U.S. Department of Transportation
National Highway
Traffic Safety Administration

DOT HS 812094
December 2014

## 2013 FARS/NASS GES Coding and Validation Manual

## DISCLAIMER

This publication is distributed by the U.S. Department of Transportation, National Highway Traffic Safety Administration, in the interest of information exchange. The opinions, findings, and conclusions expressed in this publication are those of the authors and not necessarily those of the Department of Transportation or the National Highway Traffic Safety Administration. The United States Government assumes no liability for its contents or use thereof. If trade or manufacturers' names or products are mentioned, it is because they are considered essential to the object of the publication and should not be construed as an endorsement. The United States Government does not endorse products or manufacturers.

## CRASH vs. ACCIDENT

The National Highway Traffic Safety Administration (NHTSA) has adopted the policy to use the term, Crash. Accordingly the term, Crash, is used throughout this manual.

As used in this coding manual, "Crash" shall always refer to a Motor Vehicle Traffic Accident as rigorously defined in ANSI Standard, D16.1 - The Manual on Classification of Motor Vehicle Traffic Accidents. Incidents or scenarios involving collision events, and those involving non-collision events, as defined in ANSI D16.1, are included.

Collision events include those involving a motor vehicle and fixed objects (poles, walls, buildings, barriers, bridge supports, etc.) and those involving a motor vehicle and nonfixed objects (pedestrians, animals, pedal cyclists, other motor vehicles, etc).

Besides scenarios involving a collision, a crash also shall include non-collision scenarios such as the following:

- A single motor vehicle on a roadway catches fire
- A motor vehicle runs off of a trafficway and is immersed in a body of water
- An occupant of a motor vehicle is injured by falling from that vehicle while it is in motion or on a roadway
- An occupant of a motor vehicle is injured by shifting cargo or flying objects within that vehicle during emergency handling / braking
- A vehicle suffers damage from a pavement irregularity (loose plate, high manhole, pot hole, etc)
- And others

Consult ANSI D16.1, Manual on Classification of Motor Vehicle Traffic Accidents (The ANSI Manual) for a more precise and complete presentation of these concepts. As a minimum, the following ANSI D16.1 terms should be well understood to properly select and classify cases for FARS and GES. The paragraph reference numbers from the ANSI Manual are provided to aid look-up.
2.2.1 Trafficway
2.4.1 Harmful Event
2.4.2 Deliberate Intent
2.4.3 Legal Intervention
2.4.4 Unstabilized Situation
2.4.5 Cataclysm
2.4.6 Accident

### 2.4.9 Transport Accident

2.4.12 Motor Vehicle Accident
2.4.17 Road Vehicle Accident
2.4.18 Traffic Accident
2.4.22 Motor Vehicle Traffic Accident
2.4.27 Fatal Accident

## 2013 FARS / NASS GES MANUAL CHANGES <br> SUMMARY

Below is a list of elements that have substantial changes for 2013. These changes, as well as others, are highlighted throughout the manual by bold/italic type.

IT IS RECOMMENDED THAT YOU REVIEW THE ENTIRE MANUAL FOR ALL CHANGES

| ELEMENT \# | ELEMENT NAME | NEWI REVISED VALUES | NEWI REVISED REMARKS | COMMENTS |
| :---: | :---: | :---: | :---: | :---: |
| C5 | Number of Motor Vehicle Occupant Forms Submitted |  | X | - Updated Remarks for persons ejected from vehicles |
| C17 | Crash Events <br> - Areas of Impact (This Vehicle) | X | X | - Added New Attribute and Remarks "19Other Objects Set-In-Motion" <br> - Updated Attribute and Remarks "18Cargo/Vehicle Parts Set-In-Motion (Nota Clock Value)". |
| C17 | Crash Events - Sequence of Events | X | X | - Updated Remarks for Attributes "01Rollover", "03-Immersion or Partial Immersion", "18-Other Object (Not Fixed)" and "43-Other Fixed Object" <br> - Added New Attribute and Remarks for "73 - Object Fell From Motor Vehicle InTransport". |
| C17 | Crash Events <br> - Areas of Impact (Other Vehicle) | X | X | - Added New Attribute and Remarks "19Other Objects Set-In-Motion" <br> - Updated Attribute and Remarks "18Cargo/Vehicle Parts Set-In-Motion (Nota Clock Value)". |
| C18 | First Harmful Event | X | X | - Updated Remarks for Attributes "03Immersion or Partial Immersion", "18Other Object (Not Fixed)" and "43-Other Fixed Object". <br> - Added New Attribute and Remarks for "73 - Object Fell From Motor Vehicle InTransport". |
| C20 | Relation to Junction | X | X | - Updated Remarks for Attributes "05Entrance/Exit Ramp Related". <br> - Added New Attribute and Remarks for "20 - Entrance/Exit Ramp". |


| ELEMENT \# | NEWI <br> ELEMENT <br> NAME | NEWI <br> REVISED <br> VALUES | REVISED <br> REMARKS | Inpe of <br> Intersection |
| :---: | :--- | :---: | :---: | :---: |


| ELEMENT \# | ELEMENT NAME | NEWI REVISED VALUES | NEWI REVISED REMARKS | COMMENTS |
| :---: | :---: | :---: | :---: | :---: |
| V10 | Vehicle Model | X | X | - Added New Attribute "599 - Unknown (Low Speed Vehicle (LSV) / Neighborhood Electric Vehicle (NEV))". <br> - Delete Attribute "899-Unknown Medium/Heavy Truck". |
| V11 | Body Type | X | X | - Updated Attribute "48 - Unknown light truck type(not a pickup)". |
| V15 | Jackknife |  | X | - Updated Remarks for Attribute "0 - Not an Articulated Vehicle". |
| V18 | Vehicle Configuration | X | X | - Deleted Attribute " 98- Not Reported". <br> - Updated Remarks for Attributes "01 -Single-Unit Truck (2-axle and GVWR more than 10,000 lbs.)", "02 - Single-Unit Truck (3 or more axles)" and "05-Truck Tractor (Bobtail)". |
| V19 | Cargo Body Type | X | X | - Deleted Attribute " 28-Not Reported'. |
| V22 | Special Use | X | X | - Updated Attribute and Remarks "08-Non-Transport Emergency Services Vehicle". <br> - Added New Attribute and Remarks "13 Incident Response". |
| V23 | Emergency Use changes to Emergency Motor Vehicle Use | X | X | - Deleted Attribute " 1 - Yes". <br> - Updated Attribute and Remarks "0 - Ne Not Applicable". <br> - Add New Attributes and Remarks "2-Non-Emergency, Non-Transport", "3-Non-Emergency Transport", "4Emergency Operation, Emergency Warning Equipment Not in Use", "5Emergency Operation, Emergency Warning Equipment in Use". |
| V26 | Rollover |  | X | - Updated Remarks for 2-wheeled and 3wheeled motorcycles. |


| ELEMENT \# | ELEMENT NAME | NEWI REVISED VALUES | NEWI REVISED REMARKS | COMMENTS |
| :---: | :---: | :---: | :---: | :---: |
| V28 | Areas of Impact Contact Point | X | X | - Added New Attribute and Remarks "19Other Objects Set-In-Motion". <br> - Updated Attribute and Remarks "18Cargo/Vehicle Parts Set-In-Motion (Nota Clock Value)". <br> - Added new Special Instructions Involving Motorcycles. |
| V30 | Vehicle Removal | X | X | - Deleted attributes "1- Driven Away", "4AbandonedILeft at Scene". <br> - Added New Attribute and Remarks: "5 Not Towed". |
| V31 | Sequence of Events | X | X | - Updated Remarks for Attributes "01Rollover", "03-Immersion or Partial Immersion", "18-Other Object (Not Fixed)" and "43-Other Fixed Object". <br> - Added New Attribute and Remarks for "73 - Object Fell From Motor Vehicle InTransport". |
| V32 | Most Harmful Event | X | X | - Updated Remarks for Attributes "03Immersion or Partial Immersion","12 Motor Vehicle In-Transport", "14-Parked Motor Vehicle", "18-Other Object (Not Fixed)" and "43-Other Fixed Object". <br> - Added New Attribute and Remarks for "73 - Object Fell From Motor Vehicle InTransport". |
| D4 | Driver Presence |  | X | - Updated Remarks for Attributes "1-Yes" and "9-Unknown" |
| D21 | Violation Charged |  | X | - Added New GES Special Instruction. <br> - Added New FARS Special Instruction. |
| D22 | Speed <br> Related changed to Speeding Related | X | X | - Deleted Attribute " 1 . Yes". <br> - Added New Attributes and Remarks "2Yes, Racing", "3-Yes, Exceeded Speed Limit", "4-Yes, Too Fast for Conditions", "5-Yes, Specifics Unknown". |


| ELEMENT \# | ELEMENT NAME | $\begin{gathered} \hline \text { NEWI } \\ \text { REVISED } \\ \text { VALUES } \\ \hline \end{gathered}$ | NEWI REVISED REMARKS | COMMENTS |
| :---: | :---: | :---: | :---: | :---: |
| D24 | Related Factors Driver Level |  | X | - Updated Remarks for Attributes "24 Operating Without Required Equipment", "28-Failure to Keep in Proper Lane" and "29- Illegal Driving on Road Shoulder, in Ditch, on Sidewalk or on Median". |
| PC5 | Trafficway Description | X | X | - Updated Attribute and Remarks for " 0 -Non-Trafficway or Driveway Access". |
| PC6 | Total Lanes in Roadway | X | X | - Updated Attribute and Remarks for " 0 -Non-Trafficway or Driveway Access". |
| PC7 | Speed Limit | X | X | - Updated Attribute and Remarks for " 00 No Statutory Limit/Non-Trafficway or Driveway Access". |
| PC8 | Roadway Alignment | X | X | - Updated Attribute and Remarks for " 0 -Non-Trafficway or Driveway Access". |
| PC9 | Roadway Grade | X | X | - Updated Attribute and Remarks for " 0 -Non-Trafficway or Driveway Access". |
| PC10 | Roadway Surface Type | X | X | - Updated Attribute and Remarks for " 0 -Non-Trafficway or Driveway Access". |
| PC11 | Roadway Surface Conditions | X | X | - Updated Attribute and Remarks for " 00 -Non-Trafficway or Driveway Access". |
| PC12 | Traffic Control Device |  | X | - Added New Remarks for "20-Stop Sign", "21 - Yield Sign" and "65 Railway Crossing Device". |
| PC17 | Pre-Event <br> Movement <br> (Prior to Recognition of Critical Event) | X | X | - Updated Attribute "00-No Driver Present <br> / Unknown if Driver Present". <br> - Updated Remarks for Attributes "03Accelerating In Road" and "06-Passing Or Overtaking Another Vehicle" |
| PC19 | Critical Event Precrash (Event) |  | X | - Updated Remarks for Attributes "08Other Cause of Control Loss (Specify:)", "15-Turning Left at Junction", " 16 Turning Right at Junction" and " 98 - Other Critical Precrash Event (Specify:)" <br> - Updated Remarks regarding driveway and trains. |


| ELEMENT \# | ELEMENT NAME | NEWI REVISED VALUES | NEWI REVISED REMARKS | COMMENTS |
| :---: | :---: | :---: | :---: | :---: |
| PC20 | Attempted Avoidance Maneuver | X | X | - Updated Atribute "00-No Driver Present <br> / Unknown if Driver Present". <br> - Updated Remarks for Attributes "01-No Avoidance Maneuver" and "99Unknown". |
| PC21 | Pre-Impact Stability | X | X | - Updated Attribute "0 - No Driver Present / Unknown if Driver Present". <br> - Added New Attribute and Remarks " 5 Skidding Laterally, Rotation Direction Unknown". <br> - Updated Remarks for Attribute "9Precrash Stability Unknown". |
| PC22 | Pre-Impact Location | X |  | - Updated Attribute "00-No Driver Present <br> / Unknown if Driver Present". |
| PC23 | Crash Type |  | X | - Updated Remarks for Configuration J and Configuration K. <br> - Updated Remarks for "92-Backing Vehicle". <br> - Updated Attribute and Remarks for "93Backing, Etc.: Other Vehicle or Object Use Backing, Etc:". |
| P3 | Vehicle <br> Number - <br> Person (MV <br> Occupant) <br> Level |  | X | - Updated Remarks for persons ejected from vehicles |
| P4/NM3 | Person <br> Number |  | X | - Updated Remarks for assigning Person Numbers. |
| P5/NM5 | Age |  | X | - Added remarks for coding injured or uninjured drivers and passengers. <br> - Updated Remarks for Attribute "998-Not Reported" and "999- Unknown". |
| P6/NM6 | Sex |  | X | - Added remarks for coding injured or uninjured drivers and passengers. <br> - Updated Remarks for Attribute "8 - Not Reported" and "9-Unknown". |


| ELEMENT \# | ELEMENT NAME | $\begin{gathered} \hline \text { NEWI } \\ \text { REVISED } \\ \text { VALUES } \\ \hline \end{gathered}$ | NEWI REVISED REMARKS | COMMENTS |
| :---: | :---: | :---: | :---: | :---: |
| P8/NM8 | Injury Severity | X | X | - Updated Remarks and Attributes for "0No Apparent Injury (O), "2- Nonincapacitating Evident Suspected Minor Injury (B)" and " 3 - Incapacitating Suspected Serious Injury (A)". <br> - Updated Remarks for Attribute "1Possible Injury" and "4-Fatal Injury". <br> - Update to FARS Special Instruction. |
| P9 | Seating Position |  | X | - Added remarks for coding uninjured drivers and passengers. <br> - Updated Remarks regarding seating assignments for passengers in an ambulance compartment. <br> - Updated Remarks for Attribute "51-Other Passenger in unenclosed passenger or cargo area". <br> - Updated Remarks for "98-Not Reported". |
| P10 | Restraint System/ Helmet Use | X | X | - Added remarks for coding uninjured drivers and passengers. <br> - Updated Attribute and Remarks for "07None Use - Aotor Vehicle-Oecupant" and "16-Other Helmet, Other than DOT-Compliant Motorcycle Helmet". <br> - Added New Attribute and Remarks for "19 - Helmet, Unknown if DOT Compliant" and "29-Unknown if Helmet Worn". <br> - Updated Remarks for Attribute "98-Not Reported". |
| P12 | Air Bag Deployed |  | X | - Updated Remarks for Attribute "99Deployment Unknown". |
| P18/NM17 | Alcohol Test |  | X | - Added Guidance regarding submitting information. <br> - Added Coding Hierarchy. |
| P21/NM20 | Drug Test |  | X | - Added Guidance regarding submitting information. <br> - Added Example for Interpreting Drugs with "Not Reported". |


| ELEMENT \# | ELEMENT NAME | NEWI REVISED VALUES | NEWI REVISED REMARKS | COMMENTS |
| :---: | :---: | :---: | :---: | :---: |
| P22/NM21 | Transported to Medical Facility By changed to Transported to First Medical Facility By |  | X | - Updated Remarks for Attribute "1-EMS Air". |
| P26 | Related Factors Person (MV Occupant) Level | X | X | - Added New Remarks and Attributes "89 Parked Motor Vehicle With Equipment Extending into the Travel Lane" and "92 - Person in Ambulance Treatment Compartment". <br> - Updated Remarks for Attributes "21Overloading or Improper Loading of Vehicle With Passengers or Cargo", 32 Opening Vehicle Closure into Moving Traffic or While Vehicle is in Motion" and "86-Emergency Services Personnel". <br> - Added Coding Hierarchy. |
| NM10 | Non-Motorist Location at Time of Crash |  | X | - Updated Remarks for Attribute "25-NonTrafficway Area". |
| NM11 | Non-Motorist Action/Circum stances Prior to Crash |  | X | - Updated Remarks for Attributes "08-In Roadway - Other (Working, Playing, etc.)" and "14-Other". |

## LIST OF ELEMENTS AND LOCATION CODES

| ALL LEVELS | Page |  | Page |
| :---: | :---: | :---: | :---: |
| Submission Instructions | 5 | Person Level (MV Occupant) Form | 10 |
| Crash Level Form | 6 | Person Level (Not a MV Occupant) | 11 |
| Vehicle Level Form | 7 | Form |  |
| Driver Level Form | 8 | Form Coding Instructions | 13 |
| Precrash Level (Vehicle/Driver) Form | 9 | Data Element Coding Instructions | 17 |
| Element | Page | Element | Page |
| C1 *State Number | 19 | C2 *Consecutive Numbers | 23 |
| V1 |  | V2 |  |
| D1 |  | D2 |  |
| PC1 |  | PC2 |  |
| P1 |  | P2 |  |
| NM1 |  | NM2 |  |

## CRASH LEVEL

|  | Element | Page |  | Element | Page |
| :---: | :---: | :---: | :---: | :---: | :---: |
| C3 | Number of Forms Submitted | 25 | C19 | Manner of Collision | 87 |
|  | For Persons Not In Motor |  | C20 | Relation to Junction | 93 |
|  | Vehicles |  | C21 | Type of Intersection | 107 |
| C4 | Number of Vehicle Forms | 27 | C22 | Relation to Trafficway | 111 |
|  | Submitted |  | C23 | Work Zone | 121 |
| C5 | Number of Motor Vehicle | 29 | C24 | Light Condition | 123 |
|  | Occupant Forms Submitted |  | C25 | Atmospheric Conditions | 127 |
| C6 | *County | 31 | C26 | School Bus Related | 131 |
| C7 | *City | 31 | C27 | *Rail Grade Crossing | 135 |
| C8 | Crash Date | 33 |  | Identifier |  |
| C9 | Crash Time | 35 | C28 | *Notification Time EMS | 137 |
| C10 | *National Highway System | 39 | C29 | *Arrival Time EMS | 139 |
| C11 | *Roadway Function Class | 41 | C30 | *EMS Time at Hospital | 143 |
| C12 | *Route Signing | 45 | C31 | Related Factors - Crash | 147 |
| C13 | *Trafficway Identifier | 49 |  | Level |  |
| C14 | *Milepoint | 53 | C32 | **Interstate Highway | 157 |
| C15 | Global Position | 55 | C33 | **Stratum | 159 |
| C16 | *Special Jurisdiction | 59 | C34 | **Police Jurisdiction | 163 |
| C17 | Crash Events | 61 |  | Additional State Information | 165 |
| C18 | First Harmful Event | 69 |  |  |  |

## VEHICLE LEVEL

|  | Element | Page | V20 | Element | $\frac{\text { Page }}{363}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| V3 | Vehicle Number | 167 |  | Hazardous Material |  |
| V4 | Number of Occupants | 169 |  | Involvement/Placard |  |
| V5 | Unit Type | 175 | V21 | Bus Use | 371 |
| V6 | Hit-and-Run | 181 | V22 | Special Use | 375 |
| V7 | *Registration State | 183 | V23 | Emergency Motor Vehicle | 379 |
| V8 | *Registered Vehicle Owner | 187 |  | Use |  |
|  | Vehicle Make Model Overview | 191 | V24 | Travel Speed | 383 |
| V9 | Vehicle Make | 195 | V25 | *Underride/Override | 385 |
| V10 | Vehicle Model | 199 | V26 | Rollover | 389 |
| V11 | Body Type | 301 | V27 | Location of Rollover | 391 |
| V12 | Vehicle Model Year | 325 | V28 | Areas of Impact | 395 |
| V13 | Vehicle Identification Number | 327 | V29 | Extent of Damage | 407 |
| V14 | Vehicle Trailing | 331 | V30 | Vehicle Removal | 411 |
| V15 | Jackknife | 339 | V31 | Sequence of Events | 415 |
| V16 | Motor Carrier Identification | 341 | V32 | Most Harmful Event | 431 |
|  | Number |  | V33 | Related Factors - Vehicle | 445 |
| V17 | Gross Vehicle Weight Rating /Gross Combination Weight Rating | 347 | V34 | Level Fire Occurrence | 451 |
| V18 | Vehicle Configuration | 351 |  |  |  |
| V19 | Cargo Body Type | 357 |  |  |  |

## DRIVER LEVEL

| Element |  | Page | D15 | Element <br> *Previous Recorded Suspensions and Revocations | $\frac{\text { Page }}{497}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| D3 | Vehicle Number | 455 |  |  |  |
| D4 | Driver Presence | 457 |  |  |  |
| D5 | *Driver's License State | 461 | D16 | *Previous DWI Convictions | 497 |
| D6 | Driver's Zip Code | 465 | D17 | *Previous Speeding | 497 |
| D7 | *Non-CDL License Type | 467 |  | Convictions |  |
|  | Status |  | D18 | *Previous Other Harmful MV | 497 |
| D8 | *Commercial Motor Vehicle License Status | 477 | D19 | Convictions *Date of FIRST Crash, | 503 |
| D9 | *Compliance with CDL Endorsements | 481 | D20 | Suspension, Conviction *Date of LAST Crash, | 503 |
| D10 | *License Compliance with Class of Vehicle | 485 | D21 | Suspension, Conviction Violations Charged | 507 |
| D11 | *Compliance with License | 489 | D22 | Speeding Related | 513 |
| D12 | Restrictions *Driver Height | 493 | D23 | Condition (Impairment) at Time of Crash | 515 |
| D13 | *Driver Weight | 495 | D24 | Related Factors - Driver | 519 |
| D14 | *Previous Recorded Crashes | 497 |  | Level |  |

## PRECRASH LEVEL

|  | Element | Page |  | Element | Page |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Precrash Overview | 537 | PC15 | Driver Maneuvered to | 597 |
| PC3 | Vehicle Number | 555 |  | Avoid |  |
| PC4 | Contributing Circumstance, | 557 | PC16 | Driver Distracted By | 601 |
|  | Motor Vehicle |  | PC17 | Pre-Event Movement | 607 |
| PC5 | Trafficway Description | 561 |  | (Prior to Recognition |  |
| PC6 | Total Lanes in Roadway | 565 |  | of Critical Event) |  |
| PC7 | Speed Limit | 569 | PC18 | Critical Event - Precrash | 615 |
| PC8 | Roadway Alignment | 573 |  | (Category) |  |
| PC9 | Roadway Grade | 575 | PC19 | Critical Event - Precrash | 617 |
| PC10 | *Roadway Surface Type | 577 |  | (Event) |  |
| PC11 | Roadway Surface Conditions | 579 | PC20 | Attempted Avoidance | 629 |
| PC12 | Traffic Control Device | 583 |  | Maneuver |  |
| PC13 | Device Functioning | 591 | PC21 | Pre-Impact Stability | 633 |
| PC14 | Driver's Vision Obscured | 593 | PC22 | Pre-Impact Location | 635 |
|  | By |  | PC23 | Crash Type | 639 |

## PERSON (MOTOR VEHICLE OCCUPANT) LEVEL

| Element |  | Page | P17 | Element | $\frac{\text { Page }}{721}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| P3 | Vehicle Number | 671 |  | *Method of Alcohol |  |
| P4 | Person Number | 673 |  | Determination By Police |  |
| P5 | Age | 675 | P18 | Alcohol Test | 725 |
| P6 | Sex | 681 | P19 | Police Reported Drug | 73 |
| P7 | Person Type | 683 |  | Involvement |  |
| P8 | Injury Severity | 685 | P20 | *Method of Drug Deter- | 737 |
| P9 | Seating Position | 691 |  | mination By Police |  |
| P10 | Restraint System/Helmet Use | 697 | P21 | Drug Test | 741 |
| P11 | Any Indication of Mis-Use of Restraint System/Helmet | 703 | P22 | Transported to First Medical Facility By | 761 |
|  | Use |  | P23 | *Died at Scene/En Route | 765 |
| P12 | Air Bag Deployed | 705 | P24 | *Death Date | 767 |
| P13 | Ejection | 709 | P25 | *Death Time | 769 |
| P14 | *Ejection Path | 713 | P26 | Related Factors - Person | 771 |
| P15 | *Extrication | 715 |  | (MV Occupant) Level |  |
| P16 | Police Reported Alcohol Involvement | 717 | SP1 | *Death Certificate Number | 863 |
|  |  |  | SP2 | *Fatal Injury at Work | 865 |
|  |  |  | SP3 | *Race/Hispanic Origin | 867 |
|  |  |  |  | Appendix | 887 |

## * FARS ONLY Elements <br> ** GES ONLY Elements

## PERSON (NOT A MOTOR VEHICLE OCCUPANT) LEVEL

|  | Element | Page | NM15 | Element | $\frac{\text { Page }}{831}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| NM3 | Person Number | 781 |  | Police Reported Alcohol |  |
| NM4 | Number of Motor Vehicles Striking Non-Occupant | 783 | NM16 | *Method of Alcohol Determination By Police | 833 |
| NM5 | Age | 787 |  |  |  |
| NM6 | Sex | 789 | NM17 | Alcohol Test | 835 |
| NM7 | Person Type | 791 | NM18 | Police Reported Drug Involvement | 837 |
| NM8 | Injury Severity | 799 |  |  |  |
| NM9 | Pedestrian/Bike Typing | 803 | NM19 | *Method of Drug Determination By Police | 839 |
| NM10 | Non-Motorist Location at Time of Crash | 811 |  |  | 841 |
| NM11 | Non-Motorist Action/ Circumstances Prior to Crash | 817 | NM21 | Transported to First Medical Facility By | 845 |
| NM12 | Non-Motorist Action/ Circumstances at Time of Crash | 823 | $\begin{aligned} & \text { NM23 } \\ & \text { NM24 } \\ & \text { NM25 } \end{aligned}$ | *Death Date <br> *Death Time | 849851 |
|  |  |  |  |  |  |
|  |  |  |  | Related Factors - Person (Not a MV Occupant) Level | 853 |
| NM13 | Non-Motorist Safety Equipment | 827 |  |  |  |
| NM14 | Condition (Impairment) at Time of Crash | 829 |  |  |  |
|  |  |  | SP1 | *Death Certificate Number | 863 |
|  |  |  | SP2 | *Fatal Injury at Work | 865 |
|  |  |  | SP3 | *Race/Hispanic Origin | 867 |
|  |  |  |  | Appendix | 887 |

## 100. SUBMISSION INSTRUCTIONS

## 101. HOW TO SUBMIT

Each case must have at least one person level form with INJURY SEVERITY attribute Fatal Injury.

## 2013 Data

Enter data directly from coded FARS forms, using procedures described in the FARS MICROCOMPUTER DATA ENTRY MANUAL.

## 2014 Data

Enter data directly from coded FARS forms (Exhibit 100-A), using procedures described in the FARS Microcomputer Data Entry Manual (MDE Manual).

## 102. WHEN TO SUBMIT

Make submissions at anytime during the week via the Microcomputer.

## 103. DATA SOURCES

1. Use the ANSI D16.1 Manual on Classification of Motor Vehicle Traffic Accident for definitions in coding the FARS forms.
2. Obtain information from death certificates for persons who die as a result of injuries sustained in a motor vehicle crash.
3. Use the State Driver Licensing Files, Vehicle Registration Files, Highway Department Files, Crash Reports and Vital Statistics Reports.
4. See the FARS MDE manual for instructions on obtaining data and responding to requests for data on vehicles and drivers not registered or licensed in your state.
5. The message system should be used to obtain data on involved Out-ofState drivers and vehicles.


CODED BY: $\qquad$ INPUT BY: DATEINPUT:
$\qquad$
$\qquad$ 2013 Fatality Analysis Reporting System VEHICLE LEVEL -

U.S. Department of Transportation National Highway Traffic Safety | $\begin{array}{c}\text { CONSECUTIVE } \\ \text { NUMBER (V2) }\end{array}$ |
| :--- |
| UNIT TYPE (V5) ** |

 CCUPANTS




REGISTERED VEHICLE OWNER (V8)
O-Not Applicable, Vehicle Not Registered
1-Driver (in this crash) Registered Owner
2-Driver (in this crash) Not Registered Owner (Other Private Owner Listed)
3-Vehicle Registered as Business/Company/Government Vehicle
4-Vehicle Registered as Rental Vehicle
5-Vehicle Stolen (Reported by Police)
5-Vehicle Stolen (Reported by Police) 9-Unknown






| EMERGENCY MOTOR VEHICLE USE (V23) |  |
| :---: | :---: |
| O-Not Applicable <br> 2-Non-Emergency, Non-Transport <br> 3-Non-Emergency Transport <br> 4-Emergency Operation (Emergency Warning Equipment Not in Use) | 5-Emergency Operation (Emergenc Warning Equipment In Use) <br> 8-Not Reported <br> 9-Unknown |
| TRAVEL SPEED (V24) |  |
| Actual Miles Per Hour Except: 000 -Stopped Motor Vehicle in-Transport 001-151-Reported Speed up to 151 mph | 997-Greater than 151 mph 998 -Not Reported 999-Unknown |

UNDERRIDE/OVERRIDE (V25)


O-No Underride oldiNG A MOTOR VEHICLE
UNDERRIDI
IN-TRANSPORT
1-Underride (Compartment Intrusion)
1-Underride (Compartment Intrusion)
2-Underride (No Compartment Intrusion)
2-Underride (No Compartment Intrusion)
3-Underride (Compartment Intrusion Unknow
7-Overriding a Motor Vehicle In-Transport
8-Overriding a Motor Vehicle Not In-Transport
No Traing Units
2. Two Trailing Unit

3-Three or More Trailing Units Fixed Linkage
6 -Vehicle Towing Another Motor Vehicle:
(V15)

MOTOR CARRIER (V16)
IDENTIFICATION NUMBER
(See Instruction Manual)


Contact Point
O0-Non-Colision
01-12-Clock Points
13-Top
14-Unde
14-Undercarriage
18-Cargo/ Vehicle Parts Set-in-Motion

|  | EXTENT OF DAMAGE (V29) |
| :---: | :---: |
| 2-No Damage | 4-Functional Damage |
| 2-Minor Damage | 6-Disabling Damage |

UNDERRIDING A MOTOR VEHICLE NOT IN-TRANSPORT
4-Underride (Compartment Intrusion)
5.Underride (No Compartment Intrusion)

6-Underride (Compartment Intrusion Unknown)
9-Unknown if Underride or Override
ROLLOVER (V26)
1-Rollover, Tripped by Object/Vehicle LOCATION OF ROLLOVER (V27)


## 

07-Truck Tracktor/Double
08-Truck Tractor/Triple
19-Truck more than $10,000 \mathrm{lbs}$,
cannot classify
20-Bus/Large Van (seats $9-15$ occupants,
including driver)
21-Bus (seats for more than 15 occupants,
including driver)
99-Unknown

CARGO BODY TYPE (V19)

00-Not Applicable
01-Van/Enclosed Box
02 -Cargo Tank
03-Flatbed
04-Dump
05-Concrete Mixer
06-Auto Transporter 08-Grain/Chips/Gravel

09 -Pole - Trailer
10-Log
11-Intermodal Container Chassis
12.Vehicle Towing Another Motor Vehicle

22-Bus
96 - No C
96-No Cargo Body Type
97.Other

99-Unknown Cargo Body Type

8-Not Reported 8-Not Reporte
9-Unknown

VEHICLE REMOVAL (V30)
2-Towed Due to Disabling Damage
3-Towed Not Due to Disabling Damage 5-Not Towed

| SEQUENCE OF EVENTS (V31) |
| :---: |
| (See Instruction Manual) |
| (Read-Only from CRASH EVENTS - C17) |

8-Not Reported 8-Unknown

RELATED FACTORS (V33)
(See Instruction Manual)
FIRE OCCURRENCE (V34)
(Auto-filled by MDE)
O-No or Not Reported

$\qquad$ INPUT BY: $\qquad$ 2013 Fatality Analysis Reporting System DATE CODED: $\qquad$ DATE INPUT: $\qquad$ PRECRASH LEVEL (VEHICLE/DRIVER) STATE CASENO

## STATE NUMBER (PC1) (GSA CODES)

CONSECUTIVE NUMBER (PC2)


- vehicle number (PC3)

| STATE NUMBER (PC1) <br> (GSA CODES) |  |  |  |
| :---: | :--- | :--- | :--- |
|  |  |  |  |
| CONTRIBUTING CIRCUMSTANCES, MOTOR |  |  |  | Assigned by Analyst)



DRIVER MANEUVERED TO AVOID (PC15)

## (SELECT ALL THAT APPLY

00 -Driver Did Not Maneuver to Avoid 05-Pedestrian, Pedalcyclist or 01-Object

Other Non-Motorist
02 -Poor Road Conditions (Puddle, Ice, Pothole, etc.)
03-Live Animal
92-Phantom/Non-Contact Motor Vehicle 95-No Driver Present/Unknown if Driver Present 98-Not Reported 99-Unknown

## DRIVER DISTRACTED BY (PC16)

 SELECT ALL THAT APPLY00-Not Distracted
01-Looked But Did Not See
03-By Other Occupant(s) 04-By a Moving Object in Vehicle 15-Other Cellular Phone Related 05-While Talking or Listening to Cellular Phone 17-Distraction/Inattention 06-While Manipulating Cellular Phone 07-Adjusting Audio or Climate Controls 09-While Using Other Component/Controls Integral to Vehicle
10-While Using or Reaching for Device/
Object Brought into Vehicle
12-Distracted by Outside Person, Object or Event
13-Eating or Drinking

16-No Driver Present/Unknown if Driver Present 96-Not Reported

## istractions

14-Smoking Related 18-Distraction/Careless 19-Careless/Inattention
92-Distraction(Distracted), Details Unknown
93 -Inattention(Inattentive), Details Unknown
97-Lost in Thought/Day Dreaming 98-Other Distraction
99-Unknown if Distracted

PRE-EVENT MOVEMENT (PRIOR TO
RECOGNITION OF CRITICAL EVENT) (PC17)
00-No Driver Present/Unknown if Driver Present
01-Going Straight
11-Turning Left
$\begin{array}{ll}\text { 01-Going Straight } & \text { 11-Turning Left } \\ \text { 02-Decelerating in Road } & \text { 12-Making a U-Turn }\end{array}$
$\begin{array}{ll}\text { 02-Decelerating in Road } & \text { 12-Making a U-Turn } \\ \text { 03-Accelerating in Road } & \text { 13-Backing Up (other }\end{array}$
$\begin{array}{ll}\text { 03-Accelerating in Road } & \text { 13-Backing Up (other th } \\ \text { 04-Starting in Road } & \text { 14-Negotiating a Curve }\end{array}$
$\begin{array}{ll}\text { 04-Starting in Road } & \text { 14-Negotiating a Curv } \\ \text { 05-Stopped in Roadway } & \text { 15-Changing Lanes }\end{array}$
06-Passing or Overtaking Another Vehicle 16-Merging
07-Disabled or "Parked" in Travel Lane 17-Successful Avoidance to a Previous Critical 08-Leaving a Parking Position Event 09-Entering a Parking Position 98-Other(specify:) 10-Turning Right 99-Unknown

CRITICAL EVENT - PRECRASH (CATEGORY) (PC18)
1-This Vehicle Loss Control Due To: 6-Object or Animal 2-This Vehicle Traveling
3-Other Motor Vehicle in Lane
9-Unknown
-Other Motor Vehicle Encroaching into Lane
5-Pedestrian or Pedalcyclist or Other Non-Motorist
CRITICAL EVENT - PRECRASH (EVENT) (PC19)
(See Instruction Manual)

## ATTEMPTED AVOIDANCE MANEUVER (PC20)



PERSON LEVEL (MV OCCUPANT) FORM
CODED BY: $\qquad$ INPUT BY: $\square$ 2013 Fatality Analysis Reporting System
PERSON LEVEL (MV OCCUPANT)
U.S. Department of Transportation National Highway Traffic Safety
DATE CODED: DATEINPUT: $\qquad$ Administration


## PERSON LEVEL (NOT A MV OCCUPANT) FORM

CODED BY: $\qquad$ INPUT BY:
$\qquad$ 2013 Fatality Analysis Reporting System PERSON LEVEL (NOT A MV OCCUPANT) STATE CASE NO DATE INPUT $\square P$ CONSECUTIVE NUMBER (NM2)


CONDITION (IMPAIRMENT) AT TIME OF CRASH (NM14) (SELECT ALL THAT APPLY)
Assigned Vehicle Number, Except: 999-Unknown


01-III, Blackout
02-Asleep or Fatigued
03 -Walking with a Cane or Crutches 04-Paraplegic or Restricted to Wheelchair 05 -Impaired Due to Previous Injury 06-Deaf
** PERSON NUMBER (NM3)

THIS PAGE INTENTIONALLY LEFT BLANK

## 200. FORM CODING INSTRUCTIONS

## 201. GENERAL INSTRUCTIONS

## . 1 Codes

. 11 All codes are numeric except TRAFFICWAY IDENTIFIER, ADDITIONAL STATE INFORMATION, RAIL GRADE CROSSING IDENTIFIER, VEHICLE IDENTIFICATION NUMBER and MOTOR CARRIER IDENTIFICATION NUMBER.
. 12 All codes are on the forms except: GLOBAL POSITION, CRASH EVENTS, FIRST HARMFUL EVENT, RAIL GRADE CROSSING IDENTIFIER, RELATED FACTORS, VEHICLE MAKE, VEHICLE MODEL, BODY TYPE, MOTOR CARRIER IDENTIFICATION NUMBER, SEQUENCE OF EVENTS, MOST HARMFUL EVENT, VIOLATIONS CHARGED, TRAFFIC CONTROL DEVICE, CRITICAL EVENT - PRECRASH (EVENT), CRASH TYPE, NON-MOTORIST LOCATION AT TIME OF CRASH, PEDESTRIAN/BIKE TYPING, DEATH CERTIFICATE NUMBER, FATAL INJURY AT WORK and RACE/HISPANIC ORIGIN. See the appropriate data element pages for these codes.
. 13 The code for attribute Unknown is always nine. Unknown should only be used when all sources for obtaining information on an element have been searched and the information is missing or stated unknown. In an element that includes the attribute Not Reported, Unknown is only used for stated unknowns.
. 14 The code for attribute Not Applicable or its equivalent is always zero(s), except for data elements C28-C30 where Not Applicable (Not Notified) is 8888, P13 where Not Applicable is 8, P24/NM23 where Not Applicable (non-fatal) is 88888888 and P25/NM24 where Not Applicable (non-fatal) is 8888, SP2 where Not Applicable (not a fatality) is 8.
.15 The code for attribute None is always zero except for Alcohol Test Result.
. 2 Coding Forms
. 21 Blanks are used only in fields to be later updated with four exceptions:
. 211 If DRIVER PRESENCE is coded " 0 " or " 9 " all other driver information except RELATED FACTORS-DRIVER LEVEL must be blank.
. 212 If VIN is less than seventeen characters, do not zero-fill, leave remaining characters blank. If a State is not allowed to code the entire VIN, code the partial VIN and zero-fill the characters that cannot be completed.
. 213 If TRAFFICWAY IDENTIFIER is less than 30 characters, do not zero-fill or 9 -fill. Leave remaining characters blank. The second TRAFFICWAY IDENTIFIER field is also left blank for non-junction crashes.
. 214 If MOTOR CARRIER IDENTIFICATION NUMBER is less than 9 characters, do not zero-fill or 9 -fill. Leave remaining characters blank.
. 22 All codes are right-justified except VIN, TRAFFICWAY IDENTIFIER and MOTOR CARRIER IDENTIFICATION NUMBER.
. 3 Vehicle, Driver, Precrash and both Person Level Forms. These forms are automatically numbered by the system.
. 31 Vehicles are numbered consecutively beginning with "001."
. 32 For each vehicle, persons are numbered consecutively beginning with "001." Order is not important. The driver does not have to be "001."
. 33 Persons not in motor vehicles are numbered consecutively beginning with "01." Order is not important.
. 4 Miscellaneous
.41 The number of changes per case is not limited.
. 42 Request of other States for information should always follow the format of the MDE systems Out-Of-State Data Request whether the MDE System itself or the mail is used.
. 43 Refer all coding questions through the CODING ASSISTANCE PROGRAM.
. 44 Copies of all cases or other actions submitted must be retained for 3 years after the data collection year.
.45 If a State will not allow transmittal of complete VIN, send a memorandum to the COTR informing him of this fact.
. 5 Special Case - Coding Fatal Traffic Crashes for which there is only a death certificate.
. 51 Be sure the death occurred within thirty (30) days of the crash. If you don't know, do not submit the case. If it occurred after 30 days, do not submit.
. 52 For the cases you do submit, you must complete Forms HS-214, HS-214A, HS-214B, HS-214C, HS-214D, HS-214E unless you have been granted an exemption.
. 6 Code the required elements as follows:
The following elements must be coded. If any of these elements are left blank or if an edit check is violated which involves the coding of one of these elements, you will not have a usable FARS case.

## Crash Level (Form HS-214)

## Crash Date -

Crash Time -
Number of Forms
Submitted for Persons
Not In Motor Vehicles -
Number of Vehicle Forms
Submitted -
Number of Motor
Vehicle Occupant
Forms Submitted -
Crash Events -
First Harmful Event -

Appropriate Day, Month and Year Appropriate hour and minute if known, 9999 if not known

00-99
001-999
000-999
Table completed in MDE
Appropriate attribute derived from table, 99 if not known

## Vehicle Level (Form HS-214A)

| Vehicle Number - | $001-999$ |
| :--- | :--- |
| Number of Occupants - | $01-96$ if known, |
|  | 99 if unknown |
| Unit Type - | $1-4$ |

## Driver Level (Forms HS-214B)

Vehicle Number -
Driver Presence -

001-999
Appropriate attribute if known, 9 if unknown

## Precrash Form (Form HS-214C)

Vehicle Number -
001-999 if occupant
Crash Type -
01-99

## Person Level (Motor Vehicle Occupant) (Form HS-214D)

| Vehicle Number - | $001-999$ if occupant |
| :--- | :--- |
| Person Number - | $001-999$ |
| Person Type - | $01-03,09$ for occupants |

Person Level (Not a Motor Vehicle Occupant) (Form HS-214E)
Person Number - 001-999
Number of Motor Vehicle
Striking Non-Motorist -
001-999
Person Type - 04-08, 10, 19 for non-occupants

61 Code all other elements with the proper attribute if information is known. If no information is known, code the items Unknown or Not Reported. There are three exceptions to this, Rollover, Emergency Motor Vehicle Use and Fire Occurrence should all use the attribute "0" (No Rollover, Not Applicable and No or Not Reported, respectively).

## 202. DELETION INSTRUCTIONS

See FARS Microcomputer Data Entry Manual for instructions on how to delete a case.

## 203. REQUEST FOR CASE LISTING INSTRUCTIONS

See FARS Microcomputer Data Entry Manual for instructions on how to list a case.

## 300. DATA ELEMENT CODING INSTRUCTIONS

## 301. SECTION ORGANIZATION

. 1 For each element on the FARS forms, an instruction page follows in the order of the elements on the forms. In an element that is duplicated on more the one form, the instructions are provided in the first occurrence of the element with reference to the second occurrence.
. 11 The letters in the upper right hand corner refer to the forms:
‘C' - Crash Level Form
'V' - Vehicle Level Form
'D' - Driver Level Form
PC' - Precrash Level (Vehicle/Driver) Form
'P' - Person Level (MV Occupant) Form
'NM' - Person Level (Not a MV Occupant) Form
. 12 The Format section gives the type element and whether it must be coded for an original case or whether it can be changed.
. 13 The Element Value section lists the attributes for the element and their associated codes.
. 14 The Remarks section contains coding instructions, special instructions, etc., for the element.

THIS PAGE INTENTIONALLY LEFT BLANK

## STATE NUMBER

## (FARS Only)

FORMAT: 2 numeric

## SAS NAME: Accident.STATE

## ELEMENT VALUES:

| 01 | Alabama | 31 | Nebraska |
| :--- | :--- | :--- | :--- |
| 02 | Alaska | 32 | Nevada |
| 04 | Arizona | 33 | New Hampshire |
| 05 | Arkansas | 34 | New Jersey |
| 06 | California | 35 | New Mexico |
| 08 | Colorado | 36 | New York |
| 09 | Connecticut | 37 | North Carolina |
| 10 | Delaware | 38 | North Dakota |
| 11 | District of Columbia | 39 | Ohio |
| 12 | Florida | 40 | Oklahoma |
| 13 | Georgia | 41 | Oregon |
| 15 | Hawaii | 42 | Pennsylvania |
| 16 | Idaho | 43 | Puerto Rico |
| 17 | Illinois | 44 | Rhode Island |
| 18 | Indiana | 45 | South Carolina |
| 19 | Iowa | 46 | South Dakota |
| 20 | Kansas | 47 | Tennessee |
| 21 | Kentucky | 48 | Texas |
| 22 | Louisiana | 49 | Utah |
| 23 | Maine | 50 | Vermont |
| 24 | Maryland | 51 | Virginia |
| 25 | Massachusetts | 52 | Virgin Islands |
| 26 | Michigan | 53 | Washington |
| 27 | Minnesota | 54 | West Virginia |
| 28 | Mississippi | 55 | Wisconsin |
| 29 | Missouri | 56 | Wyoming |
| 30 | Montana |  |  |

Definition: This element identifies the state in which the crash occurred.

## Remarks:

None.

C1, V1, D1
PC1, P1, NM1

## Consistency Checks:

## IF

(200P) CITY is greater than 0000 and less than 9997, and COUNTY is greater than 000 and less than 997,
(220P) LIGHT CONDITION equals 4, and STATE is not equal to 02,
(2300) LIGHT CONDITION equals 5 , and STATE is not equal to 02,
(A010) STATE equals 02, and LIGHT CONDITION equals 4 ,
(A020) STATE equals 02, and LIGHT CONDITION equals 5 ,
(G01P) STATE is $\qquad$ , and GLOBAL POSITION - LATITUDE (degrees) is not equal to $77,88,99$,
(G02P) STATE is $\qquad$ , and GLOBAL POSITION - LATITUDE (degrees) equals (1d),
(G03P) STATE is $\qquad$ , and GLOBAL POSITION - LATITUDE (degrees) equals (2d),
(G04P) STATE is _, and GLOBAL POSITION - LONGITUDE (degrees) is not equal to $777,888,999$,
(G05P) STATE is $\qquad$ , and GLOBAL POSITION - LONGITUDE (degrees) equals (3d),
(G06P) STATE is $\qquad$ , and GLOBAL POSITION - LONGITUDE (degrees) equals (4d),
(A940) STATE NUMBER equals 11,
(A945) STATE NUMBER equals 15,
(A950) STATE NUMBER equals 02, 09, 10, $17,23,24,25,33,34,36,39,41,42$, $43,44,50,55$,
(A955) STATE NUMBER equals 01, 05, 06, $12,13,18,19,20,21,22,26,27,28$, $29,37,45,47,51,53,54$,

## THEN

COUNTY and CITY must be valid codes for the STATE.

CRASH TIME must equal 0300-0900, 9999.

CRASH TIME must equal 1600-2200, 9999.

CRASH TIME should equal 0300-1000, 9999.

CRASH TIME should equal 1500-2359, 9999.

LATITUDE (degrees) must be equal to, or greater than (1d), and LATITUDE (degrees) must not be greater than (2d).
LATITUDE (minutes) must be equal to, or greater than (1s).

LATITUDE (minutes) must not be greater than (2s).

LONGITUDE (degrees) must be equal
to, or greater than, (3d), and LONGITUDE (degrees) must not be greater than (4d).
LONGITUDE (minutes) must be equal to, or greater than (3s).

LONGITUDE (minutes) must not be greater than (4s).
maximum SPEED LIMIT (not including 98 or 99 ) should equal 55.
maximum SPEED LIMIT (not including 98 or 99) should equal 60.
maximum SPEED LIMIT (not including 98 or 99 ) should equal 65.
maximum SPEED LIMIT (not including 98 or 99 ) should equal 70.

## IF

## THEN

(A960) STATE NUMBER equals 04, 08, 16, maximum SPEED LIMIT (not including $30,31,32,35,38,40,46,48,49,56, \quad 98$ or 99 ) should equal 75.
(V983) VEHICLE TRAILING equals 3,
STATE should equal $04,08,16,18,20$, 30-32, 38-41, 46, 49.
(V984) STATE does not equal 04, 08, 16, 18, VEHICLE TRAILING should not equal 3. 20, 30-32, 38-41, 46, 49,

## THIS PAGE INTENTIONALLY LEFT BLANK

## CONSECUTIVE NUMBER

 (FARS Only)FORMAT: 4 numeric
SAS NAME: Accident.ST_CASE

## ELEMENT VALUES:

0001-9999 Assigned Number
Definition: This element identifies the unique case number assigned by the data entry system.

## Remarks:

Please complete FARS forms with the MDE assigned case number.

## THIS PAGE INTENTIONALLY LEFT BLANK

# NUMBER OF FORMS SUBMITTED FOR PERSONS NOT IN MOTOR VEHICLES 

FORMAT: 2 numeric
SAS NAME: Accident.PEDS

## ELEMENT VALUES:

00-99 Actual Number
Definition: This element records the number of Person Forms (Not a Motor Vehicle Occupant) that are applicable to this case.

## Remarks:

This count will match exactly the persons counted in the case structure field "Number of Persons Not in Motor Vehicles" (formerly called "Number of Non-Motorist Forms Submitted"). Occupants of any motor vehicle in-transport, parked/stopped off roadway motor vehicles, working motor vehicles, or motor vehicles in motion outside the trafficway will not be counted in this field.

The count for this field includes:

1. Occupants of a Non-Motor Vehicle Transport Device (persons riding in an animal-drawn conveyance, on an animal, injured occupants of railway trains) - Person Type (NM7) attribute 04 (Occupant of a Non-Motor Vehicle Transport Device).
2. Pedestrians, Bicyclists and Other Cyclists - Person Type (NM7) attributes: "05, 06 and 07."
3. Other Persons on Personal Conveyances (i.e., skaters, wheel chair occupants) - Person (Not a Motor Vehicle Occupant) form Person Type attribute 08 (Person on Personal Conveyances).
4. Any injured persons outside the trafficway that are not in a motor vehicle (in buildings) Person (Not a Motor Vehicle Occupant) form Person Type attribute 10 (Persons In/On Buildings).

## Consistency Checks:

## IF

(5YOF) FIRST HARMFUL EVENT equals 08,09, 15,

NUMBER OF FORMS SUBMITTED FOR PERSONS NOT IN MOTOR VEHICLES must equal the actual number of persons not in motor vehicles in this case.

## IF

(PB34) NUMBER OF FORMS SUBMITTED FOR PERSONS NOT IN MOTOR VEHICLES equals 01, and FIRST HARMFUL EVENT equals 08, and RELATION TO JUNCTION (b) equals 02 ,
(PB35) NUMBER OF FORMS SUBMITTED FOR PERSONS NOT IN MOTOR VEHICLES equals 01, and FIRST HARMFUL EVENT equals 08, and RELATION TO JUNCTION (b) equals 02,

## THEN

PEDESTRIAN/ BIKE TYPING PEDESTRIAN CRASH TYPE must not equal $320,330,360,680,830,890,900$, or 910 .

PEDESTRIAN/ BIKE TYPING PEDESTRIAN CRASH LOCATION must equal 001.

## NUMBER OF VEHICLE FORMS SUBMITTED

FORMAT: 3 numeric
SAS NAME: Accident.VE_TOTAL

## ELEMENT VALUES:

001-999
Definition: This element records all contact motor vehicles which the officer has reported on the Police Accident Report (PAR) as a unit involved in the crash.

## Remarks:

Included are: in-transport vehicles, not in-transport vehicles (parked/stopped off roadway/working motor vehicles) or vehicles located outside the trafficway boundaries.

## When identifying contact vehicles for this count:

1. Remember all vehicles that are part of the unstabilized situation are part of the crash. Therefore, when recording the number of vehicles involved, the vehicles need not make contact with one another. They need only have a harmful event as part of the unstabilized situation. For example, two vehicles are traveling through an intersection when a pedestrian steps into the roadway. The first vehicle strikes the pedestrian and the second vehicle swerves to avoid the first, loses control and overturns. Both vehicles in this situation are "contact" vehicles; therefore, this is a two-vehicle crash.
2. Even though there are no injuries in the vehicle or the amount of damage sustained is below the state threshold, if the vehicle is involved in a harmful event it is still a contact vehicle within the entire crash and should be included in this count even if the vehicle information section is not completed on the PAR.

## IMPORTANT:

Remember, you must have at least one motor vehicle "In-Transport" involved in the crash for this to be a reportable case.

## GES SPECIAL INSTRUCTION:

When one motor vehicle is towing another, the number of motor vehicles entered depends on the type of linkage between the vehicles. A fixed linkage is defined as one which has the property of keeping the towed unit separated from the power unit by a distance which is essentially constant. Included within this definition are cradle linkages where the towed unit has two or more wheels off the ground. A non-fixed linkage (such as a rope or a chain) requires the towed unit to be manually controlled.

If the PAR indicates (probably in the narrative section) the linkage between the units is fixed, consider the towed unit as cargo throughout the entire crash sequence, regardless of subsequent events/impacts sustained by the towed unit. In other words, a vehicle towed by a fixed linkage: (1) is never considered as an in-transport vehicle, and (2) will be considered as cargo associated with the power unit.

If the linkage between the units is non-fixed, each vehicle is considered to be in-transport, and only the vehicle(s) involved in the crash sequence can be counted. If no information is available regarding type of linkage, assume fixed linkage.

## Consistency Checks:

## IF

(050P) PERSON TYPE equals 04-08, 19, and NUMBER OF VEHICLE FORMS SUBMITTED equals 001,
(1AOP) RELATED FACTORS-CRASH LEVEL equals 14 ,
(2ZOF) any SEQUENCE OF EVENTS equals 12, 14, 45, 54, 55,
(428P) CRASH TYPE equals 20-91,
(429P) NUMBER OF VEHICLE FORMS SUBMITTED equals 001,
(42AP) NUMBER OF MOTOR VEHICLES
FORMS SUBMITTED equals 001, and RELATION TO TRAFFICWAY equals 02, 04, 06-08, and ATTEMPTED AVOIDANCE MANEUVER equals 00 or 01,
(670F) FIRST HARMFUL EVENT equals 12, 14, 45, 54, 55,
(A080) DRIVER PRESENCE equals 0 , and FIRST HARMFUL EVENT equals 12, and NUMBER OF VEHICLE FORMS SUBMITTED equals 002,
(A090) NUMBER OF VEHICLE FORMS there should be at least one vehicle with SUBMITTED is greater than 001,

## THEN

NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST must equal 001.

NUMBER OF VEHICLE FORMS
SUBMITTED must be greater than 001.
NUMBER OF VEHICLE FORMS
SUBMITTED must be greater than 001.
NUMBER OF VEHICLE FORMS
SUBMITTED must be greater than 001.
CRASH TYPE must equal 00, 01-16, 92,
98, 99.
CRITICAL EVENT - PRECRASH
(EVENT) should equal 01-06, 08-14 or 19.

NUMBER OF VEHICLE FORMS
SUBMITTED must be greater than 001.
one RELATED FACTORS-DRIVER
LEVEL should equal 20. TRAVEL SPEED of 001-151, 997-999, or blanks.
(CSI1) NUMBER OF VEHICLE FORMS must equal the actual number of Vehicle Level forms for this case.
(CSI2) There must be exactly one Driver Level form corresponding to each Vehicle Level form.

# NUMBER OF MOTOR VEHICLE OCCUPANT FORMS SUBMITTED 

FORMAT: 3 numeric
SAS NAME: Accident.PERSONS

## ELEMENT VALUES:

000-999
Definition: This element records the number of Person Forms (Motor Vehicle Occupant) that are applicable to this case.

## Remarks:

A Person Level form must be submitted for all persons involved in the crash, except for:

1) uninjured bus passengers (excluding van-based bus passengers); and
2) uninjured railway train occupants.

Always submit a Person Level (MV Occupant) form for the bus driver regardless of injury and any injured passengers, as well as any injured railway train occupants. Persons ejected or who fall from a motor vehicle in-transport are still considered occupants of that vehicle for the duration of the unstabilized situation.

Submit a Person Level form for persons in a hit-and-run vehicle. If no information is known, code all elements as Unknown.

## FARS SPECIAL INSTRUCTION:

Before 2003, the policy was not to submit a Person Level form for uninjured occupants of vanbased buses. This policy has changed beginning in 2003. Always submit a Person Level form for all occupants of van-based vehicles, including van-based buses.

## Consistency Check:

(CSI3) NUMBER OF MOTOR VEHICLE OCCUPANT FORMS SUBMITTED must equal the actual number of Person Level (Motor Vehicle Occupant) forms for this case.

THIS PAGE INTENTIONALLY LEFT BLANK

## COUNTYICITY <br> (FARS Only)

FORMAT: one set 3 numeric, one set 4 numeric
SAS NAME: Accident.COUNTY, Person.COUNTY, Accident.CITY

## ELEMENT VALUES:

|  | County: |  | City: |
| :---: | :--- | :---: | :--- |
| 000 | Not Applicable | 0000 | Not Applicable |
| $001-996$ | GSA Codes | $0001-9996$ | GSA Codes |
| 997 | Other | 9997 | Other |
| 998 | Not Reported | 9898 | Not Reported |
| 999 | Unknown | 9999 | Unknown |

Definition: This element refers to the location of the unstabilized event.

## Remarks:

COUNTY and CITY are considered one field. Both must be submitted at the same time.
If COUNTY only is known, CITY may be 9999 (Unknown).
Code CITY as 0000 (Not Applicable) if the crash does not occur within city limits.
Code CITY as 9997 (Other) if CITY is other than those given by the GSA Codes.
Code CITY as 9999 (Unknown) if crash location is unknown.
Code COUNTY as 997 (Other) if COUNTY is other than those given by the GSA Codes.
Code COUNTY as 999 (Unknown) if location is unknown.
In general, Not Applicable should be used when there is no GSA code for the crash location.
Other should be used when the Analyst knows there is a GSA code for the location, but the attribute does not appear on the master GSA code list provided by Headquarters. Both situations should be reported to Headquarters.

## Not Reported

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

## Code Not Reported in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

## Consistency Checks:

## IF

(200P) CITY is greater than 0000 and less than 9997, and COUNTY is greater than 000 and less than 997,
(210P) CITY is greater than 0000 and less than 9997,

## THEN

COUNTY and CITY must be valid codes for the STATE.

COUNTY must not equal 999.

## CRASH DATE

FORMAT: 2 sets of 2 numeric and 1 set of 4 numeric
SAS NAME: Accident.DAY, Vehicle.DAY, Person.DAY, parkwork.PDAY, Accident.MONTH, Accident.DAY_WEEK, Accident.YEAR; Vehicle.MONTH; Person.MONTH; Parkwork.PMONTH

## ELEMENT VALUES:

| 01-12 | Month |
| :---: | :---: |
| 01-31 | Day (FARS Only) |
| Current (pre-printed) | Year |

Definition: This element identifies the date on which the crash occurred.

## Remarks:

If the PAR indicates that the crash (usually a hit-and-run) occurred between some PM and AM time (e.g., 8:00 PM and 6:00 AM) on either a preceding or following day, code the crash as occurring on the following day. If a range of days is indicated (e.g., between Sunday and Friday), code the last date of the range (e.g., Friday).

## FARS SPECIAL INSTRUCTION:

In cases where the crash date is reported as Unknown on the PAR, refer to the death certificate for the death date to establish the crash date.

## GES SPECIAL INSTRUCTION:

The date of the crash is rolled up from NASS sampling program.
If the date of the crash is unknown, use the date the crash was reported. If the time of the crash is unknown, record the time as 9999.

If the month cannot be determined from the PAR, enter the month of the Ending Contact Date from the Inventory Record.

If the crash date on the PAR does not match the crash date shown on the data entry screen and it is determined that the crash date on the PAR is correct, the crash date is corrected.

## Consistency Checks:

IF

## THEN

the vehicle MODEL YEAR must not be greater than CRASH YEAR plus ONE.
(3KOP) DATE OF LAST CRASH, SUSPENSION, CONVICTION must be less than or equal to CRASH DATE.
(3UOP) DEATH DATE equals CRASH DATE, DEATH TIME must not be less than CRASH and CRASH TIME is not equal to 9999,
(4V1F) INJURY SEVERITY equals 4,
(4V2F) CRASH MONTH equals 12, and DEATH MONTH equals 01,
(4V3F) CRASH MONTH equals 12,
(4V4F) CRASH MONTH equals 02-11, and DEATH MONTH is not equal to 88 or 99,
(4V5F) CRASH MONTH equals 01, and DEATH MONTH is not equal to 88 or 99,

MONTH or CRASH MONTH plus 1 or CRASH MONTH plus 2.
(5KOP) The Year of DATE OF FIRST CRASH, SUSPENSION, CONVICTION must be within three years of the Year of CRASH DATE.
(6VOP) DEATH DATE must not be less than CRASH DATE.
(7VOF) DEATH YEAR equals 9999,
(921P) MAKE is not 97, 98, 99, and equals
$\qquad$ , and MODEL equals $\qquad$ _,
(A030) CRASH MONTH equals 05-09,
(A040) CRASH MONTH equals 05-09,

CRASH MONTH must not be 01-11. MODEL YEAR must equal $\qquad$ , or CRASH YEAR plus 1.
ATMOSPHERIC CONDITIONS should not equal 03, 04, 11, 12.
ROADWAY SURFACE CONDITIONS should not equal 03, 04, 10.
(FP4F) CRASH DATE is blank, case status is flawed.
(V620) CRASH MONTH is between January and March,
the VEHICLE MODEL YEAR should NOT be greater than the CRASH YEAR unless it equals 9998 or 9999 (contact Coding Assistance).

## Consistency Checks (FARS Only):

## IF

(P520) CRASH DATE and DEATH DATE are the same, and CRASH TIME and DEATH TIME are the same,

## THEN

TRANSPORTED TO FIRST MEDICAL FACILITY BY should equal 0, and DIED AT SCENE/EN ROUTE should equal 7 .

## CRASH TIME

FORMAT: 4 numeric
SAS NAME: Accident.HOUR, Accident.MINUTE; Vehicle.HOUR, Vehicle.MINUTE, Person.HOUR, Person.MINUTE, parkwork.PHOUR, parkwork.PMINUTE

## ELEMENT VALUES:

0000-2359 Valid military time (Code midnight as "0000")
9999 Unknown
Definition: This element identifies the time at which the crash occurred.

## Remarks:

Enter time as shown on the PAR. All available information in the case materials should be used to determine Crash Time. If the hour cannot be determined, then enter 9999 (Unknown).

If the PAR indicates the crash occurred during some time interval of greater than one hour (e.g., 8:00 PM to 6:00 AM, or 8:00 AM to 5:00 PM), enter 9999 (Unknown). However, if the interval is one hour or less, code the midpoint of the interval.

## Examples:

- 8:00 PM to 9:00 PM, enter 2030
- 8:30 PM to 9:30 PM, enter 2100
- 8:50 PM to 9:30 PM, enter 2110

When the time is available but AM versus PM is not shown on the PAR, base the time on Light Condition (e.g., time is 10:00, Light Condition is 2 (Dark - Not Lighted); code as 2200).

Midnight or 12 AM is coded as 0000 in military time and is the start of a new day. One minute after midnight is 12:01 and is coded as 0001.
AM - Starts at 00:00 Midnight
PM - Starts at 12:00 Noon
If the case materials state the crash occurred at the beginning or early moments of the day, midnight is coded as 0000.

## FARS SPECIAL INSTRUCTION:

If the day of the crash and the day of EMS Notification do not have the same date, then be sure to use Date of Accident and Date of EMS Notification Were Not the Same Day in Related Factors - Crash Level.

## How to Code Midnight:

In general, code midnight as $\mathbf{0 0 0 0}$. However, there may be confusion over which day midnight falls into. Crash Time is recorded between 00:00-23:59. Midnight is coded as 0000 to represent the beginning of a new day. This may not be the practice followed in your sources. Therefore, you have to determine which part of the day is being considered in your sources.

## End of Day:

If your data sources give you a Crash Date and are consistent in talking about the end of that day, when they give the time of the crash as midnight, 12:00-midnight, 24:00 or 00:00, then you should code Crash Time as 2359.

## Beginning of Day:

If your sources give a Crash Date and are consistent in referring to the beginning or early moments of that day when they give a crash time, code midnight as 0000 .

See remarks-Notification/Arrival Time EMS, EMS Arrival At Hospital.

## GES SPECIAL INSTRUCTION:

The time of the crash is rolled up from NASS sampling program. If the time of the crash is unknown, record the time as 9999.

If the time of crash, on the PAR, does not match the crash time shown on the data entry screen and it is determined that the crash time on the PAR is correct, then the crash time should be changed to reflect the time listed on the PAR.

## Consistency Checks:

## IF

(220P) LIGHT CONDITION equals 4, and STATE is not equal to 02,
(2300) LIGHT CONDITION equals 5, and STATE is not equal to 02,
(3UOP) DEATH DATE equals CRASH DATE, and CRASH TIME is not equal to 9999,
(4V1F) INJURY SEVERITY equals 4,
(A010) STATE equals 02, and LIGHT CONDITION equals 4 ,

THEN
CRASH TIME must equal 0300-0900, 9999.

CRASH TIME must equal 1600-2200, 9999.

DEATH TIME must not be less than CRASH TIME.

DEATH DATE and DEATH TIME for this person must be within 720 hours of the CRASH DATE and CRASH TIME. CRASH TIME should equal 0300-1000, 9999.

IF
(A020) STATE equals 02, and LIGHT CONDITION equals 5 ,
(A050) CRASH TIME equals 0900-1600,
(A060) CRASH TIME equals 2300-0400,
(A070) NOTIFICATION TIME EMS is not 8888, 9998 or 9999, (FP5F) CRASH TIME is blank, case status is flawed.
(P56P) DIED AT SCENE/EN ROUTE equals DEATH TIME should be within 30 7 ,

## Consistency Checks (FARS Only):

## IF

(P520) CRASH DATE and DEATH DATE are the same, and CRASH TIME and DEATH TIME are the same,

## THEN

TRANSPORTED TO FIRST MEDICAL FACILITY BY should equal 0, and DIED AT SCENE/EN ROUTE should equal 7 .

## THIS PAGE INTENTIONALLY LEFT BLANK

# NATIONAL HIGHWAY SYSTEM <br> (FARS Only) 

FORMAT: 1 numeric
SAS NAME: Accident.NHS

## ELEMENT VALUES:

0 This section IS NOT on the NHS
1 This section IS ON the NHS
9 Unknown if this section is on the NHS
Definition: This element identifies whether or not this crash occurred on a trafficway that is part of the National Highway System.

## Remarks:

The National Highway System includes the Interstate System, and consists of principal arterial system routes and some Strategic Highway Network connectors functionally classified below principal arterial.

Federal Highway Administration classification obtainable from the State Highway Department must be used. No other classification source is acceptable. Refer problems in obtaining the F.H.W.A. classification to Regional State Assignee.

## Consistency Checks:

## IF

(260P) ROUTE SIGNING equals 1,
(300P) NATIONAL HIGHWAY SYSTEM equals 0, 9,
(320P) ROADWAY FUNCTION CLASS equals 01, 11, and ROUTE SIGNING does not equal 7 ,
(330P) NATIONAL HIGHWAY SYSTEM equals 0, 9,
(A850) ROADWAY FUNCTION CLASS equals 02, 12, and ROUTE SIGNING equals 2,
(A860) NATIONAL HIGHWAY SYSTEM equals 1,

## THEN

NATIONAL HIGHWAY SYSTEM must equal 1.
ROADWAY FUNCTION CLASS must not equal 01, 11.
NATIONAL HIGHWAY SYSTEM must equal 1.

ROUTE SIGNING must not equal 1.
NATIONAL HIGHWAY SYSTEM should equal 1.

ROADWAY FUNCTION CLASS should equal 01, 02, 11-13.

## IF

(A910) ROADWAY FUNCTION CLASS equals 03-06, 14-16,
(A920) NATIONAL HIGHWAY SYSTEM equals 0,9 ,

## THEN

NATIONAL HIGHWAY SYSTEM should equal 0,9 .
ROADWAY FUNCTION CLASS should not equal 02, 12, and ROUTE SIGNING should not equal 2.

# ROADWAY FUNCTION CLASS <br> (FARS Only) 

FORMAT: 2 numeric
SAS NAME: Accident.ROAD_FNC; Person.ROAD_FNC

## ELEMENT VALUES:

01 Rural-Principal Arterial - Interstate
02 Rural-Principal Arterial - Other
03 Rural-Minor Arterial
04 Rural-Major Collector
05 Rural-Minor Collector
06 Rural-Local Road or Street
09 Rural-Unknown Rural
11 Urban-Principal Arterial - Interstate
12 Urban-Principal Arterial - Other (Freeways or Expressways)
13 Urban-Other Principal Arterial
14 Urban-Minor Arterial
15 Urban-Collector
16 Urban-Local Road or Street
19 Urban-Unknown Urban
99 Unknown

Definition: This element identifies the functional classification of the trafficway on which the crash occurred.

## Remarks:

## NON-JUNCTION CRASHES

Assign the crash to the trafficway on which the first harmful event occurred. If the first harmful event occurred on private property, assign the crash to the trafficway on which the vehicle was traveling when the Unstabilized Situation began.

## INTERSECTION CRASHES (Not Within an Interchange)

In an at-intersection crash, assign the crash to the highest function class of trafficway at the intersection.

If the vehicles are traveling on different roadways of equal class, assign the crash to the roadway on which the motor vehicle precipitating the crash is traveling.

## INTERSECTION CRASHES (Within an Interchange)

Interchange crashes that occur in an intersection of a ramp that connects a higher and a lower class trafficway should be assigned to the highest-class trafficway. For example: vehicle \#1 strikes vehicle \#2 in the intersection of the I-270 ramp and US-10. Code Roadway Function Class as 01 or 11 (Principal Arterial - Interstate).

Ramps are part of the highest class of trafficway to which they connect. Therefore, if a crash occurs on a ramp, including in the merge/diverge lanes, and it is not an Intersection crash, it is assigned to the highest class of trafficway to which the ramp connects. Example: vehicle \#1 overturns on the ramp of I-270 and US-10. Code Roadway Function Class 01 or 11 (Principal Arterial - Interstate). This includes intersection-related and entrance/exit ramp related crashes for Relation to Junction.

## OTHER CRASHES (Within an Interchange)

For other crashes that occur within an interchange, other than intersection crashes, code Roadway Function class for the trafficway on which the vehicles were traveling. Example, vehicle \#1 strikes vehicle \#2 on US-10 bridge within the I-270 interchange (not in the intersection of any ramp, or on any ramp). Code Roadway Function Class for US-10 and not I-270.

## QUESTIONABLE CASES

In any questionable case, the higher function class takes precedence.
Federal Highway Administration classification obtainable from the State Highway Department must be used. No other classification source is acceptable. Refer problems in obtaining the F.H.W.A. classification to Regional State Assignee.

## Consistency Checks:

## IF

## THEN

(1TOP) SPEED LIMIT for every vehicle is greater than 55 , and not equal to 98 or 99,
(300P) NATIONAL HIGHWAY SYSTEM equals 0,9 ,
(320P) ROADWAY FUNCTION CLASS equals 01, 11, and ROUTE SIGNING does not equal 7 ,
(A110) FIRST HARMFUL EVENT equals 10,
(A150) ROADWAY FUNCTION CLASS equals 01, 11, 12, and RELATION TO JUNCTION (a) equals 0 ,
(A160) ROADWAY FUNCTION CLASS equals 01, 02, 04, 11, 12, 13, 15,
(A170) ROADWAY SURFACE TYPE equals 3-5 for every vehicle,
(A180) ROADWAY FUNCTION CLASS equals 01, 11,
(A190) ROADWAY FUNCTION CLASS equals 12,
(A200) RELATION TO JUNCTION (b) equals 07,
(A210) ROADWAY FUNCTION CLASS equals 01, 11, 12, and RELATION TO JUNCTION (a) equals 0,
(A220) ROADWAY FUNCTION CLASS equals 01, 11, and RELATION TO JUNCTION (a) equals 0,
(A230) SEQUENCE OF EVENTS equals 10,
(A240) ROADWAY FUNCTION CLASS equals 01, 11, and RELATION TO JUNCTION (a) equals 0,
(A250) ROADWAY FUNCTION CLASS equals 01, 02, 11-13, and RELATION TO JUNCTION (a) equals 1, and RELATION TO JUNCTION (b) does not equal 03, 05, 20,
(A720) ROADWAY FUNCTION CLASS equals 01, 11, 12,
(A810) FIRST HARMFUL EVENT equals 46, and RELATION TO JUNCTION (a) equals 1, and RELATION TO JUNCTION (b) does not equal 02, 03, 05,
(A840) ROUTE SIGNING equals 7,
(A850) ROADWAY FUNCTION CLASS equals 02, 12, and ROUTE SIGNING equals 2,
(A860) NATIONAL HIGHWAY SYSTEM equals 1,
(A883) RELATION TO TRAFFICWAY equals 07,
(A900) SPEED LIMIT equals 60, 65 for every vehicle,

## THEN

ROADWAY SURFACE TYPE should equal 1, 2, 8 or 9 for at least one vehicle. ROADWAY FUNCTION CLASS should not equal 01-03, 11-15.
SPECIAL JURISDICTION should not equal 1-5, $8,9$.
SPECIAL JURISDICTION should not equal 4.
ROADWAY FUNCTION CLASS should not equal 04-06, 16.
TRAFFIC CONTROL DEVICE should not equal 01-04, 07, 20, 23, 40, 50, 65.

SPEED LIMIT should not equal 05-40 for any vehicle.

ROADWAY FUNCTION CLASS should not equal 01, 11.
TRAVEL SPEED should not equal 005-040 for any vehicle.

TOTAL LANES IN ROADWAY should not equal 1 for the vehicles involved in the first harmful event.

TRAFFICWAY DESCRIPTION should equal 2, 3, 6 for at least one vehicle.
ROADWAY FUNCTION CLASS should not equal 01, 11.

ROADWAY FUNCTION CLASS should equal 01, 02, 11-13.
NATIONAL HIGHWAY SYSTEM should equal 1.

ROADWAY FUNCTION CLASS should equal 01, 02, 11-13.
ROADWAY FUNCTION CLASS should not equal 01, 11, 12.
ROADWAY FUNCTION CLASS should not equal 05, 06, 14-16.

## IF

(A910) ROADWAY FUNCTION CLASS equals 03-06, 14-16,
(A920) NATIONAL HIGHWAY SYSTEM equals 0,9 ,

## THEN

NATIONAL HIGHWAY SYSTEM should equal 0, 9 .
ROADWAY FUNCTION CLASS should not equal 02, 12, and ROUTE SIGNING should not equal 2.

## ROUTE SIGNING

## (FARS Only)

FORMAT: 1 numeric
SAS NAME: Accident.ROUTE

## ELEMENT VALUES:

1 Interstate
2 U.S. Highway
3 State Highway
4 County Road
5 Local Street - Township
6 Local Street - Municipality
7 Local Street - Frontage Road
8 Other
9 Unknown
Definition: This element identifies the route signing of the trafficway on which the crash occurred.

## Remarks:

Before coding this element, be certain of which trafficway is to be coded. This element is coded with respect to the trafficway in the top row of C13 - Trafficway Identifier. If there is any question, refer to the remarks section of C13 - Trafficway Identifier for a hierarchy for selecting the appropriate trafficway to be coded.

## CODING FRONTAGE ROADS

If the crash occurs on a frontage road which is part of a larger, higher order trafficway (such as Interstate, U.S. Highway or State Route), use the following guideline to code the highway elements:

- Code Trafficway Identifier and Roadway Function Class for the 1 (Interstate), 2 (US Highway) or 3 (State Route)
- Code Route Signing 7 (Local Street - Frontage Road)

Make sure to include the highway designation in Trafficway Identifier when using 7 (Local Street - Frontage Road). See Trafficway Identifier (FARS-C13).

If the Frontage Road is a separate trafficway, code all highway elements for that trafficway. Frontage Road is not used.

## 8 (Other) includes ‘Other Limited Access’ and 'Other Major Artery.’

Federal Highway Administration classification obtainable from the State Highway Department must be used. No other classification source is acceptable. Refer problems in obtaining the F.H.W.A. classification to Regional State Assignee.

## Consistency Checks:

## IF

(260P) ROUTE SIGNING equals 1,
(320P) ROADWAY FUNCTION CLASS equals 01, 11, and ROUTE SIGNING does not equal 7 ,
(330P) NATIONAL HIGHWAY SYSTEM equals 0,9 ,
(340P) ROUTE SIGNING equals 1,
(341P) the first position of TRAFFICWAY IDENTIFIER \#1 equals "I" and the second position equals "-",
(350P) ROUTE SIGNING equals 2 ,
(351P) the first two positions of TRAFFICWAY IDENTIFIER \#1 equals "US" and third position equals "-",
(360P) ROUTE SIGNING equals 3,
(361P) the first two positions of TRAFFICWAY IDENTIFIER \#1 equals "SR" and third position equals "-",
(362P) ROUTE SIGNING equals 4, the first two positions of TRAFFIC-WAY IDENTIFIER \#1 must be "CR" and the third position must be "-".
SPECIAL JURISDICTION should not equal 1-5, 8, 9 .
RELATION TO JUNCTION (b) should not equal 02-04, 06, 08, 16.

ROUTE SIGNING should not equal 5, 6.

## IF

(A300) ROUTE SIGNING equals 1,
(A310) ROUTE SIGNING equals 1, and RELATION TO JUNCTION (a) equals 0 ,
(A320) ROUTE SIGNING equals 1, and RELATION TO JUNCTION (a) equals 0 ,
(A330) ROUTE SIGNING equals 1, 2,
(A350) ROUTE SIGNING equals 1 ,
(A360) RELATION TO JUNCTION(b) equals 07,
(A700) SPEED LIMIT is greater than 65 for every vehicle,
(A820) FIRST HARMFUL EVENT equals 46, and RELATION TO JUNCTION (a) equals 1, and RELATION TO JUNCTION (b) does not equal 02, 03, 05 ,
(A840) ROUTE SIGNING equals 7 ,
(A850) ROADWAY FUNCTION CLASS equals 02, 12, and ROUTE SIGNING equals 2 ,
(A882) RELATION TO TRAFFICWAY equals 07,
(A920) NATIONAL HIGHWAY SYSTEM equals 0,9 ,

## THEN

TRAFFICWAY DESCRIPTION should equal 2, 3, 6 for at least one vehicle. TOTAL LANES IN ROADWAY should not equal 1 for any vehicle.

SPEED LIMIT should not equal 05-40 for any vehicle.

ROADWAY SURFACE TYPE should equal 1, 2, 8 for at least one vehicle. FIRST HARMFUL EVENT should not equal 10.
ROUTE SIGNING should not equal 4.
ROUTE SIGNING should equal 1-4.
ROUTE SIGNING should not equal 1.

ROADWAY FUNCTION CLASS should equal 01, 02, 11-13.
NATIONAL HIGHWAY SYSTEM should equal 1.

ROUTE SIGNING should not equal 1.
ROADWAY FUNCTION CLASS should not equal 02, 12, and ROUTE SIGNING should not equal 2.

## THIS PAGE INTENTIONALLY LEFT BLANK

# TRAFFICWAY IDENTIFIER <br> (FARS Only) 

FORMAT: 2 sets, 30 alphanumeric
SAS NAME: Accident.TWAY_ID; Accident.TWAY_ID2

## ELEMENT VALUES:

Actual Posted Number, Assigned Number, or Common Name (if no posted or assigned number) except:
9s Unknown
Definition: This element captures the identity (name) of the trafficway on which the crash occurred.

## Remarks:

Beginning in 2004, a second trafficway identifier was added to accommodate intersection and intersection-related crashes where the officer provides the identifier for the second trafficway. (See diagram below.)


## For Non-Junction Crashes:

Code the trafficway identifier from the police report or highway department in the top row. Leave the bottom row blank.

## For Intersection Crashes (Not Within an Interchange Area):

Code the trafficway identifier for the trafficway with the highest function class in the top row. Code the second trafficway identifier at the intersection, if provided by the police, in the bottom row. If the vehicles are traveling on different roadways of equal class, assign the crash to the roadway on which the motor vehicle precipitating the crash is traveling and record this roadway in the top row.

## For Intersection-Related Crashes (Not Within an Interchange Area):

Code the trafficway identifier for the trafficway provided by the police in the top row. This does not necessarily have to be the highest functional class. In all cases, this will be the trafficway where the first harmful event occurred or the Unstabilized Situation began. Code the second trafficway identifier at the intersection, if provided by the police, in the bottom row.

## For Intersection Crashes Within an Interchange Area:

If the first harmful event occurs within the intersection of a ramp and the surface roadway:

- Code the trafficway identifier provided on the police report or highway log in the top row (this does not necessarily have to be the highest function class).
- Code Route Signing for the trafficway in the top row.
- It is important to code the Roadway Function Class and National Highway System for the highest class of trafficway at this intersection. (See FARS-C11 - Roadway Function Class).
- Use the bottom row to record the second trafficway identifier provided by the police for this intersection.


## For Intersection-Related Crashes Within an Interchange Area:

Code the trafficway identifier for the trafficway provided by the police in the top row. In many cases, this will be the trafficway where the first harmful event occurred or the Unstabilized Situation began. Code the second trafficway identifier at the intersection, if provided by the police, in the bottom row.

## For Ramp Crashes:

If the crash occurs on the ramp or is related to the ramp, include the word "RAMP" and/or the ramp ID number after the trafficway's identifier (e.g., I-10 RAMP).

## General Guidelines for Coding Trafficway Identifier:

This data is obtained from the State Highway Department, or if same as that used by the State Highway Department, from the police accident report. Enter all alphabetic characters with CAPITAL LETTERS. If less than 30 characters, left-justify and do not zero-fill.

- Use standard abbreviations for the street name suffix (ex. AVE, BLVD, CT, FWY) (see FARShelf for full list of USPS street abbreviations).
- Do not enter the street address where the crash occurred. For example, 245 Elm St. would be entered as ELM ST.
- Do not enter milepoints here following the trafficway even if provided on the report. Milepoints are entered in the element Milepoint.
- Do not enter a cross street referenced by the investigating officer for a non-junction crash. For example if the report states, "the crash occurred on Main Street, 0.6 miles south of Girard Avenue", Girard Avenue does not go in Trafficway Identifier 2. Trafficway Identifier 2 is reserved for intersection and intersection-related crashes.
- If a trafficway is known to have both a route identifier and a common name record the route identifier first followed by the common name (Example: State Route 3 is also Indian Head Highway would be coded as SR-3 Indian Head Hwy).

Obtained from the State Highway Department, or if same as that used by the State Highway Department, from the police accident report.

If Route Signing is $\mathbf{1}$ (Interstate), you must enter "I-" in the first two spaces of Trafficway Identifier

If Route Signing is $\mathbf{2}$ (US Highway), you must enter "US-" in the first three spaces of Trafficway Identifier

If Route Signing is $\mathbf{3}$ (State Highway), you must enter "SR-" in the first three spaces of Trafficway Identifier

If Route Signing is 4 (County Road), you must enter "CR-" in the first three spaces of Trafficway Identifier followed by the route number OR name if there is no number.

Immediately after the route designation (I-, US- or SR-), you should enter the corresponding highway number. For example, Interstate 70 should be coded as " $I-70$ " and US 66 should be coded as "US-66." You must use a dash in the highway designation between the capital letters and the number.

If one trafficway is both, a State Highway and an Interstate Highway, Route Signing must always be coded "1-Interstate." You should always try to obtain the route number and milepoint that correspond to the Route Signing (Interstate).
(a) If the Trafficway Identifier and Milepoint are available for only the State Highway then code Route Signing as 1 (Interstate), enter "I-" in the first two spaces of Trafficway Identifier followed by the full State Highway Identifier as normal (including any letters.) Code the State Highway Milepoint under the element Milepoint.
E.g.; If California business loop (CA215) is also Interstate 15, then code
"I-SR215" or "I-CA215."
(b) If the Trafficway Identifier and Milepoint are available for both the State Highway and the Interstate Highway, enter "I-" in the first two spaces of Trafficway Identifier followed by the Interstate number. You may then also enter the State Highway Identifier anywhere after the Interstate route number. Code the Interstate Milepoint under the element Milepoint.
E.g.; "l-15" (SR215) or "I-15" (CA215)

Similarly, if a State Highway is also a US Highway, Route Signing must always be coded "2US Highway." You should always try to obtain the route number and milepoint that correspond to the Route Signing (US Highway).
(a) If the Trafficway Identifier and Milepoint are available only for the State Highway, then code Route Signing as 2 (US Highway), enter "US-" in the first three spaces of Trafficway Identifier followed by the full State Highway Identifier as normal (including any letters). Code the State Highway Milepoint under the element Milepoint.
E.g.; If Florida Route 25 is also US Route 27, then code "US-SR25" or "US-FL25."
(b) If the Trafficway Identifier and Milepoint are available for both the US Highway and the State Highway, enter "US-" in the first three spaces of Trafficway Identifier followed by the US route number. You may then also enter the State Highway Identifier anywhere after the US route number. Code the US Route Milepoint under the element Milepoint. E.g.; "US-27" (SR25) or "US-27" (FL25).

## Overlapping Roadways of Equal Function Class

For situations where you are presented with a roadway with two equal functional class identifiers for the same roadway, such as a stretch of roadway that is both US-10 and US-25, record both trafficways in Trafficway Identifier \#1 using the "slash" format. The lower number trafficway should appear before the slash (e.g., "US-10/25"). This would also apply to Interstates, State and County roadways with two designations of equal class.

## Consistency Checks:

## IF

(1F1P) RELATION TO JUNCTION (b) does not equal 02, 03,
(340P) ROUTE SIGNING equals 1,
(341P) the first position of TRAFFICWAY IDENTIFIER \#1 equals "I" and the second position equals "-",
(350P) ROUTE SIGNING equals 2,
(351P) the first two positions of TRAFFICWAY IDENTIFIER \#1 equals "US" and third position equals "-",
(360P) ROUTE SIGNING equals 3,
(361P) the first two positions of TRAFFICWAY IDENTIFIER \#1 equals "SR" and third position equals "-",
(362P) ROUTE SIGNING equals 4,
(781P) TYPE OF INTERSECTION equals 02-07, 10,
(ACOA) RELATION TO JUNCTION (b) equals 02, 03,

THEN
the second TRAFFICWAY IDENTIFIER should be blank.
the first position of TRAFFICWAY IDENTIFIER \#1 must be "l" and the second position must be "-".
ROUTE SIGNING must equal 1 or 7 .
the first two positions of TRAFFICWAY IDENTIFIER \#1 must be "US" and the third position must be "-".
ROUTE SIGNING must equal 2 or 7 .
the first two positions of TRAFFICWAY IDENTIFIER \#1 must be "SR" and the third position must be "-".
ROUTE SIGNING must equal 3 or 7 .
the first two positions of TRAFFIC-WAY IDENTIFIER \#1 must be "CR" and the third position must be "-".
TRAFFICWAY IDENTIFIER (b) should not be blank.
the second TRAFFICWAY IDENTIFIER should not be all blank.

# MILEPOINT <br> (FARS Only) 

FORMAT: 5 numeric

## SAS NAME: Accident.MILEPT

## ELEMENT VALUES:

0000.0 None

Actual to Nearest Tenth Mile
9999.8 Not Reported
9999.9 Unknown

Definition: This element identifies the milepoint nearest to the location where the crash occurred.

## Remarks:

Refer to the remarks section under Roadway Function Class (C11) for the hierarchy of selecting the trafficway to be coded.

Code the Milepoint for the respective Trafficway Identifier (C13).
Obtained from the Police Accident Report (PAR) or from the State Highway Department. Code the actual Milepoint to the nearest .1 mile with decimal. Right justify if less than 5 digits. For example, if Milepoint is 10 , you must code "0010.0."

## 9999.8 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 9999.8 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

THIS PAGE INTENTIONALLY LEFT BLANK

## GLOBAL POSITION <br> (FARS Only)

FORMAT: 8 numeric, 9 numeric
SAS NAME: Accident.Latitude/Accident.Longitud

## ELEMENT VALUES:

Latitude (dd.mm.ss.ss) (degrees/minutes/seconds)
Longitude (ddd.mm.ss.ss) (degrees/minutes/seconds)
7s Not Reported
8s Not Available
9s Unknown
Definition: This element identifies the location of the crash using Global Position coordinates.

## Remarks:

"Global Position" refers to the geographic location of the crash. It is expressed in Degrees, Minutes and Seconds of Latitude; and Degrees, Minutes and Seconds of Longitude:

Latitude: dd mm ss.ss (Degrees/Minutes/Seconds) Longitude: ddd mm ss.ss (Degrees/Minutes/Seconds)

In some instances your source documents may display Longitude as a negative (-) number. You may disregard the minus (-) sign.

## Right-Justify Degrees and Minutes:

Note that Longitude Degrees can be up to three digits. Code Degrees less than three digits in the right-most positions and "0's" to the left. Code Latitude or Longitude Minutes less than two digits in the right-most position with "0's" to the left. Examples: Longitude " 77 degrees -7 minutes - no seconds" is coded 0770700.00 ; Longitude " 80 degrees - no minutes - no seconds" is coded 08000 00.00; Latitude " 30 degrees - one minute - 30 seconds" is coded 30 01 30.00.

## Latitude and Longitude Seconds:

Code the value of Latitude or Longitude Seconds to two significant places after the decimal. If the Latitude or Longitude Seconds precision is less than two decimal positions, enter "0's" in the right-most positions of Seconds. Always right-justify any data before the decimal point with added " 0 's" to the left (e.g., 5.1 seconds is 05.10 with no spaces before the decimal point).

## 7s (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 7s (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

9s (Unknown) is selected if the investigating officer reported that the global position of the crash was not known.

## FARS SPECIAL INSTRUCTION:

The state Police Accident Report (PAR) may include the geographic location in a format compatible with this element, or the State Highway Department may be able to provide it from a state Geographic Information System (GIS) or Global Positioning System (GPS).

A Geo-locator tool is available on the FARS microcomputer to assist generating latitude and longitude when they are not available through state sources.

If data is unknown, code all " 9 's." For example, if you are in a state that does record geographic location coordinates, but you don't have those coordinates, and the Geo-locator tool cannot provide the coordinates, the data is unknown.

Code the complete valid Latitude and Longitude, if available, if not blank and if not unknown. You must code valid Latitude or Longitude minutes and seconds when coding a valid value for Latitude or Longitude degrees. (For example: Latitude - 389999.99 is invalid.)

## GES SPECIAL INSTRUCTION:

This data element is only coded if it is present on the PAR and in Lat/Long format, otherwise code as Not Reported.

## Consistency Checks:

## IF

(G01P) STATE is ___ and GLOBAL POSITION - LATITUDE (degrees) is not equal to $77,88,99$,
(G02P) STATE is $\qquad$ , and GLOBAL POSITION - LATITUDE (degrees) equals (1d),

## THEN

LATITUDE (degrees) must be equal to, or greater than (1d) and LATITUDE (degrees) must not be greater than (2d).
LATITUDE (minutes) must be equal to, or greater than (1s).
(G03P) STATE is $\qquad$ , and GLOBAL POSITION - LATITUDE (degrees) equals (2d),
(G04P) STATE is and GLOBAL POSITION - LONGITUDE (degrees) is not equal to $777,888,999$,
(G05P) STATE is $\qquad$ , and GLOBAL POSITION - LONGITUDE (degrees) equals (3d),
(G06P) STATE is $\qquad$ , and GLOBAL POSITION - LONGITUDE (degrees) equals (4d),
(G07P) any part of GLOBAL POSITION LATITUDE (degrees, minutes or seconds) is all 8 's,
(G08P) any part of GLOBAL POSITION LONGITUDE (degrees, minutes or seconds) is all 8 's,
(G09P) any part of GLOBAL POSITION LATITUDE (degrees, minutes or seconds) is all 9's,
(G10P) any part of GLOBAL POSITION LONGITUDE (degrees, minutes or seconds) is all 9's,
(G11P) any part of GLOBAL POSITION LATITUDE (degrees, minutes or seconds) is blank,
(G12P) any part of GLOBAL POSITION LONGITUDE (degrees, minutes or seconds) is blank,
(GOAP) any part of GLOBAL POSITION LONGITUDE (degrees, minutes or seconds) is all 7's,
(GOBP) any part of GLOBAL POSITION LATITUDE (degrees, minutes or seconds) is all 7's,

## THEN

LATITUDE (minutes) must not be greater than (2s).

LONGITUDE (degrees) must be equal to, or greater than, (3d) and LONGITUDE (degrees) must not be greater than (4d).
LONGITUDE (minutes) must be equal to, or greater than (3s).

LONGITUDE (minutes) must not be greater than ( 4 s ).
all parts of LATITUDE must be all 8's.
all parts of LONGITUDE must be all 8's.
all parts of LATITUDE must be all 9's.
all parts of LONGITUDE must be all 9's.
all parts of LATITUDE must be blank.
all parts of LONGITUDE must be blank.
all parts of LONGITUDE must be all 7's.
all parts of LATITUDE must be all 7's.

## THIS PAGE INTENTIONALLY LEFT BLANK

## SPECIAL JURISDICTION <br> (FARS Only)

FORMAT: 1 numeric
SAS NAME: Accident.SP_JUR

## ELEMENT VALUES:

$0 \quad$ No Special Jurisdiction
1 National Park Service
2 Military
3 Indian Reservation
4 College/University Campus*
5 Other Federal Properties*
8 Other
9 Unknown

Definition: This element identifies if the location on the trafficway where the crash occurred qualifies as a Special Jurisdiction even though it may be patrolled by state, county or local police (e.g., all State highways running through Indian reservations are under the jurisdiction of the Indian reservation).

## Remarks:

Road must be under the regulation of Special Jurisdiction, although it may be patrolled by state, county or local police forces.

There is a difference between a National Park and National Forest. Only areas described as National Parks should be 1 (National Park Service). State parks should be coded as 8 (Other) and National Forests should be coded as 0 (No Special Jurisdiction).

State highways running through Indian Reservations must be coded as 3 (Indian Reservation).

* These values are unlikely occurrences and will raise an error flag.


## Consistency Checks:

## IF

(A180) ROADWAY FUNCTION CLASS equals 01, 11,
(A190) ROADWAY FUNCTION CLASS equals 12,

## THEN

SPECIAL JURISDICTION should not equal 1-5, 8, 9.
SPECIAL JURISDICTION should not equal 4.

## IF

(A280) ROUTE SIGNING equals 1,
(U010) UNLIKELY: SPECIAL JURISDICTION equals 4,5 .

## CRASH EVENTS

FORMAT: (Completed in MDE)
SAS NAME: (See Below)

## Remarks:

The Crash Events table records in chronological sequence, the set of events resulting from an unstabilized situation that constitutes a motor vehicle traffic crash. The "crash" is concluded in time when all events which originate from the unstabilized situation are stabilized. The Crash Events table is designed to provide a coded description of all qualifying events which occurred in the crash.

With this coded chronological sequence of qualified crash events, traffic safety analysts can review the entire series of events involving in-transport motor vehicles. Various areas of concern to the highway safety community can be easily assessed using this data. For instance, the injury severity in crashes can be assessed relative to the number and type of impacts involved. Likewise, certain collision configurations that may create a greater hazardous condition for the occupants can be identified. Other possible areas of analysis would be the mix of vehicles sizes or the types of objects the different classes of vehicles impact.

To complete the Crash Events table, each event for each vehicle is recorded in the order in which they occur, time-wise, based on the description of the crash from the crash report narrative, diagram or other relevant case materials. Crash Events includes both harmful and non-harmful events that occur in the crash. Recording of Crash Events ends at the last harmful event of the entire crash. Therefore, a non-harmful event (e.g., Crossing the Centerline) that occurs following the last harmful event of the crash will not be included.

The Crash Events table is completed based on the actions of the in-transport motor vehicle(s) in the case. Consequently, other involved traffic units (parked motor vehicle, pedestrian, etc.) are only identified in the events for the in-transport motor vehicle that contacted it. If the crash report includes an event that involves only not in-transport motor vehicles and/or nonmotorists, that specific event is not entered as an event in the coded crash sequence.

## Examples Include:

- Not in-transport vehicle impacts pedestrian, other not in-transport vehicle, or fixed object
- Pedestrian or pedalcyclist impacts an object, a not in-transport vehicle, other nonmotorist


## *Note: Data recorded in the Crash Events table is used to derive the following data elements:

1. First Harmful Event (FHE) - the first injury or damage producing event in each crash.
2. Areas of Impact / Initial (AOI/Initial) - the first Areas of Impact value for each vehicle
3. Sequence of Events (SOE) - all events (harmful and non-harmful) associated with each in-transport motor vehicle in the table.

## C17 Table Columns

| Vehicle | Areas of | Sequence of | Vehicle <br> Number <br> (This Vehicle) | Impact <br> (This Vehicle) |
| :--- | :--- | :--- | :--- | :--- |
| Events (SOE) | Areas of <br> Vehicle) (Other | Impact (Other <br> Vehicle) |  |  |

## EVENT NUMBER

FORMAT: (Completed in MDE)
SAS NAME: Cevent.EVENTNUM; Vevent.EVENTNUM

## ELEMENT VALUES:

001-999 Actual Number

## Remarks:

This is a computer assigned number beginning with '001.' The event number(s) show the chronological sequence of the qualifying harmful and non-harmful events in the crash.
Qualifying events are those which involve an in-transport motor vehicle or an object set in motion by an in-transport motor vehicle.

In the MDE system this will be the row position and not displayed as a column in the entry table.

## VEHICLE NUMBER (THIS VEHICLE)

FORMAT: (Completed in MDE)
SAS NAME: Cevent.VNUMBER1; Vevent.VNUMBER1

## ELEMENT VALUES:

001-999 Actual Number

## Remarks:

Enter the number of the in-transport motor vehicle associated with the event in the Sequence of Events column of the Crash Events Table. Vehicles are assigned the PAR's vehicle number unless a vehicle number from the PAR is not used in the case (e.g., non-contact vehicle). See Remarks under Sequence of Events element.

## AREAS OF IMPACT (THIS VEHICLE)

FORMAT: (Completed in MDE)
SAS NAME: Cevent.AOI1; Vevent.AOI1

## ELEMENT VALUES:*

00 Non-Collision
01-12 Clock Points
13 Top
14 Undercarriage
61 Left
62 Left-Front Side
63 Left-Back Side
81 Right
82 Right-Front Side
83 Right-Back Side
18 Cargo/Vehicle Parts Set-In-Motion
19 Other Objects Set-In-Motion
98 Not Reported
99 Unknown

## Remarks:

Identifies the contact point (if applicable) for the vehicle coded in Vehicle Number (This Vehicle) associated with this event. If the event is a Collision event, code the value that identifies the impact area or indicates this vehicle set an object in motion. If the event is a Non-Collision event, use $\mathbf{0 0}$ (Non-Collision). If the event is a Non-Harmful event, then skip entry of an Areas of Impact (This Vehicle) value for that event.
*See Vehicle Level data element Areas of Impact for attribute Remarks. The data element Areas of Impact Initial (AOI/Initial) is derived from the Crash Events Table and will always be the first recorded value for each vehicle in the table.

## SEQUENCE OF EVENTS

FORMAT: (Completed in MDE)
SAS NAME: Cevent.SOE; Vevent.SOE

## ELEMENT VALUES:

## Non-Harmful Events:

61 Equipment Failure (blown tire, brake failure, etc.)
62 Separation of Units
63 Ran Off Roadway-Right
64 Ran Off Roadway-Left
71 End Departure
65 Cross Median
68 Cross Centerline
66 Downhill Runaway
67 Vehicle Went Airborne
69 Re-entering Roadway
70 Jackknife (non-harmful)
60 Cargo/Equipment Loss or Shift (non-harmful)

## Non-Collision Harmful Events:

01 Rollover/Overturn
02 Fire/Explosion
03 Immersion or Partial Immersion
04 Gas Inhalation
51 Jackknife (harmful to this vehicle)
06 Injured in Vehicle (Non-Collision)
44 Pavement Surface Irregularity (Ruts, Potholes, Grates, etc.)
07 Other Non-Collision
72 Cargo/Equipment Loss or Shift (harmful to this vehicle)
16 Thrown or Falling Object
05 Fell/Jumped from Vehicle

## Collision with Motor Vehicle In-Transport:

12 Motor Vehicle In-Transport
54 Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-inMotion from/by Another Motor Vehicle In-Transport
55 Motor Vehicle In Motion Outside the Trafficway

## Collision with Object Not Fixed:

08 Pedestrian
09 Pedalcyclist
10 Railway Vehicle
11 Live Animal

49 Ridden Animal or Animal-Drawn Conveyance
18 Other Object (Not Fixed)
15 Non-Motorist on Personal Conveyance
14 Parked Motor Vehicle
45 Working Motor Vehicle
73 Object Fell From Motor Vehicle In-Transport

## Collision with Fixed Object:

17 Boulder
19 Building
58 Ground
20 Impact Attenuator/Crash Cushion
50 Bridge Overhead Structure
21 Bridge Pier or Support
23 Bridge Rail (Includes Parapet)
24 Guardrail Face
52 Guardrail End
25 Concrete Traffic Barrier
57 Cable Barrier
26 Other Traffic Barrier
59 Traffic Sign Support
46 Traffic Signal Support
30 Utility Pole/Light Support
31 Other Post, Other Pole or Other Supports
32 Culvert
33 Curb
34 Ditch
35 Embankment
38 Fence
39 Wall
40 Fire Hydrant
41 Shrubbery
42 Tree (Standing Only)
48 Snow Bank
53 Mail Box
43 Other Fixed Object
99 Unknown

## Remarks:

The event related to the motor vehicle in-transport identified in Vehicle Number (This Vehicle) as documented in the crash report narrative, diagram or other relevant case materials, regardless of injury or property damage.

## *See Sequence of Events element for Attribute Remarks

# VEHICLE NUMBER (OTHER VEHICLE) 

FORMAT: (Completed in MDE)
SAS NAME: Cevent.VNUMBER2; Vevent.VNUMBER2

## ELEMENT VALUES:

001-999 Actual Number

## Remarks:

This identifies the vehicle number of the vehicle contacted by the motor vehicle in-transport recorded in "Vehicle Number (This Vehicle)." This field is applicable only when the event is a collision between two motor vehicles (i.e., Sequence of Events codes 12, 54, 55, 14 or 45). If the event is not a collision between two motor vehicles, then Vehicle Number (Other Vehicle) is not applicable and left blank.

## AREAS OF IMPACT (OTHER VEHICLE)

FORMAT: (Completed in MDE)
SAS NAME: Cevent.AOI2; Vevent.AOI2

## ELEMENT VALUES:

00 Non-Collision
01-12 Clock Points
13 Top
14 Undercarriage
61 Left
62 Left-Front Side
63 Left-Back Side
81 Right
82 Right-Front Side
83 Right-Back Side
18 Cargo/Vehicle Parts Set-In-Motion
19 Other Objects Set-In-Motion
98 Not Reported
99 Unknown

## Remarks:

Identifies the contact point (if applicable) for the vehicle coded in "Vehicle Number (Other Vehicle)".

If the event is not a collision between two motor vehicles, then Areas of Impact (Other Vehicle) is not applicable and left blank.
*See Vehicle Level data element, Areas of Impact, for attribute Remarks. The data element Areas of Impact Initial (AOI/Initial) is derived from the Crash Events Table and will always be the first recorded value for each vehicle in the table.

## THIS PAGE INTENTIONALLY LEFT BLANK

## FIRST HARMFUL EVENT

FORMAT: 2 numeric
SAS NAME: Accident.HARM_EV; Vehicle.HARM_EV; Person.HARM_EV; parkwork.PHARM_EV

## ELEMENT VALUES:

## Non-Collision Harmful Events:

01 Rollover/Overturn
02 Fire/Explosion
03 Immersion or Partial Immersion
04 Gas Inhalation
51 Jackknife (harmful to this vehicle)
06 Injured in Vehicle (Non-Collision)
44 Pavement Surface Irregularity (Ruts, Potholes, Grates, etc.)
07 Other Non-Collision
16 Thrown or Falling Object
72 Cargo/Equipment Loss or Shift (harmful to this vehicle)
05 Fell/Jumped from Vehicle

## Collision with Motor Vehicle In-Transport:

12 Motor Vehicle In-Transport
54 Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-inMotion from/by Another Motor Vehicle In-Transport
55 Motor Vehicle In Motion Outside the Trafficway

## Collision with Object Not Fixed:

08 Pedestrian
09 Pedalcyclist
10 Railway Vehicle
11 Live Animal
49 Ridden Animal or Animal Drawn Conveyance
18 Other Object (Not Fixed)
15 Non-Motorist on Personal Conveyance
14 Parked Motor Vehicle
45 Working Motor Vehicle
73 Object Fell From Motor Vehicle In-Transport

## Collision with Fixed Object:

## 17 Boulder

19 Building
58 Ground
20 Impact Attenuator/Crash Cushion

50 Bridge Overhead Structure
21 Bridge Pier or Support
23 Bridge Rail (Includes Parapet)
24 Guardrail Face
52 Guardrail End
25 Concrete Traffic Barrier
57 Cable Barrier
26 Other Traffic Barrier
59 Traffic Sign Support
46 Traffic Signal Support
30 Utility Pole/Light Support
31 Other Post, Other Pole or Other Supports
32 Culvert
33 Curb
34 Ditch
35 Embankment
38 Fence
39 Wall
40 Fire Hydrant
41 Shrubbery
42 Tree (Standing Only)
48 Snow Bank
53 Mail Box
43 Other Fixed Object
99 Unknown
Definition: The First Harmful Event is defined as the first injury or damage producing event of the crash.

## Remarks:

Non-Collision events involving motorcycles and vehicles with a "load":
Non-Collision events may occur before or after a collision event. They should not be coded as a separate event if they occur as part of a collision event.

## Examples:

- A motorcycle strikes a deer, overturns and the rider becomes separated from the vehicle. Code the collision event, not the non-collision "Rollover/Overturn" and "Vehicle Occupant Fell from Vehicle" that occur as part of the collision event.
- One tractor/trailer rear-ends another tractor/trailer. The impact pushes the lead vehicle's load into the back of the tractor cab with part falling onto the roadway. Code the collision event, not the non-collision "cargo-loss or shift" that occurred as part of the collision event.

01 (Rollover/Overturn) is used when a motor vehicle rotates (rollover) at least one quarter turn onto its side or end. For motorcycles, laying the motorcycle down on its side is sufficient to code 01 (Rollover/Overturn) as a harmful event if damage or injury is produced, even though the data element Rollover is not applicable to motorcycles. $\mathbf{5 8}$ (Ground) is not to be entered when the harmful event is $\mathbf{0 1}$ (Rollover/Overturn).

If there is a 01 (Rollover/Overturn) that begins in another location but involves a ditch or embankment in the case (e.g., "rolled through the ditch", "rolled down the embankment", "came to rest against the embankment"), then the rule applies where if there is no damage associated with an impact with the fixed object during the rollover, it is not included in the Crash Events. If there is indication that damage resulted from an impact with the fixed object, it is included in the Crash Events. This follows the same logic as striking a tree or another vehicle during an overturn.

Note: For medium/heavy trucks with attached trailers by fixed linkage, when either the power unit or the trailer rolls over, the entire vehicle will be considered a rollover.

## GES SPECIAL INSTRUCTION:

For articulated light vehicles, that are not commercial do not code a 01 (Rollover/Overturn) if only the trailer portion of the combination overturns.

02 (Fire/Explosion) is used for a vehicle fire or explosion that occurs during the crash sequence or as a result of the crash.

As it pertains to the occurrence of 02 (Fire/Explosion), the crash circumstances are not considered stabilized until the threat of damage to this vehicle, or injury consequences to this vehicle's occupants, has ceased. Therefore, the crash sequence is not considered stabilized until all occupants have exited the vehicle and the scene has been declared safe by police or other authority. Fires that occur at a later time to vehicles abandoned at the scene (e.g., in open fields, on hillsides, etc.) or to vehicles removed from the scene to another location (tow yard, curbside, etc.) are not considered part of the crash sequence.

03 (Immersion or Partial Immersion) is used when an in-transport motor vehicle enters a body of water and results in injury or damage. This code would also be used if the vehicle came to rest in water and the depth cannot be ascertained from case materials. NOTE: In immersion fatalities the injury to the person may be noted as "drowning".
$\mathbf{0 4}$ (Gas Inhalation) includes injury or death as a result of toxic fumes, such as carbon monoxide fumes leaking from a motor vehicle in-transport.

51 (Jackknife [harmful to this vehicle]) applies to a condition that occurs to an articulated vehicle, (any vehicle with a trailing unit(s) connected by a hitch; e.g., truck tractor or single-unit truck with one or more trailers, articulated bus, car pulling a boat on a trailer, etc.) while in motion. The condition reflects a loss of control of the vehicle by the driver in which the trailer(s) yaws from its normal straight-line path behind the power unit, striking the power unit,
causing damage to the power unit or trailer. Jackknife should only be coded as a harmful event if there is clear indication of damage to the jackknifed vehicle or injury to its occupants caused by the jackknife.

06 (Injured in Vehicle [non-collision]) is used when an occupant is injured during an unstabilized situation without a collision, excluding cargo/equipment loss or shift. Examples: Driver slams on brake, causing an unrestrained passenger to be injured. Driver makes a sharp turn causing driver to strike head on side window, knocking driver unconscious.

44 (Pavement Surface Irregularity [ruts, potholes, grates, etc.]) is used when the pavement surface irregularity is on a roadway. If the impact is with a surface irregularity (e.g. ruts, potholes) not on a roadway use the 58 (Ground).

07 (Other Non-Collision). Non-collision not captured in the listed non-collision attributes.

## Example:

Damage to the vehicle produced by its own dislodged vehicle parts (including hood flying up and contacting the windshield).

16 (Thrown or Falling Object) is used when any object (1) is thrown (intentionally or unintentionally) and impacts an in-transport vehicle, or (2) falls onto, into, or in the path of an in-transport motor vehicle. If a tree limb falls from a tree and is contacted by a car, enter 16 (Thrown or Falling Object). If a person maliciously throws an object off an overpass into traffic below, enter 16 (Thrown or Falling Object). This excludes contacts made by loads or objects set in-motion by a motor vehicle (see 54 (Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-in-Motion from/by Another Motor Vehicle InTransport)).

72 (Cargo/Equipment Loss or Shift [harmful to this vehicle]) refers specifically to the loss or shift of items carried on or in a motor vehicle or its trailing unit, and not to the vehicle or trailing unit, itself. This attribute is only used when the injury- or damage-producing event in the crash is the loss or shift of cargo in/on a vehicle causing damage to that vehicle, its cargo, or injury to its occupants. This attribute should never be used to refer to a "collision" event (see 54 (Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-in-Motion from/by Another Motor Vehicle In-Transport)).

## Example:

A pickup truck brakes rapidly to avoid a collision. This causes a piece of lumber in the pickup bed to smash through the rear window.

05 (Fell/Jumped from Vehicle) is used when an occupant of this vehicle falls or jumps (not suicide) from the vehicle causing injury. For example, an occupant of a motor vehicle intransport leans against the car door, it opens and the occupant falls out; or a person riding on a vehicle's exterior (hood, roof, running board, etc.) falls or jumps, and is injured by the fall. If an occupant falls or jumps from a vehicle and is struck by that vehicle, use this attribute.

12 (Motor Vehicle In-Transport) is used when the injury- or damage-producing event is two motor vehicles in-transport making contact within the trafficway boundaries. In-transport means that the motor vehicle is in-motion or on the roadway portion of a trafficway.

54 (Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-inMotion from/by Another Motor Vehicle In-Transport) is used when the injury- or damageproducing event is two motor vehicles in-transport making contact by something set-in-motion by one of the vehicles. In these circumstances, both vehicles should have this attribute in their Sequence of Events. In crashes involving harmful events caused by objects set-in-motion by a Motor Vehicle in-transport, remember that a vehicle's load is considered part of the vehicle.

## Examples:

1. If cargo falls from a truck (in-transport) and strikes another motor vehicle in-transport, this is treated as a two-vehicle crash. Therefore, the proper attribute for both vehicles is 54 (Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-in-Motion from/by Another Motor Vehicle In-Transport).
2. If cargo falls from a truck (in-transport) and strikes another vehicle that is not intransport, this is also treated as a two-vehicle crash; however in this example, the proper attribute is $\mathbf{1 4}$ (Parked Motor Vehicle) or 45 (Working Motor Vehicle) depending on which type of not in-transport vehicle was contacted by the load.
3. If cargo falls from a truck (in-transport) and strikes a pedestrian, the proper attribute would be 08 (Pedestrian).

55 (Motor Vehicle in Motion Outside the Trafficway) is used when the injury- or damageproducing event is two motor vehicles in-transport making contact outside the trafficway boundaries in a motor vehicle traffic crash.

## Example:

A vehicle loses control attempting to turn into a gas station and strikes another vehicle pulling away from the pump in the station lot.

08 (Pedestrian) is used for all those not on a personal conveyance. A person pushing a vehicle should be coded 08 (Pedestrian). A person being carried by another person should also be considered a 08 (Pedestrian).

09 (Pedalcyclist) is used for any person on a non-motorized other road vehicle propelled by pedaling. Examples include a bicycle, tricycle, unicycle or pedal car.

10 (Railway Vehicle) is any land vehicle that is (1) designed primarily for, or in use for, moving persons or property from one place to another on rails and (2) not in use on a land way other than a railway.

Inclusions:

- Street car on private way


## Exclusions:

- Street car operating on trafficway

11 (Live Animal) is used for collisions with live animals (domesticated or wild) that are not themselves being used as transportation or to draw a wagon, cart or other transport device (see ANSI D16.1). Default to $\mathbf{1 1}$ (Live Animal) if it cannot be determined if the struck animal is alive, dead or if it was being ridden or drawing a transport device.

Use 49 (Ridden Animal or Animal-Drawn Conveyance) for ridden animals and animals drawing transport devices. See 18 (Other Object [Not Fixed]) for an animal carcass lying in the roadway.

18 (Other Object [Not Fixed]) is used when a motor vehicle in-transport strikes a nonfixed object that is known NOT to have been the cargo or part of another motor vehicle in-transport or when it is UNKNOWN whether the object was the cargo or part of another motor vehicle in-transport (i.e., refers to objects such as a dead body, animal carcass, construction cones or barrels, an unattached trailer, a bicycle without a rider or downed tree limbs or power lines.). For objects that have become separated from a motor vehicle in-transport, use attribute 73 (Objects Fell from Motor Vehicle In-Transport).

15 (Non-Motorist on Personal Conveyance) is used for pedestrians using personal conveyances. A personal conveyance is a device, other than a transport device, used by a pedestrian for personal mobility assistance or recreation. These devices can be motorized or human powered, but not propelled by pedaling.

## Inclusions:

1) Rideable toys

- Roller Skates, in-line skates
- Skateboards
- Skates
- Baby carriage
- Scooters
- Toy Wagons

2) Motorized rideable toys

- Motorized skateboard
- Motorized toy car

3) Devices for personal mobility assistance

- Segway-style devices
- Motorized and non-motorized wheelchair
- Handicapped scooters

Exclusions:

- Golf cart
- Low Speed Vehicles (LSVs)
- Go-carts
- Minibike
- "Pocket" motorcycles
- Motor scooters
- Moped

14 (Parked Motor Vehicle) is used when the impact occurred between a motor vehicle intransport and a motor vehicle neither on a roadway nor in motion. A vehicle stopped off the roadway, its door open over a roadway, is not in-transport.

45 (Working Motor Vehicle) is used to indicate the motor vehicle contacted was in the act of performing construction, maintenance or utility work related to the trafficway when it became an involved unit. This "work" may be located within open or closed portions of the trafficway and motor vehicles performing these activities can be within or outside the trafficway boundaries. This code does not include private construction/maintenance vehicles, or vehicles such as garbage trucks, delivery trucks, taxis, emergency vehicles, tow trucks, etc.

## Examples:

1. Asphalt/steam roller working in a highway construction zone paving the roadway or flattening dirt.
2. State highway maintenance crew painting lane lines on the road, mowing grass on the roadside or median, repairing potholes, removing debris from the roadway, etc.
3. Utility truck or a "cherry picker", performing maintenance on power lines along the roadway or maintaining a traffic signal.
4. A private excavating company contracted by the State digging the foundation for a new overpass.
5. A state, county or privately owned snow plow, plowing ice/snow as part of a highway maintenance activity.
6. Street sweeper sweeping the street.
7. A vehicle in a mobile work convoy displaying arrow boards or other signaling devices warning motorists of the work activity.
8. A law enforcement vehicle which is participating strictly in a stationary construction or mobile maintenance activity as a traffic slowing, control, signaling or calming influence.

NOTE: Before 2004, this code was called Transport Device Used as Equipment. It included other working activities in addition to construction, maintenance and utility work on trafficways. From 2004 forward, code " 45 " excludes working activities other than highway construction, maintenance or utility vehicles (e.g., garbage truck picking up trash, mail/delivery trucks while making deliveries, personal vehicles plowing snow, etc. These are considered motor vehicles In-transport). Use Related Factors-Vehicle Level 42 (Other Working Vehicle [Not Construction, Maintenance, Utility, Police, Fire, or EMS Vehicle]) to identify these vehicles.

A question may arise when a police, fire or emergency medical vehicle is struck on the roadway while at the scene of a crash, at a traffic stop, or as traffic control. The question becomes, "has its function changed from being a motor vehicle in-transport to a working vehicle?" The answer is "no." Treat these situations as a motor vehicle in-transport striking another motor vehicle in-transport. Use Related Factors-Vehicle Level 41 (Police, Fire, or EMS Vehicle Working at the Scene of an Emergency or Performing Other Traffic Control Activities) to identify that this vehicle was struck while performing these work activities.

73 (Object Fell From Motor Vehicle In-Transport) is used when a motor vehicle intransport impacts a non-fixed object at rest that is known to have been the cargo or part of another motor vehicle in-transport.

## Collision with Fixed Object

The attributes 58 (Ground), 33 (Curb), 34 (Ditch) and 35 (Embankment) are grouped under the Collision w/ Fixed Object subset because they are intended to be harmful events in the crash (i.e. - they are associated with an impact that produces injury or damage). If there is no indication of damage from contact with the fixed object (e.g., "came to rest on the embankment" or "ran into the ditch"), then it is not included in the Crash Events.

17 (Boulder) is a rock of sufficient mass that when struck by a motor vehicle moves very little and remains basically intact. It may be considered as a fixed object.

19 (Building) is used when the vehicle impacts a roofed and walled structure built for permanent use. The type of construction material used is not of interest, nor is the use of the building.

58 (Ground) is used when the impact is with an earthen or paved surface off of the roadway. 58 (Ground) is not to be entered when the harmful event is 01 (Rollover/Overturn).

20 (Impact Attenuator/Crash Cushion) is a device for controlling the absorption of energy released during vehicle collision (crash cushion). Its most common application involves the protection of fixed roadside objects such as bridge piers, elevated gores at exit ramps, etc. Examples include barrels filled with water or sand, and plastic collapsible structures.

50 (Bridge Overhead Structure) is used when striking the bottom of a bridge while traveling on a trafficway underneath it.

21 (Bridge Pier or Support) is a square or round column of stone, concrete, brick, steel or wood for supporting a bridge between abutments. This attribute includes the bridge abutments which are supporting the ends of a bridge. Abutments are generally designed for retaining or supporting the embankment under bridge ends and composed of stone, concrete, brick or wood (includes the wing-walls).

23 (Bridge Rail [Includes Parapet]) is a wooden, brick, stone, concrete or metal fence-like structure which runs along the outer]ไmost edge of the roadway or sidewalk on the bridge or a rail constructed along the top of a parapet. Balustrade is often used synonymously with parapet.

- Bridges do not need to support another roadway. It may be an overpass for a train or even for a viaduct (water conduit).

24 (Guardrail Face) is a low barrier that has the primary longitudinal structure composed of metal (plates, mesh, box beam, etc.). A guardrail is differentiated from 25 (Concrete Traffic Barrier) by the material making up the greatest part of the longitudinal portion of the structure. In the case of guardrails, this is metal whereas in concrete barriers this is concrete (including concrete rails). If the crash report does not differentiate between guardrail face and end, default to guardrail face.

Guardrails, which serve as bridge rails, should be coded as 23 (Bridge Rails [includes Parapet]).

52 (Guardrail End) is used if a vehicle strikes the end of a guardrail. Guardrails can have a separate flat or rounded piece of metal attached to the end of an expanse of guardrail face.

## BRIDGE COMPONENTS



25 (Concrete Traffic Barrier) refers to the longitudinal traffic barriers constructed of concrete.
This includes all temporary concrete barriers regardless of location (i.e., temporary Jersey Barrier on a bridge being used to control traffic during bridge repair/construction). Concrete walls (vertical side surfaces) do not apply here; see 39 (Wall).

57 (Cable Barrier) refers to a flexible barrier system which uses several cables typically supported by steel posts. These barriers are designed to help lessen impact or keep vehicles within the confines of the road.

26 (Other Traffic Barrier) is used for all other longitudinal barriers such as wood or rock and unknown barrier composition type.

59 (Traffic Sign Support) is used when the post supporting a traffic sign, or the sign itself, is hit by a motor vehicle in-transport. This includes mile marker posts and signs above the trafficway.

46 (Traffic Signal Support) is used when the post supporting a traffic signal, or the signal itself, is hit by a motor vehicle in-transport.

30 (Utility Pole/Light Support) refers to supports for highway lighting systems, not including other private lighting systems (e.g., parking lot lights). 30 (Utility Pole/Light Support) is used for electrical, telephone, cable \& other utility pole-type supports.

31 (Other Post, Other Pole or Other Supports) is used for posts other than highway signs. (e.g., reflectors on poles along side of roadway, parking meters, flag poles, etc.). For mail box posts, use 53 (Mail Box).

32 (Culvert) is a man-made drain or channel crossing under a road, sidewalk, etc.
33 (Curb) is a concrete or asphalt structure that borders the roadway. It provides drainage control and pavement edge delineation. The face of the curb may be sloped or vertical. Ensure that the PAR provides some indication that damage has occurred when a vehicle strikes a curb.

34 (Ditch) includes any man-made structure for drainage purposes. A ditch ends where a culvert begins and resumes on the opposite side of the culvert. Reference to a "ditchbank", "embankment of the ditch", or "ditch embankment" should be coded under 34 (Ditch).

35 (Embankment) is a raised structure to hold back water, to carry a roadway or the result of excavation or washout (including erosion) which may be faced with earth (or rock, stone or concrete). A 35 (Embankment) can usually be differentiated from a 39 (Wall) by its incline whereas a wall is usually vertical. However, there are exceptions to this; such as a retaining wall that may be inclined or a vertical embankment that is caused by a natural event such as a washout.

In crashes involving a field approach or crossing, if in doubt about when to use 32 (Culvert), 34 (Ditch) or 35 (Embankment) use the following criteria:
a. Use 34 (Ditch) if the driver would not have been able to recover from the ditch even if there had been no field approach (crossing).
b. Use 35 (Embankment) if the driver would have been able to recover from the ditch, but struck the field approach (crossing) prior to doing so.
c. Use 35 (Embankment) if it is not known whether or not the driver would have been able to recover from the ditch and a field approach (crossing) is involved.
d. Use 32 (Culvert) if it is specifically indicated that the vehicle struck a culvert in the field approach.

38 (Fence) includes the fence posts. A Fence can be made of wood, chain link, stone, etc
39 (Wall) is a primarily vertical structure composed of concrete, metal, timber or stone which is not part of a building or a fence but typically is used for retaining earth, abating noise, and separating areas (but not for containment as in the primary function of a fence). Also included as 39 (Wall) is headwalls (or endwalls) that are sometimes provided on culvert ends principally to protect the sides of the embankment around the culvert opening against erosion. This does
not include wing-walls, which are attached to ends of bridge abutments and extend back at an angle from the roadway. Wingwalls should be coded as 21 (Bridge Pier or Support).

40 (Fire Hydrant) refers to the roadside device used by fire departments to provide water for fighting fires. Usually made of steel, these devices are also referred to as fire plugs or fire stand pipes in some areas.

41 (Shrubbery) refers to vegetation which is usually of a woody multi-stemmed variety and in most instances is low growing rather than tall. May also be called bushes. Some common examples are boxwood, hawthorn and mountain laurel.

42 (Tree [Standing Only]) is used when a vehicle strikes a standing tree. This includes impacts from overhanging branches or tree stumps. If a vehicle strikes a tree lying in the roadway, use 18 (Other Object [Not Fixed]). If a tree falls on a vehicle as it is passing by, use 16 (Thrown or Falling Object).

48 (Snow Bank) is used when snowfall and/or road plowing creates essentially fixed barriers of snow/ice which are not snow-covered earth or rock embankments.

53 (Mail Box) refers to a private residence mail/newspaper box including the post. A cluster of private mailboxes is included in this attribute. This element does not include U.S. Mailbox, which are typically blue and are for general public use. Code a U.S. Mailbox as 43 (Other Fixed Object).

43 (Other Fixed Object) is used when the object is fixed (considered a permanent structure) and is not described by any of the other fixed object attributes.

## Examples:

- Bus shelters
- Pedestrian walkways
- Toll booths
- Guy wires supporting utility poles
- U. S. Mailbox for public use

Other examples would include property damage to standing crops, yards and other vegetation (excluding: 41 (Shrubbery), 42 (Tree [Standing Only]), and 58 (Ground)) if noted on the crash report.

99 (Unknown) is used when police indicate unknown.

## Consistency Checks:

IF
(42CP) there are two vehicles involved in the FIRST HARMFUL EVENT,
(440F) FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 01,
(450F) FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 07,
(460F) FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 02,
(470F) FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 03, 08, 10,
(480F) FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 04, 06,
(490F) FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 05,
(500F) FIRST HARMFUL EVENT equals 01-11, 14-21, 23-26, 30-35, 44-53, 57-59, 72, 73,
(510F) FIRST HARMFUL EVENT equals 12, 54, 55,
(520F) FIRST HARMFUL EVENT equals 10,
(530F) FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 99,

## THEN

those two vehicles' CRASH TYPES must belong to the same CRASH TYPE Configuration.
there must be at least one Person Level (Not a MV Occupant) form with NONMOTORIST LOCATION AT TIME OF CRASH equal to 01-03, 09-11, 13, 16, 23, 98 or 99.
there must be at least one Person Level (Not a MV Occupant) form with NONMOTORIST LOCATION AT TIME OF CRASH equal to 14.
there must be at least one Person Level (Not a MV Occupant) form with NONMOTORIST LOCATION AT TIME OF CRASH equal to 02, 20.
there must be at least one Person Level (Not a MV Occupant) form with NONMOTORIST LOCATION AT TIME OF CRASH equal to 20, 22, 98, 99. there must be at least one Person Level (Not a MV Occupant) form with NONMOTORIST LOCATION AT TIME OF CRASH equal to $09,16,20,21,24,25$, 28, 98, 99.
there must be at least one Person Level (Not a MV Occupant) form with NONMOTORIST LOCATION AT TIME OF CRASH equal to 24, 25. MANNER OF COLLISION must not equal 01, 02, 06-11, 98, 99.

MANNER OF COLLISION must not equal 00.
TRAFFIC CONTROL DEVICE must not equal 01-04, 07-09, 20-50, 98 for the vehicle involved in the first harmful event.
there must be at least one Person Level (Not a MV Occupant) form with NONMOTORIST LOCATION AT TIME OF CRASH equal to 09, 98, 99.

## THEN

(531F) FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 11,
(540F) FIRST HARMFUL EVENT equals 02,

FIRST HARMFUL EVENT equals 08,
(560F) FIRST HARMFUL EVENT equals 09,
(570F) FIRST HARMFUL EVENT equals 05, 06,
(580F) FIRST HARMFUL EVENT equals 14, and RELATED FACTORS - PERSON (MV OCCUPANT) LEVEL does not equal 32, 89 for at least one occupant in the not in-transport motor vehicle involved in the first harmful event,
(590F) FIRST HARMFUL EVENT equals 15,
(5YOF) FIRST HARMFUL EVENT equals 08, 09, 15,
(670F) FIRST HARMFUL EVENT equals 12, 14, 45, 54, 55,
(9C0P) FIRST HARMFUL EVENT equals 55,
(A080) DRIVER PRESENCE equals 0, and FIRST HARMFUL EVENT equals 12, and NUMBER OF VEHICLE FORMS SUBMITTED equals 002,
(A100) FIRST HARMFUL EVENT is not equal to $02,04,05,10,16,18$,
(A110) FIRST HARMFUL EVENT equals 10,
(A350) ROUTE SIGNING equals 1,
(A370) FIRST HARMFUL EVENT equals 99,
there must be at least one Person Level (Not a MV Occupant) form with NONMOTORIST LOCATION AT TIME OF CRASH equal to 11.
the vehicle involved in the first
harmful event must have FIRE OCCURRENCE equal to 1.
at least one person must have PERSON
TYPE equal 05, 10.
at least one person must have PERSON TYPE equal to 06, 07.
at least one PERSON TYPE equal to 01-03, 09 must have INJURY
SEVERITY equal to 1-5 or blank.
RELATION TO TRAFFICWAY should not equal 01.
at least one Person Level form must have a PERSON TYPE of 08.
NUMBER OF FORMS SUBMITTED FOR PERSONS NOT IN MOTOR VEHICLES must not equal 00. NUMBER OF VEHICLE FORMS SUBMITTED must be greater than 001. there must be at least one vehicle with UNIT TYPE equal to 1.
one RELATED FACTORS-DRIVER LEVEL should equal 20.
there should be one vehicle with
TRAVEL SPEED of 001-151, 997-999, or blanks.
ROADWAY FUNCTION CLASS should not equal 01, 11, 12.
FIRST HARMFUL EVENT should not equal 10.
MANNER OF COLLISION should not equal 00, 01-11.

IF
(A380) FIRST HARMFUL EVENT equals 01 and this vehicle is involved in the first harmful event, and BODY TYPE does not equal 80-89 for this vehicle, and RELATION TO TRAFFICWAY equals
(A390) $\overline{\text { FIRST }}$ HARMFUL EVENT equals 17, 19-21, 23-26, 30-35, 38-43, 52, 53, 57,
(A3C0) FIRST HARMFUL EVENT equals 02-07,16, 44, 51, 72,
(A3D0) FIRST HARMFUL EVENT equals 01-07, 16, 44, 51, 72,
(A3E0) CRASH TYPE equals 13,
(A420) FIRST HARMFUL EVENT equals 10,
(A480) CRASH TYPE equals 00,
(A4A0) CRASH TYPE equals 01-16,
(A4BP) FIRST HARMFUL EVENT equals 54 or 55 ,
(A4DP) CRASH TYPE equals 20-91,
(A60F) FIRST HARMFUL EVENT equals 14, and RELATED FACTORS - PERSON (MV OCCUPANT) LEVEL equals 32, 89 for all occupants of the not intransport motor vehicle involved in the first harmful event,
(A61F) FIRST HARMFUL EVENT equals 08, 09, 11, 15, 49, and RELATION TO TRAFFICWAY equals 01, 02, 07, 11, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) is not equal to 00, 13 for the vehicle involved in the first harmful event,

## THEN

LOCATION OF ROLLOVER should equal $\qquad$ respectively.

RELATION TO TRAFFICWAY should not equal 01, 02, 07, 11.

CRASH TYPE must equal 00 for the vehicle involved in the first harmful event.
CRASH TYPE must not equal 20-91.
FIRST HARMFUL EVENT must equal $08,09,11,15$ or 49.
RELATION TO JUNCTION (b) should equal 06.
FIRST HARMFUL EVENT must equal 02-07, 16, 44, 51, 72.
FIRST HARMFUL EVENT must not equal 12.
CRASH TYPE must equal 98 for the vehicles involved in the first harmful event.
FIRST HARMFUL EVENT must equal 12.

CRASH TYPE should equal 01-11, 92, 98, 99 for the in-transport vehicle involved in the first harmful event.

CRASH TYPE should equal 13 for the vehicle involved in the first harmful event.
(A61G) the FIRST HARMFUL EVENT equals 08, and PERSON TYPE equals 05, and NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21, 22, 24, 25, 28, and the NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST is involved in the first harmful event,
(A61H) the FIRST HARMFUL EVENT equals 09, and PERSON TYPE equals 06, 07, and NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21, 22, 24, 25, 28, and the NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST is involved in the first harmful event,
(A61J) the FIRST HARMFUL EVENT equals 15, and PERSON TYPE equals 08, and NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21, 22, 24, 25, 28, and the NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST is involved in the first harmful event,
(A61K) the FIRST HARMFUL EVENT equals 49, and PERSON TYPE equals 04, and NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21, 22, 24, 25, 28, and the NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST is involved in the first harmful event,
(A62F) FIRST HARMFUL EVENT equals 18 or 43, 73, and RELATION TO TRAFFICWAY equals 01 or 11,
(A63F) FIRST HARMFUL EVENT equals 01,

THEN
CRASH TYPE should not equal 13 for this vehicle.

CRASH TYPE should not equal 13 for this vehicle.

CRASH TYPE should not equal 13 for this vehicle.

CRASH TYPE should not equal 13 for this vehicle.

CRASH TYPE should equal 12 or 15 for the vehicle involved in the first harmful event.
CRASH TYPE should equal 01-10, 98,99 for the vehicle involved in the first harmful event.
TRAFFIC CONTROL DEVICE should equal 01-04 for the vehicle involved in the first harmful event.
(A780) FIRST HARMFUL EVENT equals 46,
(A790) FIRST HARMFUL EVENT equals 46,
(A800) FIRST HARMFUL EVENT equals 46,
(A810) FIRST HARMFUL EVENT equals 46, and RELATION TO JUNCTION (a) equals 1, and RELATION TO JUNCTION (b) does not equal 02, 03, 05 ,
(A820) FIRST HARMFUL EVENT equals 46, and RELATION TO JUNCTION (a) equals 1, and RELATION TO JUNCTION (b) does not equal 02, 03, 05 ,
(A830) FIRST HARMFUL EVENT equals 46,
(AC1A) FIRST HARMFUL EVENT equals 54,
(AM1P) FIRST HARMFUL EVENT equals 54 or 73, or SEQUENCE OF EVENTS equals $54, \mathbf{7 3}$ for any vehicle,
(FAOF) FIRST HARMFUL EVENT equals blank, case status is flawed.
(PB34) NUMBER OF FORMS SUBMITTED FOR PERSONS NOT IN MOTOR VEHICLES equals 01, and FIRST HARMFUL EVENT equals 08, and RELATION TO JUNCTION (b) equals 02 ,
(PB35) NUMBER OF FORMS SUBMITTED FOR PERSONS NOT IN MOTOR VEHICLES equals 01, and FIRST HARMFUL EVENT equals 08, and RELATION TO JUNCTION (b) equals 02,
(U020) UNLIKELY: FIRST HARMFUL EVENT equals 02, 04, 06, 51, 72.
(U030) UNLIKELY: FIRST HARMFUL EVENT equals 12, 55, and MANNER OF COLLISION equals 10, 11.
(U640) UNLIKELY: FIRST HARMFUL EVENT equals 99.

IF
THEN
(V750) UNDERRIDE/OVERRIDE equals 1-3,
(V760) UNDERRIDE/OVERRIDE equals 4-6,
(V79P) ROLLOVER equals 2 , and FIRST HARMFUL EVENT equals 01,

FIRST HARMFUL EVENT or at least vehicle) should equal 12, 55.
FIRST HARMFUL EVENT or at least vehicle) should equal 14, 45. one SEQUENCE OF EVENTS (for this one SEQUENCE OF EVENTS (for this CRASH TYPE must equal 01-10, 14, 15 or 98 for the vehicle involved in the first harmful event.

## Consistency Check (GES Only):

IF
(A3K0) FIRST HARMFUL EVENT equals 10,

## THEN

INTERSTATE HIGHWAY should not equal 1.

## THIS PAGE INTENTIONALLY LEFT BLANK

## MANNER OF COLLISION

FORMAT: 2 numeric
SAS NAME: Accident.MAN_COLL; Vehicle.MAN_COLL; Person.MAN_COLL; parkwork.PMAN_COLL

## ELEMENT VALUES:

00 Not a Collision with a Motor Vehicle In-Transport
01 Front-to-Rear
02 Front-to-Front
06 Angle
07 Sideswipe-Same Direction
08 Sideswipe-Opposite Direction
09 Rear-to-Side
10 Rear-to-Rear
11 Other
98 Not Reported
99 Unknown
Definition: This element identifies the orientation of two motor vehicles in-transport when they are involved in the First Harmful Event of a collision crash. If the First Harmful Event is not a collision between two motor vehicles in-transport it is classified as such.

## Remarks:

00 (Not Collision with a Motor Vehicle In-Transport) is used when the first harmful event is not an impact between two in-transport motor vehicles.

01 (Front-to-Rear) is used when a collision occurs between the rear of one vehicle and the front of another vehicle. If this attribute is selected, the points of impact for the vehicles involved in the first harmful event must be front to back.

02 (Front-to-Front) is used when a collision occurs between the front end of one vehicle and the front end of another vehicle. If this attribute is selected, the points of impact for the vehicles involved in the first harmful event must both be front.

06 (Angle) is a crash where two motor vehicles impact at an angle. For example, the front of one motor vehicle impacts the side of another motor vehicle. If this attribute is selected, the points of impact for the vehicles involved in the first harmful event must not be front to front, front to back, back to back or back to side.

07 (Sideswipe - Same Direction) is used when the case materials report that a sideswipe occurred while the two vehicles were traveling in the same direction.

## Clarification for coding sideswipe attributes 07 and 08:

Sideswipe codes are used for both vehicles when the initial engagement has no significant involvement of the front or rear surface areas where the impact swipes along the side surfaces of the vehicles parallel to their direction of travel. If it is unclear if the collision was an angle or a sideswipe, then code it 06 (Angle). Endswipes and side-to-side angle impacts are coded as 11 (Other). (See diagram below.)


08 (Sideswipe - Opposite Direction) is used when the case materials report that a sideswipe occurred while the two vehicles were traveling in opposite directions.

09 (Rear-To-Side) is used when a collision occurs between the rear of one vehicle and the side of another vehicle. If this attribute is selected, the points of impact for the vehicles involved in the first harmful event must back for one and side for the other.

10 (Rear-To-Rear) is used when a collision occurs between the rear of one vehicle and the rear of another vehicle. If this attribute is selected, the points of impact for the vehicles involved in the first harmful event must both be back.

11 (Other) should be used for any collision between two motor vehicles in-transport where the collision is not described by attributes "01-10," including set-in-motion situations.

## Examples include:

- One vehicle's "end" swipes (endswipe) another vehicle instead of their "sides" swiping.
- One vehicle slides into another vehicle at an angle such that they impact side-to-side.
- One vehicle is airborne and makes contact with its front or undercarriage to the other vehicle's hood or top.
- Cargo or other load on one motor vehicle in-transport shifts and lands or is thrown into/onto another vehicle.
- The tire of one motor vehicle in-transport throws a stone through the windshield of another vehicle.
- A vehicle occupant or motorcyclist falls or is thrown from a vehicle striking or is struck by another vehicle.


## 98 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 98 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

99 (Unknown) is used when police indicate unknown.

## Consistency Checks:

## IF

(420P) MANNER OF COLLISION equals 07,08,
(421P) MANNER OF COLLISION equals 01,
(422P) MANNER OF COLLISION equals 02,

## THEN

there must be at least two vehicle forms with AREAS OF IMPACT-INITIAL CONTACT POINT equal to 01-05, 07-11, 61-63, 81-83, 98, 99.
AREAS OF IMPACT-INITIAL CONTACT POINT for one vehicle in the first harmful event must equal 12, and AREAS OF IMPACT-INITIAL CONTACT POINT for the other vehicle in the first harmful event must equal 06.
AREAS OF IMPACT-INITIAL CONTACT POINT for one vehicle in the first harmful event must equal 12, and AREAS OF IMPACT- INITIAL CONTACT POINT for the other vehicle in the first harmful event must equal 12.

IF
(423P) MANNER OF COLLISION equals 06,
(424P) MANNER OF COLLISION equals 09,
(425P) MANNER OF COLLISION equals 10,
(426P) MANNER OF COLLISION equals 02,
(427P) MANNER OF COLLISION equals 06,
(500F) FIRST HARMFUL EVENT equals 01-11, 14-21, 23-26, 30-35, 44-53, 57-59, 72, 73,
(510F) FIRST HARMFUL EVENT equals 12, 54, 55,
(9BAP) MANNER OF COLLISION equals 07, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 10 or 11 for neither one of the vehicles involved in the first harmful event,
(9BCP) MANNER OF COLLISION equals 08, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF
CRITICAL EVENT) equals 10 or 11 for neither one of the vehicles involved in the first harmful event,

THEN
AREAS OF IMPACT-INITIAL CONTACT POINT for one vehicle in the first harmful event must equal 01, 11, 12, 98, 99, and AREAS OF IMPACT-INITIAL CONTACT POINT for the other vehicle in the first harmful event must equal 01-05, 07-11, 61-63, 81-83 98, 99.
AREAS OF IMPACT-INITIAL CONTACT
POINT for one vehicle in the first harmful event should equal 06, and AREAS OF IMPACT-INITIAL CONTACT POINT for the other vehicle in the first harmful event should equal 01-05, 07-11, 61-63, 81-83, 98, 99.
AREAS OF IMPACT- INITIAL
CONTACT POINT for one vehicle in the first harmful event should equal 06, and AREAS OF IMPACT- INITIAL
CONTACT POINT for the other vehicle in the first harmful event should equal 06, 98, 99.
CRASH TYPE must not equal 64-67 for the vehicles involved in the first harmful event.
CRASH TYPE must not equal 20-43 or 50-53 for the vehicles involved in the first harmful event.
MANNER OF COLLISION must not equal 01, 02, 06-11, 98, 99.

MANNER OF COLLISION must not equal 00.
CRASH TYPE should equal 44-49, 98, 99 for the vehicles involved in the first harmful event.

CRASH TYPE should equal 64-67, 98, 99 for the vehicles involved in the first harmful event.

## THEN

(9BDP) MANNER OF COLLISION equals 01,
CRASH TYPE should not equal 44-49 for the vehicles involved in the first harmful event.
(A370) FIRST HARMFUL EVENT equals 99, MANNER OF COLLISION should not equal 00, 01-11.
(AC1A) FIRST HARMFUL EVENT equals 54, MANNER OF COLLISION should equal 11.
(BZ80) MANNER OF COLLISION equals 00, CRASH TYPE must equal 00, 01-16, 92, 98, 99 for the vehicle in the first harmful event.
(U030) UNLIKELY: FIRST HARMFUL EVENT equals 12, 55, and MANNER OF COLLISION equals 10, 11.

THIS PAGE INTENTIONALLY LEFT BLANK

## RELATION TO JUNCTION

FORMAT: 1 numeric occurring 1 time, 2 numeric occurring 1 time
SAS NAME: Accident.RelJct1, Accident.RelJct2

## ELEMENT VALUES:

## C20a: Within Interchange Area?

0
1
8
9

C20b: Specific Location
Non-Junction
Intersection
Intersection-Related
Entrance/Exit Ramp Related
Entrance/Exit Ramp
Railway Grade Crossing
Crossover-Related
Driveway Access
Driveway Access Related
Shared-Use Path or Trail
Acceleration/Deceleration Lane
Through Roadway
Other location within interchange area
Not Reported
Unknown
Definition: The coding of this data element is done in two subfields and based on the location of the first harmful event of the crash. It identifies the crash's location with respect to presence in an interchange area and the crash's location with respect to presence in or proximity to components typically in junction or interchange areas.

## Remarks:

## Subfield 1 (C20a): Within Interchange Area?

Interchange: An interchange is a system of interconnecting roadways in conjunction with one or more grade separations, providing for the movement of traffic between two or more roadways on different levels.
$\mathbf{O}$ (No) is used if the first harmful event of the crash occurs outside of the boundaries of an interchange.
$\mathbf{1}$ (Yes) is used if the location of the first harmful event of the crash is within an interchange area.

## 8 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 8 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

9 (Unknown) is used when police indicate unknown.

## Subfield 2 (C20b): Specific Location

01 (Non-Junction) is used for crashes where the first harmful event occurs outside an interchange area and does not occur in or related to a junction, ramp, rail grade crossing, crossover, or shared-use path or trail. This attribute includes crashes that occur on a parking lot way (access road) at the connection of a parking aisle. (See diagram at the end of the remarks section for this element.)

02 (Intersection) is used when the first harmful event occurs in an area which: (1) contains a crossing or connection of two or more roadways not classified as a driveway access, and (2) is embraced within the prolongation of the lateral curb lines or, if none, the lateral boundary lines of the roadways. Where the distance along a roadway between two areas meeting these criteria is less than 10 meters, the two areas and the roadway connecting them are considered to be parts of a single intersection. See the examples of intersections on the following pages.

## FARS SPECIAL INSTRUCTION:

In an Intersection, within Interchange Area: if the first harmful event occurs within the intersection of a ramp and the surface roadway: It is important to always code National Highway System and Roadway Function Class for the highest class of trafficway at this intersection.

03 (Intersection-Related) means that the first harmful event: (1) occurs on an approach to or exit from an intersection and (2) results from an activity, behavior or control related to the movement of traffic units through the intersection.

## Note:

- For crashes where the first harmful event occurs in a crosswalk at an intersection area, use 03 (Intersection-Related).
- For Traffic Circles and Roundabouts, enter 02 (Intersection) when the first harmful event occurs within the area formed by the prolongation of curb or edge lines of the approach legs of the intersection, regardless of whether or not the collision was in any way related to an intersection. Use 03 (Intersection-Related) if the first harmful event occurs in the central island or any directional island which serves the rotary intersection.

05 (Entrance/Exit Ramp Related) is used when the first harmful event occurs off the entrancelexit ramp roadway, but is related to the use of or entry onto the ramp.

Note: If the first harmful event occurs on the ramp outside of an intersection of the ramp and the surface roadway and is related to the movement of traffic through the intersection then use 03 (Intersection-Related).

20 (Entrance/Exit Ramp) is used when the first harmful event occurs on an entrance or exit ramp roadway and is not the result of an activity, behavior or control related to the movement of traffic units through an intersection. This would include all the areas between the gore and entrance/exit ramp intersection.

06 (Railway Grade Crossing) is used when the first harmful event occurred in the area formed by the at-grade connection of a railroad bed and a roadway. Crashes occurring outside a railway grade crossing due to traffic congestion associated with a railway grade crossing are considered non-junction.

07 (Crossover-Related) is used when the first harmful event occurs in a crossover or on approach to or exit from a crossover and related to the use of the crossover.

Note: A crossover is the area of the median of a divided trafficway where motor vehicles are permitted to cross the opposing lane or traffic or execute a U-turn.

04 (Driveway Access) is used when the first harmful event occurs:

1. on a driveway access (See ANSI D16.1 Manual 2.5.9)
2. or involves a road vehicle entering or leaving by way of a driveway access where at least one traffic unit (vehicle, pedalcyclist or pedestrian) is physically on the driveway access within the trafficway.

This attribute includes crashes occurring on sidewalks within the driveway access.

## Examples:

- A car turning into a private residence driveway strikes a bicyclist riding on the sidewalk that crosses over the driveway access.
- A tractor trailer backing out of a business entrance onto the trafficway, while partially on the driveway access, is struck by a car on the roadway.

08 (Driveway Access Related) is used when the first harmful event:

1. occurs on the trafficway,
2. does not occur on a 04 (Driveway Access), but
3. results from an activity, behavior or control related to the movement of traffic units onto or out of a driveway (See ANSI D16.1 Manual 2.5.9.1).

## Examples:

- A vehicle attempting to turn left into a driveway from the eastbound lanes is struck broadside by another vehicle traveling in the westbound lanes,
- A vehicle that has just entered the trafficway from a driveway is struck in the rear before it can gain speed.

Note: When a driveway access junction is within an intersection and the crash would meet the criteria of driveway access or driveway access related, enter 02 (Intersection) if the first harmful event was within the boundaries of the intersection or 03 (Intersection-Related) if it was not, but related to the intersection.

Note: If there is not sufficient detail available to differentiate between driveway access and driveway access related, but it is known that the vehicle was coming out of (or going into) a driveway, default to 08 (Driveway Access Related). See diagram below.

16 (Shared-Use Path or Trail) is used when the first harmful event occurs at the crossing of a roadway and 16 (Shared-Use Path or Trail). At least one non-motorist has to be physically in the shared use path or trail and the crash has to be related to the use of it. If the $\mathbf{1 6}$ (SharedUse Path or Trail) is within the boundaries of a 02 (Intersection), then select 16 (Shared-Use Path or Trail).

Note: A 16 (Shared-Use Path or Trail) is a bikeway physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right of way or an independent right of way. Shared-use paths will also be used by pedestrians, skaters, wheelchairs, joggers and other non-motorist users. A shared-use path or trail is not a sidewalk and where a shared-use path crosses another land way is not a crosswalk.

17 (Acceleration/Deceleration Lane) is used when the first harmful event occurs on the roadway in an interchange area on an auxiliary or speed-change lane that allows vehicles to accelerate to highway speeds before entering the through roadway or decelerate to safe speeds to negotiate a ramp without interrupting traffic flow on the through roadway exited.

18 (Through Roadway) is used when the first harmful event occurs on the roadway within an interchange area but does not occur:

- In an intersection or related to an intersection - 02 (Intersection) or 03 (Intersection Related).
- On a 20 (Entrance/Exit Ramp) or related to the use of the ramp - 05 (Entrance/Exit Ramp Related)
- In a 17 (Acceleration/Deceleration Lane)

19 (Other location within interchange area) is used when the first harmful event occurs within an Interchange, off of the roadway (e.g. median, shoulder, roadside) and is not related to the use of or the entry onto a ramp.

## Examples:

- A vehicle on the $\mathbf{1 8}$ (Through Roadway) portion of the interchange departs the roadway and overturns in the median.
- A vehicle leaves the 18 (Through Roadway) portion of the interchange and strikes a vehicle parked on the shoulder.


## 98 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 98 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

99 (Unknown) is used when police indicate unknown.
Valid Combinations for Subfield 1 and Subfield 2

| Subfield 1 (C20a): Within Interchange? |  |  |  | Subfield 2 (C20b): Specific Location |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Yes | No | Not Reported | Unknown | Code | Attribute |
| - | X | - | - | 01 | Non-Junction |
| X | X | X | X | 02 | Intersection |
| X | X | X | X | 03 | Intersection-Related |
| X | X | X | X | 05 | Entrance/Exit Ramp Related |
| - | X | - | - | 06 | Railway Grade Crossing |
| X | X | X | X | 07 | Crossover Related |
| X | X | X | X | 04 | Driveway Access |
| X | X | X | X | 08 | Driveway Access Related |
| X | X | X | X | 16 | Shared-use Path or Trail |
| X | - | - | - | 17 | Acceleration/Deceleration Lane |
| X | - | - | - | 18 | Through Roadway |
| X | - | - | - | 19 | Other Location, within Interchange Area |
| $X$ | $X$ | $X$ | $X$ | 20 | Entrance/Exit Ramp |
| X | X | X | X | 98 | Not Reported |
| X | X | X | X | 99 | Unknown |

The diagram below will help identify Relation to Junction codes 05 (Entrance/Exit Ramp Related), 17 (Acceleration/Deceleration Lane), 18 (Through Roadway), 19 (Other Location Within Interchange Area) in an Interchange Area and 20 (Entrance/Exit Ramp).


Figure 5 - Intersection (See 2.5.10)


## Example Parking Lot Area (01 - Non-junction, 02 - Intersection)



Figure 4 from ANSI D16 $7^{\text {TH }}$ Edition (Driveway Access 2.3.9


The diagram below will help identify if the crash occurred within and Interchange Area for Relation to Junction (C20a) - Within Interchange Area

INTERCHANGE ACCIDENTS
Accidents which occur within the shaded area are interchange accidents

From ANSI D16.1-2007 (PG. 30)


## Consistency Checks:

## THEN

the second TRAFFICWAY IDENTIFIER should be blank.
RAIL GRADE CROSSING IDENTIFIER must not equal 0000000 .
TRAFFICWAY DESCRIPTION should equal 2,3 for at least one vehicle
involved in the first harmful event.
TRAFFICWAY DESCRIPTION must equal 6 for at least one vehicle involved in the first harmful event.
RELATION TO JUNCTION (b) should not equal 01 or 18.

RELATION TO TRAFFICWAY must not equal 04-07, 10, 11, 99.
TRAFFICWAY DESCRIPTION must equal 2,3 for at least one vehicle.
RAIL GRADE CROSSING IDENTIFIER must equal 0000000.
RELATION TO JUNCTION (b) must equal 01, 03, 08, 19, 98, 99.
RELATION TO JUNCTION (a) must not equal 1.
RELATION TO JUNCTION (a) must equal 0.
RELATION TO JUNCTION (a) should not equal 1.
RELATION TO JUNCTION (a) must equal 1.
TYPE OF INTERSECTION must equal 01.

RELATION TO JUNCTION (b) must not equal 02.
RELATION TO JUNCTION (b) should not equal 01.
RELATION TO JUNCTION (b) should equal 01, 03, 19.
RELATION TO JUNCTION (b) should not equal 03, 08.
(780P) RELATION TO TRAFFICWAY equals 10,
(782P) TYPE OF INTERSECTION equals 02-07, 10,
(783P) RELATION TO JUNCTION (b) equals 98, 99,
(784P) TYPE OF INTERSECTION equals 01,
(A131) RELATION TO JUNCTION (b) equals 02, 04, 06, 16, 17, or 20 ,
(A141) RELATION TO JUNCTION (b) equals 18,
(A150) ROADWAY FUNCTION CLASS equals 01, 11, 12 , and RELATION TO JUNCTION (a) equals 0 ,
(A1B0) TRAFFIC CONTROL DEVICE equals 20, 21 for a vehicle involved in the first harmful event,
(A1E0) RELATION TO JUNCTION (b) equals 19,
(A1E1) RELATION TO JUNCTION (b) equals 20,
(A200) RELATION TO JUNCTION (b) equals 07,
(A210) ROADWAY FUNCTION CLASS equals 01, 11, 12, and RELATION TO JUNCTION (a) equals 0 ,
(A220) ROADWAY FUNCTION CLASS equals 01, 11, and RELATION TO JUNCTION (a) equals 0 ,
(A240) ROADWAY FUNCTION CLASS equals 01, 11, and RELATION TO JUNCTION (a) equals 0 ,
(A250) ROADWAY FUNCTION CLASS equals 01, 02, 11-13, and RELATION TO JUNCTION (a) equals 1 , and RELATION TO JUNCTION (b) does not equal 03, 05, 20,
(A290) ROUTE SIGNING equals 1, and RELATION TO JUNCTION (a) equals 0 ,
(A291) RELATION TO JUNCTION (b) equals 07,

## THEN

RELATION TO JUNCTION (b) must not equal 02, 04, 08.
RELATION TO JUNCTION (b) must equal 02, 03.
TYPE OF INTERSECTION should equal 01, 98, 99.
RELATION TO JUNCTION (b) must not equal 02, 03.
RELATION TO TRAFFICWAY must equal 01.
RELATION TO TRAFFICWAY must equal 01 or 11.
RELATION TO JUNCTION (b) should not equal 02-04, 06, 08.

RELATION TO JUNCTION (b) should not equal 01, 18.

RELATION TO TRAFFICWAY must not equal 01, 05, 11, 98, 99.
RELATION TO TRAFFICWAY must equal 01.
ROADWAY FUNCTION CLASS should not equal 04-06, 16.
TRAFFIC CONTROL DEVICE should not equal 01-04, 07, 20, 23, 40, 50, 65.

SPEED LIMIT should not equal 05-40 for any vehicle.

TRAVEL SPEED should not equal 005040 for any vehicle.

TOTAL LANES IN ROADWAY should not equal 1 for the vehicles involved in the first harmful event.

RELATION TO JUNCTION (b) should not equal 02-04, 06, 0816.

ROUTE SIGNING should not equal 5, 6.

## IF

(A293) WORK ZONE equals 1-3, and RELATION TO JUNCTION (b) equals 02, 03,
(A294) WORK ZONE equals 1-3, and RELATION TO JUNCTION (b) equals 01, 04, 05, 08, 17-19,
(A310) ROUTE SIGNING equals 1, and RELATION TO JUNCTION (a) equals 0 ,
(A320) ROUTE SIGNING equals 1, and RELATION TO JUNCTION (a) equals 0 ,
(A360) RELATION TO JUNCTION (b) equals 07,
(A420) FIRST HARMFUL EVENT equals 10,
(A430) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals $10-11$ for a vehicle involved in the first harmful event,
(A440) RELATION TO JUNCTION (b) equals 06,
(A4C0) RELATION TO JUNCTION (b) equals 04,
(A610) RELATION TO TRAFFICWAY equals 01, and RELATION TO JUNCTION (b) equals 05,
(A611) TRAFFICWAY DESCRIPTION equals 6 for at least one vehicle involved in the first harmful event,
(A790) FIRST HARMFUL EVENT equals 46,
(A810) FIRST HARMFUL EVENT equals 46, and RELATION TO JUNCTION (a) equals 1, and RELATION TO JUNCTION (b) does not equal 02, 03, 05 ,

## THEN

TRAFFIC CONTROL DEVICE should equal 01-03, 20, 40, 97 or 98 for the vehicle(s) involved in the first harmful event.
TRAFFIC CONTROL DEVICE should equal 00, 21, 28, 40, 50, 97 or 98 for the vehicle(s) involved in the first harmful event.
TOTAL LANES IN ROADWAY should not equal 1 for any vehicle.

SPEED LIMIT should not equal 05-40 for any vehicle.

ROUTE SIGNING should not equal 4.
RELATION TO JUNCTION (b) should equal 06.
RELATION TO JUNCTION (b) should not equal 01, 18.

TRAFFIC CONTROL DEVICE should equal 65 for any vehicle involved in the first harmful event.
at least one PRE-EVENT MOVEMENT
(PRIOR TO RECOGNITION OF
CRITICAL EVENT) for the vehicles involved in the first harmful event should equal 10, 11, 13 or 98.
TRAFFICWAY DESCRIPTION should equal 6 for at least one vehicle involved in the first harmful event.
RELATION TO JUNCTION (b) should equal 02, 03, 05, 17-20.

RELATION TO JUNCTION (b) should not equal 01, 07.
ROADWAY FUNCTION CLASS should not equal 01, 11.
(A820) FIRST HARMFUL EVENT equals 46, and RELATION TO JUNCTION (a) equals 1, and RELATION TO JUNCTION (b) does not equal 02, 03, 05,
(A890) RELATION TO JUNCTION (b) equals 01,
(ACOA) RELATION TO JUNCTION (b) equals 02, 03,
(AZ5P) CRITICAL EVENT-PRECRASH (EVENT) equals 70-73 for a vehicle involved in the first harmful event,
(D530) any VIOLATIONS CHARGED equals 36 for a vehicle involved in the first harmful event,
(PB04) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE for a person involved in the first harmful event equals 211, 212, 460, 465, 680, 830, 890, 900 or 910,
(PB07) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE for a person involved in the first harmful event equals 311, 312, 321 or 322,
(PB08) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE for a person involved in the first harmful event equals 141-144, 147, 151-157 or 159,
(PB34) NUMBER OF FORMS SUBMITTED FOR PERSONS NOT IN MOTOR VEHICLES equals 1, and FIRST HARMFUL EVENT equals 08, and RELATION TO JUNCTION (b) equals 02,
(PB35) NUMBER OF FORMS SUBMITTED FOR PERSONS NOT IN MOTOR VEHICLES equals 01, and FIRST HARMFUL EVENT equals 08, and RELATION TO JUNCTION (b) equals 02,

## THEN

ROUTE SIGNING should not equal 1.

TRAFFIC CONTROL DEVICE should not equal 01-03 for any vehicle involved in the first harmful event.
the second TRAFFICWAY IDENTIFIER should not be all blank.
RELATION TO JUNCTION (b) should equal 04 or 08.

RELATION TO JUNCTION (b) should equal 06.

RELATION TO JUNCTION (b) must not equal 02. Note: this edit is restricted to vehicles which are involved in only one event with pedestrian(s).

RELATION TO JUNCTION (b) must equal 04 or 08. Note: this edit is restricted to vehicles which are involved in only one event with bicyclist(s)
RELATION TO JUNCTION (b) must equal 02 or 03 . Note: this edit is restricted to vehicles which are involved in only one event with bicyclist(s).

PEDESTRIAN/ BIKE TYPING PEDESTRIAN CRASH TYPE must not equal 320, 330, 360, 680, 830, 890, 900, or 910.

PEDESTRIAN/ BIKE TYPING -
PEDESTRIAN CRASH LOCATION must equal 001.

## Consistency Checks (GES Only)

## IF

(A3G0) INTERSTATE HIGHWAY equals 1, and RELATION TO JUNCTION (a) equals 1, and RELATION TO JUNCTION (b) is not equal to 03 or 05 or 20,
(A3H0) INTERSTATE HIGHWAY equals 1, and RELATION TO JUNCTION (a) equals 1, and RELATION TO JUNCTION (b) is not equal to 03 or 05 or 20,
(A3IO) INTERSTATE HIGHWAY equals 1,
(A3J0) INTERSTATE HIGHWAY equals 1, and RELATION TO JUNCTION (a) equals 1, and RELATION TO JUNCTION (b) is not equal to 03 or 05 or 20,
(A930) INTERSTATE HIGHWAY equals 1, and RELATION TO JUNCTION (a) equals 1, and RELATION TO JUNCTION (b) is not equal to 03 or 05 or 20,

## THEN

TOTAL LANES IN ROADWAY should not equal 1 for at least one vehicle involved in the first harmful event.

TRAFFICWAY DESCRIPTION should not equal 4 for at least one vehicle involved in the first harmful event.

RELATION TO JUNCTION (b) should not equal 02, 04, 06, 08 or 16.
SPEED LIMIT should not equal 01-40 for at least one vehicle involved in the first harmful event.

TRAFFIC CONTROL DEVICE should not equal 01-03, 20, 23 or 65 for at least one vehicle involved in the first harmful event.

## THIS PAGE INTENTIONALLY LEFT BLANK

## TYPE OF INTERSECTION

## FORMAT: 2 numeric

SAS NAME: Accident.Typ_Int

## ELEMENT VALUES:

01 Not an Intersection
02 Four-Way Intersection
03 T-Intersection
04 Y-Intersection
05 Traffic Circle
06 Roundabout
07 Five-Point, or More
10 L-Intersection
98 Not Reported
99 Unknown

Definition: This element identifies and allows separation of various intersection types.

## Remarks:

The data element value selected should be based on the location of the first harmful event and is only applicable to intersection or intersection-related crashes. If it is known that a rotary type of intersection was involved but it is not known if it was a traffic circle or a roundabout, default to a traffic circle.

Intersection refers to an area which 1) contains a crossing or connection of two or more roadways not classified as driveway access and 2 ) is embraced within the prolongation of the lateral curb lines, or, if none, the lateral boundary lines of the roadways. Where the distance along a roadway between two areas meeting these criteria is less than 33 feet, the two areas and the roadway connecting them are considered to be parts of a single intersection. (See ANSI D.16-2.5.10)

01 (Not an Intersection) identifies that this crash was not intersection or intersection-related.
02 (Four-Way Intersection) refers to two roadways which cross or connect.
03 (T-Intersection) refers to an intersection where two roadways connect and one roadway does not continue across the other roadway. The roadways form a " T ".

04 (Y-Intersection) refers to an intersection where three roadways connect and none of the roadways continue across the other roadways. The roadways form a " Y ".

05 (Traffic Circle) refers to an intersection of roads where motor vehicles must travel around a circle to continue on the same road or leave on any intersecting road.

A 05 (Traffic Circle) must meet the following criteria:

- Entering traffic is controlled by a stop sign, traffic signal or by no traffic control
- Parking is allowed within the circle
- Pedestrians are allowed access to the central island
- Circle traffic can be required to yield to entering traffic

06 (Roundabout) refers to an intersection of roads where motor vehicles must travel around a circle to continue on the same road or leave on any intersecting road. (See diagram on following page.)

A 06 (Roundabout) must meet the following criteria:

- Entering traffic is controlled by a yield sign only
- Circulating traffic has the right of way
- Pedestrian access is allowed behind the yield sign line
- No parking is allowed in the circle

07 (Five-Point, or More) refers to an intersection where more than two roadways cross or connect.

10 (L-Intersection) refers to a two-armed intersection in which one roadway intersects with another roadway but neither roadway extends beyond the other roadway. (Note: this should be configured as an intersection where the arms consist of two different named trafficways.)

## 98 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 98 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

99 (Unknown) is used when police indicate unknown.

## Consistency Checks:

|  | IF | THEN |
| :---: | :---: | :---: |
| (251P) | RELATION TO TRAFFICWAY equals 98, 99 , | TYPE OF INTERSECTION should equal 98, 99. |
| (778P) | RELATION TO JUNCTION (b) equals 01, 04-08, 16-20, | TYPE OF INTERSECTION must equal 01. |
| (781P) | TYPE OF INTERSECTION equals 02-07, 10, | TRAFFICWAY IDENTIFIER (b) should not be blank. |
| (782P) | TYPE OF INTERSECTION equals 02-07, 10, | RELATION TO JUNCTION (b) must equal 02, 03. |
| (783P) | RELATION TO JUNCTION (b) equals 98, 99, | TYPE OF INTERSECTION should equal 01, 98, 99. |
| (784P) | TYPE OF INTERSECTION equals 01, | RELATION TO JUNCTION (b) must not equal 02, 03. |

Exhibit B-4. Example of a typical single-lane roundabout.


## RELATION TO TRAFFICWAY

FORMAT: 2 numeric
SAS NAME: Accident.REL_ROAD

## ELEMENT VALUES:

Blanks
01 On Roadway
02 On Shoulder
03 On Median
04 On Roadside
05 Outside Trafficway
06 Off Roadway - Location Unknown
07 In Parking Lane/Zone
08 Gore
10 Separator
11 Continuous Left-Turn Lane
98 Not Reported
99 Unknown
Definition: This element identifies the location of the crash as it relates to its position within or outside the trafficway based on the First Harmful Event.

## Remarks:

01 (On Roadway) - The roadway is that part of a trafficway designed, improved and ordinarily used for motor vehicle travel or, where various classes of motor vehicles are segregated, that part of a trafficway used by a particular class. Separate roadways may be provided for northbound and southbound traffic or for trucks and automobiles. Roadway may be noted as the "travel lanes" and, if present, includes the area between the painted "fog lines". Additionally, a driveway access area is considered part of the roadway of the trafficway to which it connects. This attribute may also be used for cases involving a parked vehicle opening a door into moving traffic, extended mirrors into the travel lane.

02 (On Shoulder) (if present) is that part of a trafficway contiguous with the roadway for emergency use, for accommodation of stopped vehicles, and for lateral support of the roadway structure. A shoulder should be improved or maintained for these purposes. Not all roadways have shoulders.

03 (On Median) is defined as that area of a divided trafficway between parallel roads separating travel in opposite directions. The principal functions of a median are to provide the desired freedom from interference of opposing traffic, to provide a recovery area for out-ofcontrol vehicles, to provide a stopping area in case of emergencies, and to minimize headlight
glare. Medians may be depressed, raised or flush. Flush medians can be as little as 4-feet wide between roadway edge lines. Painted roadway edge lines four (4) or more feet wide denote medians. Medians of lesser width must have a barrier to be considered a median. Continuous Left-turn Lanes are not considered Medians (see 11 (Continuous Left-Turn Lane)).

04 (On Roadside) refers to a location off the roadway, but inside the right-of-way. It is the outermost part of the trafficway which lay between the outer property line or other barrier and the edge of the first road encountered in the trafficway. Bicycle lanes and shared use path or trails contiguous with the roadway and sidewalks are also included. In addition, use this attribute if the first harmful event occurs in a raised or painted center island (directional or channeling) of a traffic circle, roundabout or junction.

05 (Outside Trafficway) is used for areas not open to the public as a matter of right or custom for moving persons or property. This includes property beyond the roadside outside the boundaries of the trafficway. Also, a portion of the trafficway closed for construction is not a trafficway and would be considered 05 (Outside Trafficway).

06 (Off Roadway - Location Unknown) refers to a location off the roadway, but its relationship to the trafficway boundaries/right-of-way is not known. This should only be used when no reasonable assessment can be made as to the location of the FHE because the information in the case is too ambiguous.

07 (In Parking Lane/Zone) refers to an area on the roadway, or next to the roadway, on which parking is permitted in marked or unmarked spaces. This includes curbside and edge ofroadway parking (for example, legal residential parking, city-street parking, etc.). Sometimes a strip of roadway can be designated for parking at certain hours of the day (parking lane) and for regular travel at other hours (travel lane). This code should NOT be used during hours when parking is NOT permitted (see 01 (On Roadway)).

08 (Gore) is an area of land where two roadways diverge or converge. The area is bounded on two sides by the edges of the roadway, which join at the point of divergence or convergence. The direction of traffic must be the same on both of these roadways. The area includes shoulders or marked pavement if any, between the roadways. The third side is 60 meters (approximately 200 feet) from the point of divergence or convergence or, if any other road is within 70 meters ( 230 feet) of that point, a line 10 meters ( 33 feet) from the nearest edge of such road.

## Gore Inclusions:

- Areas at rest area or exit ramps
- Areas at truck weight station entry or exit ramps
- Areas where two main roadways diverge or converge
- Areas where a ramp and another roadway or two ramps, diverge or converge
- Areas where a frontage road and another roadway or two frontage roads diverge or converge

Gore Exclusions:

- Islands for channelizing of vehicle movements
- Islands for pedestrian refuge

10 (Separator) is the area of a trafficway between parallel roads separating travel in the same direction or separating a frontage road from other roads. A 10 (Separator) may be a physical barrier or a depressed, raised, flush or vegetated area between roads.

11 (Continuous Left-Turn Lane) is a two-way left turn lane positioned between opposing straight-through travel lanes.

## 98 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 98 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

99 (Unknown) is used when police indicate unknown.

## Additional Guidance for Relation to Trafficway

For collision events when the vehicle is overlapping adjacent areas:

- For fixed object collisions (FHE), base "Relation to Trafficway" on the location of the object struck.
- Fixed objects that are associated with the trafficway such as curbs, ditches, guardrails, sign supports, utility poles, etc. are not located in the travel lanes or on the shoulder. Therefore, when these fixed objects are contacted in the FHE, Relation to Trafficway should be coded as $\mathbf{0 4}$ (On Roadside), regardless of the location of the entire vehicle.
- Non-fixed object collisions (e.g., striking a vehicle on the shoulder or pedestrian on the sidewalk) when the striking vehicle is overlapping two locations (e.g., roadway and shoulder) are also coded with respect to the object contacted, not the striking vehicle.

For Rollover/Overturn crashes when the vehicle is overlapping two locations (e.g., roadway and shoulder) when the roll begins:

- When a vehicle begins an overturn and is overlapping two locations at the onset of the overturn, use the LAST area the vehicle entered as the location. For example, Roadside would be correct for a case where the documentation identifies a vehicle runs off the roadway, partially through the shoulder, and the front wheels enter the roadside.

Default rules for the location of Ditches, Culverts, Embankments and Fences:

- Unless there is clear reason to believe otherwise in the case materials, ditches, culverts and embankments are design features common to trafficways. Therefore, if included as the FHE the appropriate Relation to Trafficway is $\mathbf{0 4}$ (On Roadside).
- Unless there is clear reason to believe otherwise in the case materials (e.g., a snow fence in the median), a fence either surrounds private property outside the trafficway or marks the property line boundary ending the trafficway. Therefore, if included as the FHE the appropriate Relation to Trafficway is 05 (Outside Trafficway).

Consistency Checks:

## IF

(250P) RELATION TO JUNCTION (b) equals 01, 02, 04, 06, 07, 16-19, 98, 99, and RELATION TO TRAFFICWAY equals 03,
(251P) RELATION TO TRAFFICWAY equals 98, 99,
(252P) RELATION TO TRAFFICWAY equals 01, 02, 03, 04, 07, 08, 10, 11, 98 or 99,
(253P) RELATION TO TRAFFICWAY equals 03,
(254P) RELATION TO TRAFFICWAY equals 01, and RELATION TO JUNCTION (b) equals 20,
(255P) RELATION TO TRAFFICWAY equals 01 or 11,
(256P) RELATION TO TRAFFICWAY equals 01 or 11,

THEN

TRAFFICWAY DESCRIPTION should equal 2, 3 for at least one vehicle involved in the first harmful event.

TYPE OF INTERSECTION should equal 98, 99.
UNIT TYPE for VEHICLE NUMBER (OTHER VEHICLE) involved in the first harmful event must not equal 3. CRASH TYPE should equal 06-10, 98 or 99 for the in-transport vehicles involved in the first harmful event.
TRAFFICWAY DESCRIPTION must equal 6 for at least one vehicle involved in the first harmful event. UNIT TYPE for VEHICLE NUMBER (THIS VEHICLE) involved in the first harmful event must equal 1. UNIT TYPE for VEHICLE NUMBER (OTHER VEHICLE) involved in the first harmful event should equal 1 or 4.

## THEN

## (257P) RELATION TO TRAFFICWAY equals 05,

(42AP) NUMBER OF MOTOR VEHICLES
FORMS SUBMITTED equals 001, and RELATION TO TRAFFICWAY equals 02, 04, 06-08, and ATTEMPTED AVOIDANCE MANEUVER equals 00 or 01,
(440F) FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 01,
(450F) FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 07,
(460F) FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 02,
(470F) FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 03, 08, 10,
(480F) FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 04, 06,
(490F) FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 05,
(530F) FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 99,
(531F) FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 11,

## UNIT TYPE for VEHICLE NUMBER (OTHER VEHICLE) involved in the FIRST HARMFUL EVENT must equal

 1, 3, or 4.CRITICAL EVENT - PRECRASH
(EVENT) should equal 01-06, 08-14 or 19.
there must be at least one Person Level (Not a MV Occupant) form with NONMOTORIST LOCATION AT TIME OF CRASH equal to 01-03, 09-11, 13, 16, 23,98 or 99.
there must be at least one Person Level (Not a MV Occupant) form with NONMOTORIST LOCATION AT TIME OF CRASH equal to 14.
there must be at least one Person Level (Not a MV Occupant) form with NONMOTORIST LOCATION AT TIME OF CRASH equal to 02, 20.
there must be at least one Person Level (Not a MV Occupant) form with NONMOTORIST LOCATION AT TIME OF CRASH equal to 20, 22, 98, 99.
there must be at least one Person Level (Not a MV Occupant) form with NONMOTORIST LOCATION AT TIME OF CRASH equal to $09,16,20,21,24,25$, 28, 98, 99.
there must be at least one Person Level (Not a MV Occupant) form with NONMOTORIST LOCATION AT TIME OF CRASH equal to $24,25$.
there must be at least one Person Level (Not a MV Occupant) form with NONMOTORIST LOCATION AT TIME OF CRASH equal to 09, 98, 99.
there must be at least one Person Level (Not a MV Occupant) form with NONMOTORIST LOCATION AT TIME OF CRASH equal to 11.
(580F) FIRST HARMFUL EVENT equals 14, and RELATED FACTORS - PERSON (MV OCCUPANT) LEVEL does not equal 32, 89 for at least one occupant in the not in-transport motor vehicle involved in the first harmful event,
(730P) RELATION TO JUNCTION (b) equals 07,
(770P) RELATION TO TRAFFICWAY equals 07,
(772P) RELATION TO TRAFFICWAY equals 07,
(77DP) RELATION TO TRAFFICWAY equals 07, and RELATION TO JUNCTION
(a) equals 1 ,
(780P) RELATION TO TRAFFICWAY equals 10,
(A131) RELATION TO JUNCTION (b) equals 02, 04, 06, 16, 17, or 20,
(A141) RELATION TO JUNCTION (b) equals 18,
(A1E0) RELATION TO JUNCTION (b) equals 19,
(A1E1) RELATION TO JUNCTION (b) equals 20,
(A380) FIRST HARMFUL EVENT equals 01 and this vehicle is involved in the first harmful event, and BODY TYPE does not equal 80-89 for this vehicle, and RELATION TO TRAFFICWAY equals
(A390) $\overline{\text { FIRST }}{ }^{\prime}$ HARMFUL EVENT equals 17, 19-21, 23-26, 30-35, 38-43, 52, 53, 57,
(A4B0) CRASH TYPE equals $01-11$ or 14,
(A610) RELATION TO TRAFFICWAY equals 01, and RELATION TO JUNCTION (b) equals 05,

THEN
RELATION TO TRAFFICWAY should not equal 01.

RELATION TO TRAFFICWAY must not equal 04-07, 10, 11, 99.
RELATION TO JUNCTION (b) must equal 01, 03, 08, 19, 98, 99.
RELATION TO JUNCTION (a) must not equal 1.
RELATION TO JUNCTION (b) should not equal 03, 08.

RELATION TO JUNCTION (b) must not equal 02, 04, 08.
RELATION TO TRAFFICWAY must equal 01.
RELATION TO TRAFFICWAY must equal 01 or 11.
RELATION TO TRAFFICWAY must not equal 01, 05, 11, 98, 99.

## RELATION TO TRAFFICWAY must equal 01. <br> LOCATION OF ROLLOVER should equal <br> $\qquad$ respectively.

RELATION TO TRAFFICWAY should not equal 01, 02, 07, 11.

RELATION TO TRAFFICWAY must not equal 01 or 11.
TRAFFICWAY DESCRIPTION should equal 6 for at least one vehicle involved in the first harmful event.

## IF

(A61F) FIRST HARMFUL EVENT equals 08, 09, 11, 15, 49, and RELATION TO TRAFFICWAY equals 01, 02, 07, 11, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) is not equal to 00 , 13 for the vehicle involved in the first harmful event,
(A620) CRASH TYPE equals 06-10, and TRAFFICWAY DESCRIPTION equals 3,
(A62F) FIRST HARMFUL EVENT equals 18 or 43, and RELATION TO TRAFFICWAY equals 01 or 11,
(A800) FIRST HARMFUL EVENT equals 46,
(A8A0) CRASH TYPE equals 12,
(A881) RELATION TO TRAFFICWAY equals 11,
(A882) RELATION TO TRAFFICWAY equals 07,
(A883) RELATION TO TRAFFICWAY equals 07,
(PB05) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE for a person involved in the first harmful event equals 311, 312 or 313,
(PB12) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE for a person involved in the first harmful event equals 510, 520 or 590,
(PC20) RELATION TO TRAFFICWAY equals 02-08 or 10,
(PC30) PRE-IMPACT LOCATION for a vehicle involved in the first harmful event equals 4,5 ,
(PC40) PRE-IMPACT LOCATION for a vehicle involved in the first harmful event equals 1-3, 6 ,

## THEN

CRASH TYPE should equal 13 for the vehicle involved in the first harmful event.

RELATION TO TRAFFICWAY should equal 03.

CRASH TYPE should equal 12 or 15 for the vehicle involved in the first harmful event.
RELATION TO TRAFFICWAY should not equal 01, 02, 05, 07, 11.
RELATION TO TRAFFICWAY should equal 01 or 11.
TRAFFICWAY DESCRIPTION should equal 5 for at least one vehicle.
ROUTE SIGNING should not equal 1.
ROADWAY FUNCTION CLASS should not equal 01, 11, 12.
RELATION TO TRAFFICWAY must equal 01 or 11. Note: this edit is restricted to vehicles which are involved in only one event with pedestrian(s). RELATION TO TRAFFICWAY must not equal 01 or 11. Note: this edit is restricted to vehicles which are involved in only one event with pedestrian(s).
PRE-IMPACT LOCATION of the vehicle(s) involved in the first harmful event should equal $0,4,5$ or 9 .
RELATION TO TRAFFICWAY should not equal 01 or 11.

RELATION TO TRAFFICWAY should equal 01 or 11.

TRAFFICWAY WITH FRONTAGE ROAD


## TRAFFICWAY WITH MULTIPLE ROADWAYS IN THE SAME DIRECTION



GORE
(2.5.19)



## THIS PAGE INTENTIONALLY LEFT BLANK

# WORK ZONE 

FORMAT: 1 numeric
SAS NAME: Accident.Wrk_Zone

## ELEMENT VALUES:

$0 \quad$ None
1 Construction
2 Maintenance
3 Utility
4 Work Zone, Type Unknown
Definition: This data element captures that this was a "Work Zone Accident" as defined in ANSI D16.1, 7th Edition. If the crash qualifies as a "Work Zone Accident" then the type of work activity is identified.

## Remarks:

If the crash is a work zone crash, work zone type must be clearly distinguished within the case materials; otherwise 4 (Work Zone, Type Unknown) should be used.

The use of these codes does not imply that the crash was caused by the construction, maintenance or utility activity.

## Work Zone:

A work zone is defined as an area of a trafficway where construction, maintenance or utility work activities are identified by warning signs/signals/ indicators, including those on transport devices (e.g., signs, flashing lights, channelizing devices, barriers, pavement markings, flagmen, warning signs and arrow boards mounted on the vehicles in a mobile maintenance activity) that mark the beginning and end of a construction, maintenance or utility work activity. It extends from the first warning sign, signal or flashing lights to the END ROAD WORK sign or the last traffic control device pertinent for that work activity. Work zones also include roadway sections where there is ongoing, moving (mobile) work activity such as lane line painting or roadside mowing only if the beginning of the ongoing, moving (mobile) work activity is designated by warning signs or signals.

## Work Zone Crash:

A work zone crash is a motor vehicle traffic crash in which the first harmful event occurs within the boundaries of a work zone or on an approach to or exit from a work zone, resulting from an activity, behavior or control related to the movement of the traffic units through the work zone.

See $7^{\text {th }}$ Edition of ANSI D16.1 definitions of "Work Zone" and "Work Zone Accident" for inclusions and exclusions.

To determine which attribute is appropriate, the duration of the work must be considered. If the work is short-term (i.e., takes less than one period of daylight and is not performed during hours of darkness), $\mathbf{2}$ (Maintenance) or $\mathbf{3}$ (Utility) are applicable. If the maintenance or utility work is long-term, 1 (Construction) must be used.
$\mathbf{0}$ (None) is used when there is no indication that the crash is a work zone crash as defined above.

1 (Construction) is used when the available information indicates that there is long-term stationary construction such as building a new bridge, adding travel lanes to the roadway, extending an existing trafficway, etc. Highway construction includes construction of appurtenances such as guardrails or ditches, surveying activity, installation of utilities within the right-of-way, etc.

2 (Maintenance) is used when the available information indicates that there are work activities, including moving work activities, such as striping the roadway, median and roadside grass mowing/landscaping, pothole repair, snowplowing, etc., where there are warning signs or signals marking the beginning of the moving work area.

3 (Utility) is used when the available information indicates that there is short-term stationary work such as repairing/maintaining electric, gas, water lines or traffic signals. The utility company must perform the work.

4 (Work Zone, Type Unknown) is used when there is insufficient information to distinguish between 1 (Construction), 2 (Maintenance) or $\mathbf{3}$ (Utility).

## Consistency Checks:

IF
(A293) WORK ZONE equals 1-3, and RELATION TO JUNCTION (b) equals 02, 03,
(A294) WORK ZONE equals 1-3, and RELATION TO JUNCTION (b) equals 01, 04, 05, 08, 17-19,
(A470) WORK ZONE equals 0, and TRAFFICWAY DESCRIPTION equals 1-3, 5,
(AL2P) SEQUENCE OF EVENTS equals 45,

THEN

TRAFFIC CONTROL DEVICE should equal 01-03, 20, 40, 97 or 98 for the vehicle(s) involved in the first harmful event.
TRAFFIC CONTROL DEVICE should equal 00, 21, 28, 40, 50, 97 or 98 for the vehicle(s) involved in the first harmful event.
TOTAL LANES IN ROADWAY should not equal 1.

WORK ZONE should equal 1-4.

## LIGHT CONDITION

FORMAT: 1 numeric
SAS NAME: Accident.LGT_COND

## ELEMENT VALUES:

1 Daylight
2 Dark - Not Lighted
3 Dark - Lighted
6 Dark - Unknown Lighting
4 Dawn
5 Dusk
7 Other
8 Not Reported
9 Unknown
Definition: This element records the type/level of light that existed at the time of the crash as reported in the case materials.

## Remarks:

2 (Dark - Not Lighted) is used when the available information describes a condition where no "natural" light exists and no overhead "man-made" lighting is present on the roadway where the crash occurs.

3 (Dark - Lighted) is used when the available information describes a condition where no "natural" light exists but there is overhead "man-made" lighting on the roadway where the crash occurs. Lighted areas will generally include streets within cities or towns and some interchange areas. This does not include lighting from store fronts, houses, parking lots, etc.

6 (Dark - Unknown Lighting) is used if it cannot be determined if 2 (Dark - Not Lighted) or $\mathbf{3}$ (Dark - Lighted) applies.

Sometimes the case materials will have conflicting information because more than one light condition is indicated in the coded boxes and/or the narrative. If necessary, use the crash time to aid in determing the "best" attribute.

4 (Dawn) describes the transition period going from "dark of night" to a daylight condition. This is typically the 30-minute period before the sun rises.

5 (Dusk) describes the transition period going from a daylight condition to the "dark of night". This is typically the 30 minute period after the sun sets.

Rules for determining applicable attribute:

1. If $\mathbf{4}$ (Dawn) or $\mathbf{5}$ (Dusk) are marked then use the crash time to select either $\mathbf{4}$ (Dawn) or 5 (Dusk).
2. If $\mathbf{3}$ (Dark - Lighted) and 4 (Dawn) are marked then use 4 (Dawn).
3. If $\mathbf{3}$ (Dark - Lighted) and $\mathbf{5}$ (Dusk) are marked then use $\mathbf{5}$ (Dusk).
4. If Dark and 5 (Dusk) are marked then use 5 (Dusk).
5. If Dark and 4 (Dawn) are marked then use 4 (Dawn).
6. If more than 2 attributes are checked then use $\mathbf{9}$ (Unknown).

7 (Other) is used when the conditions above do not apply.

## 8 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 8 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

9 (Unknown) is used when the investigating officer indicates that the lighting condition was unknown.

## Consistency Checks:

## IF

(220P) LIGHT CONDITION equals 4, and STATE is not equal to 02,
(2300) LIGHT CONDITION equals 5, and STATE is not equal to 02,
(A010) STATE equals 02, and LIGHT CONDITION equals 4,
(A020) STATE equals 02, and LIGHT CONDITION equals 5 ,
(A050) CRASH TIME equals 0900-1600,
(A060) CRASH TIME equals 2300-0400,

## THEN

CRASH TIME must equal 0300-0900, 9999.

CRASH TIME must equal 1600-2200, 9999.

CRASH TIME should equal 0300-1000, 9999.

CRASH TIME should equal 1500-2359, 9999.

LIGHT CONDITION should not equal 2-6.
LIGHT CONDITION should not equal 1, 4, 5, 9.

## THEN

(U390) UNLIKELY: LIGHT CONDITION equals 8.

## THIS PAGE INTENTIONALLY LEFT BLANK

## ATMOSPHERIC CONDITIONS

FORMAT: 2 numeric - occurring 2 times.
SAS NAME: Accident.Weather; Accident.Weather1; Accident.Weather2

## ELEMENT VALUES:

00 No Additional Atmospheric Conditions
01 Clear
10 Cloudy
02 Rain
03 Sleet or Hail
12 Freezing Rain or Drizzle
04 Snow
11 Blowing Snow
05 Fog, Smog, Smoke
06 Severe Crosswinds
07 Blowing Sand, Soil, Dirt
08 Other
98 Not Reported
99 Unknown

Definition: This element identifies the prevailing atmospheric conditions that existed at the time of the crash as recorded on the crash report form.

## Remarks:

If the case materials indicate more than two atmospheric conditions, select the two conditions that most affect visibility. If the case materials record a combination of attributes use two atmospheric condition attributes to reflect this situation. (e.g. clear/cloudy would be recorded as 01 (Clear) and 10 (Cloudy).)

00 (No Additional Atmospheric Conditions) should only be used for the second Atmospheric Condition subfield, when there is no second Atmospheric Condition listed on your case materials.

01 (Clear) includes partial cloudiness if sunlight is not diminished. If your case materials indicate no adverse conditions, use 01 (Clear).

10 (Cloudy) usually refers to "overcast" but may include partial cloudiness if light is diminished.

02 (Rain) refers to precipitation other than snow, hail or sleet. Mist should be coded as 02 (Rain).

03 (Sleet or Hail) would apply to conditions where precipitation is falling as ice (sleet or hail)

## 12 (Freezing Rain or Drizzle) would apply when precipitation is falling as liquid (rain) and then freezing on the roadway.

04 (Snow) is used when precipitation is falling as frozen flakes at the time of the crash.
11 (Blowing Snow) applies to snow that is falling and/or to snow that has fallen to the ground and is set aloft by wind.

05 (Fog, Smog, Smoke) refers to a natural or man-made condition that causes reduced visibility.

06 (Severe Crosswinds) refers to winds traveling at an angle with respect to the travel lanes at velocities significant enough to create a risk that vehicles could be diverted from their path or high profile vehicles could be blown over. These are winds that are strong enough to affect vehicle stability.

07 (Blowing Sand, Soil, Dirt) refers to particulate matter set aloft by winds creating a condition of reduced visibility which constitutes a hazard for vehicles operating in the area. This attribute should be used for "dust storms." This attribute should not be used in conjunction with 06 (Severe Crosswinds) unless the winds are affecting vehicle stability in addition to reducing visibility.

08 (Other) atmospheric conditions not described above.

## 98 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 98 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

99 (Unknown) is used when police indicate unknown.

## Consistency Checks:

## IF

(A030) CRASH MONTH equals 05-09,
(A1A0) ROADWAY SURFACE CONDITIONS equals 01 for a vehicle involved in the first harmful event,
(A510) any ATMOSPHERIC CONDITIONS equals 02-04, 11, 12,

## THEN

ATMOSPHERIC CONDITIONS should not equal 03, 04, 11, 12.
ATMOSPHERIC CONDITIONS should not equal 02-04, 11, 12.

ROADWAY SURFACE CONDITIONS should not equal 01, 07, 08, 99 for any vehicle.
(AT00) An ATMOSPHERIC CONDITIONS 01-08, 10-12, 98, 99 can be used only once per crash.
(AT10) the first ATMOSPHERIC the second ATMOSPHERIC CONDITIONS equals 99, CONDITIONS must equal 00.
(AT20) the first ATMOSPHERIC CONDITIONS equals 01-08, 10-12, 99,
(AT30) First ATMOSPHERIC CONDITIONS must not equal 00.
(AT40) the first ATMOSPHERIC
the second ATMOSPHERIC CONDITIONS equals 01, CONDITIONS must equal 00 or 10.

THIS PAGE INTENTIONALLY LEFT BLANK

## SCHOOL BUS RELATED

FORMAT: 1 numeric
SAS NAME: Accident.SCH_BUS, Person.SCH_BUS

## ELEMENT VALUES:

0 No
1 Yes
Definition: This data element indicates if a school bus, or motor vehicle functioning as a school bus, is related to the crash.

## Remarks:

The "school bus" can be:

- with or without a passenger(s) on board
- involved as a contact motor vehicle, or
- indirectly involved as a non-contact motor vehicle

A school bus is a motor vehicle used for the transportation of any school pupil at or below the 12th-grade level to or from a public or private school or school-related activity. A motor vehicle is not a school bus while on trips which involve the transportation exclusively of other passengers or exclusively for other purposes.

A motor vehicle is a school bus only if it is externally identifiable by the following characteristics:

1. Its color is yellow
2. The words "school bus" appear on the front and rear
3. Flashing red lights are located on the front and rear
4. Lettering on both sides identifies the school or school district served, or the company operating the bus
$\mathbf{0}$ (No) is used when there is no indication of a school bus, or motor vehicle functioning as a school bus, being involved in the crash.

1 (Yes) is used when there is any indication that a school bus, or vehicle functioning as a school bus, is involved in any component of the crash.

For directly involved or contacted vehicles, $\mathbf{1}$ (Yes) must be selected if the Special Use data element equals 02 (Vehicle Used as a School Bus).

To capture those instances where the vehicle is involved indirectly (non-contact vehicle) the following rules apply:

- If the case materials indicate "School Bus" the assumption is that the Law Enforcement agency conformed to the definition of school bus, thus $\mathbf{1}$ (Yes) School Bus Related.
- If there is no indication that a school bus was indirectly involved $\mathbf{0}$ (No) must be selected.


## Examples of School Bus Related (indirectly):

1. A police reported "school bus" stops on the roadway. Subsequently an approaching motor vehicle swerves to avoid the stopped bus and contacts another motor vehicle head-on.
2. A police report indicates that a "child" exited a "school bus" and was crossing in front of the stopped bus when a vehicle passed the bus on the left side and struck the child.
3. A line of cars is stopped for a school bus which is discharging passengers. A motor vehicle approaches and is unable to stop in time and strikes the last stopped motor vehicle in the line.

## Examples of NOT School Bus Related:

1. An empty school bus, having completed its route, is parked along side the road. A motor vehicle approaching from the rear loses control and strikes the bus.
2. A "Bus" is reported as stopped in traffic and a vehicle swerves to avoid the bus and contacts another vehicle. In this example, there is no positive indication of a "school bus" being involved.

## Consistency Checks:

## IF

## THEN

(3DOP) SPECIAL USE for any vehicle equals 02,
(PB22) SCHOOL BUS RELATED equals 1, and PERSON TYPE equals 05 or 08,
(PB23) PEDESTRIAN/BIKE TYPING -
PEDESTRIAN CRASH TYPE equals
SCHOOL BUS RELATED must equal 1.
PEDESTRIAN/BIKE TYPING -
PEDESTRIAN CRASH TYPE should equal 342.
SCHOOL BUS RELATED should equal 1. 342, and PERSON TYPE equals 05 or 08,

## IF

## THEN

(V330) SCHOOL BUS RELATED equals 1,
(V440) BODY TYPE equals 50,

BODY TYPE of at least one of the involved vehicles should equal 50 (School Bus), or SPECIAL USE for at least one involved vehicle should equal 02 - Vehicle Used as School Bus, and BUS USE for at least one vehicle should equal 01.
SCHOOL BUS RELATED should equal 1.

## THIS PAGE INTENTIONALLY LEFT BLANK

## RAIL GRADE CROSSING IDENTIFIER (FARS Only)

FORMAT: 6 numeric followed by 1 alphabetic
SAS NAME: Accident.RAIL

## ELEMENT VALUES:

0000000 Not Applicable
nnnnnnA Six Numeric, Followed by One Alphabetic Valid F.R.A. Codes
9999999 Unknown
Definition: This element identifies if the crash occurred in or near a Rail Grade Crossing.

## Remarks:

Code complete identifier. The format must always be six numbers followed by a letter. (Two exceptions: 0000000 (Not Applicable) and 9999999 (Unknown).)

Identifiers are obtainable from your Federal Railroad Administration representative.
0000000 (Not Applicable) is used for crashes that do not involve a rail grade crossing.
Code when any part of the crash occurs at a rail grade crossing. Include crashes in which a vehicle is waiting at a rail grade crossing but does not necessarily travel over the tracks.

Inform your COTR if you have any problems obtaining identifiers.

## Consistency Checks:

IF
(1YOP) RELATION TO JUNCTION(b) equals 06,
(650P) TRAFFIC CONTROL DEVICE equals 65 for any vehicle,
(750P) RELATION TO JUNCTION(b) equals 07,

## THEN

RAIL GRADE CROSSING IDENTIFIER must not equal 0000000.
RAIL GRADE CROSSING IDENTIFIER must not equal 0000000.
RAIL GRADE CROSSING IDENTIFIER must equal 0000000.

## THIS PAGE INTENTIONALLY LEFT BLANK

# NOTIFICATION TIME EMS <br> (FARS Only) 

FORMAT: 4 numeric
SAS NAME: Accident.NOT_HOUR; Accident.NOT_MIN

## ELEMENT VALUES:

| 8888 | Not Applicable (Not Notified) |
| :---: | :--- |
| $0000-2359$ | Valid Military Times |
| $0099-2399$ | Known Hours but Unknown Minutes |
| 9998 | Unknown if Notified |
| 9999 | Unknown EMS Notification Time |

Definition: Notification Time EMS is the time Emergency Medical Service was notified.

## Remarks:

Every effort should be made to determine the Notification Time EMS, Arrival Time EMS, and EMS Time At Hospital.

Code the official EMS times as received. Do not alter the times because of discrepancies with the crash time.

All EMS time formats are in hours and minutes. If you receive an EMS time that includes the seconds' position, truncate to the reported minutes. Example: 10:51:35 would be 10:51.

If the day of the crash and the day of EMS Notification have different dates, then be sure to use the 18 (Date of Crash and Date of EMS Notification Were Not the Same Day) in Related Factors-Crash Level. Code Notification Time EMS and Arrival Time EMS no matter how much time has elapsed since the Crash Time.

## 8888 (Not Applicable [Not Notified])

Enter this code only if EMS was never notified. DO NOT use this code if the EMS was officially canceled. Cancellation is coded under Arrival Time EMS and EMS Time At Hospital. If the EMS was notified then canceled, code the actual notification time.

## 0000-2359 (Valid Military Times), 0099-2399 (Known Hours but Unknown Minutes)

Code Notification Time of the first EMS unit to arrive on the scene. If unknown minutes, code the actual hour and " 99 " for the minutes. Code midnight as " 0000 ." One minute after midnight is coded "0001." See remarks "How to Code Midnight" under Crash Time.

## 9998 (Unknown if Notified)

Enter this attribute if you cannot determine whether or not any EMS was ever notified.

## 9999 (Unknown EMS Notification Time)

Enter this attribute if EMS was notified but the time of notification is unknown.
Helicopters that transport victims to treatment facilities are coded as EMS units, but not police who may be trained to render emergency aid. This guidance is not meant to exclude helicopters that are used to transport victims for treatment that may be owned by police departments.

## Consistency Checks:

## IF

(A070) NOTIFICATION TIME EMS is not 8888, 9998 or 9999,
(A540) NOTIFICATION TIME EMS is not 8888, 9998, or 9999, and ARRIVAL TIME EMS is not $8888,9997,9998$, 9999,
(A560) NOTIFICATION TIME EMS is not 8888, 9998, or 9999, and EMS TIME AT HOSPITAL is not 8888 , 9997 , 9998, 9999,
(E01P) NOTIFICATION TIME EMS equals 9998,
(E03P) ARRIVAL TIME EMS equals 8888,
(E04P) NOTIFICATION TIME EMS equals 8888,
(E07P) ARRIVAL TIME EMS equals 9997,
(E08P) NOTIFICATION TIME EMS is not 8888, 9998, and EMS TIME AT HOSPITAL is not 8888, 9996, 9997, 9998,
(P093) all persons TRANSPORTED TO FIRST MEDICAL FACILITY BY equals 2, 4,

## THEN

NOTIFICATION TIME EMS should not be more than 120 minutes later than CRASH TIME.
ARRIVAL TIME EMS should not be more than 120 minutes later than NOTIFICATION TIME EMS.

EMS TIME AT HOSPITAL should not be more than 180 minutes later than NOTIFICATION TIME EMS.

ARRIVAL TIME EMS must equal 9998, and EMS TIME AT HOSPITAL must equal 8888 or 9998.
NOTIFICATION TIME EMS and EMS TIME AT HOSPITAL must equal 8888. ARRIVAL TIME EMS and EMS TIME AT HOSPITAL must equal 8888.
NOTIFICATION TIME EMS must not equal 8888, 9998.
ARRIVAL TIME EMS must not equal 9997 or 9998.

NOTIFICATION TIME EMS, ARRIVAL TIME EMS, EMS TIME AT HOSPITAL must equal 8888.

## ARRIVAL TIME EMS <br> (FARS Only)

FORMAT: 4 numeric
SAS NAME: Accident.ARR_HOUR; Accident.ARR_MIN

## ELEMENT VALUES:

| 8888 | Not Applicable (Not Notified) |
| :---: | :--- |
| $0000-2359$ | Valid Military Times |
| $0099-2399$ | Known Hours but Unknown Minutes |
| 9997 | Officially Canceled |
| 9998 | Unknown if Arrived |
| 9999 | Unknown EMS Scene Arrival Time |

Definition: Arrival Time EMS is the time Emergency Medical Service arrived on the crash scene.

## Remarks:

This excludes any transport by anyone other than EMS. (Example: Law Enforcement or POV).

Every effort should be made to determine the Notification Time EMS, Arrival Time EMS, and EMS Time At Hospital.

Code the official EMS times as received. Do not alter the times because of discrepancies with the crash time.

All EMS time formats are in hours and minutes. If you receive an EMS time that includes the seconds' position, truncate to the reported minutes. Example: 10:51:35 would be 10:51.

Code Notification Time EMS and Arrival Time EMS no matter how much time has elapsed since the Crash Time.

## 8888 Not Applicable [Not Notified])

Enter this attibute only if EMS was never notified. DO NOT use this code if the EMS was notified then canceled.

## 0000-2359 (Valid Military Times), 0099-2399 (Known Hours but Unknown Minutes)

Code the arrival time of the first EMS unit to arrive on the scene. If unknown minutes, code the actual hour and " 99 " for the minutes. Code midnight as " 0000 ." One minute after midnight is coded "0001". See remarks "How to Code Midnight" under Crash Time.

## 9997 (Officially Canceled)

Enter this attribute if EMS was officially canceled.

## 9998 (Unknown if Arrived)

Enter this attribute if there is no indication of official cancellation, but there is uncertainty or doubt that EMS ever arrived on the scene or not.

## 9999 (Unknown EMS Scene Arrival Time)

Enter this code if EMS did arrive on scene, but the time of arrival is unknown.

## Consistency Checks:

## IF

(A540) NOTIFICATION TIME EMS is not 8888, 9998, or 9999, and ARRIVAL TIME EMS is not 8888, 9997, 9998, 9999,
(A550) ARRIVAL TIME EMS is not 8888, 9997, 9998, or 9999, and EMS TIME AT HOSPITAL is not 8888,9997 , 9998, 9999,
(E01P) NOTIFICATION TIME EMS equals 9998,
(EO2P) ARRIVAL TIME EMS equals 9998,
(E03P) ARRIVAL TIME EMS equals 8888,
(E04P) NOTIFICATION TIME EMS equals 8888,
(E05P) EMS TIME AT HOSPITAL equals 9997,
(E06P) ARRIVAL TIME EMS equals 9997,
(E07P) ARRIVAL TIME EMS equals 9997,

THEN
ARRIVAL TIME EMS should not be more than 120 minutes later than NOTIFICATION TIME EMS.

EMS TIME AT HOSPITAL should not be more than 60 minutes later than ARRIVAL TIME EMS.

ARRIVAL TIME EMS must equal 9998, and EMS TIME AT HOSPITAL must equal 8888 or 9998.
EMS TIME AT HOSPITAL must equal 8888 or 9998.
NOTIFICATION TIME EMS and EMS
TIME AT HOSPITAL must equal 8888.
ARRIVAL TIME EMS and EMS TIME AT
HOSPITAL must equal 8888.
ARRIVAL TIME EMS must equal 9997.
EMS TIME AT HOSPITAL must equal 9997.

NOTIFICATION TIME EMS must not equal 8888, 9998.

## IF

(E08P) NOTIFICATION TIME EMS is not 8888, 9998, and EMS TIME AT HOSPITAL is not $8888,9996,9997$, 9998,
(P093) all persons TRANSPORTED TO FIRST MEDICAL FACILITY BY equals 2,4 ,

## THEN

ARRIVAL TIME EMS must not equal 9997 or 9998.

NOTIFICATION TIME EMS, ARRIVAL TIME EMS, EMS TIME AT HOSPITAL must equal 8888 .

## THIS PAGE INTENTIONALLY LEFT BLANK

# EMS TIME AT HOSPITAL <br> (FARS Only) 

FORMAT: 4 numeric
SAS NAME: Accident.HOSP_HR; Accident.HOSP_MN

## ELEMENT VALUES:

| 8888 | Not Applicable (Not Transported) |
| :---: | :--- |
| $0000-2359$ | Valid Military Times |
| $0099-2399$ | Known Hours but Unknown Minutes |
| 9996 | Terminated Transport |
| 9997 | Officially Canceled |
| 9998 | Unknown if Transported |
| 9999 | Unknown EMS Hospital Arrival Time |

Definition: EMS Time At Hospital is the time Emergency Medical Service arrived at the treatment facility to which it was transporting victims of the crash.

## Remarks:

This excludes any transport by anyone other than EMS. (Example: Law Enforcement or POV).

Every effort should be made to determine the Notification Time EMS, Arrival Time EMS, and EMS Time At Hospital.

Code the official EMS times as received. Do not alter the times because of discrepancies with the crash time.

All EMS time formats are in hours and minutes. If you receive an EMS time that includes the seconds' position, truncate to the reported minutes. Example: 10:51:35 would be 10:51.

Questions arise when there is more than one EMS unit or when there is more than one injured person. Code EMS Time At Hospital according to the following guidelines:

## 8888 (Not Applicable [Not Transported])

Use this attribute if all the injuries are on-scene fatalities (no one is transported for treatment.) Also use this attribute if there are live victims, but no one is transported to a treatment facility by EMS.

## 0000-2359 (Valid Military Time), 0099-2399 (Known Hours but Unknown Minutes)

Code the EMS time at hospital of the unit transporting the most severely injured victim. The most severely injured victim includes (and usually is) the victim who dies en route to the treatment facility or later, but not the one who dies on-scene.

If unknown minutes, code the actual hour and "99" for the minutes. Code midnight as "0000." One minute after midnight is coded "0001." See remarks. "How to Code Midnight" under Crash Time.

## 9996 (Terminated Transport)

Enter this attribute if there is indication that EMS was notified, arrived at the scene but while in transit terminated the trip to hospital because the person died en route. This attribute should not be used when there is a hospital arrival time available for a person dead on arrival at the hospital.

## 9997 (Officially Canceled)

Enter this attribute if EMS was officially canceled before on scene.

## 9998 (Unknown if Transported)

Enter this attribute if there is no indication of official cancellation, but there is un-certainty or doubt that any victims were transported for treatment or not.

## 9999 (Unknown EMS Hospital Arrival Time)

Enter this attribute if EMS transported victims for treatment, but the time of arrival at the hospital or treatment facility is unknown.

## Consistency Checks:

## IF

(A550) ARRIVAL TIME EMS is not 8888, 9997, 9998, or 9999, and EMS TIME AT HOSPITAL is not 8888, 9997, 9998, 9999,
(A551) EMS TIME AT HOSPITAL equals 8888, 9997, 9998,
(A560) NOTIFICATION TIME EMS is not 8888, 9998, or 9999, and EMS TIME AT HOSPITAL is not 8888, 9997, 9998, 9999,

## THEN

EMS TIME AT HOSPITAL should not be more than 60 minutes later than ARRIVAL TIME EMS.

TRANSPORTED TO FIRST MEDICAL FACILITY BY should not equal 1, 3, 5 for any PERSON.
EMS TIME AT HOSPITAL should not be more than 180 minutes later than NOTIFICATION TIME EMS.

IF
(E01P) NOTIFICATION TIME EMS equals 9998,
(E02P) ARRIVAL TIME EMS equals 9998,
(E03P) ARRIVAL TIME EMS equals 8888,
(E04P) NOTIFICATION TIME EMS equals 8888,
(E05P) EMS TIME AT HOSPITAL equals 9997,
(E06P) ARRIVAL TIME EMS equals 9997,
(E08P) NOTIFICATION TIME EMS is not 8888, 9998, and EMS TIME AT HOSPITAL is not $8888,9996,9997$, 9998,
(P091) TRANSPORTED TO FIRST MEDICAL FACILITY BY equals 1, 3, 5,
(P093) all persons TRANSPORTED TO FIRST MEDICAL FACILITY BY equals 2, 4,
(P510) EMS TIME AT HOSPITAL equals 8888, 9997, 9998,
(P530) EMS TIME AT HOSPITAL equals 9996,
(P54P) DIED AT SCENE/EN ROUTE equals 8 ,

## THEN

ARRIVAL TIME EMS must equal 9998, and EMS TIME AT HOSPITAL must equal 8888 or 9998.
EMS TIME AT HOSPITAL must equal 8888 or 9998.
NOTIFICATION TIME EMS and EMS TIME AT HOSPITAL must equal 8888.
ARRIVAL TIME EMS and EMS TIME AT HOSPITAL must equal 8888.
ARRIVAL TIME EMS must equal 9997.
EMS TIME AT HOSPITAL must equal 9997.

ARRIVAL TIME EMS must not equal 9997 or 9998.

EMS TIME AT HOSPITAL should not equal 8888, 9997, 9998.

NOTIFICATION TIME EMS, ARRIVAL TIME EMS, EMS TIME AT HOSPITAL must equal 8888.
DIED AT SCENE/EN ROUTE should not equal 8 for any PERSON.
DIED AT SCENE/EN ROUTE must equal 8 for at least one person.
EMS TIME AT HOSPITAL should not equal 8888, 9997, 9998.

THIS PAGE INTENTIONALLY LEFT BLANK

## RELATED FACTORS - CRASH LEVEL

FORMAT: 2 numeric occurring 3 times
SAS NAME: Accident.CF1; Accident.CF2; Accident.CF3

## ELEMENT VALUES:

## 00 None

*01 Inadequate Warning of Exits, Lanes Narrowing, Traffic Controls, etc.
*02 Shoulder Design or Condition
03 Other Maintenance or Construction-Created Condition
*04 No or Obscured Pavement Marking
05 Surface Under Water
*06 Inadequate Construction or Poor Design of Roadway, Bridge, etc.
07 Surface Washed Out (caved-in, road slippage)

## Special Circumstances:

13 Aggressive Driving / Road Rage by Non-Contact Vehicle Driver
14 Motor Vehicle Struck by Falling Cargo, or Something That Came Loose From, Or Something That was Set-in-Motion by a Vehicle.
15 Non-Occupant Struck by Falling Cargo, or Something That Came Loose From, or Something that was Set-in-Motion by a Vehicle.
16 Non-Occupant Struck Vehicle
17 Vehicle Set-in-Motion by Non-Driver
*18 Date of Crash and Date of EMS Notification Were Not the Same Day
19 Recent Previous Crash Scene Nearby
20 Police Pursuit Involved
21 Within Designated School Zone
*22 Speed Limit is a Statutory Limit as Recorded or was Determined as This State's "Basic Rule"
23 Indication of a Stalled/Disabled Vehicle
24 Unstabalized Situation Began and All Harmful Events Occurred Off of the Roadway
25 Toll Booth / Plaza Related
26 Backup Due to Prior Non-Recurring Incident
27 Backup Due to Prior Crash
28 Backup Due to Regular Congestion
99 Unknown

* FARS ONLY ATTRIBUTES

Definition: This element identifies factors related to the crash expressed by the investigating officer.

## Remarks:

Related Factors
Environmental/Roadway Conditions Noted

| 00 | None |  |
| :---: | :---: | :---: |
| *01 | Inadequate Warning of Exits, Lanes Narrowing, Traffic Controls, etc. | Includes "inadequate warning" of any type; takes precedence over 06 (Inadequate Design) and 03 (Other Maintenance or ConstructionCreated Condition). <br> Inadequate warning due to obscured signs. Inadequate warning due to signs temporarily down, lack of necessary sign for merge, diverge. <br> Not a construction site situation. |
| *02 | Shoulder Design or Condition | Takes precedence over 06 (Inadequate Design) and 03 (Other Maintenance or ConstructionCreated Condition). <br> Includes only situations pertaining to actual design or condition of the shoulder. <br> Soft shoulder or shoulder collapsing. Inadequate shoulder width. <br> Shoulder at different level from the roadway (dropoff, lifted, not flat). |
| 03 | Other Maintenance or Construction-Created Condition | Includes "inadequate maintenance" conditions, (i.e., potholes, ruts in roadway) moving/changing signs. <br> Also includes conditions cited by the officer related to construction activity such as the addition of barricades, change in traffic patterns, merging of lanes, etc. |
| *04 | No or Obscured Pavement Marking | Takes precedence over 06 (Inadequate Design) and 03 (Other Maintenance or ConstructionCreated Condition). <br> Includes any pavement marking situations. New asphalt has covered old pavement markings. Pavement marking or surface has worn off. Ice/snow/mud obscuring pavement markings. <br> NOTE: Care should be used to distinguish from 01 (Inadequate Warning of Exits, Lanes Narrowing, Traffic Controls, etc.) |


| Related Factors |  | Environmental/Roadway Conditions Noted |
| :---: | :---: | :---: |
| 05 | Surface Under Water | Takes precedence over 06 (Inadequate Design) and 03 (Other Maintenance or ConstructionCreated Condition. <br> Includes surfaces under water beyond accumulation associated with Roadway Surface Condition 06 (Water [standing, moving]) (i.e., depth of water). <br> Permanently under water, i.e., fords. <br> Temporarily under water, i.e., flooded areas. |
| *06 | Inadequate Construction or Poor Design of Roadway, Bridge, etc. | Pertains to original design of trafficway (i.e., roadway bridges, medians, guardrails, traffic barriers). <br> Blind intersections due to highway design, not due to visual obstructions (i.e., shrubbery) etc. Improper banking, lack of a lane for merging. Inadequate road surface (dirt, gravel surfaces, etc.); however, this must not be inferred; must be explicitly stated in police report as a "factor." Excludes shoulder-related situations, pavement marking situations, situations with inadequate warnings, and surfaces under water. |
| 07 | Surface Washed Out (caved-in, road slippage) | Only environmentally caused situations. Destruction of a section of roadway by water (flooding, heavy rains) or other cataclysms (earthquakes, etc.). |
| 13 | SPECIAL CIRCUMSTANCES <br> Aggressive Driving / Road Rage by Non-Contact Vehicle Driver | This factor is only used for situations where the investigating officer indicates that a non-contact vehicle ("phantom vehicle") was being operated aggressively. Officer must use the term "Aggressive" in describing a driver's behavior. This can be indicated in the report under related/ contributing factors or in the narrative. You may encounter the term "Road Rage" used to describe aggressive driving behavior. Be cautious with this term as the two terms are not technically interchangeable. For contact vehicles, see Driver Level-Related Factor 08 (Aggressive Driving/Road Rage). |


| Rela | ted Factors | Environmental/Roadway Conditions Noted |
| :---: | :---: | :---: |
| 14 | Motor Vehicle Struck by Falling Cargo, or Something That Came Loose From, Or Something That was Set-in-Motion by a Vehicle. | "Something set-in-motion" includes persons and vehicles in-transport, parked/stopped off roadway and working motor vehicles, as well as motor vehicles in motion outside the trafficway. <br> "Something set in-motion" denotes that a vehicle "has control of" or "is attached/connected" to the object. An example of "control of" is a vehicle determining the direction of a driverless vehicle. An example of "attached to" is a vehicle overriding another vehicle. <br> "Set-in-Motion" generally applies to non-fixed objects (including pedestrians set-in-motion), and extends to vehicles parked and "intransport." |
| 15 | Non-Occupant Struck by Falling Cargo, or Something That Came Loose From, or Something that was Set-in-Motion by a Vehicle. | Non-occupant denotes pedestrians, pedal cyclists, and persons on personal conveyances (skateboard riders, roller skaters, non-motorized wheelchairs, baby carriages, scooters). |
| 16 | Non-Occupant Struck Vehicle | Pedestrian or bicycle rider entering roadway runs into vehicle, usually the side or back of the vehicle, not in the vehicle's path. |
| 17 | Vehicle Set-in-Motion by NonDriver | Passenger shifting gears on vehicle. <br> Passenger hitting accelerator. <br> Passenger turning ignition key. <br> NOTE: Different from Related Factors-Person <br> Level 05 (Interfering With the Driver). |
| *18 | Date of Crash and Date of EMS Notification Were Not the Same Day | Crash victims not discovered immediately. Effects of crash not immediately known. |
| 19 | Recent Previous Crash Scene Nearby | Previous crash causes a change in traffic patterns causes obstruction on roadway, requires reduction in traffic speed, leaves occupants and vehicles on roadway. |


| Related Factors |  | Environmental/Roadway Conditions Noted |
| :---: | :---: | :---: |
| 20 | Police Pursuit Involved | When pursuit has been initiated by the police and is active at the time of the crash. This applies for air or ground pursuing vehicles. <br> When pursuit has been initiated and terminated, but related to the crash. This applies for air or ground pursuing vehicles. <br> (See Related Factors-Driver Level for 37 (Police Pursuing this Driver or Police Officer in Pursuit).) |
| 21 | Within Designated School Zone | Areas signed or marked as "School Zone." This may or may not be school-bus-related. <br> "School Zones" are zones near or at a school, which exist during months and hours when zone signing is in effect. |
| *22 | Speed Limit is a Statutory Limit as Recorded or was Determined as This State's "Basic Rule" | No posted speed limit, but state law sets maximum speed limit on a local road or street. |
| 23 | Indication of a Stalled/Disabled Vehicle | Includes contact and non-contact vehicles that are stalled/disabled for mechanical reasons not due to crash-related damage. <br> Examples: <br> 1. A pedestrian is struck when walking from their stalled vehicle. <br> 2. A vehicle is stalled in the travel lanes causing another vehicle to lose control and crash. |
| 24 | Unstabalized Situation Began And All Harmful Events Occurred Off of the Roadway | Examples: <br> 1. A vehicle stopped on the roadside begins to accelerate to re-enter the roadway and runs into a ditch and overturns. <br> 2. An ATV driving along the roadside and strikes a tree stump. <br> 3. A vehicle strikes a pedestrian while driving down the road shoulder. |


| Related Factors |  | Environmental/Roadway Conditions Noted |
| :---: | :---: | :---: |
| 25 | Toll Booth/Plaza Related | Indication in the case materials that the crash occurred at or in the vicinity of a toll booth (manned or unmanned) or a toll plaza. These are crashes that occur in the upstream approach to the toll booth/plaza area and continues as the approach area (where the toll road begins to widen) leading up to the toll booths and in the departure area where the road begins to narrow leading back to the normal number of lanes comprising the toll road downstream departure area. |
| 26 | Backup Due to Prior NonRecurring Incident | Indication in the crash report that the crash occurred in or related to an area of the trafficway where there was congestion on the roadway caused by an unusual or unplanned event. <br> Examples: <br> - A tractor trailer transporting a trailer designated as a Wide Load <br> - Debris in the roadway causing a backup. <br> - Backup due to traffic going to or coming from a funeral procession, sporting event, parade or traffic signal outage. |
| 27 | Backup Due to Prior Crash | An accumulation of traffic caused by vehicles slowing or stopping due to traffic flow. The distance from the prior crash does not matter just its relevance to this crash. |
| 28 | Backup Due to Regular Congestion | Indication in the crash report that the crash occurred in or related to an area of the trafficway where there was congestion due to heavy traffic during rush hour. |
| 99 | Unknown |  |

## * FARS ONLY ATTRIBUTES

Code information provided in the narrative by the investigating officer. Boxes the officer checks on the PAR should be coded where appropriate. If the investigating officer states any related factors, they should be coded.

If the officer states 'the witness said,' these should not be coded.

Care must be used in coding this element. The Police Accident Report (PAR) should state that the environmental condition was a factor or existed at this location; cannot be inferred. Can be coded in conjunction with other elements; for example, if a traffic control is temporarily down, it can be coded under both "Traffic Control Device Functioning" and Related Factors-Crash Level 01 (Inadequate Warning of Exits, Lanes Narrowing, Traffic Controls, etc.). The rule is that "specific" takes precedence over "general" factors.

## Use of 00 (None)

Use when no factors are noted; zero-fill all fields. $\mathbf{0 0}$ (None) implies that the investigating officer indicated "no factors." Also use $\mathbf{0 0}$ (None) to complete remaining fields when you will be recording less than three related factors.

DO NOT leave any remaining fields blank.

## Use of 99 (Unknown)

Use when the circumstances surrounding the crash are unknown and reported as Unknown by the investigating officer. In these circumstances, nine-fill all fields. If 99 (Unknown) is used for any field, $\underline{\text { ALL }}$ fields must be Unknown. DO NOT leave any remaining fields blank.

Attributes 13-28-SPECIAL CIRCUMSTANCES, are exceptions to the above remarks. These are codes for unusual factors that occurred during the crash. If you can determine that any of these factors did happen, then these codes should be used.

Definition of Police Pursuit: A pursuit is an event that is initiated when a law enforcement officer, operating an authorized emergency vehicle, gives notice to stop (either through the use of visual or audible emergency signals or a combination of emergency devices) to a motorist who the officer is attempting to apprehend, and that motorist fails to comply with the signal by either maintaining his/her speed, increasing speed, or taking other evasive action to elude the officer's continued attempts to stop the motorist. A pursuit is terminated when the motorist stops, or when the attempt to apprehend is discontinued by the officer or at the direction of a competent authority.

## Consistency Checks:

## IF

(1AOP) RELATED FACTORS-CRASH LEVEL equals 14,
(1A1P) RELATED FACTORS-CRASH LEVEL equals 05 ,
(640F) TRAFFIC CONTROL DEVICE equals 23 for any vehicle,

## THEN

NUMBER OF VEHICLE FORMS SUBMITTED must be greater than 001. ROADWAY SURFACE CONDITIONS must equal 06 for at least one vehicle. RELATED FACTORS-CRASH LEVEL should equal 21.

## THEN

(641F) RELATED FACTORS-CRASH LEVEL equals 21 ,
(642F) TRAFFIC CONTROL DEVICE equals 00 for any vehicle,
(840P) any RELATED FACTORS-CRASH LEVEL equals 99,
(850P) the first RELATED FACTORSCRASH LEVEL equals 00,
(860P) any RELATED FACTORS-CRASH LEVEL is blank,

TRAFFIC CONTROL DEVICE should not equal 00 for every vehicle.
RELATED FACTORS-CRASH LEVEL should not equal 21.
all RELATED FACTORS-CRASH
LEVEL must equal 99.
all RELATED FACTORS-CRASH
LEVEL must be 00. If the second equals 00 , then the third must also. all RELATED FACTORS-CRASH LEVEL must be blanks.
(870P) A RELATED FACTORS-CRASH LEVEL 01-07, 13-28 can be used only once per crash.
(880F) RELATED FACTORS-CRASH LEVEL equals 16 ,
(890F) RELATED FACTORS-CRASH LEVEL equals 15 ,
(8L8S) AREAS OF IMPACT (THIS VEHICLE) equals 18 or 19 in the CRASH EVENTS and the corresponding event in that row equals 14, 45 or 54,
(8L8T) RELATED FACTORS-CRASH LEVEL equals 14,
(8L8U) AREAS OF IMPACT (THIS VEHICLE) equals 18 or 19 in the CRASH EVENTS and the corresponding event in that row equals 08, 09, 15, 49,
(8L8V) RELATED FACTORS-CRASH LEVEL equals 15,
(AM1P) FIRST HARMFUL EVENT equals 54 or 73, or SEQUENCE OF EVENTS equals 54,73 for any vehicle,
(D470) any RELATED FACTORS-DRIVER LEVEL equals 37,
there must be a Person Level (Not a MV Occupant) form with PERSON TYPE equal to 04-08, 19.
there must be a Person Level (Not a MV Occupant) form with PERSON TYPE equal to 04-08, 10, 19.
RELATED FACTORS-CRASH LEVEL must equal 14.
there must exist at least one event in the CRASH EVENTS where AREAS OF IMPACT (THIS VEHICLE) equals 18 or 19 and the corresponding event in that row equals 14, 45 or 54. RELATED FACTORS-CRASH LEVEL must equal 15.
there must exist at least one event in the CRASH EVENTS where AREAS OF IMPACT (THIS VEHICLE) equals 18 or 19, and the corresponding event in that row equals 08-10, 15, 18 or 49. one RELATED FACTORS-CRASH LEVEL must equal 14.
at least one RELATED FACTORSCRASH LEVEL should equal 20.

IF

## THEN

(D500) VIOLATIONS CHARGED equals 05,
(PB63) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 230,

THIS PAGE INTENTIONALLY LEFT BLANK

# INTERSTATE HIGHWAY <br> (GES Only) 

FORMAT: 1 numeric
SAS NAME: Accident.Int_Hwy
ELEMENT VALUES:
0 No
1 Yes
9 Unknown

Definition: This element identifies whether or not the crash occurred on an interstate highway. Interstate highway is a Federal Highway Administration classification.

## Remarks:

The Interstate Highway System includes those trafficways that are within the national system for interstate transport and defense purposes. Interstates typically have limited access and multiple lanes of travel.

Crashes which occur on ramps leading to or away from an Interstate should be coded 1 (Yes).
Enter $\mathbf{0}$ (No) when the PAR indicates that the crash occurred on any of the following: US Highway, State Highway, County Road, Township Road or Municipal Road.

Enter 1 (Yes) when the PAR indicates the crash occurred on an interstate highway. Some PARs use a specific block to indicate interstate. Interstate can also be identified by the prefix "I" used in the roadway name.

## Consistency Checks (GES) Only:

## IF

(A3G0) INTERSTATE HIGHWAY equals 1, and RELATION TO JUNCTION (a) equals 1, and RELATION TO JUNCTION (b) is not equal to 03 or 05 or 20,
(A3H0) INTERSTATE HIGHWAY equals 1, and RELATION TO JUNCTION (a) equals 1, and RELATION TO
JUNCTION (b) is not equal to 03 or 05 or 20,

## THEN

TOTAL LANES IN ROADWAY should not equal 1 for at least one vehicle involved in the first harmful event.

TRAFFICWAY DESCRIPTION should not equal 4 for at least one vehicle involved in the first harmful event.

## IF

(A3IO) INTERSTATE HIGHWAY equals 1
(A3J0) INTERSTATE HIGHWAY equals 1, and RELATION TO JUNCTION (a) equals 1, and RELATION TO JUNCTION (b) is not equal to 03 or 05 or 20,
(A3K0) FIRST HARMFUL EVENT equals 10,
(A930) INTERSTATE HIGHWAY equals 1, and RELATION TO JUNCTION (a) equals 1, and RELATION TO JUNCTION (b) is not equal to 03 or 05 or 20,

THEN
RELATION TO JUNCTION (b) should not equal 02, 04, 06, 08 or 16.
SPEED LIMIT should not equal 01-40
for at least one vehicle involved in the first harmful event.

INTERSTATE HIGHWAY should not equal 1.
TRAFFIC CONTROL DEVICE should not equal 01-03, 20, 23 or 65 for at least one vehicle involved in the first harmful event.

## STRATUM <br> (GES Only)

FORMAT: 1 numeric
SAS NAME: Accident.Stratum

## ELEMENT VALUES:

1 Category 1-Stratum L
2 Category 2
3 Category 3
4 Category 4
5 Category 1-Stratum M
6 Category 1-Stratum N
Definition: The number of the category in which the PAR was originally listed in GES PAR Program or Stratification Record.

## Remarks:

Only NASS crashes are included in the GES. See the current NASS GES Researcher's Manual, for the definition of a NASS crash.

Categories 1-Stratum L, M and $\mathbf{N}$ apply if the NASS crash involves at least one "passenger vehicle" (i.e., a passenger car, sport utility vehicle, van, or pickup truck) which is "towed" (i.e., towed from the crash scene due to damage). Crashes involving medium or heavy trucks are excluded from these categories.

Category 1-Stratum $L$ is used if an occupant of a towed, passenger vehicle is killed. Stratum $L$ also applies when the crash involves one passenger vehicle, the passenger vehicle is towed and one of the occupants receives an A injury and is transported to a medical facility for treatment or the crash involves two or more passenger vehicles, at least two passenger vehicles are towed and one of the occupants of the towed passenger vehicles receives an A injury and is transported to a medical facility for treatment.

Category 1-Stratum M is used if the NASS crash does not qualify for Category 1-Stratum L, but at least one occupant of a towed passenger vehicle is injured and transported to a medical facility for treatment.

Category 1-Stratum $\mathbf{N}$ is used if the NASS crash does not qualify for Category 1-Stratum L or Category 1-Stratum M, but a passenger vehicle is towed and no medium or heavy trucks are involved.

Category 2 applies if the NASS crash does not qualify for Category 1-Stratum L, M or N; but involves at least one medium or heavy truck and either a vehicle which is towed due to damage or at least one involved person which has a police reported injury of " $K$ ", "A", "B", or "C."

Category 3 applies if the NASS crash does not qualify for Category 1-Stratum L, M or N or Category 2; none of the vehicles involved in the crash are medium or heavy trucks and at least one person involved in the crash has a police reported injury of " $K$ ", " $A$ ", or "B."

Category 4 applies if the crash does not qualify for Category 1-Stratum L, M or N; Category 2 or Category 3. Further clarification: No one in the crash can receive a " $K$ ", " $A$ " or " $B$ " injury. A person can receive a C injury only if there are no medium/heavy trucks involved in the crash.

## Stabilization:

At times, one police report will contain more than one crash. This will happen when events constituting a crash have stabilized (ANSI D16.1 1996, Section 2.4.4) and units involved in the first sequence are subsequently involved in another crash sequence which is recorded on the same police report. If more than one crash is recorded on a police report, based on the ANSI definition of stabilized, then use the following protocol to determine which of the crashes to code.

First, identify all NASS crashes. Exclude from consideration those which are not NASS crashes.

Second, select the situation (A, B, or C below) which is applicable to the PAR under consideration and follow the protocol provided.

## Situation A

If exactly one crash qualifies for Category 1-Stratum L, M or N; choose this crash to code.

## Situation B

If more than one crash qualifies for Categories 1-Stratum L, M and $\mathbf{N}$; follow the 2 steps below to select the crash to code. Ignore all crashes not applicable to Categories 1-Stratum $\mathrm{L}, \mathrm{M}$ and N .
(1) If more than one crash is classified as $L$, $M$ or $N$; choose $L$ over $M, M$ over $N$.
(2) If there are two or more crashes of the same classification (e.g., two crashes are classified in Category 1-Stratum $\mathbf{N}$ ), then the criteria below apply:
(a) If injury is involved and the relative degree of injury between crashes can be determined, the crash with the highest injury severity is chosen.
(b) If injury is involved and the relative degree of injury between crashes is approximately equal, the first of the highest equal injury crashes is chosen.
(c) If injury is involved and the relative degree of injury between crashes cannot be determined, the first crash is chosen.
(d) If there are no injuries, then the first crash is chosen.

## Situation C

If no crash qualifies for Category 1-Stratum L, M or $\mathbf{N}$ and there is more than one crash applicable to Categories 2, 3 or 4; follow the criteria in Situation B, step 2 above to select the crash to code.

## Consistency Check (GES Only):

IF
UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and BODY TYPE equals 01-49 or 60-79,
(VH89) UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and BODY TYPE equals 01-49,
(VH90) UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and BODY TYPE equals 01-49 or 60-79,
(VH91) UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and BODY TYPE equals 01-49,
(5A1P) BODY TYPE equals 60-79, and UNIT TYPE equals 1,
(5A2P) FINAL STRATUM equals 2,
(5A3P) FINAL STRATUM equals 1, 5 or 6,

## THEN

STRATUM should not equal 4.

STRATUM should not equal 3.

FINAL STRATUM must not equal 4.

FINAL STRATUM must not equal 3.

FINAL STRATUM should not equal 1, 3, 5 or 6. there must exist at least one vehicle where BODY TYPE equals 60-79, and UNIT TYPE equals 1.
there should exist at least one vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2.
(5A4P) FINAL STRATUM equals 1,
(5A5P) FINAL STRATUM equals 5,
(5A6P) FINAL STRATUM equals 2,
(5A7P) FINAL STRATUM equals 3 ,
(5A8P) FINAL STRATUM equals 4,
(5A9P) FINAL STRATUM equals 4, and INJURY SEVERITY equals 1,

## THEN

there should exist:

1) at least one vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and INJURY SEVERITY equals 4 for at least one occupant of that vehicle; or
2) one and only one vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and INJURY SEVERITY equals 3 for at least one occupant of that vehicle; or
3) 2 or more vehicles where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and at least 2 vehicles where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and INJURY SEVERITY equals 3 for at least one occupant of a vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2.
there should exist at least one vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and INJURY SEVERITY equals 1, 2, 3 or 5 for at least one occupant of that vehicle. there 1) should exist at least one vehicle where UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2; or 2) INJURY SEVERITY should equal 1-5 for at least one person in the crash.
INJURY SEVERITY must equal 2-4 for at least one person in the crash.
INJURY SEVERITY must not equal 2-4 for any person in the crash. there should exist no vehicles where BODY TYPE equals 60-79, and UNIT TYPE equals 1.

# POLICE JURISDICTION <br> (GES Only) 

FORMAT: 3 numeric
SAS NAME: Accident.PJ

## ELEMENT VALUES:

001-128 Range
Definition: The number (range 1 through 120) of the police jurisdiction from which the PAR was originally sampled.

## Remarks:

This is the police jurisdiction from which the PAR is selected; it is written at the top of the PAR and is prefaced by the character "PJ". The police jurisdiction may also be shown as the second of three numbers separated by -'s. The first number in the set of three is the primary sampling unit; the second is the police jurisdiction; and the third is the PAR number. The jurisdiction number written on the PAR must match the number shown in the "GES Input Form" PAR/Jurisdiction field.

## THIS PAGE INTENTIONALLY LEFT BLANK

## ADDITIONAL STATE INFORMATION

FORMAT: Alphanumeric
SAS NAME: None

## ELEMENT VALUES:

Blanks
Any Alphanumeric Characters

## Remarks:

This space is reserved for each individual state's use.
Suggested uses depend on potential needs of the state.
This space may contain:

1. Police Accident Report number.
2. Additional crash location information.

If HPMS number is available, it may be inserted here.

## THIS PAGE INTENTIONALLY LEFT BLANK

## VEHICLE NUMBER - VEHICLE LEVEL

FORMAT: 3 numeric
SAS NAME: Vehicle.Veh_No

## ELEMENT VALUES:

001-999
Definition: This element identifies the number assigned to this vehicle in the crash.

## Remarks:

Each motor vehicle in a crash must be assigned a unique number. The numbers assigned to vehicles must be consecutive, starting with '001' with no missing numbers.

Motor vehicles are assigned the PAR's vehicle number unless a number is skipped because of a non-contact vehicle included on the PAR with a vehicle number or a non-motorist included with a unit number.

## Consistency Checks:

## IF

## THEN

(060P) NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST is not equal to 000, 999,
(CSI5) VEHICLE NUMBER at the Person Level is greater than 000,
the NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST must equal some VEHICLE NUMBER in the case. VEHICLE NUMBER at the Person Level must equal a VEHICLE NUMBER at the Vehicle Level.
(CSI6) For each VEHICLE NUMBER, PERSON NUMBERS must be consecutive, beginning with 001 and with no gaps.

## THIS PAGE INTENTIONALLY LEFT BLANK

# NUMBER OF OCCUPANTS 

FORMAT: 2 numeric
SAS NAME: Vehicle.Numoccs; Parkwork.PNUMOCCS

## ELEMENT VALUES:

00 None
01-95 Actual Value* if Total Known except:
96 Ninety-Six or more
99 Unknown
Definition: This element identifies the number of occupants in each vehicle.

## Remarks:

This data element must be coded for each motor vehicle involved in the crash. Code the total number of occupants (injured and uninjured) in this motor vehicle.

In bus crashes, the total number of occupants, including the driver, must be entered.
00 (None) is used when this motor vehicle is unoccupied.
99 (Unknown) is used when the number of occupants for the motor vehicle is unknown. This code may also be used when this motor vehicle is a "hit-and-run" vehicle, unless evidence clearly establishes the number of occupants present.

Also use 99 (Unknown) when the State reports information only on drivers and INJURED passengers and the total number of occupants is unknown.

In those states where data are collected ONLY on INJURED persons and drivers, BUT the actual number of motor vehicle occupants is known, code this element with the number of motor vehicle occupants and complete Person Level forms for ALL INVOLVED individuals. Bus and railroad crashes are an exception. For bus crashes (Body Types 50-59), the total number of occupants, including the driver, should be recorded, but Person Level (MV Occupant) forms should only be submitted for injured occupants and for the driver, whether the driver is injured or not.

NOTE: This does NOT apply to small van-based buses (Body Type 21). Always submit a person level form for all occupants of van-based vehicles, including small van-based buses.

[^0]
## Consistency Checks:

## IF

(2FOF) NUMBER OF OCCUPANTS equals 00 ,
(4C1P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 01-05,
07-09, 14, 15, 17, 19, 94, 95, 97, and VEHICLE TRAILING does NOT equal 0 ,
(4C2P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 06, 11, 16, and VEHICLE TRAILING does NOT equal 0 ,
(4C3P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 12, and VEHICLE TRAILING does NOT equal 0 ,
(4C4P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals $80-83$, 88, 89, and VEHICLE TRAILING does NOT equal 0 ,
(4C5P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 42, 73, and VEHICLE TRAILING does NOT equal 0 ,
(4C6P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 60-65, 71, 72, 79, and VEHICLE TRAILING does NOT equal 0 ,
(4C7P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 66, and VEHICLE TRAILING does NOT equal 0 ,
(4C8P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 91, and VEHICLE TRAILING does NOT equal 0,
(4C9P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 90, and VEHICLE TRAILING does NOT equal 0 ,
(4COP) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 99, and VEHICLE TRAILING does NOT equal 0 ,

## THEN

DRIVER PRESENCE must equal 0.
NUMBER OF OCCUPANTS must not be greater than 20.

NUMBER OF OCCUPANTS must not be greater than 22.

NUMBER OF OCCUPANTS must not be greater than 25.

NUMBER OF OCCUPANTS must not be greater than 5 .

NUMBER OF OCCUPANTS must not be greater than 30.

NUMBER OF OCCUPANTS must not be greater than 55.

NUMBER OF OCCUPANTS must not be greater than 77.

NUMBER OF OCCUPANTS must not be greater than 10.

NUMBER OF OCCUPANTS must not be greater than 20.

NUMBER OF OCCUPANTS must not be greater than 10.
(4F1P) NUMBER OF OCCUPANTS is less than 97, and BODY TYPE equals 01-05, 07-10, 13, 17, 80-83, 88-90, 91-94, 95, 97, and VEHICLE TRAILING equals 0 ,
(4F2P) NUMBER OF OCCUPANTS is less than 97, and BODY TYPE equals 06, 11, and VEHICLE TRAILING equals 0 ,
(4F3P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 12, and VEHICLE TRAILING equals 0 ,
(4F4P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 80-83, 88, 89, and VEHICLE TRAILING equals 0 ,
(4F5P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals $15,16,42$, 73, and VEHICLE TRAILING equals 0 ,
(4F6P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 60-65, 71, 72, 79, and VEHICLE TRAILING equals 0 ,
(4F7P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 66, and VEHICLE TRAILING equals 0 ,
(4F8P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 91, and VEHICLE TRAILING equals 0 ,
(4F9P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 90, and VEHICLE TRAILING equals 0 ,
(4FOP) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 99, and VEHICLE TRAILING equals 0 ,
(5FOF) NUMBER OF OCCUPANTS equals 00-95, and BODY TYPE does not equal 50-52, 55, 58, 59,
(BJ4P) any DRIVER DISTRACTED BY equals 03 ,

## THEN

NUMBER OF OCCUPANTS must not be greater than 15 .

NUMBER OF OCCUPANTS must not be greater than 22.

NUMBER OF OCCUPANTS must not be greater than 25.

NUMBER OF OCCUPANTS must not be greater than 5 .

NUMBER OF OCCUPANTS must not be greater than 30 .

NUMBER OF OCCUPANTS must not be greater than 55.

NUMBER OF OCCUPANTS must not be greater than 50.

NUMBER OF OCCUPANTS must not be greater than 10.

NUMBER OF OCCUPANTS must not be greater than 20.

NUMBER OF OCCUPANTS must not be greater than 10.
the number of Person Level forms for that vehicle must be less than or equal to the NUMBER OF OCCUPANTS. NUMBER OF OCCUPANTS must be greater than 01.

## THEN

(V170) NUMBER OF OCCUPANTS is less than 97, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 01-05, 07-09, 14, 15, 17, 19, 94, 95, 97,
(V180) NUMBER OF OCCUPANTS is less than 97, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 06, 11,
(V190) NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 12,
(V200) NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 80-83, 88, 89,
(V210) NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals $15,16,42$, 73,
(V220) NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals $60-65,71$, 72, 79,
(V230) NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 66,
(V240) NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 91,
(V250) NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 90,
(V260) NUMBER OF OCCUPANTS is, 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 99,
(V290) BODY TYPE equals 90,
(V340) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 01-05, 07-09, 14, 15, 17, 19, 97, and VEHICLE TRAILING does NOT equal 0 ,

NUMBER OF OCCUPANTS should not be greater than 8 .

NUMBER OF OCCUPANTS should not be greater than 12.

NUMBER OF OCCUPANTS should not be greater than 15 .

NUMBER OF OCCUPANTS should not be greater than 2.

NUMBER OF OCCUPANTS should not be greater than 12.

NUMBER OF OCCUPANTS should not be greater than 12 .

NUMBER OF OCCUPANTS should not be greater than 5 .

NUMBER OF OCCUPANTS should not be greater than 2.

NUMBER OF OCCUPANTS should not be greater than 8 .

NUMBER OF OCCUPANTS should not be greater than 5 .

NUMBER OF OCCUPANTS should equal 01.
NUMBER OF OCCUPANTS should not be greater than 8 .
(V350) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 06, 11, 16, and VEHICLE TRAILING does NOT equal 0 ,
(V360) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 12, and VEHICLE TRAILING does NOT equal 0 ,
(V370) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 80-83, 88, 89, and VEHICLE TRAILING does NOT equal 0,
(V380) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 42, 73, and VEHICLE TRAILING does NOT equal 0 ,
(V390) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 60-65, 71, 72, 79, and VEHICLE TRAILING does NOT equal 0,
(V400) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 66, and VEHICLE TRAILING does NOT equal 0 ,
(V410) NUMBER OF OCCUPANTS is less than 01-96, and BODY TYPE equals 91, and VEHICLE TRAILING does NOT equal 0,
(V420) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 90, and VEHICLE TRAILING does NOT equal 0 ,
(V430) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 98, 99, and VEHICLE TRAILING does NOT equal 0 ,

## THEN

NUMBER OF OCCUPANTS should not be greater than 12 .

NUMBER OF OCCUPANTS should not be greater than 15 .

NUMBER OF OCCUPANTS should not be greater than 2.

NUMBER OF OCCUPANTS should not be greater than 12 .

NUMBER OF OCCUPANTS should not be greater than 12 .

NUMBER OF OCCUPANTS should not be greater than 5 .

NUMBER OF OCCUPANTS should not be greater than 2.

NUMBER OF OCCUPANTS should not be greater than 8 .

NUMBER OF OCCUPANTS should not be greater than 5 .

## THIS PAGE INTENTIONALLY LEFT BLANK

## UNIT TYPE

FORMAT: 1 numeric

## SAS NAME: Vehicle.UNITTYPE

## ELEMENT VALUES:

1 Motor Vehicle In-Transport (Inside or Outside the Trafficway)
2 Motor Vehicle Not In-Transport Within the Trafficway
3 Motor Vehicle Not In-Transport Outside the Trafficway
4 Working Motor Vehicle (Highway Construction, Maintenance, Utility only)
Definition: This element identifies the type of unit that applies to this motor vehicle at the time it became an involved vehicle in the crash and was reported as a unit on the Police Accident Report (PAR).

## Remarks:

## IMPORTANT:

Remember, you must have at least one motor vehicle "In-Transport" involved in the crash for this to be a reportable case.

NOTE: For Unit Type attributes "2-4," you must only submit selected elements on the Vehicle Level. V15, V24, and V31 are not coded. Also, all elements on the Driver level must be left blank, except D4 (DRIVER PRESENCE) and D24 (RELATED FACTORS-DRIVER LEVEL). Related Factors-Driver Level must be coded all "00."

1 (Motor Vehicle In-Transport [Inside or Outside the Trafficway]) is used to indicate that this is a motor vehicle in-transport. "In-Transport" means any part of the vehicle's primary outline as defined by the four sides of the vehicle (excluding open doors or mirrors) or load, if any, is within the roadway (travel lanes) or the vehicle is in motion anywhere within or outside the trafficway boundaries.

## Examples:

1. Motor vehicle in traffic on the highway.
2. Motionless motor vehicle abandoned on the roadway travel lanes.
3. Motor vehicle on roadway stopped at traffic signal.
4. Motor vehicle driving or in motion on the shoulder, median or roadside.
5. Motor vehicle driving down a private driveway.
6. Motor vehicle in motion, outside the trafficway boundaries (e.g., vehicle pulling up to a pump in a gas station; not within trafficway; vehicle in motion in a parking lot aisle; lawn tractor driving in a field adjacent to the trafficway; ATV driving on a dirt track next to trafficway; etc.).
7. A tractor trailer with its load hanging over the roadway edge line.
8. A pickup truck on the shoulder with lumber extending into the travel lanes.

2 (Motor Vehicle Not In-Transport Within the Trafficway) is used to indicate that this is a motor vehicle not in-transport located within the trafficway boundaries when it became an involved unit. The trafficway boundaries are from property line to property line.

## Examples:

1. Motor vehicle parked in designated curbside parking lane.
2. Motor vehicle parked in designated curbside parking lane with an open door crossing into the travel lane.
3. Motor vehicle stopped completely on the shoulder, median or roadside.

3 (Motor Vehicle Not In-Transport Outside the Trafficway) is used to indicate that this is a motor vehicle not in-transport located outside the trafficway boundaries when it became an involved unit by being struck by a motor vehicle in-transport.

## Examples:

1. Motor vehicle parked in a private driveway, parking lot space, or other private property (outside the trafficway boundaries).
2. Any vehicle used for private construction occurring outside the trafficway boundaries.

4 (Working Motor Vehicle [Highway Construction, Maintenance, Utility only]) is used to indicate that this is a motor vehicle that was in the act of performing highway construction, maintenance or utility work related to the trafficway when it became an involved unit. This "work" may be located within open or closed portions of the trafficway and motor vehicles performing these activities can be within or outside the trafficway boundaries. This code does not include private construction/maintenance vehicles, or vehicles such as garbage trucks, delivery trucks, taxis, emergency vehicles (except example \#8 below), tow trucks, etc.

## Examples:

1. Asphalt/steam roller working in a highway construction zone paving the roadway or flattening dirt.
2. State highway maintenance crew painting lane lines on the road, mowing grass on the roadside or median, repairing potholes, removing debris from the roadway, etc.
3. Utility truck or a "cherry picker", performing maintenance on power lines along the roadway or maintaining a traffic signal.
4. A private excavating company contracted by the State digging the foundation for a new overpass.
5. A state, county, or privately owned snow plow, plowing ice/snow as part of a highway maintenance activity.
6. Street sweeper sweeping the street.
7. A vehicle in a mobile work convoy displaying arrow boards or other signaling devices warning motorists of the work activity.
8. A law enforcement vehicle which is participating strictly in a stationary construction or mobile maintenance activity as a traffic slowing, control, signaling or calming influence.

When not in the act of performing "work" and involved in the crash, these highway construction, maintenance or utility vehicles can be:

1) In-Transport when traveling from one construction site to the next (Unit Type $\mathbf{1}$ (Motor Vehicle In-Transport [Inside or Outside the Trafficway])
2) Not In-Transport Within the Trafficway when stopped on the shoulder or within a highway work zone (Unit Type 2 (Motor Vehicle Not In-Transport Within the Trafficway)).
3) Not In-Transport Outside the Trafficway when parked and refueling at a depot (Unit Type 3 (Motor Vehicle Not In-Transport Outside the Trafficway)).
4) In-Transport Outside the Trafficway when relocating off the trafficway from a work activity area to another off-trafficway parking location.

## Consistency Checks:

|  | IF | THEN |
| :---: | :---: | :---: |
| (252P) | RELATION TO TRAFFICWAY equals 01, 02, 03, 04, 07, 08, 10 , 11, 98 or 99, | UNIT TYPE for VEHICLE NUMBER (OTHER VEHICLE) involved in the FIRST HARMFUL EVENT must not equal 3. |
| (255P) | RELATION TO TRAFFICWAY equals 01 or 11, | UNIT TYPE for VEHICLE NUMBER (THIS VEHICLE) involved in the FIRST HARMFUL EVENT must equal 1. |
| (256P) | RELATION TO TRAFFICWAY equals 01 or 11, | UNIT TYPE for VEHICLE NUMBER (OTHER VEHICLE) involved in the FIRST HARMFUL EVENT should equal 1 or 4. |
| (257P) | RELATION TO TRAFFICWAY equals 05, | UNIT TYPE for VEHICLE NUMBER (OTHER VEHICLE) involved in the FIRST HARMFUL EVENT must equal 1, 3, or 4. |
| (2H1F) | UNIT TYPE equals 1, and DRIVER PRESENCE equals 0 or 9 , | DRIVER'S VISION OBSCURED BY must equal 95. |
| (3BAP) | UNIT TYPE equals 1, and DRIVER PRESENCE equals 0 , | CRASH TYPE must equal 00, 04, 09, $15,32,42,48,52,62,66,74,84,90$, 93 or 98. |
| (3COP) | UNIT TYPE equals 1, and EXTENT OF DAMAGE equals 6, | VEHICLE REMOVAL should equal 2, 8, 9. |

(42BP) there is only one vehicle involved in the First Harmful Event where UNIT TYPE equals 1,
(4Z1P) UNIT TYPE equals 1 , and FIRE OCCURRENCE equals 1 ,
(5AOP) UNIT TYPE equals 1 , and BODY TYPE equals 80, 81, 83, 88, 89, and any RELATED FACTORS - VEHICLE LEVEL does not equal 30,
(9A2P) UNIT TYPE equals 2,3 ,
(9A3P) UNIT TYPE equals 2-4,
(9A5P) PERSON TYPE equals 03,
(9B3P) UNDERRIDE/OVERRIDE equals 7,
(9B4P) UNDERRIDE/OVVERIDE equals 8 ,
(9B5P) UNIT TYPE equals 2,3 ,
(9B7P) UNIT TYPE equals 2-4,
(9B9P) any SEQUENCE OF EVENTS equals 55 ,
(9C4P) UNIT TYPE equals 1 , and DRIVER PRESENCE equals 0 or 9 ,
(9COP) FIRST HARMFUL EVENT equals 55,
(9C1P) UNIT TYPE equals 4,
(AL3P) UNIT TYPE equals 2-4,
(AL4P) there is one and only one parked vehicle (UNIT TYPE equals 2 or 3) in the crash,
(AL5P) If UNIT TYPE equals 1 ,
(AL6P) MOST HARMFUL EVENT equals $\qquad$ , and UNIT TYPE equals 1 ,
(AZ20) UNIT TYPE equals 1, and DRIVER PRESENCE equals 0 or 9 ,

## THEN

the number of vehicles where CRASH TYPE is coded 00, 1-16, 92, 93 or 99 (excluding from the vehicles being counted, those where CRASH TYPE equals 98) must not equal 0 or be greater than 1.
at least one SEQUENCE OF EVENTS must equal 02.
ROLLOVER and LOCATION OF ROLLOVER must equal 0.

REGISTERED VEHICLE OWNER must equal 6.
DRIVER PRESENCE must equal 0. UNIT TYPE must equal 2-4.
there must be at least one vehicle with UNIT TYPE equal to 1.
there must at least one vehicle with UNIT TYPE equal 2-4.
UNDERRIDE/OVERRIDE must equal 0 . PERSON TYPE of all occupants of this vehicle must equal 03.
there must be at least one other vehicle with UNIT TYPE equal to 1 .
DRIVER MANEUVERED TO AVOID must only equal 95 .
there must be at least one vehicle with UNIT TYPE equal to 1 .
RELATED FACTORS-VEHICLE LEVEL must not equal 39 .
MOST HARMFUL EVENT must not equal 54 for this vehicle.
MOST HARMFUL EVENT for the parked vehicle must not equal 14.
at least one event in the SEQUENCE OF EVENTS must equal the MOST HARMFUL EVENT.
at least one event in the SEQUENCE OF EVENTS must equal $\qquad$ PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 00.
(BJ1P) UNIT TYPE equals 1, and DRIVER PRESENCE equals 0 or 9 ,
(BJ2P) UNIT TYPE equals 1, and DRIVER PRESENCE equals 1 ,
(BJ3P) UNIT TYPE equals 1, and DRIVER DISTRACTED BY equals 16,
(FP2F) UNIT TYPE equals 1, and CRASH TYPE equals blank, case status is flawed.
(FP3F) UNIT TYPE is blank, case status is flawed.
(FP6F) UNIT TYPE equals 1, and CRITICAL EVENT - PRECRASH (CATEGORY) equals blank, case status is flawed.
(FP7F) UNIT TYPE equals 1, and CRITICAL EVENT - PRECRASH (EVENT) equals blank, case status is flawed.
(V74P) UNIT TYPE equals 1, and ROLLOVER equals 1, 2, 9, or LOCATION OF ROLLOVER equals 1-7, 9,
(VH25) UNIT TYPE equals 4,
(VH70) UNIT TYPE equals 2-4,
(VH75) UNIT TYPE equals 4,
(VH80) UNIT TYPE equals 4,

## Consistency Checks (GES Only):

## IF

(VH88) UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and BODY TYPE equals 01-49 or 60-79,
(VH89) UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and BODY TYPE equals 01-49,
(VH90) UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and BODY TYPE equals 01-49 or 60-79,
(VH91) UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and BODY TYPE equals 01-49,
(5A1P) BODY TYPE equals 60-79, and UNIT TYPE equals 1,
(5A2P) FINAL STRATUM equals 2,
at least one SEQUENCE OF EVENTS must equal 01 for this vehicle.

REGISTERED VEHICLE OWNER should not equal 6, 9.
elements V15, V24, V31 must all be left blank.
VEHICLE CONFIGURATION should not equal 05, 20, 21, 10.
CARGO BODY TYPE should not equal 06, 07, 11, 12, 22.

## THEN

STRATUM should not equal 4.

STRATUM should not equal 3.

FINAL STRATUM must not equal 4.

FINAL STRATUM must not equal 3.

FINAL STRATUM should not equal 1, 3, 5 or 6.
there must exist at least one vehicle where BODY TYPE equals 60-79, and UNIT TYPE equals 1.

THEN
(5A3P) FINAL STRATUM equals 1, 5 or 6,
(5A4P) FINAL STRATUM equals 1,
(5A5P) FINAL STRATUM equals 5,
(5A6P) FINAL STRATUM equals 2,
(5A9P) FINAL STRATUM equals 4, and INJURY SEVERITY equals 1,
there should exist at least one vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2.
there should exist:

1) at least one vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and INJURY SEVERITY equals 4 for at least one occupant of that vehicle; or
2) one and only one vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and INJURY SEVERITY equals 3 for at least one occupant of that vehicle; or
3) 2 or more vehicles where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and at least 2 vehicles where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and INJURY SEVERITY equals 3 for at least one occupant of a vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2.
there should exist at least one vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and INJURY SEVERITY equals 1, 2, 3 or 5 for at least one occupant of that vehicle. there 1) should exist at least one vehicle where UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2; or 2) INJURY SEVERITY should equal 1-5 for at least one person in the crash.
there should exist no vehicles where BODY TYPE equals 60-79, and UNIT TYPE equals 1.

## HIT-AND-RUN

FORMAT: 1 numeric
SAS NAME: Vehicle.Hit_Run, Parkwork.PHit_Run

## ELEMENT VALUES:

$0 \quad$ No
1 Yes
9 Unknown
Definition: This element refers to cases where a vehicle is a contact vehicle in the crash and does not stop to render aid (this can include drivers who flee the scene on foot).

## Remarks:

In many states, the investigating officer will note this in the narrative or check the appropriate box on the PAR. In some cases, the driver can be cited for failing to render assistance. Review the case materials carefully for references to hit-and-run or failure to render aid.

It does not matter whether the hit-and-run vehicle was striking or struck. The hit-and-run vehicle(s) is (are) the one(s) that "departed prior to investigation by the police," or that vehicle which is "abandoned" at the scene when its occupant(s) fled from the area. If the police report indicates that the vehicle was involved in a collision which was investigated, but there is no information on that vehicle or the driver/owner because of departure prior to police arrival onscene, then hit-and-run is indicated.
$\mathbf{0}$ (No) is used if there is no reason to believe a hit-and-run occurred involving this vehicle or its driver. Example: If a vehicle is involved in a multi-vehicle collision and one of the other contact vehicles leaves the scene.

## Examples include:

1. if occupants of a vehicle are taken or go directly from the scene to a medical treatment facility or physician. However if doubt exists concerning the departure for treatment, assume hit-and-run.
2. a driver who leaves the scene but furnishes name, address, vehicle make, model and model year such that it is recorded in the available information and the available information does not indicate hit-and-run.
3. vehicles which set an object in motion such that (a) the object is contacted, before it stabilizes, by another in-transport motor vehicle, and (b) the vehicle which set the object in motion leaves the scene without providing the pertinent information (compare with exception two above), and (c) the available information does not indicate hit-and-run.
$\mathbf{1}$ (Yes) is used when it has been determined that this vehicle's driver left the scene with or without their vehicle.

A hit-and-run occurred when this vehicle's driver left the scene after:

- striking a pedestrian or other type of non-motorist.
- striking a parked/stopped off roadway motor vehicle (with or without occupants).
- being struck while parked or in-transport.

If Hit-and-Run is $\mathbf{1}$ (Yes), Driver and Person Level (MV Occupant) forms must be submitted for the driver and occupants of this vehicle involved in the crash regardless of the fact that it was a hit-and-run.

When the presence of a hit-and-run vehicle is indicated and the available information does not provide the number of occupants, the number of occupants coded must equal 1 (the driver). In cases where the hit-and-run vehicle and its driver are not identified, code all the elements on the Vehicle, Driver and Person Level as 9 (Unknown). Otherwise, if some information is known about the vehicle and/or driver, code all the elements for which information exists and leave the rest as 9 (Unknown).

9 (Unknown) is used when the police indicate "Unknown."

## Consistency Checks:

## IF

(8KOP) VIOLATIONS CHARGED equals 07, 08,
(U340) UNLIKELY: HIT-AND-RUN equals 0 or 9 and SEX equals 9.
(U360) UNLIKELY: HIT-AND-RUN equals 0 or 9 and AGE equals 999.
(U070) UNLIKELY: More than one vehicle with HIT-AND-RUN equal to 1.
(V860) HIT-AND-RUN equals 0 , and BODY VEHICLE CONFIGURATION should TYPE equals 61-64,
(V880) HIT-AND-RUN equals 0, and BODY TYPE equals 66,
(VH87) HIT-AND-RUN equals 0, and AREAS OF IMPACT-INITIAL CONTACT POINT equals 01-14,

THEN
HIT-AND-RUN must not equal 0 . equal 01, 02, 04, and CARGO BODY TYPE should equal 01-10, 12, 96-98 VEHICLE CONFIGURATION should equal 05-08, 19, and CARGO BODY TYPE should equal 01-04, 06-12, 9698.
the corresponding code should be included in DAMAGED AREAS or DAMAGED AREAS should equal 15.

# REGISTRATION STATE <br> (FARS Only) 

FORMAT: 2 numeric
SAS NAME: Vehicle.REG_STAT; Parkwork.PREG_STAT

## ELEMENT VALUES:

00 Not Applicable
01 Alabama
02 Alaska
03 American Samoa
04 Arizona
05 Arkansas
06 California
08 Colorado
09 Connecticut
10 Delaware
11 District of Columbia
12 Florida
13 Georgia
14 Guam
15 Hawaii
16 Idaho
17 Illinois
18 Indiana
19 Iowa
20 Kansas
21 Kentucky
22 Louisiana
23 Maine
24 Maryland
25 Massachusetts
26 Michigan
27 Minnesota
28 Mississippi
29 Missouri
30 Montana
31 Nebraska
32 Nevada
33 New Hampshire
34 New Jersey

35 New Mexico
36 New York
37 North Carolina
38 North Dakota
39 Ohio
40 Oklahoma
41 Oregon
42 Pennsylvania
43 Puerto Rico
44 Rhode Island
45 South Carolina
46 South Dakota
47 Tennessee
48 Texas
49 Utah
50 Vermont
51 Virginia
52 Virgin Islands
53 Washington
54 West Virginia
55 Wisconsin
56 Wyoming
91 Not Reported
92 No Registration
93 Multiple State Registration
94 U.S. Government Tags (includes
military)
Canada
Mexico
Other Foreign Country*
Other Registration (includes
Native American Indian Nations)
Unknown

Definition: This element identifies the state in which this vehicle was registered.

## Remarks:

For a vehicle with an expired registration code the state where the vehicle was registered at the time of expiration.

## 91 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 91 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

For combination vehicles, use the registration state of the power unit only.
00 (Not Applicable) is used for vehicles that are exempt from registration.
Use state codes for all state registered vehicles, including state government vehicles.
However, if your state does not register government-owned vehicles, use $\mathbf{0 0}$ (Not Applicable).
92 (No Registration) applies to vehicles that are required by state law to be registered and are NOT registered.

93 (Multiple State Registration) is used for commercial vehicles that are registered in more than one state under a valid reciprocal agreement (such as the International Registration Plan (IRP)).

94 (U.S. Government) is used to indicate the license was issued by the U.S. Government, such as military or State Department Foreign Service.

99 (Unknown) is used when the registration information for a vehicle cannot be identified. Example unidentified hit-and-run vehicle's registration reported as "Unknown" by police.

## Consistency Checks:

|  | IF | THEN |
| :---: | :---: | :---: |
| (9KOP) | HM2 equals 2, | REGISTRATION STATE must not equal 00. |
| (AQOP) | REGISTRATION STATE equals 00, 92, | REGISTERED VEHICLE OWNER must equal $0,5,6$. |
| (AVOP) | REGISTERED VEHICLE OWNER equals 3,4 , | REGISTRATION STATE must not equal 99. |
| (D330) | DRIVER PRESENCE equals 0 , and REGISTRATION STATE is not equal to 00, 92, 99, | REGISTERED VEHICLE OWNER should equal 3-6. |
| (U040) | UNLIKELY: REGISTRATION STATE equals 97. |  |
| (V060) | SPECIAL USE equals 04, | REGISTRATION STATE should equal 94. |
| (V070) | HM1 equals 2, | REGISTRATION STATE should not equal 92 . |
| (V550) | REGISTRATION STATE equals 93, 94, | REGISTERED VEHICLE OWNER should equal 3, 4 . |
| (V560) | SPECIAL USE equals 04, | REGISTERED VEHICLE OWNER should equal 3 , and REGISTRATION STATE should equal 94. |
| (V600) | REGISTERED VEHICLE OWNER equals 9 , | REGISTRATION STATE should equal 99. |
| (V630) | REGISTRATION STATE equals 00, 92, | REGISTERED VEHICLE OWNER should NOT equal 5 . |
| (V670) | REGISTERED VEHICLE OWNER equals 1,2 , | REGISTRATION STATE should NOT equal 99 . |
| (V960) | REGISTRATION STATE equals 99, | REGISTERED VEHICLE OWNER should equal 5, 6, 9. |
| Consistency Check (FARS Only): |  |  |
|  | IF | THEN |
| (6GOP) | RELATED FACTORS-VEHICLE LEVEL equals 32, | REGISTRATION STATE must not equal 00, 92. |
| (U450) | UNLIKELY: REGISTRATON STATE e | uals 91. |
| (V592) | RELATED FACTORS-VEHICLE LEVEL equals 37 , | REGISTRATION STATE should not equal 00, 92. |

## THIS PAGE INTENTIONALLY LEFT BLANK

# REGISTERED VEHICLE OWNER <br> (FARS Only) 

FORMAT: 1 numeric
SAS Name: Vehicle.OWNER, parkwork.POWNER

## ELEMENT VALUES:

0 Not Applicable, Vehicle Not Registered
1 Driver (in this crash) Was Registered Owner
2 Driver (in this crash) Not Registered Owner (other private owner listed)
3 Vehicle Registered as Business/Company/Government Vehicle
4 Vehicle Registered as Rental Vehicle
$5 \quad$ Vehicle Was Stolen (reported by police)
6 Driverless/Motor Vehicle Parked/Stopped Off Roadway
9 Unknown
Definition: This element is used to determine the type of registered owner of the vehicle.

## Remarks:

The type of ownership, "loan vs. lease," does not change the coding. An individual or company should be the Registered Vehicle Owner, regardless of the bank holding the loan or lease. Banks and leasing companies should be the Registered Vehicle Owner for their own fleets only.

0 (Not Applicable, Vehicle Not Registered) applies to vehicles that are not registered, both exempt from registration and illegally not registered. (See 5 (Vehicle Was Stolen [reported by police]) for stolen vehicles.)

2 (Driver (in this crash) Not Registered Owner [other private owner listed]) is used for private owners other than the driver. Also, if the driver is a spouse of the owner but is not a coowner.

4 (Vehicle Registered as Rental Vehicle) applies for rental vehicles, such as: Hertz, Ryder trucks, etc.

5 (Vehicle Was Stolen [reported by police]) takes precedence over codes "0, 2, 3, 4, 6," when multiple conditions exist.

6 (Driverless/Motor Vehicle Parked/Stopped Off Roadway) is used for both in-transport and not in-transport motor vehicles. This attribute should always be used if Unit Type is coded as " 2 " or " 3 ," even if other applicable conditions exist. This attribute is also used to indicate that this is a "driverless" motor vehicle in-transport (e.g., driverless vehicle stopped in a travel lane).

If indicating this is a "driverless" motor vehicle in-transport, this attribute does not take precedence over codes "0, 3, 4, 5," when multiple conditions exist.

9 (Unknown) is used when information on the registered owner is unknown or unclear; and in certain cases when the driver cannot be determined, but the registered owner is known.

## Consistency Checks:

## IF

(9A2P) UNIT TYPE equals 2, 3,
(AQOP) REGISTRATION STATE equals 00, 92,
(AROP) SPECIAL USE equals 04,
(ASOP) RELATED FACTORS-VEHICLE LEVEL equals 32,
(AVOP) REGISTERED VEHICLE OWNER equals 3,4 ,
(CBOP) REGISTERED VEHICLE OWNER equals 6 ,
(D330) DRIVER PRESENCE equals 0 , and REGISTRATION STATE is not equal to 00, 92, 99,
(V550) REGISTRATION STATE equals 93, 94,
(V560) SPECIAL USE equals 04,
(V570) HM1 equals 2,
(V580) HM1 equals 2,
(V600) REGISTERED VEHICLE OWNER equals 9 ,
(V630) REGISTRATION STATE equals 00, 92,
(V670) REGISTERED VEHICLE OWNER equals 1, 2,
(V960) REGISTRATION STATE equals 99,
(VH25) UNIT TYPE equals 4,

## THEN

REGISTERED VEHICLE OWNER must equal 6.
REGISTERED VEHICLE OWNER must equal $0,5,6$.
REGISTERED VEHICLE OWNER must not equal 0, 1, 2, 4 .
REGISTERED VEHICLE OWNER must not equal 0 .
REGISTRATION STATE must not equal 99.

DRIVER PRESENCE must equal 0.
REGISTERED VEHICLE OWNER should equal 3-6.

REGISTERED VEHICLE OWNER
should equal 3, 4.
REGISTERED VEHICLE OWNER
should equal 3, and REGISTRATION
STATE should equal 94.
REGISTERED VEHICLE OWNER
should not equal 0, 1, 2, 4.
REGISTERED VEHICLE OWNER
should equal 3.
REGISTRATION STATE should equal
99.
REGISTERED VEHICLE OWNER
should NOT equal 5.
REGISTRATION STATE should NOT
equal 99.
REGISTERED VEHICLE OWNER
should equal 5, $6,9$.
REGISTERED VEHICLE OWNER
should not equal $6,9$.

## Consistency Check (FARS Only):

IF<br>(V590) RELATED FACTORS-VEHICLE LEVEL equals 32,<br>(V593) RELATED FACTORS-VEHICLE LEVEL equals 37,

## THEN

REGISTERED VEHICLE OWNER should equal 1-3. REGISTERED VEHICLE OWNER should not equal 0 .

## THIS PAGE INTENTIONALLY LEFT BLANK

## VEHICLE MAKE/VEHICLE MODEL OVERVIEW

## FARS SPECIAL INSTRUCTION:

VEHICLE MAKE, VEHICLE MODEL, BODY TYPE, VEHICLE MODEL YEAR as shown on crash reports must be verified with registration data. In the case of inconsistencies, registration data takes precedence over crash report data. Note that vehicle information should be gathered only from state records. Do not use any other sources to determine any of these elements, that is; you should not use sources such as the NATB Passenger Vehicle Identification Manual.

VEHICLE MAKE attributes are organized into general groups. These groups are:

| 01-28 | Domestic Passenger Car |
| :--- | :--- |
| 29 | Other Domestic Passenger Car |
| $30-67$ | Import Passenger Car |
| 69 | Other Import Passenger Car |
| $70-77$ | Motored Cycle/Moped |
| $80-89$ | Truck/Bus |
| $90-94$ | Bus |
| 97 | Not Reported |
| 98 | Other Make (where MAKE "29" or "69" are not applicable) |
| 99 | Unknown Make |

VEHICLE MODEL refers to the series of vehicles for a make, e.g., Pintos, Galaxies, Mustangs are Models of Ford. It does not refer to the various styles within a model unless they are listed in the codes for VEHICLE MODEL.

VEHICLE MODEL attributes are organized into general groups. These groups are:
001-399 Passenger Car (automobile)
400-499 Light Trucks (including truck based utility vehicles, light duty pickup trucks, standard pickup trucks, vans, mini vans, van-based station wagons, van-based buses, van derivatives, and truck-based station wagons).
598 Low Speed Vehicle (LSV) / Neighborhood Electric Vehicle (NEV)
599 Unknown Low Speed Vehicle (LSV) / Neighborhood Electric Vehicle (NEV)
700-739 Motored Cycles (including motorcycles, mini-bikes, motor scooters, dirt bikes, and mopeds).
850 Motor Home (truck based)
870 Medium/Heavy Van-Based Vehicle
880-897 Trucks (including all trucks over 10,000 lbs. GVWR except those pick-up type trucks mentioned under BODY TYPE code "30, 31" [Pickup]).
898 Other, Unknown, truck over 10,000 lbs. GVWR.
980-996 All buses except those that are van-based.
$988 \quad$ Other bus over 10,000 lbs. GVWR.
989 Unknown Bus

Note that for both VEHICLE MAKE and VEHICLE MODEL the use of the terms "other" and "unknown" have very specific meanings. "Other" refers to a VEHICLE MAKE or VEHICLE MODEL that is known but is not explicitly listed. "Unknown" refers to the situation where no specific named VEHICLE MAKE or VEHICLE MODEL is known. Selection of the proper "other" or "unknown" code can only be made with consideration of the vehicle BODY TYPE in accordance with the applicable BODY TYPE for given combinations of "other" and/or "unknown" VEHICLE MAKE and VEHICLE MODEL.

4WD, FWD, or Four-Wheel Drive does not automatically imply on/off road vehicle (Utility Vehicles), body types " 14 " and "15."

Reconstructed/Altered Vehicles: In cases where someone builds a "home made" vehicle from drastically mixed parts, there may be no clear MAKE or MODEL. In addition, the state may issue an Identification Number in place of the Standard VIN. In such cases, code the VIN as all "0's"; code MAKE, MODEL, and MODEL YEAR as "9's." Code BODY TYPE as appropriate. Be sure to use RELATED FACTORS-VEHICLE LEVEL code Reconstructed/ Altered Vehicle.

In reconstructed/altered vehicles where the modifications are less drastic and you can determine the MAKE, MODEL and VIN, code these elements appropriately and be sure to use Related Factors-Vehicle Level code Reconstructed/Altered Vehicle.

If any detail is known regarding the vehicle's Make/Model/Body/Year, code what is known and then code the other elements as unknown. For example, you know it's a Ford 4-door passenger car but the specific model and year are not reported. Code Vehicle Make as 12 (Ford), Vehicle Model as 399 (Unknown (Automobile)), Body Type as 04 (4-Door Sedan, Hard Top), and Vehicle Model Year as 9999 (Unknown)

Code Not Reported only when Vehicle Make, Vehicle Model, Body Type and Vehicle Model Year are all Not Reported.

## Not Reported

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code Not Reported in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

## THIS PAGE INTENTIONALLY LEFT BLANK

## VEHICLE MAKE

FORMAT: 2 numeric
SAS NAME: Vehicle.Make; Person.MAKE; Parkwork.PMAKE

## ELEMENT VALUES:

| 01 | American Motors | 47 | Saab |
| :--- | :--- | :--- | :--- |
| 02 | Jeep/Kaiser-Jeep/Willys-Jeep | 48 | Subaru |
| 03 | AM General | 49 | Toyota |
| 06 | Chrysler | 50 | Triumph |
| 07 | Dodge | 51 | Volvo |
| 08 | Imperial | 52 | Mitsubishi |
| 09 | Plymouth | 53 | Suzuki |
| 10 | Eagle | 54 | Acura |
| 12 | Ford | 55 | Hyundai |
| 13 | Lincoln | 56 | Merkur |
| 14 | Mercury | 57 | Yugo |
| 18 | Buick/Opel | 58 | Infiniti |
| 19 | Cadillac | 59 | Lexus |
| 20 | Chevrolet | 60 | Diahatsu |
| 21 | Oldsmobile | 61 | Sterling |
| 22 | Pontiac | 62 | Land Rover |
| 23 | GMC | 63 | Kia |
| 24 | Saturn | 64 | Daewoo |
| 25 | Grumman | 65 | Smart |
| 26 | Coda | 67 | Scion |
| 29 | Other Domestic Manufacturers | 69 | Other Import |
| 30 | Volkswagen | 70 | BSA |
| 31 | Alfa Romeo | 71 | Ducati |
| 32 | Audi | 72 | Harley-Davidson |
| 33 | Austin/Austin Healey | 73 | Kawasaki |
| 34 | BMW | 74 | Moto-Guzzi |
| 35 | Datsun/Nissan | 75 | Norton |
| 36 | Fiat | 76 | Yamaha |
| 37 | Honda | 77 | Victory |
| 38 | Isuzu | 80 | Brockway |
| 39 | Jaguar | 81 | Diamond Reo/Reo |
| 40 | Lancia | 82 | Freightliner |
| 41 | Mazda | 83 | FWD |
| 42 | Mercedes-Benz | 84 | International Harvester/Navistar |
| 43 | MG | 85 | Kenworth |
| 44 | Peugeot | 86 | Mack |
| 45 | Porsche | 87 | Peterbilt |
| 46 | Renault | 88 | Iveco/Magirus |
|  |  |  |  |

White/Autocar White/GMC
Bluebird
Eagle Coach
Gillig
MCl

94 Thomas Built
97 Not Reported
98 Other Make
99 Unknown Make

Definition: This element identifies the make (manufacturer) of this vehicle.

## Remarks:

## SEE ADDITIONAL REMARKS BEFORE VEHICLE MAKE - V9

Note that for both Vehicle Make and Vehicle Model, the use of the terms "other" and "unknown" have very specific meanings. "Other" refers to a make or model which is known but is not explicitly listed. "Unknown" refers to the situation where no specific make or model is known. Examples: 399 (Unknown (Automobile)), 499 (Unknown (Light Truck)), 739 (Unknown cc (ATV)), 884 (Medium/Heavy Truck - Unknown Engine Location), 999 (Unknown).

Selection of the proper "other" or "unknown" code can only be made with consideration of the vehicle's body type. For example, if a medium/heavy truck or bus make is known and is not listed, Vehicle Make, is coded OTHER MAKE (med/heavy truck/bus or "other") and the appropriate model code is used. If the make is unknown but the body type is known as a "school bus", for instance, Vehicle Make, is coded 99 (Unknown Make) and Vehicle Model, is coded 989 (Unknown (Bus).

99 (Unknown Make) is used for a "hit-and-run" vehicle unless reliable evidence indicates the vehicle's make.

## 97 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 97 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

If a vehicle make or vehicle model is encountered that is not listed, headquarters is notified.

## Consistency Checks:

## IF

(920P) any one of the fields MAKE, MODEL, BODY TYPE, and MODEL YEAR, equals Not Reported [MAKE (97), MODEL (997), BODY TYPE (98), and MODEL YEAR (9998)],
(921P) MAKE is not 97, 98, 99, and equals
$\qquad$ , and MODEL equals $\qquad$
(930P) any one of the fields MAKE, MODEL, BODY TYPE, and MODEL YEAR, does not equal Not Reported [MAKE (97), MODEL (997), BODY TYPE (98), and MODEL YEAR (9998)],
(960P) MAKE is not 98, 99, and equals $\qquad$ , and MODEL equals $\qquad$ ,
(U480) UNLIKELY: VEHICLE MAKE equals 97.
(V922) MAKE equals 98, 99, and MODEL equals $\qquad$
(V961) MAKE equals 98, 99, and MODEL equals $\qquad$ ,

## THEN

the other three must also equal Not Reported.

MODEL YEAR must equal $\qquad$ , or CRASH YEAR plus 1.
the other three must also not be coded as Not Reported.

BODY TYPE must equal $\qquad$ .

MODEL YEAR should equal $\qquad$ .

BODY should equal $\qquad$ -
$\qquad$ -

BODY should equal

## THIS PAGE INTENTIONALLY LEFT BLANK

## VEHICLE MODEL

FORMAT: 3 numeric

SAS NAME: Vehicle.Model; Person.Model; Parkwork.PMODEL

## ELEMENT VALUES:

| 001-397 | Automobiles |
| :---: | :--- |
| 398 | Other (Automobile) |
| 399 | Unknown (Automobile) |
| $401-497$ | Light Trucks |
| 498 | Other (Light Trucks) |
| 499 | Unknown (Light Trucks) |
| 598 | Other (Low Speed Vehicle (LSV) / Neighborhood Electric Vehicle (NEV)) |
| 599 | Unknown (Low Speed Vehicle (LSV) / Neighborhood Electric Vehicle |
|  | (NEV)) |
| $701-706$ | Motorcycles |
| 709 | Unknown cc (Motorcycles) |
| $731-734$ | All Terrain Vehicles |
| 739 | Unknown cc (ATV) |
| $801-809$ | Other Make (Medium/Heavy Trucks) |
| 850 | Motor Home |
| 870 | Medium/Heavy Van-Based Vehicle |
| 880 | Medium/Heavy Pickup (pickup-style only - over 10,000 Ibs) |
| $\mathbf{8 8 1}$ | Medium/Heavy Trucks - CBE |
| $\mathbf{8 8 2}$ | Medium/Heavy Trucks - COE (low entry) |
| $\mathbf{8 8 3}$ | Medium/Heavy Trucks - COE (high entry) |
| 884 | Medium/Heavy Trucks - Unknown engine location |
| 890 | Medium/Heavy Trucks - COE (entry position unknown) |
| 898 | Other (Medium/Heavy Trucks) |
| $901-908$ | Other Make (Buses) |
| $981-987$ | Buses |
| 988 | Other (Bus) |
| 989 | Unknown (Bus) |
| 997 | Not Reported |
| 998 | Other (Vehicle) |
| 999 | Unknown |

Definition: This element identifies the model of this vehicle within a given make.

## Remarks:

SEE ADDITIONAL REMARKS BEFORE VEHICLE MAKE - V9

Note that for both Vehicle Make and Vehicle Model, the use of the terms "other" and "unknown" have very specific meanings. "Other" refers to a make or model which is known but is not explicitly listed. "Unknown" refers to the situation where no specific make or model is known. Examples: 399 (Unknown (Automobile)), 499 (Unknown (Light Trucks)), 739 (Unknown cc (ATV)), 884 (Medium/Heavy Trucks - Unknown Engine Location), 999 (Unknown).

Selection of the proper "other" or "unknown" code can only be made with consideration of the vehicle's body type. For example, if a medium/heavy truck or bus make is known and is not listed, Vehicle Make, is coded OTHER MAKE (med/heavy truck/bus or "other") and the appropriate model code is used. If the make is unknown but the body type is known as a "school bus", for instance, Vehicle Make, is coded 99 (Unknown Make) and Vehicle Model, is coded 989 (Unknown (Bus).

Unknown Make is used for a "hit-and-run" vehicle unless reliable evidence indicates the vehicle's make.

## 997 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 997 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

If a vehicle make or vehicle model is encountered that is not listed, headquarters is notified.

## Consistency Checks:

## IF

## THEN

(920P) any one of the fields MAKE, MODEL, BODY TYPE, and MODEL YEAR, equals Not Reported [MAKE (97), MODEL (997), BODY TYPE (98), and MODEL YEAR (9998)],
(921P) MAKE is not 97, 98, 99, and equals
$\qquad$ _, and MODEL equals $\qquad$ _,
the other three must also equal Not Reported.

MODEL YEAR must equal $\qquad$ , or CRASH YEAR plus 1.

## IF

## THEN

(930P) any one of the fields MAKE, MODEL, BODY TYPE, and MODEL YEAR, does not equal Not Reported [MAKE (97), MODEL (997), BODY TYPE (98), and MODEL YEAR (9998)],
(960P) MAKE is not 98, 99, and equals $\qquad$ , and MODEL equals $\qquad$ _,
(U460) UNLIKELY: VEHICLE MODEL equals 997.
(V922) MAKE equals 98, 99, and MODEL MODEL YEAR should equal $\qquad$ equals $\qquad$ _,
(V961) MAKE equals 98, 99, and MODEL equals $\qquad$ _,
the other three must also not be coded as Not Reported.

BODY TYPE must equal $\qquad$ .
$\qquad$


BODY should equal $\qquad$ .

## THIS PAGE INTENTIONALLY LEFT BLANK

## ALPHABETICAL LISTING OF MAKES

| FARS MAKE CODE | MAKE | MAKE/ TABLE PAGE | NCIC CODE* | FARS MAKE CODE | MAKE | MAKEI MODEL PAGE \# | NCIC CODE* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 54 | Acura | 207 | (ACUR) | 98-905 | DINA | 296 | (DINA) |
| 31 | Alfa Romeo | 207 | (ALFA) | 98-803 | Divco | 296 | (DIVC) |
| 03 | AM General | 208 | (AMGN) | 07 | Dodge | 223 | (DODG) |
| 01 | American Motors | 209 | (AMER) | 71 | Ducati | 279 | (DUCA) |
| 69-031 | Aston Martin | 274 | (ASTO) | 10 | Eagle | 227 | (EGIL) |
| 32 | Audi | 210 | (AUDI) | 91 | Eagle Coach | 293 |  |
| 33 | Austin/Austin | 212 | (AUST) | 29-398 | Excaliber | 274 | (EXCL) |
|  | Healey |  |  | 69-035 | Ferrari | 275 | (FERR) |
| 29-001 | Avanti | 274 | (AVTI) | 36 | Fiat | 227 | (FIAT) |
| 98-802 | Auto-Union-DKW | 296 | (AUTU) | 69-398 | Fisker | 277 |  |
| 69-042 | Bentley | 276 | (BENT) | 12 | Ford | 228 | (FORD) |
| 69-052 | Bertone | 276 | (BERO) | 82 | Freightliner | 285 | (FRHT) |
| 90 | Bluebird | 293 | (BLUI) | 83 | FWD | 286 | (FWD) |
| 34 | BMW | 212 | (BMW) | 69-398 | Gazelle | 277 | (GZL) |
| 69-032 | Bricklin | 274 | (BRIC) | 92 | Gillig | 294 |  |
| 80 | Brockway | 283 | (BROC) | 23 | GMC | 232 | (GMC) |
| 70 | BSA | 279 | (BSA) | 25 | Grumman | 235 | (GRUM) |
| 69-064 | Bugatti | 276 |  | 72 | Harley- | 279 | (HD) |
| 18 | Buick | 214 | (BUIC) |  | Davidson |  |  |
| 19 | Cadillac | 216 | (CADI) | 69-036 | Hillman | 275 | (HILL) |
| 98-903 | Carpenter | 296 |  | 98-806 | Hino | 296 | (HINO) |
| 69-062 | Caterham | 276 |  | 37 | Honda | 235 | (HOND) |
| 29-002 | Checker | 274 | (CHEC) | 29-398 | Hudson | 274 | (HUDS) |
| 20 | Chevrolet | 217 | (CHEV) | 55 | Hyundai | 237 | (HYUN) |
| 06 | Chrysler | 221 | (CHRY) | 08 | Imperial | 238 | (CHRY) |
| 69-033 | Citroen | 274 | (CITR) | 58 | Infiniti | 238 | (INFI) |
| 26 | Coda | 222 |  | 84 | International | 287 | (INTL) |
| 98-904 | Collins Bus | 296 |  |  | Harvester |  |  |
| 64 | Daewoo | 222 | (DAEW) | 38 | Isuzu | 239 | (ISU) |
| 60 | Daihatsu | 223 | (DAIH) | 88 | Iveco/Magirus | 290 | (IVEC) |
| 35 | Datsun | 254 | (DATS) | 39 | Jaguar | 241 | (JAGU) |
| 69-034 | DeLorean | 274 | (DELO) | 69-037 | Jensen | 275 | (JENS) |
| 29-398 | Desoto | 274 | (DESO) | 02 | Jeep | 241 | (AMER) |
| 69-048 | Desta | 276 |  | 02 | Kaiser-Jeep | 241 | (AMER) |
| 81 | Diamond Reo | 284 | (DIAR) | 73 | Kawasaki | 280 | (KAWK) |
|  | or Reo |  |  | 85 | Kenworth | 288 | (KW) |


| FARS MAKE CODE | MAKE | MAKEI <br> MODEL <br> TABLE <br> PAGE \# | $\begin{aligned} & \text { NCIC } \\ & \text { CODE* } \end{aligned}$ | FARS MAKE CODE | MAKE | MAKEI <br> MODEL <br> TABLE <br> PAGE \# | NCIC CODE* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 63 | Kia | 243 | (KIA) | 69-049 | Reliant (British) | 276 | (RELA) |
| 69-058 | Koenigsegg | 276 |  | 46 | Renault | 262 | (RENA) |
| 69-053 | Lada | 276 | (LADA) | 69-042 | Rolls Royce | 276 | (ROL) |
| 69-038 | Lamborghini | 275 | (LAMO) | 47 | Saab | 262 | (SAA) |
| 40 | Lancia | 243 | (LNCI) | 29-004 | Saleen | 274 |  |
| 62 | Land Rover | 244 | (LNDR) | 24 | Saturn | 263 | (STRN) |
| 59 | Lexus | 244 | (LEXS) | 98-807 | Scania | 296 | (SCAN) |
| 13 | Lincoln | 245 | (LINC) | 67 | Scion | 264 | (SCIO) |
| 69-039 | Lotus | 275 | (LOTU) | 69-044 | Simca | 276 | (SIM) |
| 86 | Mack | 289 | (MACK) | 69-398 | Singer | 277 | (SIN) |
| 69-061 | Mahindra | 276 |  | 65 | Smart | 264 | (SMRT) |
| 69-040 | Maserati | 275 | (MASE) | 69-057 | Spyker | 276 |  |
| 69-056 | Maybach | 276 | (MAYB) | 61 | Sterling | 265 | (STLG) |
| 41 | Mazda | 246 | (MAZD) | 98-809 | Sterling | 296 | (STLG) |
| 69-063 | McLaren | 276 |  | 29-001 | Studabaker | 274 | (STU ) |
| 93 | MCI | 294 | (MCIN) | 29-398 | Stutz | 274 | (STUZ) |
| 42 | Mercedes-Benz | 248 | (MERZ) | 48 | Subaru | 265 | (SUBA) |
| 14 | Mercury | 250 | (MERC) | 69-045 | Sunbeam | 276 | (SUNB) |
| 56 | Merkur | 252 | (MERK) | 53 | Suzuki | 266 | (SUZI) |
| 98-302 | Meyers Motors | 295 |  | 29-005 | Tesla | 274 |  |
| 98-906 | Mid Bus | 296 |  | 98-301 | Think | 295 |  |
| 69-054 | Mini-Cooper | 276 | (MNNI) | 94 | Thomas Built | 294 | (THMS) |
| 43 | MG | 252 | (MG) | 49 | Toyota | 268 | (TOYT) |
| 52 | Mitsubishi | 252 | (MITS) | 50 | Triumph | 270 | (TRIU) |
| 69-055 | Morgan | 276 | (MORG) | 69-046 | TVR | 275 | (TVR) |
| 69-041 | Morris | 275 | (MORR) | 98-808 | UD | 296 | (UD) |
| 74 | Moto-Guzzi | 280 | (MOGU) | 98-908 | Van Hool | 297 |  |
| 84 | Navistar | 287 | (NAVI) | 77 | Victory | 281 | (VCTY) |
| 98-902 | Neoplan | 295 | (NEOP) | 30 | Volkswagen | 270 | (VOLK) |
| 35 | Nissan | 254 | (NISS) | 51 | Volvo | 272 | (VOLV) |
| 75 | Norton | 281 | (NORT) | 98-804 | Western Star | 296 | (WSTR) |
| 21 | Oldsmobile | 256 | (OLDS) | 89 | White/Autocar | 292 | (WHIT) |
| 18 | Opel | 215 | (OPEL) | 89 | White/GMC | 292 | (WHGM) |
| 98-907 | Orion | 297 | (ONTR) | 02 | Willys-Jeep | 241 | (AMER) |
| 98-805 | Oshkosh | 296 | (OSHK) | 76 | Yamaha | 281 | (YAMA) |
| 29-398 | Packard | 274 | (PACK) | 57 | Yugo | 274 | (YUGO) |
| 29-003 | Panoz | 274 | (PANZ) |  |  |  |  |
| 87 | Peterbilt | 291 | (PTRB) |  |  |  |  |
| 44 | Peugeot | 257 | (PEUG) |  |  |  |  |
| 09 | Plymouth | 258 | (PLYM) |  |  |  |  |
| 22 | Pontiac | 260 | (PONT) |  |  |  |  |
| 45 | Porsche | 261 | (PORS) |  |  |  |  |

## NUMERICAL LISTING OF MAKES

| FARS <br> MAKE | MAKE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CODE |  |


| FARS MAKE CODE | MAKE | MAKE/ <br> MODEL <br> TABLE <br> PAGE \# | $\begin{aligned} & \text { NCIC } \\ & \text { CODE* } \end{aligned}$ | FARS MAKE CODE | MAKE | MAKE/ <br> MODEL <br> TABLE <br> PAGE \# | $\begin{aligned} & \text { NCIC } \\ & \text { CODE* } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 81 | Diamond Reo or | 284 | (DIAR) | 69-044 | Simca | 276 | (SIM) |
|  | Reo |  |  | 69-045 | Sunbeam | 276 | (SUNB) |
| 82 | Freightliner | 285 | (FRHT) | 69-046 | TVR | 276 | (TVR) |
| 83 | FWD | 286 | (FWD) | 69-048 | Desta | 276 |  |
| 84 | International | 287 | (INTL) | 69-049 | Reliant (British) | 276 | (RELA) |
|  | Harvester |  |  | 69-052 | Bertone | 276 | (BERO) |
| 84 | Navistar | 287 | (NAVI) | 69-053 | Lada | 276 | (LADA) |
| 85 | Kenworth | 288 | (KW) | 69-054 | Mini-Cooper | 276 | (MNNI) |
| 86 | Mack | 289 | (MACK) | 69-055 | Morgan | 276 | (MORG) |
| 87 | Peterbilt | 291 | (PTRB) | 69-056 | Maybach | 276 | (MAYB) |
| 88 | Iveco/Magirus | 290 | (IVEC) | 69-057 | Spyker | 276 |  |
| 89 | White/Autocar | 292 | (WHIT) | 69-058 | Koenigsegg | 276 |  |
| 89 | White/GMC | 292 | (WHGM) | 69-061 | Mahindra | 276 |  |
| 90 | Bluebird | 293 | (BLUI) | 69-062 | Caterham | 276 |  |
| 91 | Eagle Coach | 293 |  | 69-063 | McLaren | 276 |  |
| 92 | Gillig | 294 |  | 69-064 | Bugatti | 276 |  |
| 93 | MCl | 294 | (MCIN) | 69-398 | Fisker | 277 |  |
| 94 | Thomas Built | 294 | (THMS) | 69-398 | Gazelle | 277 | (GZL) |
| 29-001 | Avanti | 274 | (AVTI) | 69-398 | Singer | 277 | (SIN) |
| 29-001 | Studabaker | 274 | (STU ) | 98-301 | Think | 295 |  |
| 29-002 | Checker | 274 | (CHEC) | 98-302 | Meyers Motors | 295 |  |
| 29-003 | Panoz | 274 | (PANZ) | 98-802 | Auto-Union- | 296 | (AUTU) |
| 29-004 | Saleen | 274 |  |  | DKW |  |  |
| 29-005 | Tesla | 274 |  | 98-803 | Divco | 296 | (DIVC) |
| 29-398 | Desoto | 274 | (DESO) | 98-804 | Western Star | 296 | (WSTR) |
| 29-398 | Excaliber | 274 | (EXCL) | 98-805 | Oshkosh | 296 | (OSHK) |
| 29-398 | Hudson | 274 | (HUDS) | 98-806 | Hino | 296 | (HINO) |
| 29-398 | Packard | 274 | (PACK) | 98-807 | Scania | 296 | (SCAN) |
| 29-398 | Stutz | 274 | (STUZ) | 98-808 | UD | 296 | (UD) |
| 69-031 | Aston Martin | 274 | (ASTO) | 98-809 | Sterling | 296 | (STLG) |
| 69-032 | Bricklin | 274 | (BRIC) | 98-902 | Neoplan | 296 | (NEOP) |
| 69-033 | Citroen | 274 | (CITR) | 98-903 | Carpenter | 296 |  |
| 69-034 | DeLorean | 274 | (DELO) | 98-904 | Collins Bus | 296 |  |
| 69-035 | Ferrari | 275 | (FERR) | 98-905 | DINA | 296 | (DINA) |
| 69-036 | Hillman | 275 | (HILL) | 98-906 | Mid Bus | 296 |  |
| 69-037 | Jensen | 275 | (JENS) | 98-907 | Orion | 297 | (ONTR) |
| 69-038 | Lamborghini | 275 | (LAMO) | 98-908 | Van Hool | 297 |  |
| 69-039 | Lotus | 275 | (LOTU) |  |  |  |  |
| 69-040 | Maserati | 275 | (MASE) |  |  |  |  |
| 69-041 | Morris | 275 | (MORR) |  |  |  |  |
| 69-042 | Bentley | 276 | (BENT) |  |  |  |  |
| 69-042 | Rolls Royce | 276 | (ROL) |  |  |  |  |


| MAKE: | Acura | (54) |  | (ACUR) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | Integra | GS, LS, RS, GS-R, Type R | $\begin{aligned} & \text { 1986-2001, } \\ & 9999 \end{aligned}$ | 03-05,07,09 |
| 032 | Legend | L, LS, GS, Special Edition, GS-R | 1986-95,9999 | 02,04,08,09 |
| 033 | NSX | NSX-T | $\begin{aligned} & \text { 1991-2005, } \\ & 9999 \end{aligned}$ | 02 |
|  | Vigor |  | 1992-94,9999 | 04 |
| 035 | TL | $\begin{aligned} & \text { 3.2, 3.5, 3.7, SH-AWD } \\ & \text { (AT/MT) } \end{aligned}$ | $\begin{aligned} & \text { 1996-2013, } \\ & 9999 \end{aligned}$ | 04 |
| 036 | RL/RLX | 3.5, 3.7 | $\begin{aligned} & \text { 1996-2014, } \\ & 9999 \end{aligned}$ | 04 |
| 037 | CL | 2.2, 2.3, 3.0, 3.2, Type S | $\begin{aligned} & \text { 1997-2003, } \\ & 9999 \end{aligned}$ | 02 |
| 038 | RSX | 2.0, Type S | 2002-06,9999 | 03 |
| 039 | TSX | 2.4, 3.5, Hybrid, Special Edition, V6 | 2004-13,9999 | 04, 06, 09 |
| 040 | ZDX | 3.7, SH-AWD | 2010-13,9999 | 05 |
| 041 | ILX | 2.0, 2.4, Hybrid | 2013 | 04 |
|  | Other (automobile) |  | $\begin{aligned} & \text { 1986-2014, } \\ & 9999 \end{aligned}$ | 02-09 |
|  | Unknown (automobile) |  | $\begin{aligned} & \text { 1986-2014, } \\ & 9999 \end{aligned}$ | 02-09 |
| LIGHT TRUCKS |  |  |  |  |
| 401 | SLX |  | $\begin{aligned} & \text { 1996-2000, } \\ & 9999 \end{aligned}$ | 14 |
| 402 | RDX | 2.3, SH-AWD | 2007-13,9999 | 14 |
| 421 | MDX |  | 2001-13,9999 | 15 |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1996-2013, } \\ & 9999 \end{aligned}$ | 19 |
| 999 | Unknown (ACURA) |  | $\begin{aligned} & \text { 1986-2014, } \\ & 9999 \end{aligned}$ | 49 |
| MAKE: | Alfa Romeo | (31) |  | (ALFA) |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | Spider (Spyder) | Roadsters, Veloce, Quadrifoglio, Duetto, Graduate, 1600/1750/1900/ 2000 roadsters, Giulia, Giulietta, Giulietta Veloce, Tipo | 1933-94,9999 | 01,02,09 |
| 2013 |  |  |  | 207 |


| MAKE: | Alfa Romeo (Cont.) | (31) |  | (ALFA) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 032 | Sports Sedan | 4-door sedans (except 164); <br> Milano, Giulietta, Super, <br> Berlina, Alfetta, Giulia <br> 1750/1900/2000/2600 <br> sedans, Alpha 90 | 1933-89,9999 | 04 |
| 033 | Sprint/Special | 2-door coupes; Alfetta GT, Monteal, 1750/1900/2000/ 2600 GTV, Sprint GT, GT Veloce, Giulia, Giulietta, Super, GTA, GTV, GTZ, TZ2 | 1933-80,9999 | 02 |
| 034 | GTV-6 |  | 1981-86,9999 | 02 |
| 035 | 164 (Alpha 164) | LS, Q, Quadrifoglio | 1990-95,9999 | 04 |
| 398 | Other (automobile) | Alfa, Montreal | 1933-95,9999 | 01-04,08,09 |
| 399 | Unknown (automobile) |  | 1933-95,9999 | 01-04,08,09 |


| MAKE: | AM General | (03) |  | (AMGN) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| LIGHT TRUCKS |  |  |  |  |
| 401 | Dispatcher | Post Office (Jeep) | 1965-94,9999 | 14 |
| 402 | Hummer | H3 (Base, Luxury, <br> Adventure, Limited Edition), <br> x, Alpha | 2006-11,9999 | 14 |
| 421 | Hummer (SUV from 19932003; see 431 for 2004 on) (for Pickup, see model 481) | Slantback-HMSB, H1, H2 | $\begin{aligned} & \text { 1992-2003, } \\ & 9999 \end{aligned}$ | 15 |
| 431 | Hummer (2004 on; see model 421 for 1993-2003) | H1 (Base, Luxury, Adventure), H2 (Base, Luxury, Adventure), Limousine | 2004-11,9999 | 16 |
| 466 | Dispatcher | DJ-series-Post Office Van | 1965-91,9999 | 22 |
| 481 | Hummer (Pickup) (for SUV see model 421 for 1993-2003; see 431 for 2004 on) | H1, H2 (Base, Luxury, Adventure, Limited Edition), Alpha | $\begin{aligned} & \text { 1992-2011, } \\ & 9999 \end{aligned}$ | 31 |
| 482 | Hummer | H3T (Adventure, Luxury, Alpha) | 2009-11,9999 | 31 |
| 498 | Other (light truck) |  | $\begin{aligned} & \text { 1940-2011, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 14-16,19,22,31-33, \\ & 39-42,45,48 \end{aligned}$ |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1940-2011, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 14-16,19,22,31-33 \\ & 39-42,45,48,49 \end{aligned}$ |


| MAKE: | AM General (Cont.) | (03) |  | (AMGN) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| MEDIUM/HEAVY TRUCKS |  |  |  |  |
| 884 | Medium/Heavy Truck | Military off-road | $\begin{aligned} & \text { 1965-2011, } \\ & 9999 \end{aligned}$ | 60-64,71,72,78 |
| 898 | Other (medium/heavy truck) |  | 1965-94,9999 | 60-64,71,72,78 |
| BUSES |  |  |  |  |
| 983 | Bus: Rear engine, Flat front | Transit | 1965-94,9999 | 52 |
| 988 | Other (bus) |  | 1965-94,9999 | 50-52,58,59 |
| 989 | Unknown Bus Type |  | 1965-94,9999 | 50-52,58,59 |
| OTHER VEHICLE |  |  |  |  |
| 998 | Other (vehicle) |  | 1965-94,9999 | 91-93,97 |
| 999 | Unknown (AM GENERAL) |  | $\begin{aligned} & \text { 1965-2011, } \\ & 9999 \end{aligned}$ | 49,79,99 |
| MAKE: | American Motors* | (01) |  | (AMER) |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 001 | Rambler American | Rogue, 220, 330, 440, 440- <br> H, Scrambler Deluxe, Custom, Super, Classic, Brougham, SC | 1954-69,9999 | $\begin{aligned} & 01,02,04,06, \\ & 08,09 \end{aligned}$ |
| 002 | Rebel | Mariner, Briarcliff, Westerner, The Machine, SST, 550, Grant, King | 1967-70,9999 | $\begin{aligned} & 01,02,04,06, \\ & 08,09 \end{aligned}$ |
| 002 | Matador | Brougham, X, Oleg Cassini, Barcelona, Police, The Machine | 1971-78,9999 | 02,04,06,08,09 |
| 002 | Marlin | Black, Radar, Tahiti, Marlin II | 1965-67,9999 | 02,08,09 |
| 003 | Ambassador | 800, 880, 990, SST, DPL, Brougham, DDL, Limited | 1958-74,9999 | 02,04,06,08,09 |
| 004 | Pacer | D/L, X, Limited | 1975-80,9999 | 02,03,06,09 |
| 005 | AMX | (2-seater only) | 1968-70,9999 | 02,03,09 |
| 006 | Javelin | SST, AMX (1971-1974) | 1968-74,9999 | 02,03,09 |
| 007 | Hornet | SST, Sportabout, AMX D/L, SC-360, Gucci Edition, Levi Trim Package, X | 1970-77,9999 | 02-04,06,08,09 |
| 007 | Concord | AMX Limited, D/L, Levi Trim, Sport, Base, Sundancer | 1978-83,9999 | 01-04,06,08,09 |
| 008 | Gremlin | Base, X, Levi Trim, GT, AMX | 1970-78,9999 | 03,09 |
| 008 | Spirit | GT, AMX, D/L, SST | 1979-83,9999 | 02,03,09 |


| MAKE: |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| American Motors* (Cont.) |  | (01) |  | (AMER) |
| Model Codes |  |  |  |  |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 009 |  |  |  |  |
| Eagle |  |  |  |  |

* NOTE: Alliance, Encore, Premier (including L, DL, and Limited) is coded under Renault (46).

| MAKE: | Audi | (32) |  | (AUDI) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | Super 90 |  | 1966-72,9999 | 02,04,06,08,09 |
| 032 | 100 | S, CS, LS, GL, Quattro (1989-on) | $\begin{aligned} & \text { 1970-77; } \\ & \text { 1989-94,9999 } \end{aligned}$ | 02,04,06,08,09 |
| 033 | Fox |  | 1973-79,9999 | 02,04,06,08,09 |
| 034 | 4000 | Quattro, Coupe, Coupe GT, CS, S | 1980-93,9999 | 02,04,08,09 |
| 035 | 5000 | Quattro, CS, S, CS Turbo Quattro, T | 1978-93,9999 | 04,06,09 |
| 036 | 80/90 | Quattro, Coupe Quattro | 1988-95,9999 | 04 |
| 037 | 200 | Turbo Quattro | 1989-92,9999 | 04,06,09 |
| 038 | V-8 Quattro | 100 series | 1990-94,9999 | 04 |
| 039 | Coupe Quattro | 4000 series | 1990-91,9999 | 02,03,09 |
| 040 | S4 (1992-1994; 2000-2011 only. See model 055 for 2012 on)/S6 (1992-1994; 20002011 only. See model 056 for 2013 on.) | Quattro, Avant Quattro (Wagon), 3.0, 4.2 Saloon, Avant (2.7), RS4, Special Edition, V10, 5.6, 5.2 | $\begin{aligned} & \text { 1992-95; } \\ & \text { 2000-11,9999 } \end{aligned}$ | 01,04,06,09 |
| 041 | Cabriolet (1994-1998) |  | 1994-98,9999 | 01 |
| 042 | A6 | Avant Quattro Wagon (3.0L, 3.0T), Quattro (2.7T, 4.2), FrontTrak (2.8, 3.0L), RS6, 3.2, S Line, 3.0T, (Premium, Premium Plus, Prestige), 2.0T (Premium, Premium Plus), Special Edition | $\begin{aligned} & \text { 1995-2013, } \\ & 9999 \end{aligned}$ | 04, 06, 09 |
| 043 | A4 | Avant Wagon (1.8T, 2.0T, 2.8, 3.0, 3.2), Avant Quattro Wagon, FrontTrak (1.8, 2.8, 3.0), Quattro (1.8T, 2.0T, 3.0, 3.2), Special Edition, S Line, 2.0T(Premium, Premium Plus, Prestige) | $\begin{aligned} & \text { 1996-2013, } \\ & 9999 \end{aligned}$ | 01,04,06,09 |


| MAKE: | Audi (Cont.) | (32) |  | (AUDI) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 044 | A8 | 4.2 Quattro, L, W12, NWB, 3.0T, 4.0T | $\begin{aligned} & \text { 1997-2013, } \\ & 9999 \end{aligned}$ | 04 |
| 045 | TT/TTS | FWD, Quattro AWD, 180, 225 Quattro Roadster, FrontTrak (180), 1.8L, 2.0, 3.2L, S Line, RS (Premium, Premium Plus, Prestige), 2.0T (Premium Plus, Prestiage) | 2000-13,9999 | 01-03, 09 |
| 046 | S8 | 4.2 Quattro, 5.2 | $\begin{aligned} & \text { 2001-03; } \\ & \text { 2007-09, } \\ & \text { 2012-13, } 9999 \end{aligned}$ | 02,04,09 |
| 047 | Allroad (2001-05 only. See 403 for 2013 on) | QuattroWagon, 2.7T, 4.2 | 2001-05, 9999 | 06 |
| 048 | A3 | 2.0T/FSI, 3.2 S Line (Premium, Premium Plus), TDI | 2006-13,9999 | 05 |
| 049 | A5 | 2.0, 2.0T, 3.2, (Premium, Premium Plus, Prestige) | 2008-13,9999 | 01,02,09 |
| 050 | R8 | 4.2, 5.2, Spyder, GT | 2008-13,9999 | 01,02,09 |
| 051 | A7 |  | $\begin{aligned} & \text { 2008-10, } \\ & \text { 2012-13, } 9999 \end{aligned}$ | 04 |
| 052 | S5 | 4.2, 3.0 (Premium Plus, Prestige) | 2008-13,9999 | 01,02,09 |
| 054 | RS5 | 4.2 Prestige | 2013 | 02 |
| 055 | S4 (2012 on only. See model 040 for 1992-1994; 2000-2011) | 3.0T Prestige, Premium Plus | 2012-13,9999 | 04 |
| 056 | S6 (2013 on. See model 040 for 1992-1994; 20002011) | 4.0TFSI Prestige | 2013 | 04 |
| 057 | S7 | Prestige | 2013 | 05 |
| 398 | Other (automobile) |  | $\begin{aligned} & \text { 1970-2013, } \\ & 9999 \end{aligned}$ | 01-06,08,09 |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1970-2013, } \\ & 9999 \end{aligned}$ | 01-06,08,09 |
| LIGHT TRUCKS |  |  |  |  |
| 401 | Q7 | 3.6/4.2 Premium, Hybrid, 3.0T, TDI, S Line, Premium Plus, Prestige | 2007-13,9999 | 14 |
| 402 | Q5 | 2.0T, 3.2, Premium, Premium Plus, Prestige, 3.0T, Hybrid | 2008-13,9999 | 14 |


| MAKE: | Audi (Cont.) | (32) |  | (AUDI) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| LIGHT TRUCKS (Cont.) |  |  |  |  |
| 403 | Allroad (2013 on. For 2001-2005 see model 047.) | 2.07 (Premium, Premium Plus, Prestige | 2013 | 14 |
| 499 | Unknown (light truck) |  | 2007-13,9999 | 14 |
| 999 | Unknown (AUDI) |  | $\begin{aligned} & \text { 1966-2013, } \\ & 9999 \end{aligned}$ | 49, 99 |


| MAKE: | Austin/Austin H | (33) |  | (AUST) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | Marina | GT | 1973-75,9999 | 01-04,08,09 |
| 032 | America |  | 1968-72,9999 | 02 |
| 033 | Healey Sprite | Mark II, MKIV/Princess (Special Order) | 1958-70,9999 | 01,04,09 |
| 034 | Healey 100/3000 | M, S, Mark III | 1953-67,9999 | 01 |
| 035 | Mini/Mini Cooper/Mini Moke | 850, S | 1960-69,9999 | 01,02,06,09 |
| 398 | Other (automobile) | A35, A40, Westminster, Cambridge, Somerset, Seven, Hereford, Sports, Sheerline, Atlantic, Countryman, Dorset, Devon | 1947-75,9999 | 01-04,06,08,09 |
| 399 | Unknown (automobile) |  | 1947-75,9999 | 01-04,06,08,09 |


| MAKE: |
| :--- |
| BMW |
|  |
| Model |
| AUTOMOBILES |
| 031 |
| 1600/1800/2000/2002 |


| MAKE: | BMW (Cont.) | (34) |  | (BMW) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 035 | 5-series | 524i,525i/xi,528i/iT/xi, xDrive, 530i/iT/xi,533i, 535i/xi,xDrive, 550i, xDrive 540/i/iA/iT, TD Sport Wagon,525i/iT, (wagon 1992-93), M5, 545i, 550i/ix, Gran Turismo, ActiveHybrid 5 | $\begin{aligned} & \text { 1975-2013, } \\ & 9999 \end{aligned}$ | 04-06,09 |
| 036 | 6-series | 630, 633, 635, csi, M6, L6, <br> 640i, 645Ci, 650i/ix, <br> Neiman Marcus Edition, xDrive | $\begin{aligned} & \text { 1976-89, } \\ & \text { 2004-13,9999 } \end{aligned}$ | 01,02,04,09 |
| 037 | 7-series | 733i, 735i, L7, 740i/L/iL/iA /Li Protection,750 i/iL/Li/ Lxi/Ix Protection,745i/Li, 760i/Li, Alpina B7, Individual, ActiveHybrid, xDrive | $\begin{aligned} & \text { 1978-2013, } \\ & 9999 \end{aligned}$ | 04 |
| 038 | 8-series | 840Ci/cia, 850i/iS/Ci/Cia | 1991-97,9999 | 02 |
| 039 | Z3 | 2.3/2.8/2.5i/3.0i Roadster, MRoadster, MCoupe, 2.8/3.0i Coupe | $\begin{aligned} & \text { 1996-2003, } \\ & 9999 \end{aligned}$ | 01-03, 09 |
| 040 | Z8 |  | 2000-03,9999 | 01 |
| 041 | V5 |  | 2007-08,9999 | 06 |
| 042 | Z4 | 2.5i, 2.8i, 3.0i/si, 3.5i/is, Z4M/s/sDrive | 2003-13,9999 | 01,02,09 |
| 043 | 1-Series | 128i, 135i/is, Electric | 2008-13,9999 | 01,02,09 |
| 044 | X6 | 35i, 50i, ActiveHybrid, M, xDrive | 2008-13,9999 | 05 |
| 398 | Other (automobile) |  | $\begin{aligned} & \text { 1955-2013, } \\ & 9999 \end{aligned}$ | 01-04,06,08,09 |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1955-2013, } \\ & 9999 \end{aligned}$ | 01-04,06,08,09 |
| LIGHT TRUCKS |  |  |  |  |
| 401 | X5 | 3.0i/si, 4.0is, 4.4i, 4.6is, 4.8is, M, 35d, Premium, 35i, 35d, 50i, Sport Activity, Premium | 2000-13,9999 | 14 |
| 402 | X3 | 2.5i, 2.8i, 3.0i/xDrive, 3.5i, <br> 4.8is, M Sports Package | 2004-13,9999 | 14 |
| 403 | X1 | 28i/is, 35i, xDrive | 2012-13, 9999 | 14 |
| 499 | Unknown (light truck) |  | 2000-13,9999 | 14 |


| MAKE: | BMW (Cont.) | (34) |  | (BMW) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| MOTORCYCLES |  |  |  |  |
| 703 | 125-349cc |  | 1948-66,9999 | 80 |
| 705 | 450-749cc |  | $\begin{aligned} & \text { 1950-2003; } \\ & \text { 2006-13,9999 } \end{aligned}$ | 80 |
| 706 | 750cc and over |  | $\begin{aligned} & \text { 1969-2013, } \\ & 9999 \end{aligned}$ | 80 |
| 709 | Unknown cc |  | $\begin{aligned} & \text { 1948-2013, } \\ & 9999 \end{aligned}$ | 80 |
| 999 | Unknown (BMW) |  | $\begin{aligned} & \text { 1948-2013, } \\ & 9999 \end{aligned}$ | 99 |


| MAKE: | Buick | (18) |  | (BUIC) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 001 | Special/Skylark | GS (350, 400, 455), Deluxe GS California, Sport Wagon, Custom Roadmaster (1946-59), Skylark Edition | 1936-73, 9999 | $\begin{aligned} & 01,02,04,06, \\ & 08,09 \end{aligned}$ |
| 002 | LeSabre/Centurion/ Wildcat | Estate Wagon, Invicta, Custom, Limited, T-Type, Ltd, C.M.I, LE, Celebration Edition, Best Seller | $\begin{aligned} & \text { 1959-2005, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & \text { 01,02,04,06, } \\ & 08,09 \end{aligned}$ |
| 003 | Electra/Electra 225/Park Avenue (1991-on) | Limited, Park Avenue, Ultra, Base, Prestige, SE | $\begin{aligned} & \text { 1959-2005, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 01,02,04,06, \\ & 08,09 \end{aligned}$ |
| 004 | Roadmaster | Estate Wagon, Limited | 1991-96,9999 | 04,06,09 |
| 005 | Riviera | S-Type, T-Type, Coupe Anniversrary Edition, Silver Arrow | $\begin{aligned} & \text { 1963-93; } \\ & \text { 1995-99,9999 } \end{aligned}$ | 01,02,09 |
| 007 | Century | Luxus, T-Type, FWD (82on), Custom, Regal (72-77), Limited, LE, SE, Base, Special | $\begin{aligned} & \text { 1954-2005, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & \text { 01,02,04,06, } \\ & 08,09 \end{aligned}$ |
| 008 | Apollo/Skylark | Skylark (75), S/R | 1973-76,9999 | 02-04,08,09 |
| 010 | Regal (RWD only) | Turbo, Luxus, Grand National GNX, T-Type | 1978-88,9999 | 02,04,06,08,09 |
| 012 | Skyhawk | S-Type, Roadhawk, T-Type, GT | $\begin{aligned} & \text { 1975-80; } \\ & \text { 1982-89,9999 } \end{aligned}$ | 02-04,06,08,09 |
| 015 | Skylark (76-85) | S/R, S, Limited, Sport, T-Type | 1975-85,9999 | 02-04,08,09 |
| 018 | Somerset/Skylark | Skylark (86-on), <br> Sommerset, GS, Regal, <br> Custom, Limited, T-Type | 1985-98,9999 | 02,04,08,09 |
| 019 | Regal (2011 on) | GS, CXL, Turbo | 2011-13,9999 | 04 |


| MAKE: | Buick (Cont.) | (18) |  | (BUIC) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 020 | Regal (FWD) | Limited, Custom, Gold, Grand Sport GS, LS, Sport | $\begin{aligned} & \text { 1987-2004, } \\ & 9999 \end{aligned}$ | 02,04,08,09 |
| 021 | Reatta |  | 1988-91,9999 | 01,02,09 |
| 022 | LaCrosse | CX, CXL (FWD/AWD), CXS, Super | 2005-13,9999 | 04 |
| 023 | Lucerne | CX, CXL V6, CXL V8, CXS, Super, Special Edition | 2006-11,9999 | 04 |
| 024 | Enclave (2008-12 model years only. For 2013 on see model 421.) | CX, CXL (FWD/AWD) | 2008-12,9999 | 06 |
| 025 | Verano | Base, Convenience, Leather, Turbo | 2012-13,9999 | 04 |
| 031 | Opel Kadett |  | 1965-72,9999 | 02,04,06,08,09 |
| 032 | Opel Manta | 1900, Luxus, Ralley, Sports Coupe | 1966-75,9999 | 02,04,06,08,09 |
| 033 | Opel GT |  | 1969-75,9999 | 02 |
| 034 | Opel Isuzu | Deluxe, Sport | 1976-79,9999 | 02,04,08,09 |
| 398 | Other (automobile) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 01-04,06,08,09 |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1950-2013, } \\ & 9999 \end{aligned}$ | 01-04,06,08,09 |
| LIGHT TRUCKS |  |  |  |  |
| 401 | Rendezvous | CX, CXL, Ultra, Plus | 2002-07,9999 | 14 |
| 402 | Rainier | CXL, CXL Plus | 2004-07,9999 | 14 |
| 404 | Encore | Convenience, Leather, Premium | 2013 | 14 |
| 421 | Enclave (2013 on. See model 024 for 2008-12 model years.) | Convenience, Leather, Premium | 2013 | 15 |
| 441 | Terraza | CX, CXL | $\begin{aligned} & 2005-07,9999 \\ & 2002-07 \\ & 2013,9999 \end{aligned}$ | 20 |
| 498 | Other (light truck) |  | $\begin{aligned} & \text { 2002-07, 2013, } \\ & 9999 \end{aligned}$ | 14, 15, 20 |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 2002-07,2013, } \\ & 9999 \end{aligned}$ | 14,15, 20 |
| 999 | Unknown (BUICK) |  | $\begin{aligned} & \text { 1946-2013, } \\ & 9999 \end{aligned}$ | 49 |


| MAKE: | Cadillac | (19) |  | (CADI) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 003 | Deville/Fleetwood (except Limousine) | Coupe de Ville, Sedan de Ville, Fleetwood Brougham, Fleetwood 60 Special, d'Elegance, Concours, DHS, DTS | $\begin{aligned} & \text { 1940-2005, } \\ & 9999 \end{aligned}$ | 01,02,04,08,09 |
| 004 | Limousine | Fleetwood 75, Formal, Deville-based, DTS | $\begin{aligned} & \text { 1940-2013, } \\ & 9999 \end{aligned}$ | 12 |
| 005 | Eldorado | Biarritz, El-doro, Touring Coupe, ESC, ETC | $\begin{aligned} & \text { 1967-2003, } \\ & 9999 \end{aligned}$ | 01,02,09 |
| 006 | Commercial Series | Ambulance/Hearse, Professional | $\begin{aligned} & \text { 1940-2013, } \\ & 9999 \end{aligned}$ | 09-12 |
| 009 | Allante' |  | 1987-93,9999 | 01,02,09 |
| 014 | Seville | Elegante, STS, SLS | $\begin{aligned} & \text { 1976-2004, } \\ & 9999 \end{aligned}$ | 04 |
| 016 | Cimarron | D'Oro | 1982-88,9999 | 04 |
| 017 | Catera | Sport | $\begin{aligned} & \text { 1997-2001, } \\ & 9999 \end{aligned}$ | 04 |
| 018 | CTS/CTC | Luxury, Luxury Sport, VSeries, 2.8L, 3.0L, 3.6L, 6.2L Supercharged, Premium, Performance, Standard | 2003-13,9999 | 02-04,06,09 |
| 019 | XLR | Neiman Marcus Edition, <br> V-Series, Standard, <br> Plantinum | 2004-09,9999 | 01 |
| 020 | SRX | V6, V8, Sports Package, 2.8L Turbo, 3.0L, Luxury, Performance, Premium, Standard | 2004-13,9999 | 06 |
| 021 | STS | V6, V8, V-Series, Luxury, Premium, Standard, Platinum, 3.6L | 2005-11,9999 | 04 |
| 022 | DTS | Luxury I, II, III, V8, 3.6L, Performance, Platinum | 2006-11,9999 | 04 |
| 023 | XTS | Standard, Luxury, Premium, Platinum | 2013 | 04 |
| 024 | ATS | Standard, Luxury, Performance, Premium | 2013 | 02,04,09 |
| 398 | Other (automobile) |  | $\begin{aligned} & 1965-2013 \\ & 9999 \end{aligned}$ | $\begin{aligned} & 01,02,04,06, \\ & 08,09,12 \end{aligned}$ |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1950-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 01,02,04,06, \\ & 08,09,12 \end{aligned}$ |
| LIGHT TRUCKS |  |  |  |  |
| 421 | Escalade/ESV (from 2004 on; see 431 for 2003 only) | 4WD, 2WD, Standard, Platinum, Limousine, Hybrid, Luxury, Premium | $\begin{aligned} & \text { 1999-2000; } \\ & \text { 2002-13,9999 } \end{aligned}$ | 15 |


| MAKE: | Cadillac (Cont.) | (19) |  | (CADI) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| LIGHT TRUCKS (Cont.) |  |  |  |  |
| 431 | Escalade ESV (2003 only) | Luxury, Premium, Platinum | 2003, 9999 | 16 |
| 480 | Escalade EXT (from 2002 -2006; for 2007 on see 481) | 4WD, 2WD | 2002-06,9999 | 31 |
| 481 | Escalade EXT (from 2007 on; see 480 for 20022006) | 4WD, 2WD, Luxury, Premium, Standard | 2007-13, 9999 | 31 |
| 498 | Other (light truck) |  | $\begin{aligned} & \text { 1999-2000; } \\ & \text { 2002-13, } 9999 \end{aligned}$ | 15, 16, 31 |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1999-2000; } \\ & \text { 2002-13,9999 } \end{aligned}$ | 19,39,49 |
| 999 | Unknown (CADILLAC) |  | $\begin{aligned} & \text { 1940-2013, } \\ & 9999 \end{aligned}$ | 49 |
| MAKE: | Chevrolet | (20) |  | (CHEV) |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 001 | Chevelle/Malibu (thru '83) | Classic, Councours, <br> Laguna**, S-3, Greenbriar, <br> Estate, 300, SS-396/454, <br> Deluxe | 1963-83,9999 | $\begin{aligned} & 01,02,04,06, \\ & 08,09 \end{aligned}$ |
| 002 | Impala/Caprice | Biscayne, Belair, Super Sport, Classic, Classic Brougham, Townsman, Brookwood, Kingswood, LS, LT, LTZ, Sport, SS, Luxury | $\begin{aligned} & \text { 1955-96; } \\ & \text { 2000-14,9999 } \end{aligned}$ | $\begin{aligned} & 01,02,04,06, \\ & 08,09 \end{aligned}$ |
| 004 | Corvette | Stingray, C5, Z06, Z06-R $50^{\text {th }}$ Anniversary Edition, Commemorative Edition, Indy Pace Car, ZR1, Grand Sport, 427 | $\begin{aligned} & \text { 1953-82; } \\ & \text { 1984-2013, } \\ & 9999 \end{aligned}$ | 01-03,09 |
| 006 | Corvair | Monza, Corsa, 500, Yenko | 1960-69,9999 | $\begin{aligned} & 01,02,04,06, \\ & 08,09 \end{aligned}$ |
| 007 | El Camino | Royal Knight, SS | 1958-94,9999 | 10 |
| 008 | Nova (-'79) | Chevy II, LN, LE, Concours, SS-350/396, Rally | 1962-79,9999 | 01-04,06,09 |
| 009 | Camaro | SS, RS, LT, Berlinetta, Iroc-Z, Z28, LS, LT, ZL1 | $\begin{aligned} & \text { 1967-2002, } \\ & \text { 2010-13, } 9999 \end{aligned}$ | 01-03,09 |
| 010 | Monte Carlo (thru '88) | LS, SS, Aerocoupe, Landau, Z34 | 1970-88,9999 | 02 |
| 011 | Vega | GT, Cosworth | 1971-77,9999 | 02-04,06,08,09 |
| 012 | Monza | Spyder, 2 + 2, Towne Coupe | 1974-80,9999 | 02-04,06,08,09 |
| 013 | Chevette | S, Scooter, CS | 1976-87,9999 | 03-05,07,09 |
| 015 | Citation | X-11, Citation II | 1980-85,9999 | 02-05,07,09 |
| 2013 |  |  |  | 217 |


| MAKE: | Chevrolet (Cont.) | (20) |  | (CHEV) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 016 | Cavalier | CS, RS, Z24, LS, Sport, Special Value Package | $\begin{aligned} & \text { 1982-2005, } \\ & 9999 \end{aligned}$ | 01-04,06,08,09 |
| 017 | Celebrity | CS, Eurosport, VR | 1982-90,9999 | 02,04,06,08,09 |
| 019 | Beretta/Corsica | GT, GTZ, LT, LTZ, PX, QX, KX, LX, MX, Z26 | 1982-96,9999 | 02,04,05,08,09 |
| 020 | Lumina | Z-34, Euro, LTZ, LS | $\begin{aligned} & \text { 1990-2001, } \\ & 9999 \end{aligned}$ | 02,04,06,08,09 |
| 022 | Cobalt | LS, LT, LTZ, SS, SS, Base Supercharged, Sport, VL | 2005-11,9999 | 02,04,09 |
| 023 | HHR | LS, 1LT, 2LT, SS, Panel | 2006-11,9999 | 06 |
| 024 | Traverse (2009-2012 only. For 2013 on see model 423.) | LS, LT, LTZ | 2009-12,9999 | 06 |
| 025 | Cruze | LS, LT, LTZ, ECO | 2011-13,9999 | 02, 04, 09 |
| 026 | Volt |  | 2011-13,9999 | 05 |
| 027 | Caprice PPV |  | 2011-13,9999 | 04 |
| 028 | Sonic | Base, LT, LTZ, RS | 2012-13,9999 | 04,05,09 |
| 029 | Spark | LS, LT | 2013 | 05 |
| 031 | Spectrum |  | 1985-89,9999 | 02-05,08,09 |
| 032 | Nova/Geo Prism/Prism | CL, NUMMI-built vehicles, LSi | $\begin{aligned} & \text { 1985-2002, } \\ & 9999 \end{aligned}$ | 02-05,07-09 |
| 033 | Sprint/Geo Sprint | (Cultus - foreign) | 1985-89,9999 | 03,05,07,09 |
| 034 | Geo Metro/Metro | Lsi, Xfi | $\begin{aligned} & \text { 1989-2001, } \\ & 9999 \end{aligned}$ | 01,03-05,07,09 |
| 035 | Geo Storm | Gsi | 1985-93,9999 | 02,03,09 |
| 036 | Monte Carlo (1995 on) | FWD, LS, Z34, LS, LT, LTZ, SS, Sport Edition | $\begin{aligned} & \text { 1995-2007, } \\ & 9999 \end{aligned}$ | 02 |
| 037 | Malibu/Malibu Maxx | Base, LS, LT, LTZ, SS, Hybrid, ECO, Classic | $\begin{aligned} & \text { 1997-2013, } \\ & 9999 \end{aligned}$ | 04-06,09 |
| 038 | SSR | Signature Series, LS, LS5, 1SS, 2SS, 3SS | 2003-06,9999 | 10 |
| 039 | Aveo/Aveo 5 | Base, LS, LT, Special Value | 2004-11,9999 | 04,05,09 |
| 398 | Other (automobile) | Fleetmaster, Fleetline, Styline Special, One-fifty, Bel-Air, Del Ray, Biscayne | $\begin{aligned} & 1930-2014, \\ & 9999 \end{aligned}$ | 01-11 |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1930-2014, } \\ & 9999 \end{aligned}$ | 01-11 |

**Nomad, Malibu, Laguna and other similar terms may be used on all models as a reflection of trim type.

LIGHT TRUCKS
401 S-10 Blazer/TrailBlazer (2002 only; for 2003 on, see 403)
S-10 p/u based,LS,LT,ZR2
1982-2005, 14
TrailBlazer, Xtreme, ZR2, 9999

| MAKE: | Chevrolet (Cont.) | (20) |  | (CHEV) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| LIGHT TRUCKS (Cont.) |  |  |  |  |
| 402 | Geo Tracker/Tracker | Lsi, LT, ZR2 | $\begin{aligned} & \text { 1989-2004, } \\ & 9999 \end{aligned}$ | 14 |
| 403 | TrailBlazer (from 2003 on; for 2002, see 401) | LS, LT, LTZ, North Face Edition, EXT, SS (LS/LT) | 2003-09,9999 | 14 |
| 404 | Equinox | LS, LT, LTZ, Sport | 2005-13,9999 | 14 |
| 405 | Captiva | Sport | 2012-13,9999 | 14 |
| 421 | Fullsize Blazer/Tahoe | K-series, fullsized p/u based, LS, LT, LTD, LTZ, 4WD, Z71, Hybrid | $\begin{aligned} & 1969-2013, \\ & 9999 \end{aligned}$ | 15 |
| 422 | Suburban (from 2004 on; see 431 for 1950-2003) | LS, LT, LTZ, Z71 | 2004-13,9999 | 15 |
| 423 | Traverse (2013 on. For 2009-2012 see model 024.) | LS, LT, LTZ | 2013 | 15 |
| 431 | Suburban (from 19502003;see 422 for 2004 on) | all models (C1500/2500, K1500/2500), LS, LT, Z71 | $\begin{aligned} & \text { 1950-2003, } \\ & 9999 \end{aligned}$ | 16 |
| 441 | Astro Van | Minivan, Cargo, Passenger, LT, LS, Conversion | $\begin{aligned} & \text { 1985-2005, } \\ & 9999 \end{aligned}$ | 20 |
| 442 | Lumina APV | Minivan, MPV | 1990-96,9999 | 20 |
| 443 | Venture | Cargo, Passenger, Plus, LS, <br> LT, Value, Value Plus, Extended, W. B. Edition, Entertainer | $\begin{aligned} & \text { 1997-2005, } \\ & 9999 \end{aligned}$ | 20 |
| 444 | Uplander | $\begin{aligned} & \text { Base, LS, LT, LT(AWD), LT } \\ & \text { Entertainer } \end{aligned}$ | 2005-08,9999 | 20 |
| 461 | G-series van | Beauville, Chevy Van, Sport Van, G10-G30, Express, G1500/2500/3500, LT, LS | $\begin{aligned} & \text { 1957-2013, } \\ & 9999 \end{aligned}$ | 21,22,28,29 |
| 466 | P-series van |  | 1965-99,9999 | 22,28,29 |
| 470 | Van derivative | Parcel Van, Hi-cube | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 28,29 |
| 471 | S-10/T-10 Pickup | $4 \times 4$, Fleetside, Extended, Crew, LS, S-10, Xtreme, ZR2, ZR5, electric pickup* | $\begin{aligned} & \text { 1982-2005, } \\ & 9999 \end{aligned}$ | 30,32,40,42 |
| 472 | LUV | Imported pickup | 1972-91,9999 | $30,32,40,42$ |
| 473 | Colorado | Z71, Z85, Sport, LS, LT, Work, Value | 2004-12,9999 | $30$ |
| 481 | C, K, R, V-Series pickup/Silverado | $\begin{aligned} & \text { C10-C30, K10-K30, } \\ & \text { R10-R30, V10-V30, } \\ & \text { Silverado: } 1500 \text { (C-K, HD), } \\ & 2500 \text { (C-K, HD), } 3500 \text { (CK), } \\ & \text { ST, LS, LT, Z71, Fleetside, } \\ & \text { Sportside, CrewCab, SS, } \\ & \text { Hybrid, LTZ, WT } \end{aligned}$ | $\begin{aligned} & \text { 1940-2013, } \\ & 9999 \end{aligned}$ | 31,32,39,40,42 |
| 482 | Avalanche | 1500/2500 Premium, North Face Edition, Z71, Z66, LS, LT, LTZ, Black Diamond | 2002-13,9999 | 31 |


| MAKE: | Chevrolet (Cont.) | (20) |  | (CHEV) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| LIGHT TRUCKS (Cont.) |  |  |  |  |
| 498 | Other (light truck) |  | $\begin{aligned} & \text { 1940-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 14-16,19-22, \\ & 28-32,39,40,42, \\ & 45,48 \end{aligned}$ |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1932-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 14-16,19-22 \\ & 28-32,39,40,42 \end{aligned}$ |
| * Electric Vehicle, Be sure to code Related Factors-Vehicle Level, Code "36" |  |  |  |  |
| MOTOR HOME |  |  |  |  |
| 850 | Motor Home | Truck-based | $\begin{aligned} & \text { 1949-2013, } \\ & 9999 \end{aligned}$ | 65,73 |
| MEDIUM/HEAVY TRUCKS |  |  |  |  |
| 870 | Medium/Heavy Van-Based Vehicle | Express 3500/4500 | $\begin{aligned} & \text { 1957-2013, } \\ & 9999 \end{aligned}$ | 55, 61-64 |
| 880 | Medium/Heavy Pickup (pickup-style only - over 10,000 lbs) |  | $\begin{aligned} & \text { 1953-2013, } \\ & 9999 \end{aligned}$ | 67 |
| 881 | Medium/Heavy - CBE | ```C50/60/65; M60/65; H70/80/90; J70/80/90; Bison 90; Kodiak (C4500) all other CBE``` | $\begin{aligned} & \text { 1955-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 882 | Medium/Heavy - COE low entry | T60/65, all other COE low entry | $\begin{aligned} & \text { 1960-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 883 | Medium/Heavy - COE high entry | Titan 90, all other COE high entry | 1971-80,9999 | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 884 | Medium/Heavy Unknown engine location |  | $\begin{aligned} & \text { 1951-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 890 | Medium/Heavy - COE entry position unknown |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 898 | Other (medium/heavy truck) |  | $\begin{aligned} & \text { 1949-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| BUSES |  |  |  |  |
| 981 | Bus**: Conventional (Engine out front) | S-60 series | $\begin{aligned} & \text { 1967-2013, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 988 | Other (bus) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 989 | Unknown (bus) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| OTHER VEHICLE |  |  |  |  |
| 998 | Other (vehicle) |  | $\begin{aligned} & \text { 1934-2013, } \\ & 9999 \end{aligned}$ | 91-93,97 |
| 999 | Unknown (CHEVROLET) |  | $\begin{aligned} & \text { 1933-2014, } \\ & 9999 \end{aligned}$ | 49,79,99 |


| MAKE: | Chrysler/Daimler Chrysler (06) |  |  | (CHRY) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 009 | Cordoba | Crown, 300, LS | 1975-83,9999 | 02 |
| 010 | New Yorker (thru 78)/ Newport/5 $5^{\text {th }}$ Avenue/ Imperial (1979-83) (excludes all FWD) | Town and Country, Brougham, Custom, Royal, 300 (thru 1971) Frank Sinatra editions (FS), Royal Limo, Windsor Wagon/ Ambulance | 1946-89,9999 | $\begin{aligned} & 01,02,04,06, \\ & 08,09,11,12 \end{aligned}$ |
| 014 | New Yorker/E-Class/ Imperial (1990-93)/ Fifth Avenue | FWD vehicles, Turbo, Salon | 1980-93,9999 | 02,04,08,09 |
| 015 | Laser | Turbo, XE, XT | 1984-86,9999 | 03 |
| 016 | LeBaron | Premium, Salon (RWD), Landau, LX, Town and Country cars and wagon, Medallion, FWD except GTS or GTC Sport Coupe | 1977-94,9999 | 01-09 |
| 017 | LeBaron GTS/GTC | GT, GTS-Turbo, GTCSport Coupe | 1982-95,9999 | 01-09 |
| 018 | 200 | Limited, LX, Touring, s | 2011-13,9999 | 01,04,09 |
| 021 | SRT Viper | Standard, GTS | 2013 | 02 |
| 031 | TC (Maserati Sport) | Turbo Convertible | 1988-91,9999 | 01-03,09 |
| 035 | Conquest | TSI, Turbo | 1987-89,9999 | 03 |
| 041 | Concorde | LX, Lxi, Limited | $\begin{aligned} & \text { 1993-2004, } \\ & 9999 \end{aligned}$ | 04 |
| 042 | LHS | New Yorker (1994-on) | $\begin{aligned} & \text { 1994-97; } \\ & \text { 1999-2001, } \\ & 9999 \end{aligned}$ | 04 |
| 043 | Sebring | JX, Jxi, LX, Lxi,GTC, Tsi, Limited, Plus, Platinum, Touring, Signature Series | $\begin{aligned} & \text { 1995-2011, } \\ & 9999 \end{aligned}$ | 01,02,04,08,09 |
| 044 | Cirrus | LX, Lxi | $\begin{aligned} & \text { 1995-2000, } \\ & 9999 \end{aligned}$ | 04 |
| 050 | Executive | Sedan and Limo | 1983-87,9999 | 04,09,11,12 |
| 051 | 300M/300/300C/300S | Special, Platinum, Touring, Limited, SRT, Signature Series, SRT8, LX, SRT, Heritage, Great American, Walter P. Chrysler, Glacier, Executive Series, Luxury, Motown Edition | $\begin{aligned} & \text { 1999-2013, } \\ & 9999 \end{aligned}$ | 04 |
| 052 | PT Cruiser | Base, Touring, Limited, GT, <br> Turbo, Dream Cruiser, <br> Platinum, Series 4, <br> Signature Series, Street <br> Cruiser, Pacific Coast <br> Highway, LX, Sunset Blvd. | 2001-10,9999 | 01,06,09 |


| MAKE: Chrysler/Daimler Chrysler (Cont.) (06) |  |  | (CHRY) |  |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 053 | Prowler (2002 on) (1997,1999-01 see Plymouth) | Roadster, Black Tie Edition | 2002 | 01 |
| 054 | Pacifica | Premium, Luxury, Touring, Signature Series, LX | 2004-08,9999 | 06 |
| 055 | Crossfire | Limited, SRT6, Standard | 2004-08,9999 | 01,02,09 |
| 398 | Other (automobile) |  | $\begin{aligned} & \text { 1946-2013, } \\ & 9999 \end{aligned}$ | 01-09,11,12 |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1946-2013, } \\ & 9999 \end{aligned}$ | 01-09,11,12 |
| LIGHT TRUCKS |  |  |  |  |
| 421 | Aspen | Limited, Signature, Hybrid | 2007-09,9999 | 15 |
| 441 | Town and Country | Minivan, SX, L, LX, Lxi, Ltd., SWB, LWB, AWD, FWD, eL, eX, Touring, Platinum, Signature Series, Limited | $\begin{aligned} & \text { 1990-2013, } \\ & 9999 \end{aligned}$ | 20 |
| 442 | Voyager (2000 on; 1984-00 see Plymouth) | Base, Popular, Value, LX, eC | 2000-03,9999 | 20 |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1990-2013, } \\ & 9999 \end{aligned}$ | 15,20,29 |
| 999 | Unknown (CHRYSLER) |  | $\begin{aligned} & \text { 1946-2013, } \\ & 9999 \end{aligned}$ | 49 |
| MAKE: | Coda | (26) |  |  |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 001 | Coda |  | 2013 | 04,05,09 |
| 398 | Other (automobile) |  | 2013 | 04,05,09 |
| 399 | Unknown (automobile) |  | 2013 | 04,05,09 |
| MAKE: | Daewoo | (64) |  | (DAEW) |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | Lanos | S, SE, SX, Sport | $\begin{aligned} & \text { 1999-2002, } \\ & 9999 \end{aligned}$ | 03,04,09 |
| 032 | Nubira | SX, CDX, SE | $\begin{aligned} & \text { 1999-2002, } \\ & 9999 \end{aligned}$ | 04,06,09 |
| 222 |  |  |  | 2013 |


| MAKE: | Daewoo (Cont.) | (64) |  | (DAEW) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 033 | Leganza | SE, SX, CDX | $\begin{aligned} & \text { 1999-2002, } \\ & 9999 \end{aligned}$ | 04 |
|  | Other (automobile) |  | $\begin{aligned} & \text { 1999-2002, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 03,04,05,06, \\ & 07,09 \end{aligned}$ |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1999-2002, } \\ & 9999 \end{aligned}$ | 03-07,09 |
| MAKE: | Daihatsu | (60) |  | (DAIH) |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | Charade |  | 1988-94,9999 | 03,04,09 |
| LIGHT TRUCKS |  |  |  |  |
| 401 | Rocky |  | 1990-92,9999 | 14 |
| 999 | Unknown (DAIHATSU) |  | 1988-94,9999 | 03, 04,09,14 |
| MAKE: | Dodge | (07) |  | (DODG) |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 001 | Dart (1960-76 only. For 2013 on; see model 029.) | 170, 270, Custom, GT, <br> Swinger, Demon, 340, 360, Special, Sport, Special Edition | 1960-76,9999 | $\begin{aligned} & 01,02,04,06, \\ & 08,09 \end{aligned}$ |
| 002 | Coronet/Magnum/ Charger (thru 1978) | Brougham, Custom, Superbee, 500, Crestwood, Deluxe, XE, R/T, 440, SE, Police | 1964-79,9999 | $\begin{aligned} & \text { 01,02,04,06, } \\ & 08,09 \end{aligned}$ |
| 003 | Polara/Monaco/ Royal Monaco | Custom, Special, Police, Taxi, Crestwood, Brougham | 1964-78,9999 | $\begin{aligned} & \text { 01,02,04,06, } \\ & 08.09 \end{aligned}$ |
| 004 | Viper | RT/10, GTS, ACR, SRT-10 | $\begin{aligned} & \text { 1992-2010, } \\ & 9999 \end{aligned}$ | 01,02,09 |
| 005 | Challenger | R/T, T/A, Rallye | 1970-74,9999 | 01,02,09 |
| 006 | Aspen | Custom, Special Edition, Police, R/T, Sport | 1976-80,9999 | 02,04,06,08,09 |
| 007 | Diplomat | Medallion, S, Salon, SE | 1977-89,9999 | 02,04,06,08,09 |
| 008 | Omni/Charger (1983 on) | 024, DeTomaso, Miser, Charger 2.2, GLH, Custom, Shelby, GLHS, America, Expo, SE | 1978-90,9999 | 03,05,07,09 |
| 009 | Mirada |  | 1980-83,9999 | 02 |
| 010 | St Regis | Police, Taxi | 1979-81,9999 | 04 |
| 011 | Aries (K) | Custom, SE, LE | 1981-89,9999 | 02,04,06,08,09 |
| 012 | 400 | LS | 1982-83,9999 | 01,02,04,08,09 |
| 013 | Rampage (car-based pickup) | 2.2, GT, Sport | 1982-84,9999 | 10 |


| MAKE: | Dodge (Cont.) | (07) |  | (DODG) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 014 | 600 | ES, Turbo, SE | 1983-88,9999 | 01,02,04,08,09 |
| 015 | Daytona | Turbo Z, C/S Competition, Shelby Z/CSX, Pacifica, IROC R/T | 1984-93,9999 | 03 |
| 016 | Lancer | Pacifica, Turbo, ES, Shelby | 1985-89,9999 | 02-09 |
| 017 | Shadow | ES, Turbo, America | 1987-94,9999 | 01-03,05,07,09 |
| 018 | Dynasty |  | 1988-93,9999 | 02,04,08,09 |
| 019 | Spirit | ES, Shelby, R/T | 1989-95,9999 | 01,02,04,08,09 |
| 020 | Neon | Competition, Highline, SE, ES, ACR R/T, SRT-4, SXT | $\begin{aligned} & \text { 1995-2005, } \\ & 9999 \end{aligned}$ | 02,04,08,09 |
| 021 | Magnum | SE, SXT, R/T, SRT8 | 2005-08,9999 | 06 |
| 024 | Charger | Daytona, SRT8, R/T, SE, SXT, SuperBee, 3.5L, Rallye, Plus, Max, Road and Track | 2006-13,9999 | 04 |
| 025 | Caliber | SE, SXT, R/T, SRT4, Sport, Heat, Mainstreet, Rush, Uptown, Express | 2007-12,9999 | 05 |
| 026 | Avenger | SE, SXT, R/T, Heat, Express | 2008-13,9999 | 04 |
| 027 | Journey | SE, SXT, R/T, Heat, Hero, Uptown, Express, Crew, Mainstreet, Lux, American Value Package | 2009-13,9999 | 06 |
| 028 | Challenger | SRT8 (392), SE, R/T (Plus/ Classic) , Plum Crazy Edition, Classic, SXT, SXT Plus, Rallye Redline, R/T | 2008-13,9999 | 02 |
| 029 | Dart (2013 on. See model 001 for 19601976 model years.) | Limited, Rallye, SE, SXT | 2013 | 04 |
| 033 | Challenger | all import | 1978-83,9999 | 02 |
| 034 | Colt (includes 2WD Vista) | GT, Custom, Carousel, Premier, Deluxe, E, DL, GTS, Turbo, RS | 1974-94,9999 | 02-09 |
| 035 | Conquest | Turbo | 1984-89,9999 | 03 |
| 039 | Stealth | RT, ES | 1991-96,9999 | 02,03,09 |
| 040 | Monaco |  | 1990-92,9999 | 02,04,08,09 |
| 041 | Intrepid | ES, R/T, S, SE, SXT | $\begin{aligned} & \text { 1993-2004, } \\ & 9999 \end{aligned}$ | 04 |
| 042 | Avenger (see model 026 for 2008 on) | ES | $\begin{aligned} & \text { 1995-2000, } \\ & 9999 \end{aligned}$ | 02 |
| 043 | Stratus | ES, SE, R/T, Plus, SXT | $\begin{aligned} & \text { 1995-2007, } \\ & 9999 \end{aligned}$ | 02,04,08,09 |


| MAKE: | Dodge (Cont.) | (07) |  | (DODG) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 398 | Other (automobile) |  | $\begin{aligned} & \text { 1946-2013, } \\ & 9999 \end{aligned}$ | 01-10,12 |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1946-2013, } \\ & 9999 \end{aligned}$ | 01-10,12 |
| LIGHT TRUCKS |  |  |  |  |
| 401 | RaiderSport | Sport | 1986-94,9999 | 14 |
| 402 | Durango (1998-2003 only; see model 422 for 2004 on) | Sport, R/T, SLT, SXT, Plus, Black Top | $\begin{aligned} & \text { 1998-2003, } \\ & 9999 \end{aligned}$ | 14 |
| 403 | Nitro | SLT, SXT, R/T, SE, Heat, Detonator, Shock | 2007-11,9999 | 14 |
| 421 | Ramcharger |  | 1974-93,9999 | 15 |
| 422 | Durango (2004 on; see 402 for 1998-2003 models) | ST, SLT, Limited, SXT, <br> Adventurer, Hybrid, <br> Express, Crew, LUX, <br> Citadel, $R / T$ | 2004-13,9999 | 15 |
| 441 | Vista Van | 4x4 (Only) | 1984-91,9999 | 20 |
| 442 | Caravan/Grand Caravan | Mini Ram Van, 112 \& 19 <br> WB, SE, ES, LE, Sport, EX, eC, eL, AWD, Sport, EPICelec* SXT, C/V, Special Edition, Cargo, Hero, American Value Package, R/T, Crew | $\begin{aligned} & \text { 1984-2013, } \\ & 9999 \end{aligned}$ | 20 |
| 461 | B-Series Van/Ram Van/ Ram Wagon | Sportsman, Royal, Maxiwagon, Ram, B1500B3500, Tradesman, Ram Maxivan (1500, 2500, 3500), Ram Wagon (1500, $2500,3500)$ Conversion, Cargo Van (1500: van, nonmaxi van, maxi van; 2500: non-maxi, maxi van; 3500: non-maxi), Dodge Wagon (1500, 2500, 3500) | $\begin{aligned} & \text { 1963-2003, } \\ & 9999 \end{aligned}$ | 21,28,40-42,48 |
| 462 | Sprinter | Cargo, Passenger | 2003-09,9999 | 21,28 |
| 470 | Van Derivative | Kary Van, Parcel Van | $\begin{aligned} & \text { 1971-2013, } \\ & 9999 \end{aligned}$ | 28,29 |
| 471 | D50, Colt pickup, Ram 50/Ram 100 |  | 1979-93,9999 | 30,32 |
| 472 | Dakota | R/T, Limited Edition, Quad Cab, Club Cab, Plus, SLT, ST, SXT, Sport, Laramie, TRX, SE, Big Horn, Lone Star, TRX4 | $\begin{aligned} & \text { 1987-2012, } \\ & 9999 \end{aligned}$ | 30-33,39,40 |


| MAKE: | Dodge (Cont.) | (07) |  | (DODG) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| LIGHT TRUCKS (Cont.) |  |  |  |  |
| 481 | D, W-Series pickup | Custom, Royal, Ram, Miser, D100-D350, W100-W350 | 1955-93,9999 | 31,32,40,42 |
| 482 | Ram Pickup | 1500 (Limited, Longhorn, Laramie, Sport , Big Horn, SLT, Express, ST, Tradesman, Outdoorsman) 2500 <br> (Limited, Laramie, Longhorn, Power Wagon, Big Horn, ST, SLT, Outdoorsman), 3500 (Limited, Laramie, Longhorn, Power Wagon, Big Horn, ST, SLT, Outdoorsman), Quad Cab, SLT, SLT+, ST, SRT-10, Laramie, Rumble Bee, Power Wagon, Daytona, TRX Off-Road, Sport | $\begin{aligned} & \text { 1994-2013, } \\ & 9999 \end{aligned}$ | 31,32,40,42 |
| 498 | Other (light truck) |  | $\begin{aligned} & \text { 1979-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 14,15,19,20-22, \\ & 28-33,39-42,45 \\ & 48 \end{aligned}$ |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1949-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 14,15,19,20-22, \\ & 28-33,39-42,45 \\ & 48,49 \end{aligned}$ |
| * Electric Vehicle. Be sure to code Related Factors-Vehicle Level Code "36." |  |  |  |  |
| MOTOR HOME |  |  |  |  |
| 850 | Motor Home | Truck-based | $\begin{aligned} & \text { 1952-2013, } \\ & 9999 \end{aligned}$ | 65,73 |
| MEDIUM/HEAVY TRUCKS |  |  |  |  |
| 870 | Medium/Heavy VanBased Vehicle | Sprinter | $\begin{aligned} & \text { 1971-2009, } \\ & 9999 \end{aligned}$ | 55,61-64 |
| 880 | Medium/Heavy Pickup (pickup-style only - over 10,000 lbs) |  | $\begin{aligned} & \text { 1953-2013, } \\ & 9999 \end{aligned}$ | 67 |
| 881 | Medium/Heavy - CBE |  | $\begin{aligned} & \text { 1966-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 882 | Medium/Heavy - COE low entry |  | 1967-77,9999 | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 883 | Medium/Heavy - COE high entry |  | 1967-77,9999 | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 884 | Medium/Heavy Unknown engine location |  | $\begin{aligned} & \text { 1962-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |


| MAKE: | Dodge (Cont.) | (07) |  | (DODG) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| MEDIUM/HEAVY TRUCKS (Cont.) |  |  |  |  |
| 890 | Medium/Heavy - COE entry position unknown |  | 1965-77,9999 | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
|  | Other (medium/heavy truck) |  | $\begin{aligned} & \text { 1930-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| BUSES |  |  |  |  |
| 981 | Bus**: Conventional (Engine out front) | (not van based) | 1966-77,9999 | 50-52, 58, 59 |
|  | Other (bus) |  | 1965-77,9999 | 50-52, 58, 59 |
|  | Unknown (bus) |  | 1965-77,9999 | 50-52, 58, 59 |
| **Use cod | de "981"(bus) if the fronta | plane or the engine loc | is unknown. |  |
| OTHER VEHICLE |  |  |  |  |
| 998 | Other (vehicle) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 91-93,97 |
| 999 | Unknown (DODGE) |  | $\begin{aligned} & \text { 1952-2013, } \\ & 9999 \end{aligned}$ | 49,79,99 |
| MAKE: | Eagle* | (10) |  | (EGIL) |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 034 | Summit (excludes wagon) | DL, LX, ES, ESi | 1989-96,9999 | 02-04,08,09 |
| 037 | Talon | FWD, Tsi, Tsi-FWD, Esi | 1990-98,9999 | 02,03,09 |
| 040 | Premier | LX, ES, ES Limited | 1988-92,9999 | 02,04,08,09 |
| 041 | Vision | Esi, Tsi | 1993-97,9999 | 04 |
| 044 | Medallion | DL, LX | 1988-89,9999 | 04,06,09 |
| 045 | Summit Wagon | FWD, AWD, DX, LX (Mitsubishi) | 1992-96,9999 | 06 |
| 398 | Other (automobile) |  | 1988-98,9999 | 02-04,06,08,09 |
| 399 | Unknown (automobile) |  | 1988-98,9999 | 02-04,06,08,09 |
| *Note: Eagle model listed under American Mo |  |  |  |  |


| MAKE: | Fiat | (36) |  | (FIAT) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | 124 (Coupe/Sedan) | Sport | 1967-75,9999 | $\begin{aligned} & 01,02,04,06, \\ & 08,09 \end{aligned}$ |
| 032 | 124 Spider/Racer | Spider 2000/1500 | 1968-83,9999 | 01,02,09 |
| 033 | Brava/131 |  | 1975-82,9999 | 02,04,06,08,09 |
| 034 | 850 (Coupe/Spider) |  | 1967-73,9999 | 01,02,09 |
| 035 | 128 |  | 1972-79,9999 | $\begin{aligned} & 01,02,04,06, \\ & 08,09 \end{aligned}$ |
| 036 | X-1/9 |  | 1975-83,9999 | 01,02,09 |
| 2013 |  |  |  | 227 |


| MAKE: | Fiat (Cont.) | (36) |  | (FIAT) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 037 | Strada |  | 1979-83,9999 | 03,05,07,09 |
| 038 | 500/500c | Abarth, Pop, Sport, Lounge | 2012-13,9999 | 02,03, 09 |
| 398 | Other (automobile) | 600, 1100 | 1967-83, 9999 | 01-09 |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1967-83; } \\ & \text { 2011-13, } 9999 \end{aligned}$ | 01-09 |
| MEDIUM/HEAVY TRUCKS |  |  |  |  |
| 882 | Medium/Heavy - COE low entry |  | 1967-83,9999 | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 883 | Medium/Heavy - COE high entry |  | 1967-83,9999 | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 890 | Medium/Heavy - COE entry position unknown |  | 1967-83,9999 | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 898 | Other (medium/heavy truck) |  | 1967-83,9999 | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| OTHER VEHICLE |  |  |  |  |
| 998 | Other (vehicle) |  | 1967-83,9999 | 91-93,97 |
| 999 | Unknown (FIAT) |  | $\begin{aligned} & \text { 1967-83, } \\ & \text { 2011-13, } 9999 \end{aligned}$ | 99 |
| MAKE: | Ford | (12) |  | (FORD) |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 001 | Falcon | FuturaSprint, GT, Futura | 1960-70,9999 | 02,04,06,08,09 |
| 002 | Fairlane | Torino (1968-70), 500, Brougham | 1955-70,9999 | $\begin{aligned} & 01,02,04,06, \\ & 08,09 \end{aligned}$ |
| 003 | Mustang/Mustang II | Mach(I), Boss (302), <br> Grande, Cobra (SVT), Ghia, SVO, GT (Premium, Base, Cal Spec. Pkg.), LX, Shelby (GT500, GT500KR), <br> Deluxe, Premium, Bullitt, V6 (Base, Premium, Pony) | $\begin{aligned} & \text { 1964-2013, } \\ & 9999 \end{aligned}$ | 01-03,09 |
| 004 | Thunderbird (all sizes) | Landau, Heritage, Turbo coupe, Elan, Fila, Sport, LX, SC, Deluxe, Premium, Pacific Coast Edition, $50^{\text {th }}$ Anniversary Edition | $\begin{aligned} & \text { 1955-98; } \\ & \text { 2002-05,9999 } \end{aligned}$ | 01,02,04,08,09 |
| 005 | LTD II | S, Squire, Brougham | 1977-79,9999 | 02,04,06,08,09 |
| 006 | LTD/Custom/Galaxy (all sizes) | XL, Landau, Ranch Wagon, Country Squire, S, 500, Brougham, XL, GT | 1963-86,9999 | $\begin{aligned} & 01,02,04,06, \\ & 08,09 \end{aligned}$ |


| MAKE: | Ford (Cont.) | (12) |  | (FORD) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 007 | Ranchero | Falcon/Fairlane based Torino/LTD II based | 1960-79,9999 | 10 |
| 008 | Maverick | Grabber | 1969-78,9999 | 02,04,08,09 |
| 009 | Pinto | Pony, MPG, ESS | 1971-80,9999 | 02,03,06,09 |
| 010 | Torino/Gran Torino/Elite | GT, Cobra, Sport, Squire, Brougham | 1971-76,9999 | $\begin{aligned} & 01,02,04,06, \\ & 08,09 \end{aligned}$ |
| 011 | Granada | ESS, Ghia | 1975-82,9999 | 02,04,06,08,09 |
| 012 | Fairmont | Futura, Sport Coupe | 1978-83,9999 | 02,04,06,08,09 |
| 013 | Escort/EXP/ZX2 | L, GL, GLX, SS, GT, LX, LXE, SE, ZX2, Deluxe, Preimium, Standard | $\begin{aligned} & \text { 1981-2003, } \\ & 9999 \end{aligned}$ | 02-09 |
| 015 | Tempo | L, GL, GLX, Sport, 4X4 | 1984-94,9999 | 02,04,08,09 |
| 016 | Crown Victoria | LX, LTD Crown Victoria, LX Sport | $\begin{aligned} & \text { 1981-2011, } \\ & 9999 \end{aligned}$ | 02,04,06,08,09 |
| 017 | Taurus/Taurus X | MT-5, L, GL, LX, SHO, G, SE, SVG, SES, SEL, Limited, Eddie Bauer, Police Interceptor | $\begin{aligned} & \text { 1986-2013, } \\ & 9999 \end{aligned}$ | 04,06,09 |
| 018 | Probe | GL, LX, GT | 1988-97,9999 | 03 |
| 021 | Five Hundred | SE, SEL, Limited | 2005-07,9999 | 04 |
| 022 | Freestyle | SE, SEL, Limited | 2005-07,9999 | 06 |
| 023 | Fusion | 14 S/SE/SEL, V6 SE/SEL, Sport, Hybrid, Titanium, Energi | 2006-13,9999 | 04 |
| 024 | Edge | SE, SEL, SEL Plus, Limited, Sport | 2007-13,9999 | 06 |
| 025 | Flex | SE, SEL, Limited, Titanium | 2009-13,9999 | 06 |
| 026 | City |  | 2000-02, 9999 | 02, 04, 09, 94 |
| 027 | C-Max | Hybrid, Energi. SE, SEL | 2013 | 05 |
| 031 | English Ford | Cortina, Anglia, Zephyr/ Zodiac Mark III | 1946-70,9999 | 02,04,06,08,09 |
| 032 | Fiesta | Sport, Ghia, S, SE, SES, SEL, Titanium | $\begin{aligned} & \text { 1978-80, } \\ & \text { 2011-14, } 9999 \end{aligned}$ | 03-05,09 |
| 033 | Festiva | L, GL | 1988-93,9999 | 03 |
| 034 | Laser |  | 1993-94,9999 | 02,03,09 |
| 035 | Contour | Sport, LX, SE, SVT | $\begin{aligned} & \text { 1994-2001, } \\ & 9999 \end{aligned}$ | 04 |
| 036 | Aspire |  | 1994-97,9999 | 03,05,07,09 |
| 037 | Focus | ZX3, LX, SE, ZTS, SVT, <br> ZX4, ZX4, ST, ZX5, ZXW, <br> S, SES, SEL, SE, Titanium, <br> Electric, ST | 2000-13,9999 | 02-06,09 |
| 038 | GT |  | 2004-08,9999 | 01 |
| 398 | Other (automobile) | Deluxe, Ford Six, Mainline, Crestline, Futura, Galaxie, Model A | $\begin{aligned} & \text { 1923-2014, } \\ & 9999 \end{aligned}$ | 01-11, 94 |


| MAKE: | Ford (Cont.) | (12) |  | (FORD) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1923-2014, } \\ & 9999 \end{aligned}$ | 01-11, 94 |
| LIGHT TRUCKS |  |  |  |  |
| 401 | Bronco (thru 1977)/ Bronco II/Explorer/ Explorer Sport | Eddie Bauer, XL, XLT, <br> Explorer, (1990 on) Eddie <br> Bauer, Limited, XL, XLT, <br> XLS, Explorer Sport (Value, <br> Choice Premium), NBX, <br> Adrenalin, Ironman, Police Interceptor | $\begin{aligned} & \text { 1966-77; } \\ & \text { 1983-2013, } \\ & 9999 \end{aligned}$ | 14 |
| 402 | Escape | XLS (Value, Sport, V6 Choice/Premium), XLT (Choice, Premium, Sport), Hybrid (Base, Limited), No Boundaries, Limited. S, SE, SEL, Titanium | 2001-13,9999 | 14 |
| 421 | Bronco-full-size (1978-on) | Eddie Bauer, Custom, XL, XLT XLT | 1978-96,9999 | 15 |
| 422 | Expedition | EL, XLS, XLT ( $4 \times 4,4 \times 2$ ), <br> Eddie Bauer ( $4 \times 4,4 \times 2$ ), <br> NBX, Sport, NBX, Limited, <br> King Ranch, Funk Master <br> Flex Edition, XL | $\begin{aligned} & \text { 1996-2013, } \\ & 9999 \end{aligned}$ | 15 |
| 423 | Excursion | XLT, Limited (LTD), <br> Ultimate, Premium, XLS, Eddie Bauer | 2000-05,9999 | 16 |
| 441 | Aerostar | XLT, Cargo Van | 1985-97,9999 | 20 |
| 442 | Windstar | GL, LX, XLT, Splash, Cargo Limited, SE, SEL | $\begin{aligned} & \text { 1995-2003, } \\ & 9999 \end{aligned}$ | 20 |
| 443 | Freestar | Base, LX, SE, S, SEL, SES, Limited | 2004-07,9999 | 20 |
| 444 | Transit Connect | XL, XLT, Premium, EV | 2010-14, 9999 | 20 |
| 461 | E-Series Van/Econoline | Clubwagon (XL, XLT), <br> Chateau, (XL,XLT), Parcel <br> Van, Econoline Wagon <br> E-150 (XL/XLT/Premium); <br> E-350 XL/XLT/ Extended), <br> E-250 (EXT) | $\begin{aligned} & 1960-2013, \\ & 9999 \end{aligned}$ | 21,22,28,29 |
| 462 | Transit |  | 2014 | 21, 28,29 |
| 470 | Van Derivative |  | $\begin{aligned} & \text { 1960-2013, } \\ & 9999 \end{aligned}$ | 28,29 |


| MAKE: | Ford (Cont.) | (12) |  | (FORD) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| LIGHT TRUCKS (Cont.) |  |  |  |  |
| 471 | Ranger | Supercab, $4 \times 4$, STX, SL, SLT, Splash, XL (Standard/ Super Cab), XLT, Tremor (Standard/Super Cab/OffRoad/FX4), Edge (Regular/ Super Cab), EV* (electric), Level II, Sport | $\begin{aligned} & \text { 1982-2012, } \\ & 9999 \end{aligned}$ | 30-32,40,42 |
| 473 | Explorer Sport Trac | 2WD/4WD, Value, Choice, Premium, XLS, XLT, Adrenalin, Limited | 2001-11,9999 | 30 |
| 481 | F-Series pickup | F100, F150-F350, (XL, XLT, Crew Cab, Super Cab, Regular Cab, Lariat, Super Duty, Flareside, Styleside, SVT Lightning, Fireside, Harley-Davidson Edition, King Ranch, SuperCrew, STX, Heritage Edition, Sport Edition, FX4, FX2), F450 (10,000 GVWR and under) (see model 880 for F450 > 10,000 GVWR), Amarillo Package, Platinum, Cabela's, STX, SVT Raptor, Limited | $\begin{aligned} & \text { 1940-2013, } \\ & 9999 \end{aligned}$ | 31,32,39,40,42 |
| 498 | Other (light truck) |  | $\begin{aligned} & \text { 1972-2014, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 14-16,20,21 \\ & 28-32,40-42, \\ & 45,48 \end{aligned}$ |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1928-2014, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 14-16,19-22, \\ & 28-32,39-42,45, \\ & 48-49 \end{aligned}$ |
| * Electric Vehicle, Be sure to code Related Factors-Vehicle Level, Code "36" |  |  |  |  |
| 850 | Motor Home | Truck-based, F-550 | $\begin{aligned} & \text { 1956-2013, } \\ & 9999 \end{aligned}$ | 65,73 |
| MEDIUM/HEAVY TRUCKS |  |  |  |  |
| 870 | Medium/Heavy VanBased Vehicle | Econoline E350, E450, Transit | $\begin{aligned} & \text { 1956-2014, } \\ & 9999 \end{aligned}$ | 55, 61-64 |
| 880 | Medium/Heavy Pickup (pickup-style only - over $10,000 \mathrm{lbs}$ ) | Super Duty 350, F450/550, Lariat, XL, XLT, King Ranch | $\begin{aligned} & \text { 1953-2013, } \\ & 9999 \end{aligned}$ | 67 |


| MAKE: | Ford (Cont.) | (12) |  | (FORD) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| MEDIUM/HEAVY TRUCKS (Cont.) |  |  |  |  |
| 881 | Medium/Heavy - CBE | F-5 thru F-8, L-series, FTseries, Super Duty F-Series: 450/550/650/750/800 (does not include pickup style) | $\begin{aligned} & \text { 1953-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & \text { 60-64,66, } \\ & 71,72,78 \end{aligned}$ |
| 882 | $\begin{aligned} & \text { Medium/Heavy - COE } \\ & \text { low entry } \end{aligned}$ | C/CT series, LCF | $\begin{aligned} & \text { 1964-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 883 | Medium/Heavy - COE high entry | C/CLT series, LCF | $\begin{aligned} & \text { 1967-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 884 | Medium/Heavy Unknown engine location |  | $\begin{aligned} & \text { 1956-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 890 | Medium/Heavy - COE entry position unknown |  | $\begin{aligned} & \text { 1956-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
|  | Other (medium/heavy truck) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| BUSES |  |  |  |  |
| $981$ | Bus**: Conventional (Engine out front) | B-series (not van based), F Series | $\begin{aligned} & \text { 1964-2013, } \\ & 9999 \end{aligned}$ | 50,52, 58,59 |
|  | Other (bus) |  | $\begin{aligned} & \text { 1940-2013, } \\ & 9999 \end{aligned}$ | 50,52, 58,59 |
|  | Unknown (bus) |  | $\begin{aligned} & 1940-2013, \\ & 9999 \end{aligned}$ | 50, 52, 58, 59 |
| OTHER VEHICLE |  |  |  |  |
|  | Other (vehicle) |  | $\begin{aligned} & \text { 1940-2014, } \\ & 9999 \end{aligned}$ | 91-93,97 |
| $999$ | Unknown (FORD) |  | $\begin{aligned} & \text { 1923-2014, } \\ & 9999 \end{aligned}$ | 49,79,99 |
| ** Use code "981" (bus) if the frontal plane or the engine location is unknown. |  |  |  |  |
| MAKE: | GMC | (23) |  | (GMC) |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 007 | Caballero |  | 1965-87,9999 | 10 |
| 008 | Acadia (2007-2012 only. For 2013 on see model 423.) | SLE, SLT, Denali, SL | 2007-12,9999 | 06 |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 06,10 |
| LIGHT TRUCKS |  |  |  |  |
| 401 | Jimmy/Typhoon/Envoy | S-15 based, (100.5 WB), T15, SLE, SL, SLS, SLT, XL, XUV, Denali | $\begin{aligned} & \text { 1983-2009, } \\ & 9999 \end{aligned}$ | 14 |


| MAKE: | GMC (Cont.) | (23) |  | (GMC) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| LIGHT TRUCKS (Cont.) |  |  |  |  |
| 402 | Terrain | SLE, SLT, Denali | 2010-13, 9999 | 14 |
| 421 | Fullsize Jimmy/Yukon | Fullsize pickup based, K5, K18, SL, SLE, SLT, SLS, Diamond Edition, Yukon Denali, Denali, Hybrid | $\begin{aligned} & \text { 1969-2013, } \\ & 9999 \end{aligned}$ | 15 |
| 422 | Suburban/Yukon XL (2004 on; see 431 for 1950-2003) | Yukon XL (Denali -15002500), SLE, SLT, Hybrid | 2004-13,9999 | 15 |
| 423 | Acadia (2013 on. For 2007-2012 see model 008.) | FWD/AWD | 2013 | 15 |
| 431 | Suburban/Yukon XL (1950-2003 only; see 422 for 2004 on) | all models, SLE, C16, C26, K16, K26, C1500-2500, K1500-2500, Yukon XL (Denali -1500-2500) | $\begin{aligned} & \text { 1950-2003, } \\ & 9999 \end{aligned}$ | 16 |
| 441 | Safari (Minivan) | SLT, SLX, SLE, M15, L15, SL | $\begin{aligned} & \text { 1985-2005, } \\ & 9999 \end{aligned}$ | 20 |
| 461 | G-series van/Savana | Rally Van, Vandura, G15- <br> G35, Savana (G1500-3500) <br> SLT, Extended, SLE, LS, <br> LT, Uplifter, WT | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 21,22,28,29 |
| 466 | P -series van |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 22,28,29 |
| 470 | Van derivative | Hicube, Magna Van, Value Van, Parcel Van | $\begin{aligned} & 1965-2013, \\ & 9999 \end{aligned}$ | 28,29 |
| 471 | S15/T15/Sonoma | $4 \times 4$, Syclone, SL, SLS, SLE, Extended/Crew Cab, ZR2, ZRX, ZR5 | $\begin{aligned} & \text { 1982-2004, } \\ & 9999 \end{aligned}$ | 30,32,40,42 |
| 472 | Canyon | Base, SLE, SL, SLT, Z71, Z85, Work Truck | 2004-13, 9999 | 30 |
| 481 | C, K, R, V-series pickup/ Sierra | Excluding Yukon, C15-C35, <br> K15-K35, R15-R35, V15- <br> V35, Sierra, C/K1500, 2500, <br> 3500, Sportside, X81, SL, <br> Special, SLE, Classic, <br> Extended Cab, Denali, <br> 1500HD/2500HD, C3, <br> Hybrid, SLT, Work Truck, <br> 5SA | $\begin{aligned} & \text { 1940-2013, } \\ & 9999 \end{aligned}$ | 31,32,39,40,42 |
| 498 | Other (light truck) |  | $\begin{aligned} & \text { 1930-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 14-16,20-22 \\ & 28,29,40,42 \\ & 45,48 \end{aligned}$ |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1951-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 14-16,19-22, \\ & 28,29,39,40 \\ & 42,45,48,49 \end{aligned}$ |


| MAKE: | GMC (Cont.) | (23) |  | (GMC) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| MOTOR HOME |  |  |  |  |
| 850 | Motor Home |  | $\begin{aligned} & \text { 1950-2013, } \\ & 9999 \end{aligned}$ | 65,73 |
| MEDIUM/HEAVY TRUCKS |  |  |  |  |
| 870 | Medium/Heavy VanBased Vehicle | Savana 3500, 4500 | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 55,61-64 |
| 880 | Medium/Heavy Pickup (pickup-style only - over 10,000 lbs) |  | $\begin{aligned} & \text { 1953-2013, } \\ & 9999 \end{aligned}$ | 67 |
| 881 | Medium/Heavy - CBE | W5000/6000/7000 series, Kodiak Brigadier/General models, Top Kick | $\begin{aligned} & \text { 1967-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66 \\ & 71,72,78 \end{aligned}$ |
| 882 | Medium/Heavy - COE low entry | W6000/W7000, all other COE, low entry, W/WT Series | $\begin{aligned} & \text { 1968-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 883 | Medium/Heavy - COE high entry | Astro 95, all other COE, high entry, T Series | $\begin{aligned} & \text { 1969-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 884 | Medium/Heavy Unknown engine location |  | $\begin{aligned} & \text { 1948-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 890 | Medium/Heavy - COE entry position unknown |  | $\begin{aligned} & \text { 1967-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66 \\ & 71,72,78 \end{aligned}$ |
| 898 | Other (medium/heavy truck) |  | $\begin{aligned} & \text { 1930-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & \text { 60-64,66, } \\ & 71,72,78 \end{aligned}$ |
| BUSES |  |  |  |  |
| 981 | Bus**: Conventional (Engine out front) | B6000 | $\begin{aligned} & \text { 1950-2013, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 988 | Other (bus) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 50,58,59 |
| 989 | Unknown (bus) |  | 1950-2013 | 50-52,58,59 |
| OTHER VEHICLE |  |  |  |  |
| 998 | Other (vehicle) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 91-93,97 |
| 999 | Unknown (GMC) |  | $\begin{aligned} & \text { 1940-2013, } \\ & 9999 \end{aligned}$ | 49,79,99 |

** Use code " 981 "(bus) if the frontal plane or the engine location is unknown.

| MAKE: | Grumman/Grumman-OIson (25) |  |  | (GRUM) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| LIGHT TRUCKS |  |  |  |  |
| 401 | LLV | Postal vehicle | $\begin{aligned} & \text { 1987-2004, } \\ & 9999 \end{aligned}$ | 22 |
| 441 | Step-in van | Multi-stop, step van | $\begin{aligned} & \text { 1987-2004, } \\ & 9999 \end{aligned}$ | 22 |
| 498 | Other (light truck) |  | $\begin{aligned} & \text { 1987-2004, } \\ & 9999 \end{aligned}$ | 22 |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1987-2004, } \\ & 9999 \end{aligned}$ | 22 |
| MEDIUM/HEAVY TRUCKS |  |  |  |  |
| 881 | Medium/Heavy - CBE |  | $\begin{aligned} & \text { 1987-2004, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 882 | Medium/Heavy - COE low entry |  | $\begin{aligned} & \text { 1987-2004, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 883 | Medium/Heavy - COE high entry |  | $\begin{aligned} & \text { 1987-2004, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 884 | Medium/Heavy - engine location unknown |  | $\begin{aligned} & \text { 1987-2004, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 890 | Medium/Heavy - entry position unknown |  | $\begin{aligned} & \text { 1987-2004, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 898 | Other (medium/heavy truck) |  | $\begin{aligned} & \text { 1987-2004, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| BUSES |  |  |  |  |
| 983 | Bus: Flat front, rear engine | Transit | $\begin{aligned} & \text { 1950-2004, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 988 | Other (bus) |  | $\begin{aligned} & \text { 1950-2004, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 989 | Unknown (bus) |  | $\begin{aligned} & \text { 1950-2004, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 999 | Unknown (GRUMMAN/G | UMMAN-OLSON) | $\begin{aligned} & \text { 1950-2004, } \\ & 9999 \end{aligned}$ | 79,99 |

** Use code " 981 "(bus) if the frontal plane or the engine location is unknown.

| MAKE: | Honda (Acura: See "54") (37) |  | (HOND) |  |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | Civic/CRX, del Sol | 1300, 1500, CVCC, DX, EX, VX, CX, FE, CRX, CRX Si, S, Si, HF, LX, 4WD Wagon, GX (NGV), HX, VTEC, VP, Si, Civic, Hybrid, Special Edition, EX-L, DX-VP, LX-S, Natural Gas | $\begin{aligned} & \text { 1973-2013, } \\ & 9999 \end{aligned}$ | 02-09 |



| MAKE: Honda (Acura: See "54") (Cont.)(37) |  |  | (HOND) |  |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| MOTORCYCLES (Cont.) |  |  |  |  |
| 703 | 125-349 cc |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 80, 83, 88, 89 |
| 704 | 350-449 cc |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 80, 83, 88,89 |
| 705 | 450-749 cc |  | $\begin{aligned} & \text { 1970-2013, } \\ & 9999 \end{aligned}$ | 80, 83, 88, 89 |
| 706 | 750 cc or greater |  | $\begin{aligned} & \text { 1970-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 80,82,83,88, \\ & 89 \end{aligned}$ |
| 709 | Unknown cc |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 80,81,83,88, \\ & 89 \end{aligned}$ |
| ALL TERRAIN VEHICLES |  |  |  |  |
| 732 | 51-124cc | includes all ATVs/ATCs/ TRXs designed solely for | $\begin{aligned} & \text { 1972-2013, } \\ & 9999 \end{aligned}$ | 90 |
| 733 | 125-349cc | off-road use and have 3 or 4 wheels. | $\begin{aligned} & \text { 1972-2013, } \\ & 9999 \end{aligned}$ | 90 |
| 734 | 350 cc or greater |  | $\begin{aligned} & \text { 1996-2013, } \\ & 9999 \end{aligned}$ | 90 |
| 739 | Unknown cc |  | $\begin{aligned} & \text { 1972-2013, } \\ & 9999 \end{aligned}$ | 90 |
| OTHER VEHICLE |  |  |  |  |
| $998$ | Other (vehicle) | Go Carts | $\begin{aligned} & \text { 1968-2013, } \\ & 9999 \end{aligned}$ | 95, 97* |
| * Refer to Body Type attribute 97 (Other Vehicle Type) for remarks regarding side-by-side ATVs |  |  |  |  |
| 999 | Unknown (HONDA) |  | $\begin{aligned} & \text { 1965-2014, } \\ & 9999 \end{aligned}$ | 49,99 |
| MAKE: | Hyundai | (55) |  | (HYUN) |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | Pony | Pony Excel (Foreign) | 1979-88,9999 | 02,03,09 |
| 032 | Excel | GL, GLS, GS | 1984-94,9999 | 03-05,07,09 |
| 033 | Sonata | GL, GLS, LX, SE, Limited, Hybrid, 2.0T | $\begin{aligned} & 1989-2013, \\ & 9999 \end{aligned}$ | 04 |
| 034 | Scoupe | LS, Turbo | 1991-95,9999 | 02 |
| 035 | Elantra | GLS, GL, GT, Limited, SE, Touring (GLS, SE), GS | $\begin{aligned} & \text { 1992-2013, } \\ & 9999 \end{aligned}$ | 02, 04-06,09 |
| 036 | Accent | L, GL, GS, Gsi, GT, GLS, SE, Blue | $\begin{aligned} & \text { 1995-2013, } \\ & 9999 \end{aligned}$ | 03-05,07,09 |
| 037 | Tiburon | FX, GT, GS, SE, Limited | $\begin{aligned} & \text { 1997-2008, } \\ & 9999 \end{aligned}$ | 02,03,09 |


| MAKE: | Hyundai (Cont.) | (55) |  | (HYUN) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 038 | $\begin{aligned} & \text { XG300(2001)/ } \\ & \text { XG350(2002 on) } \end{aligned}$ | L | 2001-05,9999 | 04 |
| 039 | Azera | SE, Limited, GLS | 2006-13,9999 | 04 |
| 040 | Equus | Signature, Ultimate | 2011-13,9999 | 04 |
| 041 | Genesis | 3.8, 4.6, 2.0T, R-Spec, Grand Touring, Premium, Track | 2009-13,9999 | 02,04,09 |
| 042 | Veloster | Base, Turbo | 2012-13,9999 | 03 |
| 398 | Other (automobile) |  | $\begin{aligned} & \text { 1984-2013, } \\ & 9999 \end{aligned}$ | 02-09 |
|  | Unknown (automobile) |  | $\begin{aligned} & \text { 1984-2013, } \\ & 9999 \end{aligned}$ | 02-09 |
| LIGHT TRUCKS |  |  |  |  |
| 401 | Santa Fe | GL, GLS, LX, Limited, SE, Sport, 2.0T | 2001-13,9999 | 14 |
| 402 | Tucson | GL, GLS, LX, Limited, SE | 2005-13,9999 | 14 |
| 403 | Veracruz (2007 only) | GLS, Limited, SE | 2007 | 14 |
| 421 | Veracruz (2008 on; see 403 for 2007 only) | GLS, Limited, SE | 2008-12,9999 | 15 |
| 441 | Entourage | GLS, Limited, SE | 2007-09,9999 | 20 |
| 499 | Unknown (light truck) |  | 2001-13,9999 | 14,15, 19,20 |
| 999 | Unknown (HYUNDAI) |  | $\begin{aligned} & \text { 1979-2013, } \\ & 9999 \end{aligned}$ | 49,99 |
| MAKE: | Imperial | (08) |  | (CHRY) |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 010 | Imperial | LeBaron, Mark Cross, Crown Imperial | 1954-75,9999 | 01.02,04,08.09 |
| 398 | Other (automobile) |  | 1965-75,9999 | 01-09 |
| 399 | Unknown (automobile) |  | 1965-75,9999 | 01-09 |
| MAKE: | Infiniti | (58) |  | (INFI) |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | M30 |  | 1990-92,9999 | 01,02,09 |
| 032 | Q45 | Standard Touring, Q45t, Luxury, Sport, Premium | $\begin{aligned} & \text { 1990-2006, } \\ & 9999 \end{aligned}$ | 04 |


| MAKE: | Infiniti (Cont.) | (58) |  | (INFI) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 033 | G20 | G20t, Touring, Standard, Luxury | $\begin{aligned} & \text { 1991-96; } \\ & \text { 1999-2002, } \\ & 9999 \end{aligned}$ | 04 |
| 034 | J30 |  | 1993-97,9999 | 04 |
| 035 | 130 | Standard, Touring, Luxury | $\begin{aligned} & \text { 1996-2001, } \\ & 9999 \end{aligned}$ | 04 |
| 036 | 135 | Touring, Luxury | 2002-04,9999 | 04 |
| 037 | G25/G35/G37 | x, 6MT, Journey, Sport, Special Edition, IPL | 2003-13,9999 | 01,02,04,09 |
| 038 | M35/M37/M45/M56 | Sport, x, Hybrid | 2003-13,9999 | 04 |
| 039 | FX35/FX37/FX45/FX50 |  | 2003-13,9999 | 06 |
| 040 | EX35 | Journey | 2008-13,9999 | 06 |
| 398 | Other (automobile) |  | $\begin{aligned} & \text { 1990-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 01.02,04,06, \\ & 08.09 \end{aligned}$ |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1990-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 01.02,04,06, \\ & 08,09 \end{aligned}$ |
| LIGHT TRUCKS |  |  |  |  |
| 401 | QX4 | Luxury | $\begin{aligned} & \text { 1997-2003, } \\ & 9999 \end{aligned}$ | 14 |
| 402 | JX35 | Luxury, AWD | 2013 | 14 |
| 421 | QX56 |  | 2004-13,9999 | 15 |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1997-2013, } \\ & 9999 \end{aligned}$ | 14,15 |
| 999 | Unknown (INFINITI) |  | $\begin{aligned} & \text { 1990-2013, } \\ & 9999 \end{aligned}$ | 49, 99 |
| MAKE: | Isuzu | (38) |  | (ISU ) |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | I-Mark | S, RS, Turbo, DOHC | 1981-90,9999 | 02-04,08,09 |
| 032 | Impulse | Turbo, RS | 1983-92,9999 | 02,03,09 |
| 033 | Stylus |  | 1991-94,9999 | 04 |
| 398 | Other (automobile) |  | 1981-94,9999 | 02-04,08,09 |
| 399 | Unknown (automobile) |  | 1981-94,9999 | 02-04,08,09 |
| LIGHT TRUCKS |  |  |  |  |
| 401 | Trooper/Trooper II | Deluxe, LS, S, LTD | $\begin{aligned} & \text { 1984-2002, } \\ & 9999 \end{aligned}$ | 14 |
| 402 | Rodeo/ Rodeo Sport | S, LS, LSE | $\begin{aligned} & \text { 1991-2004, } \\ & 9999 \end{aligned}$ | 14 |



| MAKE: | Isuzu (Cont.) | (38) |  | (ISU ) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| BUSES (Cont.) |  |  |  |  |
|  | Unknown (bus) |  | $\begin{aligned} & \text { 1981-2013, } \\ & 9999 \end{aligned}$ | 50-52,58, 59 |
| ** Use code "981" (bus) if the frontal plane or the engine location is unknown. |  |  |  |  |
|  | Unknown (ISUZU) |  | $\begin{aligned} & \text { 1981-2013, } \\ & 9999 \end{aligned}$ | 49,79,99 |
| MAKE: | Jaguar | (39) |  | (JAGU) |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
|  | XJ-S, XK8 Coupe | S, SC, GT, H.E. | $\begin{aligned} & \text { 1976-2008, } \\ & 9999 \end{aligned}$ | 01,02,09 |
| 032 | XJ/XJL/XJ6/12/XJR/XJ8/ XJ8L Sedan/Coupe | Mk II, Mk X, XJ,3.85, 3.8, 340/420 Sedan; XJ8(LWB, L,Vanden Plas, Sport); XJ6(L), C, L, Vanden Plas, III, GT, Super 8, Limited, Portfolio, Supersport, Supercharged, Ultimate | $\begin{aligned} & \text { 1949-2013, } \\ & 9999 \end{aligned}$ | 02,04,08,09 |
| 033 | XK-E | V12, Roadster, 120,140, 150, 2+2 | 1946-74,9999 | 01-03,09 |
| 034 | S-Type | 3.0, 4.0, 4.2, Base, Sport, L, R, VDP Edition | 2000-08,9999 | 04 |
| 035 | XKR/XK | Victory Edition, Portfolio, 175 Limited Edition, Black Pack, XKR-S, Touring | 2000-13,9999 | 01-03,09 |
| 036 | X-Type | 2.5, 3.0, Sport, VDP Edition | 2002-08,9999 | 04,06,09 |
| 037 | XF/XF-R | 4.2 Luxury, Premium Luxury, Supercharged, 3.0 | 2008-13,9999 | 04 |
| 038 | F-Type | S, V8 | 2014 | 01 |
|  | Other (automobile) |  | $\begin{aligned} & \text { 1949-2014, } \\ & 9999 \end{aligned}$ | 01-04,06,08,09 |
|  | Unknown (automobile) |  | $\begin{aligned} & \text { 1949-2014, } \\ & 9999 \end{aligned}$ | 01-04,06,08,09 |
| MAKE: | Jeep* (Includes Willy | **/Kaiser-Jeep) (02) |  | (AMER) |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
|  | Compass | Base, Sport, Limited, Latitude, Altitude | 2007-13,9999 | 06 |
| LIGHT TRUCKS |  |  |  |  |
| 401 | CJ-2/CJ-3/CJ-4 | Military | 1940-66,9999 | 14 |
| 2013 |  |  |  | 241 |


| MAKE: | Jeep* (Includes Willys**/Kaiser-Jeep) (Cont.) (02) |  |  | (AMER) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| LIGHT TRUCKS (Cont.) |  |  |  |  |
| 402 | CJ-5/CJ-6/CJ-7/CJ-8 | Scrambler, Renegade, Golden Eagle, Laredo, Wrangler, | 1967-93,9999 | 14 |
| 403 | YJ series/Wrangler | Wrangler (SE, Sport, Sahara, X, Rubicon), Unlimited, Islander, Call of Duty: Black Ops Edition, Sport S, Moab, Altitude, Freedom | $\begin{aligned} & \text { 1986-95; } \\ & \text { 1997-2013, } \\ & 9999 \end{aligned}$ | 14 |
| 404 | Cherokee (1984-on) | Limited, Laredo, Pioneer, Sport, Grand Cherokee, TSi, Briarwood, Country, RHD, SE, Classic, Overland, Special Edition, SRT8, Summit, Laredo X, Overland Summit, Altitude, Trail Hawk | $\begin{aligned} & \text { 1984-2013, } \\ & 9999 \end{aligned}$ | 14 |
| 405 | Liberty | Sport, Limited Edition, Renegade, Columbia Edition, Rocky Mountain Edition, CRD, Special Edition, Latitude, Jet | 2002-13,9999 | 14 |
| 406 | Commander | Base, Limited, Overland, Sport, Rocky Mountain | 2006-10,9999 | 14 |
| 407 | Patriot | Sport, Limited, Latitute, X, Altitude | 2007-13,9999 | 14 |
| 421 | Cherokee (thru 1983) | Wide Track, Chief, Commando, Jeepster | 1969-83,9999 | 15 |
| 431 | Grand Wagoneer | Custom, Brougham Limited, Wagoneer | $\begin{aligned} & \text { 1971-91; } \\ & \text { 1993,9999 } \end{aligned}$ | 15 |
| 481 | Pick-up | J-10, J-20, Honcho | 1940-93,9999 | 31,32,40,42 |
| 482 | Comanche | Chief | 1986-92,9999 | 31,32,40,42 |
| 498 | Other (light truck) |  | $\begin{aligned} & \text { 1940-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 14,15,19,31,32 \\ & 40-42,45,48,49 \end{aligned}$ |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1940-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 14,15,19,31,32 \\ & 39-42,45,48,49 \end{aligned}$ |
| 999 | Unknown (JEEP) |  | $\begin{aligned} & \text { 1940-2013, } \\ & 9999 \end{aligned}$ | 49 |

* Note that Jeep DJ-series are coded under MAKE 03, MODEL 466
** Willys Jeep can be coded 401, or 999.

| MAKE: | KIA | (63) |  | (KIA) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | Sephia | RS, LS, GS | 1994-01,9999 | 04 |
| 032 | Rio/Rio5 | Cinco (Wagon), LX, SX, EX | 2001-13,9999 | 04-06,09 |
| 033 | Spectra/Spectra5 | ```GS, GSX, GX, LS, LX, EX, SX``` | 2000-09,9999 | 04,05,09 |
| 034 | Optima | LX, SE, V6, EX, SX, Turbo, Hybrid, Limited, SXL | 2001-13,9999 | 04 |
| 035 | Amanti |  | 2004-10,9999 | 04 |
| 036 | Rondo | EX, LX | 2007-10,9999 | 06 |
| 037 | Soul | Base, sport, +, !, White Tiger | 2009-13,9999 | 06 |
| 038 | Forte | $\begin{aligned} & 2.0 \text { (EX, LX, SX) } 2.4 \text { (SX), } \\ & \text { Koup (EX, LX, SX) } \end{aligned}$ | 2010-14,9999 | 02,04,05, 09 |
| 039 | Cadenza |  | 2012-14, 9999 | 04 |
| 398 | Other (automobile) |  | $\begin{aligned} & \text { 1994-2014, } \\ & 9999 \end{aligned}$ | 02,04-06,08,09 |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1994-2014, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 02,04-06,08, \\ & 09 \end{aligned}$ |
| LIGHT TRUCKS |  |  |  |  |
| 401 | Sportage | EX, LX, 4WD, Limited, SX, Base | $\begin{aligned} & \text { 1995-2003, } \\ & \text { 2005-13,9999 } \end{aligned}$ | 14 |
| 402 | Sorento | EX, LX, LX-V6, SX, SX-V6 | 2003-14, 9999 | 14 |
| 421 | Borrego | EX, LX, LTD | 2008-10,9999 | 15 |
| 441 | Sedona | EX, LX | 2002-12,9999 | 20 |
| 498 | Other (light truck) |  | $\begin{aligned} & \text { 1995-2014, } \\ & 9999 \end{aligned}$ | 14,15,20 |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1995-2014, } \\ & 9999 \end{aligned}$ | 14,15, 20 |
| 999 | Unknown (KIA) |  | $\begin{aligned} & \text { 1994-2014, } \\ & 9999 \end{aligned}$ | 49 |
| MAKE: | Lancia | (40) |  | (LNCI) |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | Beta Sedan - HPE | Zagato | 1976-82,9999 | 02,04,06,08,09 |
| 032 | Zagato |  | 1976-82,9999 | 01,02,09 |
| 033 | Scorpion | (Mote Carlo- Europe Only) | 1977 | 02 |
| 398 | Other (automobile) | Stratos, Fulvia, Flavia, Appia, Aurelia, Aprilia | 1946-82,9999 | 01-09 |
| 399 | Unknown (automobile) |  | 1946-82,9999 | $\begin{aligned} & 01,02,04,06, \\ & 08,09 \end{aligned}$ |

*NOTE: Lancia did not import in 1980. 1982 - last year imported

| MAKE: | Land Rover | (62) | (LNDR) |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Model | Codes | Includes | Model Years | Body Types



| MAKE: | Lexus (Cont.) | (59) |  | (LEXS) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 398 | Other (automobile) |  | $\begin{aligned} & 1990-2014, \\ & 9999 \end{aligned}$ | 01,02,04,05, 09 |
| 399 | Unknown (automobile) |  | $\begin{aligned} & 1990-2014, \\ & 9999 \end{aligned}$ | $\begin{aligned} & 01,02,04,05, \\ & 08,09 \end{aligned}$ |
| LIGHT TRUCKS |  |  |  |  |
| 401 | RX300/350 | 2WD, 4WD | 1999-03,9999 | 14 |
| 402 | GX470 | Sport, Premium | 2003-09,9999 | 14 |
| 403 | RX330/350/400h/450h | Hybrid, Thundercloud, Mark Levinson Package, F Sport | 2004-13,9999 | 14 |
| 404 | GX460 | Sport, Premium | 2010-13, 9999 | 14 |
| 421 | LX450/470/570 |  | $\begin{aligned} & \text { 1996-2013, } \\ & 9999 \end{aligned}$ | 15 |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1996-2013, } \\ & 9999 \end{aligned}$ | 14,15,19 |
| 999 | Unknown (LEXUS) |  | $\begin{aligned} & \text { 1990-2014, } \\ & 9999 \end{aligned}$ | 49 |
| MAKE: | Lincoln | (13) |  | (LINC) |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 001 | Continental (thru '81)/ Town Car | Continental, (thru '81), Signature/Designer Series, Town Car ('81 on, body 04 only), Cartier, Executive, L, Premium, Ballistic Protection Edition, Ultimate, Designer Series, Limited | $\begin{aligned} & \text { 1940-2011, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 01,02,04,08,09 \\ & 11,12 \end{aligned}$ |
| 002 | Mark | I, II, III, IV, V, VI, VII, VIII LSC, Signature/Designer Series | 1956-98,9999 | 01,02,04,08,09 |
| 005 | Continental ('82 on) | Signature/Designer Series, Luxury | $\begin{aligned} & \text { 1982-2002, } \\ & 9999 \end{aligned}$ | 02,04,08,09,12 |
| 011 | Versailles |  | 1977-80,9999 | 04 |
| 012 | LS | Convenience, Premium, Sport, Luxury, Ultimate | 2000-06,9999 | 04 |
| 013 | Zephyr/MKZ | FWD, AWD, Hybrid, 2.0L, 3.7L, Ecoboost | 2006-13,9999 | 04 |
| 014 | MKX | FWD, AWD | 2007-13,9999 | 06 |
| 015 | MKS | Ecoboost, 3.7L FWD/AWD | 2008-13,9999 | 04 |
| 016 | MKT | Ecoboost, TownCar, 3.5L, 3.7L | 2010-13,9999 | 06 |


| MAKE: | Lincoln (Cont.) | (13) |  | (LINC) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 398 | Other (automobile) | Cosmopolitan, Capri, Premiere | $\begin{aligned} & \text { 1940-2013, } \\ & 9999 \end{aligned}$ | 01-12 |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1940-2013, } \\ & 9999 \end{aligned}$ | 01-12 |
| LIGHT TRUCKS |  |  |  |  |
| 401 | Aviator | Premium, Luxury, Ultimate, Kitty Hawk Edition | 2003-06,9999 | 14 |
| 421 | Navigator | 2WD, 4WD, Premium, Luxury, Ultimate, L, 5.4L | $\begin{aligned} & \text { 1997-2013, } \\ & 9999 \end{aligned}$ | 15 |
| 481 | Blackwood |  | 2002 | 31 |
| 482 | Mark LT | 2WD, 4WD | 2006-08,9999 | 31 |
| 498 | Other (light truck) |  | $\begin{aligned} & \text { 1997-2013, } \\ & 9999 \end{aligned}$ | 14,15, 31 |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1997-2013, } \\ & 9999 \end{aligned}$ | 14,15, 49 |
| 999 | Unknown (LINCOLN) |  | $\begin{aligned} & \text { 1990-2013, } \\ & 9999 \end{aligned}$ | 49 |
| MAKE: | Mazda | (41) |  | (MAZD) |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | RX2 |  | 1970-74,9999 | 02,04,06,08,09 |
| 032 | RX3 |  | 1970-78,9999 | 02,04,06,08,09 |
| 033 | RX4 |  | 1974-78,9999 | 02,04,06,08,09 |
| 034 | RX7 | S, GS, GSL, SE | 1979-96,9999 | 01-03,09 |
| 035 | 323/GLC/Protégé/ Protégé5 | DX, Protégé (1990-on), DX, <br> LX, ES, Mazdaspeed | $\begin{aligned} & \text { 1977-2003, } \\ & 9999 \end{aligned}$ | 03-07,09 |
| 036 | Cosmo |  | 1976-78,9999 | 02 |
| 037 | 626 | GT,GS,GSL,SE,DX,LX,ES | $\begin{aligned} & \text { 1979-2002, } \\ & 9999 \end{aligned}$ | 02,04,05,08,09 |
| 038 | 808 |  | 1972-77,9999 | 02,04,06,08,09 |
| 039 | Mizer |  | 1976 | 02,04,06,08,09 |
| 040 | R-100 |  | 1950-72,9999 | 02 |
| 041 | 616/618 |  | 1968-72,9999 | 02,04,08,09 |
| 042 | 1800 |  | 1968-72,9999 | 04,06,09 |
| 043 | 929 |  | 1988-95,9999 | 04 |
| 044 | MX-6 | Turbo, LS, M-Edition | 1988-97,9999 | 02 |
| 045 | Miata/MX-5 | Miata (LS), SE, SV, Mazdaspeed, Sport, Touring, Grand Touring, Club Special, Special Edition, PRHT | $\begin{aligned} & \text { 1990-97; } \\ & \text { 1999-2013, } \\ & 9999 \end{aligned}$ | 01 |


| MAKE: | Mazda (Cont.) | (41) |  | (MAZD) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 046 | MX-3 | GS | 1992-95,9999 | 02 |
| 047 | Millenia | L, S, P, Millennium Edition | 1995-02,9999 | 04 |
| 048 | MP3 | Limited Edition | 2001 | 04 |
| 049 | RX-8 | Sport AT, Shinka, Touring, Grand Touring, R3, Plus | 2003-13,9999 | 04 |
| 050 | Mazda6 | i, s, Grand Touring, Sport, Mazdaspeed6, Grand Sport, SV, Plus | 2003-14,9999 | 04-06,09 |
| 051 | Mazda3 | i, s, SP23, Sport, Touring, Grand Touring, Touring Value, Mazdaspeed3, iSV | 2004-13,9999 | 04-06,09 |
| 052 | Mazda5 | Sport, Touring, Grand Touring | $\begin{aligned} & \text { 2006-10, } \\ & \text { 2012-13, } 9999 \end{aligned}$ | 06 |
| 053 | CX-7 | i, s, Sport, Touring, Grand Touring, SV | 2007-12,9999 | 05 |
| 054 | CX-9 (2007-12 only. For 2013 on see model 421.) | Sport, Touring, Grand Touring | 2007-12,9999 | 06 |
| 055 | Mazda2 | Sport, Touring | 2011-13,9999 | 05 |
| 398 | Other (automobile) | 1200, 616 | $\begin{aligned} & 1950-2014, \\ & 9999 \end{aligned}$ | 02,03,09 |
| 399 | Unknown (automobile) |  | $\begin{aligned} & 1950-2014, \\ & 9999 \end{aligned}$ | 01-09 |
| LIGHT TRUCKS |  |  |  |  |
| 401 | Navajo |  | 1991-94,9999 | 14 |
| 402 | Tribute | DX, DX-V6, LX-V6, ES-V6, ES, LX, i, s, Hybrid, Sport, Grand Touring, Touring | 2001-12,9999 | 14 |
| 403 | CX-5 | Sport, Touring, Grand Touring | 2013-14,9999 | 14 |
| 421 | CX-9 (2013 on. See model 054 for 2007-12 model years.) | Sport, Touring, Grand Touring | 2013 | 15 |
| 441 | MPV | LX, ES, DX, All Sport, LX-SV | $\begin{aligned} & \text { 1989-98; } \\ & \text { 2000-06,9999 } \end{aligned}$ | 20 |
| 471 | Pickup/ B-Series Pickup | B2000, B2200, B2300, SE-5, LX, SE (2WD, 4WD), SX, DS, Cab Plus, B2500/B2600/ B3000/B4000, Dual Sport Cab | $\begin{aligned} & \text { 1972-2009, } \\ & 9999 \end{aligned}$ | 30,32,40,42 |
| 498 | Other (light truck) |  | $\begin{aligned} & 1965-2014, \\ & 9999 \end{aligned}$ | $\begin{aligned} & 14,15,20,30,32, \\ & 40,42 \end{aligned}$ |


| MAKE: | Mazda (Cont.) | (41) |  | (MAZD) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| LIGHT TRUCKS (Cont.) |  |  |  |  |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1965-2014, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 14,15,20,30,32 \\ & 39,40,42,48,49 \end{aligned}$ |
| 999 | Unknown (MAZDA) |  | $\begin{aligned} & \text { 1950-2014, } \\ & 9999 \end{aligned}$ | 49 |
| MAKE: | Mercedes Benz | (42) |  | (MERZ) |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | $\begin{aligned} & \text { 200/220/230/240/ } \\ & 250 / 260 / 280 / 300 / \\ & 320 / 420 \end{aligned}$ | Sedan and 5-passenger "C" only; SE,CD,D,SD,TD,TE, CE,E; DOES NOT include 280 SE (1975 on) or 300 SD-see code 037;C-Class up to 1993, E-Class up to 1997 | 1950-97,9999 | $\begin{aligned} & 01,02,04,06, \\ & 08,09,12 \end{aligned}$ |
| 032 | 230/280 SL | 2-seater only | 1964-71,9999 | 01,02,09 |
| 033 | $\begin{aligned} & \text { 300/350/380/450/500/ } \\ & 560 \text { SL } \end{aligned}$ | 2-seater only; 300/500 SL (1990 on) | 1972-94,9999 | 01,02,09 |
| 034 | $\begin{aligned} & 350 / 380 / 420 / 450 / 560 \\ & \text { SLC } \end{aligned}$ |  | 1973-94,9999 | 02 |
| 035 | 280/300 SEL |  | 1967-72,9999 | 02,04,08 |
| 036 | 300/380/420/450/500/ 560/SEL \& 500/560, 600 SEC \& 300/350 SDL |  | 1973-94,9999 | 02,04,06,08,09 |
| 037 | 300/380/450 SE | 280 S, 280 SE (1975 on), 300 SD Sedan/350 SD | 1968-94,9999 | 01,02,04,08,09 |
| 038 | 600, 6.9 Sedan | Pullman | 1978-87,9999 | 04,12 |
| 039 | 190 | D, E, 2.3, 2.5 | 1984-93,9999 | 04,06,09 |
| 040 | 300 | CE Cabriolet | 1993-94,9999 | 01 |
| 041 | 400/500E |  | 1992-94,9999 | $\begin{aligned} & 01,02,04,06, \\ & 08,09 \end{aligned}$ |
| 042 | C Class (94 on) | C220/C230 (Kompressor)/ <br> C240/C250/C280/C300/ <br> C320/C350 (W)/C32/36/43/ <br> 55/63 AMG, Sport, Luxury | $\begin{aligned} & \text { 1994-2013, } \\ & 9999 \end{aligned}$ | 02,04,06,09 |
| 043 | S Class (95 on) | S320/350/400(V)/420/430/ 450/500/550(V)/600(V), 55/ 63/65 (AMG), Hybrid, 4-M | $\begin{aligned} & \text { 1995-2013, } \\ & 9999 \end{aligned}$ | 02,04,08,09 |
| 044 | SL Class (95 on) | SL320/500/550(R)/600(R), Silver Arrow Edition, SL55/63/65 AMG | $\begin{aligned} & \text { 1995-2013, } \\ & 9999 \end{aligned}$ | 01,02,09 |



| MAKE: | Mercedes Benz (Cont.) | (42) |  |
| :--- | :--- | :--- | :--- |
| Model | Codes | Mncludes |  |
| MEDIUM/HEAVY TRUCKS (Cont.) |  |  |  |
| 883 | Medium/Heavy - COE high entry |  |  |
| 884 | Medium/Heavy - Unknown engine location |  |  |
| 890 | Medium/Heavy - COE entry position unknown | $1965-91,9999$ | $60-64,78$ |
| 898 | Other (medium/heavy truck) | $1965-91,9999$ | $60-64,78$ |
| BUSES |  | $1965-91,9999$ | $60-64,78$ |
| 981 | Bus**: Conventional |  |  |
| (Engine out front) | $1965-91,9999$ | $60-64,78$ |  |
| 988 | Other (bus) | $1965-91,9999$ | $50-52,58,59$ |
| 989 | Unknown (bus) | $1965-91,9999$ | $50-52,58,59$ |
| OTHER VEHICLE | $1965-91,9999$ | $91-93,97$ |  |
| 998 | Other (vehicle) | $1965-2013$, | $49,79,99$ |
|  |  | 9999 |  |
| 999 | Unknown (MERCEDES BENZ) | $1950-2013$, | $49,79,99$ |

** Use code " 981 "(bus) if the frontal plane or the engine location is unknown.

| MAKE: Mercury (Merkur: See "56") (14) |  |  | (MERC) |  |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 002 | Cyclone | GT, CJ, Spoiler | 1964-70,9999 | 01,02,09 |
| 003 | Capri-domestic (1967 <br> see 008) | RS, Turbo, GS, Black Magic, 5.0 | $\begin{aligned} & \text { 1979-86; } \\ & \text { 1989-94,9999 } \end{aligned}$ | 01,03,09 |
| 004 | Cougar/XR7 (1967-1997) | Villager, Brougham, RS, LS, GS, Eliminator, XR-7 | 1967-97,9999 | $\begin{aligned} & 01,02,04,06, \\ & 08,09 \end{aligned}$ |
| 006 | Marquis/Monterey (car version; for van version 2004 on see code 444) /Grand Marquis | Marauder (prior to 2003, 2003 on see code 039), <br> Montclair, X-100, 5-55, <br> Parklane, S-55, Custom, <br> Brougham Grand Marquis <br> (GS, LS), Medalist, <br> Turnpike, Colony Park, GS, <br> LS, LSE, Limited Edition, <br> Palm Beach Edition | $\begin{aligned} & \text { 1952-2011, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 01,02,04,06, \\ & 08,09 \end{aligned}$ |
| 008 | Comet | Caliente, Capri (1967), GT, Voyager, 202, 404, Villager Wagon | 1960-79,9999 | $\begin{aligned} & 01,02,04,06, \\ & 08.09 \end{aligned}$ |
| 009 | Bobcat | Runabout, Villager Wagon | 1975-80,9999 | 03,06,09 |
| 010 | Montego (prior to 1976; for 2005 on see code 020) | GT, MX, Villager, Brougham, Comet (1968-1970) | 1968-76,9999 | $\begin{aligned} & 01,02,04,06, \\ & 08,09 \end{aligned}$ |


| MAKE: Mercury (Merkur: See "56") (Cont.) (14) |  |  |  | (MERC) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 011 | Monarch | Ghia | 1975-80,9999 | 02,04,08,09 |
| 012 | Zephyr | GS, Z-7 | 1978-83,9999 | 02,04,06,08-,9 |
| 013 | Lynx/LN7 | L, LS, GS, RS, XR-3 | 1981-87,9999 | 03,05-07,09 |
| 015 | Topaz | L, LS, GS, 4×4, XR5, LTS, Sport | 1984-94,9999 | 02,04,08,09 |
| 017 | Sable | LS, GS (Premium), GS Plus, Platinum Edition, Premier, Base | $\begin{aligned} & 1986-2005 \\ & 2008-09,9999 \end{aligned}$ | 04,06,09 |
| 020 | Montego (2005 on) | Luxury, Premier | 2005-07,9999 | 04 |
| 021 | Milan | I-4, V6 (Base/Premier), Hybrid | 2006-11,9999 | 04 |
| 031 | Capri-foreign | Capri II, 2+2 | 1970-77,9999 | 03 |
| 033 | Pantera-foreign | deTomaso | 1972-74,9999 | 01-10 |
| 036 | Tracer | L, GL, LTS, GS, LS | 1988-99,9999 | 03-06,09 |
| 037 | Mystique | GS, LS | $\begin{aligned} & 1995-2000, \\ & 9999 \end{aligned}$ | 04 |
| 038 | Cougar (1999-2002) | V-6, I-4, S, Sport, CR, XR | $\begin{aligned} & \text { 1999-2002, } \\ & 9999 \end{aligned}$ | 02,03,09 |
| 039 | Marauder | M75, 300A | 2003-04,9999 | 04 |
| 398 | Other (automobile) |  | $\begin{aligned} & 1962-2011, \\ & 9999 \end{aligned}$ | 01-10 |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1952-2011, } \\ & 9999 \end{aligned}$ | 01-10 |
| LIGHT TRUCKS |  |  |  |  |
| 401 | Mountaineer | Convenience, Luxury, Premier (4.0/4.6L) | $\begin{aligned} & 1996-2010, \\ & 9999 \end{aligned}$ | 14 |
| 402 | Mariner | Convenience, Luxury, Premier, Hybrid | 2005-11,9999 | 14 |
| 443 | Villager | LS, GS, Nautica, Estate, Sport, Sport Plus, Popular | $\begin{aligned} & 1993-2002, \\ & 9999 \end{aligned}$ | 20 |
| 444 | Monterey (van version; for car version prior to 2004 see code 006) | Convenience, Luxury, Premier | 2004-07,9999 | 20 |
| 498 | Other (light truck) |  | $\begin{aligned} & 1993-2011, \\ & 9999 \end{aligned}$ | 14, 20 |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1993-2011, } \\ & 9999 \end{aligned}$ | 49 |
| 999 | Unknown (MERCURY) |  | $\begin{aligned} & \text { 1950-2011, } \\ & 9999 \end{aligned}$ | 49 |



| MAKE: | Mitsubishi (Cont.) | (52) |  | (MITS) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 039 | 3000 GT | SL, VR-4, Spyder | 1991-99,9999 | 01-03, 09 |
| 040 | Diamante | LS, ES, LE,VR-X | $\begin{aligned} & 1992-2004, \\ & 9999 \end{aligned}$ | 04, 06, 09 |
| 041 | iMEV | ES, SE | 2012-13,9999 | 05 |
| 045 | Expo Wagon | LRV, Sport | 1992-95,9999 | 06 |
| 046 | Lancer/Lancer Sportback/Lancer Evolution | ES, LS, O-Z, Rally, <br> Evolution VII/VIII/IX/X, <br> Sport, Ralliart LS, MR <br> Edition, DE, GSR, GTS, <br> Touring, SE, GT | 2002-13,9999 | 04-06, 09 |
| 047 | Outlander | ES, LS, SE, XLS, Limited, GT, Sport | 2003-13,9999 | 06 |
| 398 | Other (automobile) | 500, 1000, Debonair, Galant (1969) | $\begin{aligned} & \text { 1960-2013, } \\ & 9999 \end{aligned}$ | 01-09 |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1960-2013, } \\ & 9999 \end{aligned}$ | 01-09 |
| LIGHT TRUCKS |  |  |  |  |
| 401 | Montero/Montero Sport | Sport, LS, SR, XLS, ES, LTD, $20^{\text {th }}$ Anniversary Edition, SE | $\begin{aligned} & \text { 1983-2006, } \\ & 9999 \end{aligned}$ | 14 |
| 402 | Endeavor | LS, SE, XLS, Limited | 2004-12,9999 | 14 |
| 441 | Mini-Van | LS | 1987-90,9999 | 20 |
| 471 | Pickup | Mighty Max, SPX, 4x4 | 1983-96,9999 | 30,32,40,42 |
| 472 | Raider | LS, Durocross, XLS | 2006-10,9999 | 31 |
| 498 | Other (light truck) |  | $\begin{aligned} & \text { 1983-2012, } \\ & 9999 \end{aligned}$ | 14,20,30-32,40,42 |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1983-2012, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 14,20,30-32,40,42, \\ & 48,49 \end{aligned}$ |
| MEDIUM/HEAVY TRUCKS |  |  |  |  |
| 882 | Medium/Heavy - COE low entry | FUSO FE/FG/FH/FK/FM | $\begin{aligned} & \text { 1983-2013, } \\ & 9999 \end{aligned}$ | 60-64,66,71,72,78 |
| 898 | Other (medium/heavy truck) |  | $\begin{aligned} & \text { 1983-2013, } \\ & 9999 \end{aligned}$ | 60-64,66,71,72,78 |
| BUSES |  |  |  |  |
| 981 | Bus**: Conventional (Engine out front) |  | $\begin{aligned} & \text { 1981-2004, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 982 | Bus: Front engine, Flat Front |  | $\begin{aligned} & \text { 1981-2004, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |


| MAKE: | Mitsubishi (Cont.) | (52) |  | (MITS) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| BUS (Cont.) |  |  |  |  |
| 983 | Bus: Rear engine, Flat front |  | $\begin{aligned} & \text { 1981-2004, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 988 | Other (bus) |  | $\begin{aligned} & \text { 1981-2004, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 989 | Unknown (bus) |  | $\begin{aligned} & \text { 1981-2004, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| ** Use code "981"(bus) if the frontal plane or the engine location is unknown |  |  |  |  |
| 999 | Unknown (MITSUBISHI) |  | $\begin{aligned} & \text { 1983-2013, } \\ & 9999 \end{aligned}$ | 49,79,99 |
| MAKE: | Nissan/Datsun | (35) |  | (NISS) - (DATS) |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | F-10 |  | 1977-78,9999 | 03,05-07,09 |
| 032 | 200SX/240SX | SE, SE-R, LE | 1977-98,9999 | 01-03,09 |
| 033 | 210/1200/B210 | 110 series, Honeybee | 1971-82,9999 | 02-04,06,08,09 |
| 034 | Z-car, ZX | $\begin{aligned} & \text { 240/260/280Z\&ZX, } 300 \text { ZX, } \\ & 2+2, \text { Turbo } \end{aligned}$ | 1970-96,9999 | 01-03,09 |
| 035 | 310 | SPL | 1979-82,9999 | 02,03,05,07,09 |
| 036 | 510 | PL,WPL | $\begin{aligned} & \text { 1968-73; } \\ & \text { 1978-81,9999 } \end{aligned}$ | 02-09 |
| 037 | 610 | PL, HL | 1973-76,9999 | 02-04,06,08,09 |
| 038 | 710 | PL | 1974-77,9999 | 02-04,06,08,09 |
| 039 | 810/Maxima | SE (Titanium Special), GXE, GLE, 3.5SE/SL/SEL /S/SV, Platinum Edition | $\begin{aligned} & \text { 1977-2013, } \\ & 9999 \end{aligned}$ | 04,06,09 |
| 040 | Roadster | SPL311, SRL311, 1500, 1600, 2000, convertible, Fairlady | 1950-70,9999 | 01 |
| 041 | 311/411 | $\begin{aligned} & \text { 1000, Bluebird, PL311/ } \\ & \text { PL312/PL410/PL411/ } \\ & \text { RL411 } \end{aligned}$ | 1959-67,9999 | 04,06,09 |
| 042 | Stanza | XE | 1982-93,9999 | 03-07,09 |
| 043 | Sentra | E, XE, GXE, SE, SE-R (Spec V), GLE, CA, 2.5LE, 1.8, 1.8S, 2.0/S/SL/SR, Special Edition, SE-R, Platinum Edition, Spec-V, FE, SV | $\begin{aligned} & \text { 1982-2013, } \\ & 9999 \end{aligned}$ | 02,04,06,08,09 |
| 044 | Pulsar | NX, EXA (1986 on) | 1983-90,9999 | 02,03,05,07,09 |
| 045 | Micra |  | 1987-94,9999 | 01-05,07-09 |
| 046 | NX 1600/2000 | T-bar coupe | 1991-94,9999 | 02,03,09 |


| MAKE: | Nissan/Datsun (Co | (35) |  | (NISS) - (DATS) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 047 | Altima | XE, GXE, SE, GLE, 2.5 <br> S/SL/SR/SV, 3.5 <br> S/SE/SL/SR/ SV, SE-R, <br> Hybrid | $\begin{aligned} & \text { 1993-2013, } \\ & 9999 \end{aligned}$ | 02,04, 09 |
| 048 | 350Z/370Z | Enthusiast, Performance, Touring, Track, Base, $35^{\text {th }}$ Anniversary, Grand Touring, Nismo, $40^{\text {th }}$ Anniversary | 2003-13,9999 | 01,02,09 |
| 049 | Murano | SE, SL, S, LE, SV, CrossCabriolet | 2003-14,9999 | 01,06,09 |
| 050 | Versa | 1.8S/SL, 1.6 S/SV/SL, Plus | 2007-13,9999 | 04,05, 09 |
| 051 | Rogue | S, SL, SV, Krom/Special Edition | 2008-13,9999 | 06 |
| 052 | Cube | 1.8 S/SL, Krom Edition, Indigo Edition | 2009-13,9999 | 06 |
| 053 | GT-R | Base, Premium, Black | 2009-14,9999 | 02 |
| 055 | Leaf | SL, SV | 2011-13,9999 | 05 |
| 398 | Other (automobile) | 110 sedan, K110 | 1955-14,9999 | 01-10 |
| 399 | Unknown (automobile) |  | 1955-14,9999 | 01-10 |
| LIGHT TRUCKS |  |  |  |  |
| 401 | Pathfinder | MPV, 4X4, XE, LE, SE, S, Off-Road, FE+, SV, Silver Edition | $\begin{aligned} & \text { 1986-2013, } \\ & 9999 \end{aligned}$ | 14 |
| 402 | Xterra | XE (I-4), SE, (S/C), SE-R, <br> Spec V, X, S, Off-Road, Pro4-X | 2000-13,9999 | 14 |
| 403 | Juke | S, SL, SV | 2011-13,9999 | 14 |
| 421 | Pathfinder Armada | LE, SE, SE Off-Road, Titanium, Platinum, SV, SL | 2004-13,9999 | 15 |
| 441 | Van | XE, GXE | 1987-91,9999 | 20 |
| 442 | Axxess |  | 1989-90,9999 | 20 |
| 443 | Quest | XE, GXE, SE, GLE, 3.5 S/SE/SL, Special Edition, SV, LE | $\begin{aligned} & \text { 1993-2002; } \\ & \text { 2004-09, } \\ & \text { 2011-13,9999 } \end{aligned}$ | 20 |
| 444 | Altra EV* | (electric vehicle*) | $\begin{aligned} & \text { 1998-2005, } \\ & 9999 \end{aligned}$ | 20 |
| 446 | NV200/eNV200 |  | 2013 | 20 |
| 461 | $N V$ | 1500, 2500, 3500 | 2011-13,9999 | 21,22, 28, 29 |
| 471 | Datsun/Nissan Pickup 1955-1997) | 120,620 series, King Cab, Hardbody, XE, SE | 1955-97,9999 | 30,32,40,42 |


| MAKE: | Nissan/Datsun (Cont.) | (35) |  | (NISS) - (DATS) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| LIGHT TRUCKS (Cont.) |  |  |  |  |
| 472 | Frontier (1998 on) | XE, SE, S/C (Regular Cab, King Cab, Desert Runner, Crew Cab), Open-Sky, SVE, Nismo, Pro-4X, LE, SV, SL | $\begin{aligned} & \text { 1998-2013, } \\ & 9999 \end{aligned}$ | 30,32,40,42 |
| 473 | Titan (from 2004-06; see 481 for 2007 on) | E, LE, SE, XE | 2004-06,9999 | 31 |
| 481 | Titan (from 2007 on; see 473 for 2004-06) | $\begin{aligned} & \text { LE, SE, XE, PRO- } 4 \mathrm{X}, \mathrm{~S} \text {, } \\ & \text { SV, SL } \end{aligned}$ | 2007-13,9999 | 31 |
| 498 | Other (light truck) | Patrol (1960) | $\begin{aligned} & \text { 1955-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 14,15,20,21,22, \\ & 30-32 \end{aligned}$ |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1955-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & \text { 14,15,19,20, 29, } \\ & 30,32,39,40,42, \\ & 48,49 \end{aligned}$ |
| * Electric Vehicle. Be sure to code Related Factors-Vehicle Level Code "36." |  |  |  |  |
| MEDIUM/HEAVY TRUCKS |  |  |  |  |
| 870 | Medium/Heavy Van- <br> Based Vehicle | NV | 2011-13,9999 | 55,61-64 |
| 883 | Medium/Heavy - COE high entry |  | $\begin{aligned} & \text { 1986-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71.72 .78 \end{aligned}$ |
| 898 | Other (medium/heavy truck) |  | $\begin{aligned} & \text { 1986-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71.72 .78 \end{aligned}$ |
| 999 | Unknown (NISSAN/DATSU |  | $\begin{aligned} & \text { 1950-2014, } \\ & 9999 \end{aligned}$ | 49,79,99 |


| MAKE: | Oldsmobile | (21) |  | (OLDS) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 001 | Cutlass (RWD-only) | Supreme, S, LS, Salon, Brougham Vista Cruiser, F85 (thru 1972), Rallye 350, Hurst Olds, 442, Calais (thru 1985), Classic (88) | 1960-88,9999 | $\begin{aligned} & 01,02,04,06, \\ & 08,09 \end{aligned}$ |
| 002 | Delta 88/LSS | Royale, Custom, Delta, Jetstar 88, Delmont 88, Starfire (Thru 1966), <br> Custom Cruiser, Jetfire, Eighty-Eight (LS, 50 ${ }^{\text {th }}$ Anniv. Edition) | 1949-99,9999 | 01-04,06,08,09 |
| 003 | Ninety-Eight/Regency | Luxury, Futuramic, Brougham | 1949-99,9999 | 01,02,04,08,09 |
| 005 | Toronado | XS,XSR, Trofeo, Brougham Custom | 1966-92,9999 | 02 |


| MAKE: | Oldsmobile (Cont.) | (21) |  | (OLDS) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 006 | Commercial Series | Ambulance/Hearse | $\begin{aligned} & \text { 1940-2003, } \\ & 9999 \end{aligned}$ | 09-12 |
| 012 | Starfire | SX, GT, ST | 1975-80,9999 | 01-03,09 |
| 015 | Omega | X-body type, Brougham | 1973-85,9999 | 02-04,08,09 |
| 016 | Firenza | S, LS, SX, Cruiser, GT | 1982-88,9999 | 03-06,07,09 |
| 017 | Ciera | Cutlass Ciera, Cutlass Cruiser, Brougham, ES, I (International) | 1982-96,9999 | $\begin{aligned} & 01,02,04,06, \\ & 08.09 \end{aligned}$ |
| 018 | Calais | GT, ES, 500 | 1985-91,9999 | 02,04,08,09 |
| 020 | Cutlass (FWD) | Supreme (Excludes Ciera),GLS, GL | 1988-99,9999 | 01,02,04,08,09 |
| 021 | Achieva/Alero | $\begin{aligned} & \text { SC, SL, GX, GL }(1,2,4) \text {, } \\ & \text { GLS } \end{aligned}$ | $\begin{aligned} & \text { 1992-2004, } \\ & 9999 \end{aligned}$ | 02,04,08,09 |
| 022 | Aurora | 3.5L, 4.0L, Collector's Series | $\begin{aligned} & \text { 1995-99; } \\ & \text { 2001-03,9999 } \end{aligned}$ | 04 |
| 023 | Intrigue | GL, GX, GLS | $\begin{aligned} & \text { 1997-2002, } \\ & 9999 \end{aligned}$ | 02,04,08,09 |
| 398 | Other (automobile) | 66/68/70/90, Dynamic 70 | $\begin{aligned} & \text { 1930-2004, } \\ & 9999 \end{aligned}$ | 01-12 |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1930-2004, } \\ & 9999 \end{aligned}$ | 01-12 |
| LIGHT TRUCKS |  |  |  |  |
| 401 | Bravada | 2WD, 4WD, Collector's Series | $\begin{aligned} & \text { 1991-94; } \\ & \text { 1996-2004, } \\ & 9999 \end{aligned}$ | 14 |
| 441 | Silhouette | GL, GLS, Series I, Series II, GS Premier Edition, Collector's Series | $\begin{aligned} & \text { 1990-2004, } \\ & 9999 \end{aligned}$ | 20 |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1932-2004, } \\ & 9999 \end{aligned}$ | 14,20,49 |
| 999 | Unknown (OLDSMOBILE) |  | $\begin{aligned} & \text { 1932-2004, } \\ & 9999 \end{aligned}$ | 49 |


| MAKE: | Peugeot | (44) |  | (PEUG) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | 304 |  | 1971-72,9999 | 04-06,09 |
| 032 | 403 | Station Wagon | 1955-67,9999 | 01,04,06,09 |
| 033 | 404 | Station Wagon | 1961-70,9999 | 01,04,06,09 |
| 034 | 504/505 | STI, STX, Turbo, S, STI, STX, GL, GLS Liberte, Station Wagon, DSL, DL, GLX | 1970-91,9999 | 04-06,09 |


| MAKE: | Peugeot (Cont.) | (44) |  | (PEUG) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 035 | 604 | SL, D | 1977-84,9999 | 04 |
| 036 | 405 | Mi-16, DL, S | 1989-91,9999 | 04,06,09 |
| 398 | Other (automobile) | 202, 203 | 1945-91,9999 | 01-09 |
| 399 | Unknown (automobile) |  | 1945-91,9999 | 01-09 |
| MOTORCYCLES |  |  |  |  |
| 701 | 0-50 cc |  | 1965-83,9999 | 81 |
| 702 | 51-124cc |  | 1965-83,9999 | 81 |
| 709 | Unknown cc |  | 1965-83,9999 | 81 |
| 999 | Unknown (PEUGEOT) |  | 1960-91,9999 | 99 |
| MAKE: | Plymouth | (09) |  | (PLYM) |


| MAKE: | Plymouth | (09) |  | (PLYM) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 001 | Valiant/Scamp/Duster (thru 1976) | 100, 200, Brougham, Signet, Custom, Special, 340, 360, Twister | 1960-76,9999 | $\begin{aligned} & \text { 01,02,04,06, } \\ & 08,09 \end{aligned}$ |
| 002 | Satellite/Belvedere | Belvedere I/II, GTX, <br> Roadrunner (through 1974), <br> Brougham, Sebring, <br> Sebring Plus, Superbird | 1951-74,9999 | $\begin{aligned} & 01,02,04,06, \\ & 08-12 \end{aligned}$ |
| 003 | Fury (Fury Gran thru '78) | I, II, III, Roadrunner (1975), Suburban, Salon, VIP, Sport | 1957-78,9999 | $\begin{aligned} & \text { 01,02,04,06, } \\ & 08.09 \end{aligned}$ |
| 004 | Gran Fury ('80 on) | Sedan, Coupe, Salon | 1980-89,9999 | 02,04,06,08,09 |
| 005 | Barracuda | Formula, S, 340, Gran Coupe, AAR, Cuda | 1964-74,9999 | 01,02,09 |
| 006 | Volare' | Custom, Premier, Roadrunner (1976 on), Police | 1976-80,9999 | 02,04,06,08,09 |
| 007 | Caravelle | Turbo, SE | 1985-88,9999 | 04 |
| 008 | Horizon/Turismo | TC-3, Turismo 2.2, Miser, America, Custom, SE, Duster (1985 on), Expo | 1978-90,9999 | 03,05,07,09 |
| 011 | Reliant (K) | SE, LE, Reliant America, Limited | 1981-89,9999 | 02,04,06,08,09 |
| 013 | Scamp-(car-based p/u) | GT, 2.2 | 1982-84,9999 | 10 |
| 017 | Sundance | RS, Turbo, Sundance Duster, America | 1987-94,9999 | 03,05,07,09 |
| 019 | Acclaim | LX, LE | 1989-95,9999 | 04 |
| 020 | Neon (2002 and on, see Dodge) | Sport, Competition, Highline | $\begin{aligned} & \text { 1995-2001, } \\ & 9999 \end{aligned}$ | 02,04,08,09 |
| 031 | Cricket |  | 1971-72,9999 | 04,06,09 |
| 032 | Arrow | GS, GT, Fire Arrow | 1976-80,9999 | 03 |


| MAKE: | Plymouth (Cont.) | (09) |  | (PLYM) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 033 | Sapporo | all imported | 1978-83,9999 | 02,03,09 |
| 034 | Champ/Colt import (includes 2WD Vista) | Turbo, Custom, GL, SE, DL, E Station wagon (1984 on) | 1979-94,9999 | 02-09 |
| 035 | Conquest | TSI | 1984-87,9999 | 03 |
| 037 | Laser | RS, Turbo | 1989-94,9999 | 02,03,09 |
| 038 | Breeze |  | $\begin{aligned} & \text { 1996-2000, } \\ & 9999 \end{aligned}$ | 04 |
| 039 | Prowler (1997, 19992001 only. For 2002 on, see Chrysler) | Roadster, Black Tie Edition | $\begin{aligned} & \text { 1997;1999- } \\ & \text { 2001,9999 } \end{aligned}$ | 01 |
| 398 | Other (automobile) | Regant, Fleet, Savoy, Concord, Cambridge | 1930-95,9999 | 01-12 |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1965-2001, } \\ & 9999 \end{aligned}$ | 01-12 |
| LIGHT TRUCKS |  |  |  |  |
| 421 | Trailduster |  | 1974-93,9999 | 15 |
| 441 | Vista Van | 4X4 (only) | 1987-94,9999 | 20 |
| 442 | Voyager (minivan) (2000 and on, see Chrysler) | SE, LX, Grand Voyager, SE Expresso, EPIC-electric* | $\begin{aligned} & \text { 1984-2001, } \\ & 9999 \end{aligned}$ | 20 |
| 461 | Van-fullsize (B-series) | Voyager (thru 1983), Sport, Premier | 1965-95,9999 | 21 |
| 471 | Arrow pickup (foreign) |  | 1975-91,9999 | 30,32 |
| 498 | Other (light truck) |  | $\begin{aligned} & \text { 1965-2001, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 15,20,21,28,29 \\ & 30,32,42,45,48 \end{aligned}$ |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1974-2001, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 15,20,21,29,30 \\ & 32,48,49 \end{aligned}$ |
| * Electric Vehicle. Be sure to code Related Factors-Vehicle Level Code "36." |  |  |  |  |
| OTHER VEHICLE |  |  |  |  |
| 998 | Other (vehicle) |  | $\begin{aligned} & \text { 1965-2001, } \\ & 9999 \end{aligned}$ | 91-93,97 |
| 999 | Unknown (PLYMOUTH) |  | $\begin{aligned} & \text { 1957-2001, } \\ & 9999 \end{aligned}$ | 49 |


| MAKE: | Pontiac | (22) |  | (PONT) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 001 | Lemans (See model 031 for 1988 on)/Tempest (thru 1970) | Safari, T-37, Luxury, Grand Sport, GTO (thru 1973), GT-37, Sprint, Judge, Grand AM (73-75), Grand Lemans | 1961-81,9999 | $\begin{aligned} & \text { 01,02,04,06, } \\ & 08,09 \end{aligned}$ |
| 002 | Bonneville/Catalina/ Parisienne | Brougham, Grand Safari, Safari, Grandville, 2+2, Executive, Starchief, SE, SSE, SSEi, G, SLE, GXP | $\begin{aligned} & \text { 1954-2005, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & \text { 01,02,04,06, } \\ & 08,09 \end{aligned}$ |
| 005 | Fiero | 2M4, 2M6, GT, SE | 1984-89,9999 | 02 |
| 008 | Ventura/GTO | II, SJ, Sprint, GTO (74-77), Custom, Base, LS2 | $\begin{aligned} & \text { 1971-77; } \\ & \text { 2004-06,9999 } \end{aligned}$ | 02-04,09 |
| 009 | Firebird/Trans AM | Esprit, Formula, GTA, Redbird, Yellowbird, Skybird, SE, Bandit, TransAm | $\begin{aligned} & 1967-2002, \\ & 9999 \end{aligned}$ | 01-03,09 |
| 010 | Grand Prix (RWD) | $\begin{aligned} & \text { J, LJ, SJ, Brougham, 2+2, } \\ & \text { GT, STE, SE } \end{aligned}$ | 1962-87,9999 | 01,02,09 |
| 011 | Astre | Safari, SJ, Custom | 1975-77,9999 | 02,03,06,09 |
| 012 | Sunbird (thru 1980;1985 on see model 016) | Safari, Sport, Formula | 1976-80,9999 | 01-09 |
| 013 | T-1000/1000 | 2T | 1981-87,9999 | 03,05,07,09 |
| 015 | Phoenix | LJ, SJ | 1977-84,9999 | 02-05,07-09 |
| 016 | Sunbird (1985-1994 only) /J-2000/Sunfire (1995 on) | LE, SE, GT, 2000 <br> Convertible, 2J, S, SE, GT, 1SA, 1SB, 1SC, 1SV | $\begin{aligned} & \text { 1982-2005, } \\ & 9999 \end{aligned}$ | 01-09 |
| 017 | 6000 | STE, SE, LE | 1982-91,9999 | 02,04,06,08,09 |
| 018 | Grand AM | SE, LE, GT, GT1, SE1, SE2, SC/T Package | $\begin{aligned} & \text { 1973-2005, } \\ & 9999 \end{aligned}$ | 02,04,08,09 |
| 019 | G5 | Base, GT | 2007-10,9999 | 02 |
| 020 | Grand Prix (FWD) | LE, SE, STE, GT, McLaren Turbo, GTP, Limited Edition, $40^{\text {th }}$ Anniversary Edition, GXP | $\begin{aligned} & \text { 1988-2008, } \\ & 9999 \end{aligned}$ | 01,02,04,08,09 |
| 022 | G6 | Base, GT, GTP, Value Leader, GXP | 2005-10,9999 | 01,02,04,09 |
| 023 | Solstice | GXP | 2006-10,9999 | 01,02, 09 |
| 024 | G8 | GT, GXP | 2008-10,9999 | 04 |
| 025 | G3 |  | 2009-10,9999 | 04,05,09 |
| 031 | Lemans (1988 on) | LE, SE, Tempest Canadian | 1988-93,9999 | 01-09 |
| 032 | Vibe | GT, AWD, HB | 2003-10,9999 | 06 |
| 398 | Other (automobile) | Torpedo, Streamliner, Chieftain Star Chief, Super Chief | $\begin{aligned} & \text { 1946-2010, } \\ & 9999 \end{aligned}$ | 01-10 |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1926-2010, } \\ & 9999 \end{aligned}$ | 01-10 |


| MAKE: | Pontiac (Cont.) | (22) |  | (PONT) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| LIGHT TRUCKS |  |  |  |  |
| 401 | Aztek | GT, SE, 1SA, 1SB, 1SC, Rally Edition | 2001-05,9999 | 14 |
| 403 | Torrent | GXP | 2006-09,9999 | 14 |
| 441 | Trans Sport/ Montana/SV6 | SE, Montana, Extended, Versatrak, 1SV, 1SA, 1SX, 1SY, 1SE, Chrome Sport, | $\begin{aligned} & \text { 1990-2009, } \\ & 9999 \end{aligned}$ | 20 |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1990-2009, } \\ & 9999 \end{aligned}$ | 14,20,49 |
| 999 | Unknown (PONTIAC) |  | $\begin{aligned} & \text { 1951-2010, } \\ & 9999 \end{aligned}$ | 49 |
| MAKE: | Porsche | (45) |  | (PORS) |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | 911/996 | L, S, E, T, SC, Carrera (2, <br> 4, Cabriolet, Targa), GT, <br> Slopenose, 4S, Targa, <br> Speedster, Turbo, B series, S-Coupe, Cabriolet (S), <br> GT2, GT3 (RS), Carrera GT | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 01,02,09 |
| 032 | 912 | 1600, E, T | $\begin{aligned} & \text { 1966-69; } \\ & \text { 1976,9999 } \end{aligned}$ | 01,02,09 |
| 033 | 914 | 1.7, 1.8, 2.0, S, 914/4/6 | 1970-76,9999 | 01 |
| 034 | 924 | Turbo, S | 1977-88,9999 | 01-03,09 |
| 035 | 928 | S, S4, GT, GTS | 1978-95,9999 | 02,03,09 |
| 036 | 930 | Turbo | 1979 | 02 |
| 037 | 944 | Turbo, S, S2 | 1983-91,9999 | 01-03,09 |
| 038 | 959 | Not Imported to U.S. | 1989-94,9999 | 01-03,09 |
| 039 | 968 |  | 1992-95,9999 | 01,02,09 |
| 040 | 986/Boxster | Boxster, Boxster Cabriolet, S Roadster, S Anniversary, Limited Edition, Spyder, Black Edition | $\begin{aligned} & \text { 1997-2013, } \\ & 9999 \end{aligned}$ | 01 |
| 041 | Cayman | S, Hybrid, Black Edition, R | 2006-13,9999 | 02 |
| 042 | Panamera | S, 4, 4S, Turbo, Turbo S, Hybrid, GTS, S, Platinum Edition | 2010-13,9999 | 05 |
| 043 | 918 |  | 2013 | 01,02,09 |
| 398 | Other (automobile) | Spyder, Speedster (prior to '65), 356 (A,B,C) Grund, America, Super, 1500 | $\begin{aligned} & \text { 1948-2013, } \\ & 9999 \end{aligned}$ | 01-03,05,09 |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1948-2013, } \\ & 9999 \end{aligned}$ | 01-03,05,09 |


| MAKE: | Porsche | (45) |  | (PORS) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| LIGHT TRUCKS |  |  |  |  |
| 421 | Cayenne | Turbo, S, Titanium, GTS (PD Edition), Transsyberia, Hybrid, Diesel | 2003-13,9999 | 15 |
| 999 | Unknown (PORSCHE) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 99 |
| MAKE: | Renault | (46) |  | (RENA) |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | LeCar | R-5, R5TL, GTL, TL, DLX | 1976-83,9999 | 02-05,07-09 |
| 032 | Dauphine/10/R-8 Caravelle | all models, R-1190, | 1955-71,9999 | 01,02,04,08,09 |
| 033 | 12 | R-12L, R-12TL/GTL | 1972-77,9999 | 04,06,09 |
| 034 | 15 | R-15TL | 1973-76,9999 | 02,03,09 |
| 035 | 16 | R-16, R-1152 | 1969-72,9999 | 06 |
| 036 | 17 | R17, Gordini Coupe, R17TL | 1972-80,9999 | 01,02,09 |
| 037 | 18i/Sportwagon | R18i, Deluxe, DLX | 1981-86,9999 | 04,06,09 |
| 038 | Fuego | TL, TS, GTL, GTS, Turbo | 1982-85,9999 | 02, 03,09 |
| 039 | Alliance/Encore GTA, Convertible | L, DL, Limited, X-37 | 1983-87,9999 | 01-05,07-09 |
| 041 | Alpine | GT, GTA Coupe, Not imported to U.S. | 1971-90,9999 | 02,03,09 |
| 044 | Medallion ** | DL, LX | 1987 | 04,06,09 |
| 045 | Premier** |  | 1987 | 04 |
| 398 | Other (automobile) | Juvaquatre, 4CV, Fregate, Domaine | 1946-90,9999 | 01-11 |
| 399 | Unknown (automobile) |  | 1946-90,9999 | 01-11 |

** Note: Medallion and Premier listed under Eagle after 1987.

| MAKE: | Sab | (47) |  | (SAA) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | 99/99E/900 | S,GL, GLE, L, LE, 2CM, 4CM Turbo, Cabriolet, 2EM, 4EM, CM, SE | 1969-98,9999 | 01-05,07-09 |
| 032 | Sonnett | II, III, 97 | 1967-74,9999 | 02 |
| 033 | 95/96 | V-4, M, S, M-S, Special | 1959-73,9999 | 02,06,09 |
| 034 | 9000 | S, Turbo, CS, CD, CDE, E, AERO,CSE | 1985-98,9999 | 04,05,09 |
| 035 | 9-3/9-3x | SE (Hot), Viggen, Linear Arc, Vector, Aero, 2.0T, SportCombi, Combi, Estate | $\begin{aligned} & \text { 1999-2012, } \\ & 9999 \end{aligned}$ | 01,03-07,09 |


| MAKE: | Saab (Cont.) | (47) |  | (SAA) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 036 | 9-5 | SE, Aero, 2.3T, Set, Arc, Linear, Aero, SportCombi, 2.5T, Turbo X, Vector | $\begin{aligned} & \text { 1999-2012, } \\ & 9999 \end{aligned}$ | 02,04,06,08,09 |
| 037 | 9-2x | Linear, Aero | 2005-06,9999 | 05 |
| 038 | 9-4x |  | 2009-12,9999 | 06 |
| 398 | Other (automobile) | Monte Carlo 850, GT850, GT750, 92/93 | $\begin{aligned} & \text { 1950-2012, } \\ & 9999 \end{aligned}$ | 01-09 |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1950-2012, } \\ & 9999 \end{aligned}$ | 01-09 |
| LIGHT TRUCKS |  |  |  |  |
| 401 | 9-7x | Arc, Linear, 4.2i, 5.3i, Altitude Edition, Aero | 2005-11,9999 | 14 |
| 999 | Unknown (SAAB) |  | $\begin{aligned} & \text { 1950-2012, } \\ & 9999 \end{aligned}$ | 49 |
| MAKE: | Saturn | (24) |  | (STRN) |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 001 | SL | SL, SL1, SL2 | $\begin{aligned} & \text { 1991-2002, } \\ & 9999 \end{aligned}$ | 04 |
| 002 | SC | SC1, SC2 | $\begin{aligned} & \text { 1991-2002, } \\ & 9999 \end{aligned}$ | 02, 09, 17 |
| 003 | SW | SW1, SW2 | $\begin{aligned} & \text { 1993-2001, } \\ & 9999 \end{aligned}$ | 06 |
| 004 | EV1/EGV1* | Electric Vehicle (Gen II) | $\begin{aligned} & \text { 1997-2003, } \\ & 9999 \end{aligned}$ | 02 |
| 005 | LS | LS, LS1, LS2, L100/L200/ <br> L300, L300-1/2/3 | 2000-05,9999 | 04 |
| 006 | LW | LW1, LW2, LW200/ LW3001/2/3 | 2000-04,9999 | 06 |
| 007 | Ion | Quad-coupe, I3, Red Line | 2003-07,9999 | 04, 09, 17 |
| 008 | Sky | Red Line | 2007-10,9999 | 01 |
| 009 | Aura | XE, XR, Hybrid | 2007-10,9999 | 04 |
| 010 | Outlook | XE, XR | 2007-10,9999 | 06 |
| 011 | Astra | XE, XR, Sport | 2008-10,9999 | 03,05,09 |
| * Electric Vehicle. Be sure to code Related Factors-Vehicle Level Code "36." |  |  |  |  |
| 398 | Other (automobile) |  | $\begin{aligned} & \text { 1991-2010, } \\ & 9999 \end{aligned}$ | 02-06,08,09, 17 |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1991-2010, } \\ & 9999 \end{aligned}$ | 02-06,08,09, 17 |


| MAKE: | Saturn (Cont.) | (24) |  | (STRN) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| LIGHT TRUCKS |  |  |  |  |
| 401 | Vue | Red Line, 4, V6, Green Line, XE, XR-4, XR-V6 | 2002-10,9999 | 14 |
| 441 | Relay | 2,3 | 2005-07,9999 | 20 |
| 499 | Unknown (light truck) |  | 2002-10,9999 | 14,20 |
|  | Unknown (SATURN) |  | $\begin{aligned} & \text { 1991-2010, } \\ & 9999 \end{aligned}$ | 49 |


| MAKE: | Scion | (67) |  | (SCIO) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | xB (2012 on. See Toyota for 2004-2011) | 1.0, 2.0 Series, Limited Edition | 2012-13,9999 | 06 |
| 032 | tC (2012 on. See Toyota for 2005-2011) | 1.0 Series, Limited Edition, 8.0 Series | 2012-13,9999 | 03 |
| 033 | xD (2012 on. See Toyota for 2007-2011) | Limited Edition | 2012-13,9999 | 05 |
| 034 | iQ (2012 on. See Toyota for 2010-2011) |  | 2012-13,9999 | 03 |
| 035 | FR-S |  | 2013 | 02 |
| 398 | Other (automobile) |  | 2012-13,9999 | 02, 03, 05, 06,09 |
| 399 | Unknown (automobile) |  | 2012-13,9999 | 02, 03, 05, 06,09 |


| MAKE: | Smart | (65) |  | (SMRT) |
| :--- | :--- | :--- | :--- | :--- |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES    <br> 031 Fortwo Pure, Passion, BRABUS, <br> Electric Car $2008-13,9999$ | $01,02,09$ |  |  |  |
| 398 | Other (automobile) |  | $2008-13,9999$ | $01,02,09$ |
| 399 | Unknown (automobile) |  | $2008-13,9999$ | $01,02,09$ |


| MAKE: | Sterling | (61) |  | (STLG) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | 827 | Li, SL, S, SLI | 1987-91,9999 | 04,05,09 |
| 398 | Other (automobile) | 825, S, SL, Oxford Edition | 1987-91,9999 | 04,05,09 |
| 399 | Unknown (automobile) |  | 1987-91,9999 | 04,05,09 |
| MAKE: | Subaru | (48) |  | (SUBA) |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | Loyale (1990 on)/DL/ <br> FE/G/GF/GL/GLF/ STD | 4-wheel drive, S, 1300, 1400, 1600, 1800, A15L, A44L, Touring Wagon, Turbo | 1972-94,9999 | 02-09 |
| 032 | Star | FF -1 Star, 1100 | 1971 | 02,04,06,08,09 |
| 033 | 360 |  | 1958-70,9999 | 02 |
| 034 | Legacy/Outback(prior to 2003 only; see 045 for 2003 on) | L, LS, LSI, 4WD, Outback (Limited, Ltd, Sport, VDC, L.L. Bean Edition), GT, Brighton, Sport Utility Sedan (Ltd.), $30^{\text {th }}$ Anniv. Outback, $\mathrm{H}-6,35^{\text {th }}$ Anniv., 2.5, 2.5i/GT, spec. B, 3.0R, Limited, Premium, 3.6R | $\begin{aligned} & \text { 1990-2013, } \\ & 9999 \end{aligned}$ | 04-06,09 |
| 035 | XT/XT6 | 4WD Turbo, convertible, DL, GL | 1985-91,9999 | 01,02,09 |
| 036 | Justy | DL, GL, 4WD | 1987-94,9999 | 03,05,07,09 |
| 037 | SVX | LS, LSL, XR, Lsi | 1992-97,9999 | 02 |
| 038 | Impreza | L, LS, Brighton, Outback Sport, RS, L-Sport, LX, 2.5i/RS/S/TS/ GT, WRX, WRX Sport/STI/SS/ TR, Limited Edition, Premium, SE, STI, STI-S, 2.0i (Premium, Limited, Sport) | $\begin{aligned} & \text { 1993-2013, } \\ & 9999 \end{aligned}$ | 02,04-06,08,09 |
| 039 | RX |  | 1986-89,9999 | 03,04,09 |
| 043 | Brat | DL, GL | 1978-87,9999 | 10 |
| 044 | Baja | Sport, Turbo | 2003-07,9999 | 10 |
| 045 | Outback (2003 on; see 034 for prior to 2003) | H6-VDC, $35^{\text {th }}$ Anniversary Edition, 2.5, 2.5i, 2.5XT, 3.0R, Special Edition, VDC Limited, Sport, L.L. Bean Edition, 3.0R. Premium, 3.6R | 2003-13,9999 | 04-06,09 |
| 046 | BRZ | Premium, Limited | 2013 | 03 |
| 398 | Other (automobile) |  | $\begin{aligned} & \text { 1968-2013, } \\ & 9999 \end{aligned}$ | 01-10 |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1968-2013, } \\ & 9999 \end{aligned}$ | 01-10 |


| MAKE: | Subaru (Cont.) | (48) |  | (SUBA) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| LIGHT TRUCKS |  |  |  |  |
| 401 | Forester | L, S, 2.5X, 2.5XS, 2.5XT, L.L. Bean Edition, Limited (Plus), Sport, Premium, Touring | $\begin{aligned} & \text { 1997-2014, } \\ & 9999 \end{aligned}$ | 14 |
| 402 | B9 Tribeca | Base, Limited, Special Edition, Premium, Touring, 3.6R | 2006-13,9999 | 14 |
| 403 | XV Crosstrek | 2.0i Premium/Limited | 2013 | 14 |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1997-2014, } \\ & 9999 \end{aligned}$ | 14 |
| 999 | Unknown (SUBARU) |  | $\begin{aligned} & \text { 1958-2014, } \\ & 9999 \end{aligned}$ | 49 |
| MAKE: | Suzuki | (53) |  | (SUZI) |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | Swift/SA310 | Gti, GTX, GLX, GA, GT, GL | $\begin{aligned} & \text { 1989-2001, } \\ & \text { 2010,9999 } \end{aligned}$ | 03-05,07,09 |
| 032 | Esteem | GL, GLX, GLX+ | $\begin{aligned} & \text { 1995-2002, } \\ & 9999 \end{aligned}$ | 04,06,09 |
| 033 | Aerio | S,G,LX,SX (Wagon), Luxury | 2002-07,9999 | 04,06,09 |
| 034 | Forenza | S, LX, EX, Premium, Convenience, Popular | 2004-08,9999 | 04,06,09 |
| 035 | Verona | S, LX, EX, Luxury | 2004-06,9999 | 04 |
| 036 | Reno | S, LX, EX, Premium, Convenience | 2005-08,9999 | 05 |
| 040 | SX4/SX4 Crossover | Base, Sport, Convenience, Touring, L, S, SD, SE, GTS, LE, SportBack, JX, Premium, Tech Value Package | 2007-13,9999 | 04,05,09 |
| 041 | Kizashi | GTS, S, SE, SLS, Sport | 2010-13,9999 | 04 |
| 398 | Other (automobile) | 800 Fronte, Alto | $\begin{aligned} & \text { 1981-2013, } \\ & 9999 \end{aligned}$ | 03-07,09 |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1981-2013, } \\ & 9999 \end{aligned}$ | 03-07,09 |
| LIGHT TRUCKS |  |  |  |  |
| 401 | Samurai | Standard, Deluxe, JL | 1986-96,9999 | 14 |
| 402 | Sidekick/Vitara/ Vitara V6 | JS, JX, JLX, JLS, Sport, Grand Vitara (1999-2002 only; see model 404 for 2003 on) (JS, JLX, JLS, Ltd.) <br> XL-7 (2002 only; see model 405 for 2003 on) LX | $\begin{aligned} & \text { 1989-2004, } \\ & 9999 \end{aligned}$ | 14 |
| 403 | X-90 |  | 1996-98,9999 | 14 |


| MAKE: | Suzuki (Cont.) | (53) |  | (SUZI) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| LIGHT TRUCKS (Cont.) |  |  |  |  |
| 404 | Grand Vitara (2003 on; see model 402 for models prior to 2003) | JS, JLX, JLS, Limited, GX, LX, XV6, Premium, Xsport, Luxury, Special Edition, Ultra Adventure Edition | 2003-13,9999 | 14 |
| 405 | XL-7 (2003 on; see 402 for 2002 model year) | Standard, Touring, Limited, GX, LX, Premium, Luxury | 2003-09,9999 | 14 |
| 481 | Equator | Comfort, Premium, Sport, RMZ-4 | 2009-13,9999 | 31 |
| 498 | Other (light truck) | Jimmy | $\begin{aligned} & \text { 1981-2013, } \\ & 9999 \end{aligned}$ | 14, 31 |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1981-2013, } \\ & 9999 \end{aligned}$ | 14,31 |
| MOTORCYCLES |  |  |  |  |
| 701 | 0-50cc |  | $\begin{aligned} & \text { 1970-2013, } \\ & 9999 \end{aligned}$ | 80,81,83,88,89 |
| 702 | 51-124cc |  | $\begin{aligned} & \text { 1970-2013, } \\ & 9999 \end{aligned}$ | 80,81,83,88,89 |
| 703 | 125-349cc |  | $\begin{aligned} & \text { 1969-2013, } \\ & 9999 \end{aligned}$ | 80,83,88,89 |
| 704 | 350-449cc |  | $\begin{aligned} & \text { 1970-93; } \\ & \text { 2000-13,9999 } \end{aligned}$ | 80,83,88,89 |
| 705 | 450-749cc |  | $\begin{aligned} & \text { 1969-2013, } \\ & 9999 \end{aligned}$ | 80,83,88,89 |
| 706 | 750cc-over |  | $\begin{aligned} & \text { 1970-2013, } \\ & 9999 \end{aligned}$ | 80,83,88,89 |
| 709 | Unknown cc |  | $\begin{aligned} & \text { 1969-2013, } \\ & 9999 \end{aligned}$ | 80-83,88,89 |
| ALL TERRAIN VEHICLES |  |  |  |  |
| 731 | 0-50cc | includes all ATVs designed solely for | $\begin{aligned} & \text { 1969-87; } \\ & \text { 2002-04,9999 } \end{aligned}$ | 90 |
| 732 | 51-124cc | off-road use and have 3 or 4 wheels. | $\begin{aligned} & \text { 1969-2004, } \\ & 9999 \end{aligned}$ | 90 |
| 734 | 350 cc or greater |  | $\begin{aligned} & \text { 1969-93; } \\ & \text { 1998-2013, } \\ & 9999 \end{aligned}$ | 90 |
| 739 | Unknown cc |  | $\begin{aligned} & \text { 1969-2013, } \\ & 9999 \end{aligned}$ | 90, 97* |
|  | Unknown (SUZUKI) |  | $\begin{aligned} & \text { 1969-2013, } \\ & 9999 \end{aligned}$ | 49,99 |
| * Refer to Body Type attribute 97 (Other Vehicle Type) for remarks regarding side-by-sideATVs |  |  |  |  |


| MAKE: | Toyota | (49) |  | (TOYT) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | Corona | Mark II, Custom, 1900, 2000, Deluxe | 1966-83,9999 | 02,04,06,08,09 |
| 032 | Corolla | 1100, 1200, 1600, SR-5, LE, DX, CE, Deluxe, Custom, FX, FX16, Sport, GTS, VE, S, XRS, XLE, CE, L | $\begin{aligned} & \text { 1969-2013, } \\ & 9999 \end{aligned}$ | 02-09 |
| 033 | Celica | 1900, 2000, GT, ST, GTS, VE, GT-S | $\begin{aligned} & \text { 1971-2006, } \\ & 9999 \end{aligned}$ | 01-03,09 |
| 034 | Supra | Celica Supra, Soarer, Turbo | 1979-98,9999 | 03 |
| 035 | Cressida |  | 1978-92,9999 | 04-06,09 |
| 036 | Crown | 2300, 2600, Toyopets | 1958-71,9999 | 02,04,06,08,09 |
| 037 | Carina | 2000 | 1972-73,9999 | 02 |
| 038 | Tercel | Corolla Tercel, 4WD, EZ, DX, LE, DLX, CE | 1980-99,9999 | 02-09 |
| 039 | Starlet |  | 1981-84,9999 | 03 |
| 040 | Camry | LE, Deluxe, XLE, DLX, SE, AllTrac, CE, SE, Limited Edition, L, Hybrid (CVT/LE/XLE) | $\begin{aligned} & \text { 1983-2013, } \\ & 9999 \end{aligned}$ | 02,04-06,08,09 |
| 041 | MR-2/MR Spyder | Super Charged | $\begin{aligned} & \text { 1984-95; } \\ & \text { 2000-07,9999 } \end{aligned}$ | 01,02,09 |
| 042 | Paseo | Turbo, T-bar | 1992-97,9999 | 01,02,09 |
| 043 | Avalon | XL, XLS, Limited, Touring | $\begin{aligned} & \text { 1995-2013, } \\ & 9999 \end{aligned}$ | 04 |
| 044 | Solara | Camry Solara (SE, SLE, Sport) | $\begin{aligned} & \text { 1999-2009, } \\ & 9999 \end{aligned}$ | 01,02,09 |
| 045 | ECHO |  | 2000-05,9999 | 02,04,09 |
| 046 | Prius * | *Electric hybrid, Touring, II, III, IV, V(2/3/5), (CVT), $3^{\text {rd }}$ Generation (2/3/4/5), Plug-In (Base/Advanced), c (1/2/3/4) | 2001-13,9999 | 03-05,09 |
| 047 | Matrix | Base, XR, XRS, STD, S, SD, L | 2003-13,9999 | 06 |
| 048 | Scion xA | RS 1.0 | 2004-06,9999 | 05 |
| 049 | Scion xB (2004-2011 only. See 67-031 for 2012 on.) | 1.0, 2.0 Series | 2004-11,9999 | 06 |
| 050 | Scion tC (2005-2011 only. See 67-032 for 2012 on.) | 1.0 Series | 2005-11,9999 | 03 |
| 051 | Yaris | Liftback, S, CE, HB, LB, LE, RS, SE, L | 2007-13,9999 | 03-05, 09 |
| 052 | Scion xD (2007-2011 only. See 67-033 for 2012 on.) |  | 2007-11,9999 | 05 |
| 053 | Venza | LE, XLE, Limited | 2009-13,9999 | 05 |


| MAKE: | Toyota (Cont.) | (49) |  | (TOYT) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 054 | Scion iQ (2010-2011 only. See 67-034 for 2012 on.) |  | 2010-11,9999 | 04 |
| 398 | Other (automobile) | 2000 GT Coupe (1960s), Sports 800, Vipor, Tiara | $\begin{aligned} & \text { 1960-2013, } \\ & 9999 \end{aligned}$ | 01-10 |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1960-2013, } \\ & 9999 \end{aligned}$ | 01-10 |
| LIGHT TRUCKS |  |  |  |  |
| 401 | 4-Runner | SR5, Limited, Sport, Trail | $\begin{aligned} & \text { 1984-2013, } \\ & 9999 \end{aligned}$ | 14 |
| 402 | RAV4* | L, EVs-electric*, Sport, Limited | $\begin{aligned} & \text { 1996-2013, } \\ & 9999 \end{aligned}$ | 14 |
| 403 | Highlander | Limited, Hybrid, Sport, SE, Plus | 2001-13,9999 | 14 |
| 404 | FJ Cruiser | Baja 1000, FJ, SE, TRD, AT, MT | 2007-13,9999 | 14 |
| 421 | Land Cruiser | 4WD | $\begin{aligned} & \text { 1964-2013, } \\ & 9999 \end{aligned}$ | 15 |
| 422 | Sequoia | SR5, Limited, Platinum | 2001-13,9999 | 15 |
| 441 | Minivan (1984-90)/ <br> Previa (1991 on) | LE, Cargo, DX, XLE | 1984-97,9999 | 20 |
| 442 | Sienna | CE, LE, XLE, Symphony, Limited, SE, L | $\begin{aligned} & \text { 1998-2013, } \\ & 9999 \end{aligned}$ | 20 |
| 471 | Pickup | SR-5,Extra Cab, Sport, LN44, Chinook, Wonder Wagon | 1974-95,9999 | 30-32,40,42 |
| 472 | Tacoma | SR5, Xtracab, Limited, PreRunner, Side Step, Double Cab, S-Runner, 2.7L, 4.0L X-Runner, T/X, T/X Pro, Access Cab | $\begin{aligned} & \text { 1995-2013, } \\ & 9999 \end{aligned}$ | 30,32,40,42 |
| 481 | T-100 | DX, SR5, Limited, Xtracab | 1993-98,9999 | 31-32,40,42 |
| 482 | Tundra | SR5 (Access Cab), LTD, (Access Cab), Double Cab, Darrell Waltrip Special Edition, CrewMax, 4.0L, 4.6L, 5.7L, Limited | $\begin{aligned} & \text { 1999-2013, } \\ & 9999 \end{aligned}$ | 31,32, 40,42 |
| 498 | Other (light truck) |  | $\begin{aligned} & \text { 1970-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 14,15,19,20 \\ & 29,30,31,32,39 \end{aligned}$ |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1973-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 14,15,19,20,30-32, \\ & 39,40,42,48,49 \end{aligned}$ |
| 999 | Unknown (TOYOTA) |  | $\begin{aligned} & \text { 1966-2013, } \\ & 9999 \end{aligned}$ | 49 |


| MAKE: | Triumph | (50) |  | (TRIU) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | Spitfire | I, II, III, IV, 1500 | 1962-81,9999 | 01,02,09 |
| 032 | GT-6 | MK3 | 1967-73,9999 | 01,02,09 |
| 033 | TR4 | TR2, TR3, TR4A | 1958-68,9999 | 01,02,09 |
| 034 | TR6 |  | 1969-76,9999 | 01,02,09 |
| 035 | TR7/TR8 |  | 1975-81,9999 | 01,02,09 |
| 036 | Herald | Vitesse | 1960-74,9999 | 01,02,06,09 |
| 037 | Stag |  | 1971-73,9999 | 01,02,09 |
| 398 | Other (automobile) | 1800,2000,Mayflower, Renown,1200 | 1946-81,9999 | 01,02,04,08,09 |
| 399 | Unknown (automobile) |  | 1946-81,9999 | 01,02,04,08,09 |
| MOTORCYCLES |  |  |  |  |
| 701 | 0-50cc |  | 1965-83,9999 | 80 |
| 702 | 51-124cc |  | 1965-83,9999 | 80 |
| 703 | 125-349cc |  | 1950-74,9999 | 80 |
| 704 | 350-449cc |  | 1950-71,9999 | 80 |
| 705 | 450-749cc |  | $\begin{aligned} & \text { 1950-2013, } \\ & 9999 \end{aligned}$ | 80 |
| 706 | 750cc or greater |  | $\begin{aligned} & \text { 1950-2013, } \\ & 9999 \end{aligned}$ | 80 |
| 709 | Unknown cc |  | $\begin{aligned} & \text { 1950-2013, } \\ & 9999 \end{aligned}$ | 80 |
| 799 | Unknown (motored cycle) |  | $\begin{aligned} & \text { 1950-2013, } \\ & 9999 \end{aligned}$ | 80 |
| 999 | Unknown (TRIUMPH) |  | $\begin{aligned} & \text { 1950-2013, } \\ & 9999 \end{aligned}$ | 99 |


| MAKE: | Volkswagen | (30) |  | (VOLK) |
| :--- | :--- | :--- | :--- | :--- |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | Karmann Ghia |  | $1954-75,9999$ | $01,02,09$ |
| 032 | Beetle 1300/1500 | Flat windshield, 94.5 WB | $1948-77,9999$ | $01,02,09$ |
| 033 | Super Beetle | Curved windshield 95.3 WB | $1971-80,9999$ | $01,02,09$ |
| 034 | 411/412 | Squareback/Fastback | $1971-74,9999$ | $03,04,09$ |
| 035 | Squareback/Fastback | Type 3, 1600 | $1965-74,9999$ | 02 |
| 036 | Rabbit | L, GTI, Sport, LS, Custom, | $1975-84$, | $01,03,05-07,09$ |
|  |  | DL, Deluxe, S | $2007-09,9999$ |  |
| 037 | Dasher |  | $1974-81,9999$ | $03,05-07,09$ |
| 038 | Scirocco |  |  | $1975-88,9999$ |
|  |  | 02 |  |  |


| MAKE: | Volkswagen (Cont.) | (30) |  | (VOLK) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 040 | Jetta/Jetta SportsWagen | III, GL (TDI, 1.9L, 2.0L), GLI (VR6), GLS (1.8T,1.8L/I.9L/ 2.0L/2.8L/ TDI/VR6),GT, Carat, TDI, GLX (VR6/ 2.8L), Turbo Diesel, Wolfsburg Edition, 2.5L S/SE/SEL, Value Edition. 2.0T, 3.6 | $\begin{aligned} & \text { 1981-2013, } \\ & 9999 \end{aligned}$ | 02,04,06,08,09 |
| 041 | Quantum | Synco | 1982-88,9999 | 02,04,06,08,09 |
| 042 | Golf/Cabriolet/Cabrio/ GTI/ GLI | Golf II, GTI (GLS, GLX <br> 1.8T/2.8L), GT, GL(1.8T/ <br> VR6/2.0L/1.9L/ TDI), Golf <br> III, GLS (1.8T/1.8L/1.9L/ <br> 2.0/TDI), Wolfsburg, Cabrio <br> (GL, GLS, GLX), $20^{\text {th }}$ <br> Anniversary, R32, MkV, <br> Convenience, $\boldsymbol{R}$ | $\begin{aligned} & \text { 1985-2013, } \\ & 9999 \end{aligned}$ | 01,03,05-09 |
| 043 | Rabbit Pickup | car-based pickup | 1980-83,9999 | 10 |
| 044 | Fox | GL | 1987-94,9999 | 02,04,06,08,09 |
| 045 | Corrado |  | 1989-94,9999 | 02 |
| 046 | Passat (CC - 2008 thru 2011; see 052 for 2012 on) | GL,GLS(1.8T,Synchro,V6), TDI,GLX(1.8T, 2.0T, W8, Synchro,V6), 4MOTION, 3.6 GL, Value Edition, CC, Highline, Komfort, 2.5 (S/SE) | $\begin{aligned} & \text { 1990-2013, } \\ & 9999 \end{aligned}$ | 04,06,09 |
| 047 | New Beetle | GL GLS TDI, 1.8T/1.8L/ 1.9L/2.0L/2.5/2.5L Syncro/ V6, GLX (1.8T), Turbo S | $\begin{aligned} & \text { 1998-2010, } \\ & 2012-2013, \\ & 9999 \end{aligned}$ | 01,03,09 |
| 048 | Phaeton | 3.2L, 4.2L, V6, V8,W12 | 2002-11,9999 | 04 |
| 051 | Eos | 2.0T, 3.2L, Executive, Komfort, Luxury, Turbo, VR6, Sport | 2006-13,9999 | 01 |
| 052 | CC (For 2012 on. See model 046 for 20082011.) | Luxury, Sport, Sport Plus, VR6, $R$-Line | 2012-13,9999 | 04 |
| 398 | Other (automobile) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 01-10 |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1956-2013, } \\ & 9999 \end{aligned}$ | 01-10 |
| LIGHT TRUCKS |  |  |  |  |
| 401 | The Thing (181) |  | 1973-75,9999 | 14 |
| 402 | Tiguan | S, SE, SEL | 2008-13,9999 | 14 |


| MAKE: | Volkswagen (Cont.) | (30) |  | (VOLK) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes I | Includes | Model Years | Body Types |
| LIGHT TRUCKS (Cont.) |  |  |  |  |
| 421 | Touareg/Touareg 2 | V6, V8, V10, VR6 FSI, Lux, Executive | 2003-13,9999 | 15 |
| 441 | Vanagon/Camper B | Bus, Kombi, Van | 1955-91,9999 | 20 |
| 442 | Eurovan | GLS, MV, Camper, Weekender Package | 1992-04,9999 | 20 |
| 443 | Routan S | S, SE, SEL Premium/RSE | 2009-13,9999 | 20 |
| 498 | Other (light truck) |  | $\begin{aligned} & \text { 1967-2013, } \\ & 9999 \end{aligned}$ | 14,15,20 |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 14,15,20,49 |
| OTHER VEHICLE |  |  |  |  |
| 998 | Other (vehicle) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 91-93,97 |
| 999 | Unknown (VOLKSWAGEN) |  | $\begin{aligned} & \text { 1956-2013, } \\ & 9999 \end{aligned}$ | 49 |


| MAKE: | Volvo | (51) |  | (VOLV) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | 122 | S | 1958-68,9999 | 02,04,06,08,09 |
| 032 | 140/142/144/145 * | S, E, GL, GLS, Deluxe | 1968-74,9999 | 02,04,06,08,09 |
| 033 | 164 | S, E | 1970-75,9999 | 04 |
| 034 | 240 series*/DL/GL/GLT | $242,244,245, \mathrm{DL}, \mathrm{GL} \text {, }$ <br> GLT, Deluxe | 1975-93,9999 | 02,04,06,08,09 |
| 035 | 260 series/GLE | 264,265,262, c, Volvo Coupe, Volvo Diesel | 1976-82,9999 | $\begin{aligned} & 02,04,06,08,09 \\ & 12 \end{aligned}$ |
| 036 | 1800 | E, S, ES, P1800 | 1960-73,9999 | 02,06,09 |
| 037 | PV544 | PV444 | 1947-65,9999 | 04,06,09 |
| 038 | 760/780 | GLE, Turbo, Bertone Coupe | 1983-92,9999 | $\begin{aligned} & 02,04,06,08,09 \\ & 12 \end{aligned}$ |
| 039 | 740 | GLE, GT, Turbo, GL, SE | 1983-92,9999 | 04,06,09 |
| 040 | 940 | GLE, Turbo, SE | 1991-95,9999 | 04,06,09,12 |
| 041 | 960 |  | 1992-97,9999 | 04,06,09,12 |
| 042 | 850 | GLT, Turbo, T-5, GTAS, GTMS Cross Country | 1993-97,9999 | 04,06,09 |
| 043 | 70 Series | C70 (LT, HT,T5), S70 (GLT, T5, AWD) V70 (R, SC Cross Country, GLT, T5, M, 2.4T, 2.4, 2.5T, T6, R, 3.2) LPT, HPT. XC70 | $\begin{aligned} & \text { 1998-2013 } \\ & 9999 \end{aligned}$ | 01,02,04,06,09 |
| 044 | 90 Series | S90, V90 | 1998 | 04,06,09 |
| 045 | 80 Series | S80 (2.9, T6, Executive, Premier) 2.5, 2.5T, 3.2, V8 | $\begin{aligned} & \text { 1999-2013, } \\ & 9999 \end{aligned}$ | 04 |


| MAKE: | Volvo (Cont.) | (51) |  | (VOLV) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 046 | 40 Series | S40,V40,LSE, 2.5i, T5, 2.4i, R-Design | 2000-11,9999 | 04,06,09 |
| 047 | 60 Series | S60 (2.4T, 2.4, 2.5 AWD, T5), 2.4M, 2.5T, R, T5, T6, R-Design | 2001-13,9999 | 04 |
| 048 | V50 | 2.4i, T5, R-Design | 2005-11,9999 | 06 |
| 049 | C30 | 1.0, 2.0, T5, R-Design | 2008-13,9999 | 03 |
| 050 | XC60 | 3.2, T6, R-Design | 2008-13,9999 | 06 |
| 398 | Other (automobile) |  | $\begin{aligned} & \text { 1958-2013, } \\ & 9999 \end{aligned}$ | 01-12 |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1958-2013, } \\ & 9999 \end{aligned}$ | 01-12 |
| LIGHT TRUCKS |  |  |  |  |
| 401 | XC90 | 2.5T(AWD), T6(AWD), V8, 3.2, R-Design, SVR7 | 2003-13,9999 | 14 |
| MEDIUM/HEAVY TRUCKS |  |  |  |  |
| 881 | Medium/Heavy - CBE |  | $\begin{aligned} & \text { 1981-93; } \\ & \text { 1996-2013, } \\ & 9999 \end{aligned}$ | 60-64,66,78 |
| 882 | Medium/Heavy - COE low entry |  | $\begin{aligned} & \text { 1981-93; } \\ & \text { 1996-2004, } \\ & 9999 \end{aligned}$ | 60-64,66,78 |
| 883 | Medium/Heavy - COE high entry |  | $\begin{aligned} & \text { 1981-93; } \\ & \text { 1996-2004, } \\ & 9999 \end{aligned}$ | 60-64,66,78 |
| 884 | Medium/Heavy - Unknown engine location |  | $\begin{aligned} & \text { 1981-93; } \\ & \text { 1996-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 890 | Medium/Heavy - COE entry position unknown |  | $\begin{aligned} & \text { 1981-93; } \\ & \text { 1996-2013, } \\ & 9999 \end{aligned}$ | 60-64,66,78 |
| 898 | Other (medium/heavy truck) |  | $\begin{aligned} & \text { 1981-93; } \\ & \text { 1996-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66 \\ & 71,72,78 \end{aligned}$ |
| BUSES |  |  |  |  |
| 981 | Bus**: Conventional (Engine out front) |  | $\begin{aligned} & \text { 1981-2005, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 988 | Other (bus) |  | $\begin{aligned} & \text { 1965-2005, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
|  | Unknown (bus) |  | $\begin{aligned} & 1965-2005, \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| ** Use "981" (bus) if the frontal plane or the engine location is unknown. |  |  |  |  |
| 999 | Unknown (VOLVO) |  | $\begin{aligned} & \text { 1958-2013, } \\ & 9999 \end{aligned}$ | 49,79,99 |


| MAKE: | Yugo | (57) |  | (YUGO) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | GV/GVL/GVX | All models, Cabriolet | 1986-92,9999 | 01-03,09 |
| MAKE: | Other Domestic Manufacturers (29) |  |  |  |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 001 | Studabaker/Avanti | Lark, Gran Turismo, Hawk, Cruiser, all associated subseries, light pick-up, Studebaker XUVIXUT, Lister | $\begin{aligned} & \text { 1940-91; } \\ & \text { 2001-07,9999 } \end{aligned}$ | $\begin{aligned} & 01,02,04,06 \\ & 08,09,16,31,39 \end{aligned}$ |
| 002 | Checker | Marathon, Superba, Taxi, Aerobus | 1965-82,9999 | 04,06,09,12 |
| 003 | Panoz | Esperante (Magnussen Edition), GT, GTS, GTLM, JRD, Abruzzi | 2000-13,9999 | 01,02,09 |
| 004 | Saleen | S7, S281, 435S, S302 | 2001-13,9999 | 02 |
| 005 | Tesla | Roadster (Base, Sport) Model S (Base, Signature, Performance) | 2008-13,9999 | 01, 04, 09 |
| 398 | Other (automobile) | Desoto, Excaliber, Stutz, FiberFab, Hudson, Packard, Consulier, Gatsby, Auburn, Phaeton, Citicar, Clenet | 1930-91,9999 | 01-13 |
| 399 | Unknown Make |  | $\begin{aligned} & \text { 1940-2013, } \\ & 9999 \end{aligned}$ | 01-13,16,39 |
| MAKE: | Other Import | (69) |  |  |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 031 | Aston Martin | Lagonda, Vantage, Volante, Saloon, DB Mark III, DB4, DB4GT, DB5, DB6, DB7 (Heritage/Vantage/Volante), V12 (Vanquish S/Zagato/ Vantage), V8(Vantage/ Vantage S), DB9, Rapide, DBS, Cygnet, Carbon Black, One-77, Virage (Coupe/Volante), DBS (Coupe/Volante) | $\begin{aligned} & \text { 1950-2013, } \\ & 9999 \end{aligned}$ | 01-09 |
| 032 | Bricklin |  | 1965-91,9999 | 02 |
| 033 | Citroen |  | 1965-91,9999 | 02-09 |
| 034 | DeLorean |  | 1981-83,9999 | 02 |
| 274 |  |  |  | 2013 |


| MAKE: | Other Imp | (69) |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 035 | Ferrari | F355 (Berlinetta, GTS, <br> Spider, F1), F430, F456 <br> (GTA, M, GT, MGTA), F550 <br> (Maranello, Barchetta <br> Pininfarina), 360/430 <br> (Spider, Modena, <br> Challenge) Maranello, <br> Berlinetta, MGT (Vintage), <br> Enzo, Challenge Stradale, <br> 575M, 612 Scaglietti, <br> Superamerica, 599 <br> GTB/GTO, California, 418 <br> Italia, FF, SA Aperta, 458 <br> (Spider/Italia), <br> F12berlinetta, FF | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 01-05,07-09 |
| 036 | Hillman |  | 1965-91,9999 | 01-09 |
| 037 | Jensen | Healy-Interceptor, 541R | 1965-91,9999 | 01-05,07-09 |
| 038 | Lamborghini | Countach, 5000S, Jalpa, Diablo, Miura, Murciélago (LP640), Galladoro, LP 550-2/560-4/570-4/670-4/700-4, CP, Aventador (J), Sesto Elemento, Spyder, Superlegga | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 01,02,04,08,09 |
| 039 | Lotus | Europe, Espirit (V8, GT-3, V8-GT) Elise, Exige, Evora (Range/GTE) , California, Club Racer, Sport, 2Eleven, Black, Bespoke | $\begin{aligned} & \text { 1967-2013, } \\ & 9999 \end{aligned}$ | 01,02,04,08,09 |
| 040 | Maserati | Biturbo, Ghibli, 3200 GT, Quattroporte, Spyder GT, Sports GT, Executive GT, $90^{\text {th }}$ Anniversary, MC12, GranSport, GranTurismo, GranCabrio, Stradale, Kubang, Sport, MC, S, GTS | $\begin{aligned} & \text { 1965-99; } \\ & \text { 2002-13,9999 } \end{aligned}$ | 01-05,07-09 |
| 041 | Morris | Minor | 1965-91,9999 | 01-10 |


| MAKE: | Other Import (Cont.) | (69) |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 042 | Rolls Royce/Bentley | Rolls Royce: Cloud/Shadow series, Silver Spur, Silver Dawn, Silver Spirit, Silver Seraph, Corniche, Park Ward), Phamtom <br> (Drophead), Ghost; Bently: (Arnaze, Azure, Continental (GT), Mulliner), Brooklands, Goodwood, EWB, 4, Mulsanne, Flying Spur, Super Sports | $\begin{aligned} & \text { 1926-2013, } \\ & 9999 \end{aligned}$ | 01,02,04,08,09 |
| 044 | Simca |  | 1965-91,9999 | 01-09 |
| 045 | Sunbeam |  | 1965-91,9999 | 01,02,04,08,09 |
| 046 | TVR |  | 1965-91,9999 | 01,02,09 |
| 048 | Desta |  | 1985-99,9999 | 14,15,19 |
| 049 | Reliant |  | 1960-91,9999 | 01-09 |
| 052 | Bertone | X/19 | 1989-91,9999 | 01,02,09 |
| 053 | Lada |  | 1965-91,9999 | 01-09 |
| 054 | Mini-Cooper | Mark I,II,III, S, SE, Sport, MC40, Traveller, John Cooper Works, Clubman, Countryman, Paceman, Coupe, All 4 | $\begin{aligned} & \text { 1961-74; } \\ & \text { 2002-13,9999 } \end{aligned}$ | 01,03,06,09 |
| 055 | Morgan (2003 on; Prior to 2003 see 398) | Aero 8, Plus 8, V6, Classic Range, AeroMax, 4/4 Sport, Super Sports Junior, Plus 4, 4 Seater, Aero, Eva GT, 3 Seater, 4/4 | 2003-13,9999 | 01,02, 09 |
| 056 | Maybach | 57, 57S, 62, 62S, <br> Laudualet, Zeppelin, Guard | 2003-13,9999 | 04 |
| 057 | Spyker | C8, Base, T, Laviolette, Aileron, Spyder, Double 12R, Double 12S, C12 Zagato, LM85, D | 2005-13,9999 | 01,02,09,17 |
| 058 | Koenigsegg | CC8S, CCR, CCX, CCXR, CCGT, Trevita, Agera, Agera R, Special Edition | 2007-13,9999 | 01 |
| 061 | Mahindra | Scorpio (Lx, Sle, VIs, Vlx) | 2010-13,9999 | 14,30, 39 |
| 062 | Caterham | Classic, Roadsport, <br> Academy, Superlight <br> (R300/R400/R500), CSR | 2011-13,9999 | 01 |
| 063 | McLaren | MP4-12C | 2011-13,9999 | 01 |
| 064 | Bugatti | Veyron 164 (Grand Sport, Super Sport), Vitesse | 2005-13,9999 | 01,02, 09 |


| MAKE: | Other Import (Cont.) | $(69)$ |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Cont.) |  |  |  |  |
| 398 | Other (automotive) | Morgan (Prior to 2003; 2003 <br> on see 055), Singer, <br> Gazelle, Fisker | $1928-2013$, | 019999 |

## THIS PAGE INTENTIONALLY LEFT BLANK

## MOTORED CYCLES

Note: Refer to Passenger Car section of this table for motored cycles produced by automobile manufacturers (BMW, Honda, Peugeot, Suzuki, Triumph)

| MAKE: | BSA | (70) |  | (BSA ) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| MOTORCYCLES |  |  |  |  |
| 701 | 0-50cc |  | 1950-72,9999 | 80,81,83,88,89 |
| 702 | 51-124cc |  | 1950-72,9999 | 80,81,83,88,89 |
| 703 | 125-349cc |  | 1950-72,9999 | 80,83,88,89 |
| 704 | 350-449cc |  | 1950-72,9999 | 80,83,88,89 |
| 705 | 450-749cc |  | 1950-72,9999 | 80,83,88,89 |
| 706 | 750cc or greater |  | 1950-72,9999 | 80,83,88,89 |
| 709 | Unknown cc |  | 1950-72,9999 | 80,83,88,89 |
| MAKE: | Ducati | (71) |  | (DUCA) |
| Model | Codes | Includes | Model Years | Body Types |
| MOTORCYCLES |  |  |  |  |
| 701 | 0-50cc |  | 1958-65,9999 | 80,81,88,89 |
| 702 | 51-124cc |  | 1958-65,9999 | 80,81,88,89 |
| 703 | 125-349cc |  | 1958-65,9999 | 80,88,89 |
| 704 | 350-449cc |  | 1958-65,9999 | 80,88,89 |
| 705 | 450-749cc |  | $\begin{aligned} & \text { 1958-93; } \\ & \text { 1997-2007, } \\ & \text { 2011-2013; } \\ & 9999 \end{aligned}$ | 80,88,89 |
| 706 | 750cc or greater |  | $\begin{aligned} & \text { 1958-2013, } \\ & 9999 \end{aligned}$ | 80,88,89 |
| 709 | Unknown cc |  | $\begin{aligned} & 1958-2013, \\ & 9999 \end{aligned}$ | 80-83,88,89 |

MAKE: Harley-Davidson (72) (HD)

| Model | Codes | Includes | Model Years |
| :---: | :--- | :--- | :--- |
| Body Types |  |  |  |
| MOTORCYCLES |  |  |  |
| 701 | O-50cc |  |  |
| 702 | $51-124 c c$ | $1965-66,9999$ | $80,81,88,89$ |
| 703 | $125-349 c c$ | $1948-78,9999$ | $80,81,88,89$ |
| 704 | $350-449 c c$ | $1948-88,9999$ | $80,88,89$ |
| 705 | $450-749 c c$ | $1969-74,9999$ | $80,88,89$ |
| 706 | $750 c c$ or greater | $1971-78,9999$ | $80,88,89$ |
| 7 |  | $1932-2013 ;$ | $80,82,88,89$ |
| 709 | Unknown cc | 9999 |  |
|  |  | $1932-2013$, | $80,82,88,89$ |


| MAKE: | Kawasaki | (73) |  | (KAWK) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| MOTORCYCLES |  |  |  |  |
| 701 | 0-50cc |  | 1965-82,9999 | 80,81,83,88,89 |
| 702 | 51-124cc |  | $\begin{aligned} & 1965-2013, \\ & 9999 \end{aligned}$ | 80,81,83,88,89 |
| 703 | 125-349cc |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 80,83,88,89 |
| 704 | 350-449cc |  | $\begin{aligned} & \text { 1975-98; } \\ & \text { 2003-04; } \\ & 2006-13, \\ & 9999 \end{aligned}$ | 80,83,88,89 |
| 705 | 450-749cc |  | $\begin{aligned} & \text { 1972-2013, } \\ & 9999 \end{aligned}$ | 80,83,88,89 |
| 706 | 750cc or greater |  | $\begin{aligned} & \text { 1972-2013, } \\ & 9999 \end{aligned}$ | 80,83,88,89 |
| 709 | Unknown cc |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 80-83,88,89 |
| ALL TERRAIN VEHICLES |  |  |  |  |
| 731 | 0-50cc |  | 2003-13,9999 | 90 |
| 732 | 51-124cc | includes all ATVs designed solely for | $\begin{aligned} & \text { 1970-88; } \\ & \text { 2003-13,9999 } \end{aligned}$ | 90 |
| 733 | 125-349cc | off-road use and have 3 or 4 wheels. | $\begin{aligned} & 1970-2013, \\ & 9999 \end{aligned}$ | 90 |
| $734$ | 350 cc or greater |  | $\begin{aligned} & \text { 1970-2013, } \\ & 9999 \end{aligned}$ | 90 |
| 739 | Unknown cc |  | $\begin{aligned} & \text { 1970-2013, } \\ & 9999 \end{aligned}$ | 90 |
| $998$ | Other (Vehicle) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 91, 97* |
| * Refer to Body Type attribute 97 (Other Vehicle Type) for remarks regarding side-by-side ATVs |  |  |  |  |
| MAKE: | Moto-Guzzi | (74) |  | (MOGU) |
| Model | Codes | Includes | Model Years | Body Types |
| MOTORCYCLES |  |  |  |  |
| 704 | 350-449cc |  | 1965-76,9999 | 80,88,89 |
| 705 | 450-749cc |  | $\begin{aligned} & \text { 1965-87; } \\ & \text { 2004-13,9999 } \end{aligned}$ | 80,88,89 |
| 706 | 750cc or greater |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 80,88,89 |
| 709 | Unknown cc |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 80,88,89 |


| MAKE: | Norton | (75) |  | (NORT) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| MOTORCYCLES |  |  |  |  |
| 704 | 350-449cc |  | 1950-76,9999 | 80,83,88,89 |
| 705 | 450-749cc |  | 1950-76,9999 | 80,83,88,89 |
| 706 | 750cc or greater |  | 1950-76,9999 | 80,83,88,89 |
| 709 | Unknown cc |  | 1950-76,9999 | 80,83,88,89 |
| MAKE: | Victory | (77) |  | (VCTY) |
| Model | Codes | Includes | Model Years | Body Types |
| MOTORCYCLES |  |  |  |  |
| 706 | 750cc or greater |  | $\begin{aligned} & \text { 1998-2013, } \\ & 9999 \end{aligned}$ | 80,88,89 |
| $709$ | Unknown cc |  | $\begin{aligned} & \text { 1998-2013, } \\ & 9999 \end{aligned}$ | 80,88,89 |
| $998$ | Other (Vehicle) |  | $\begin{aligned} & \text { 1998-2013, } \\ & 9999 \end{aligned}$ | 97* |
| * Refer to Body Type attribute 97 (Other Vehicle Type) for remarks regarding side-by-side ATVs |  |  |  |  |
| MAKE: | Yamaha | (76) |  | (YAMA) |
| Model | Codes | Includes | Model Years | Body Types |
| MOTORCYCLES |  |  |  |  |
| 701 | 0-50cc |  | $\begin{aligned} & \text { 1979-2013, } \\ & 9999 \end{aligned}$ | 80,81,83,88,89 |
| 702 | 51-124cc |  | $\begin{aligned} & \text { 1972-2013, } \\ & 9999 \end{aligned}$ | 80,81,83,88,89 |
| 703 | 125-349cc |  | $\begin{aligned} & \text { 1969-2013, } \\ & 9999 \end{aligned}$ | 80,83,88,89 |
| 704 | 350-449cc |  | $\begin{aligned} & \text { 1972-2013, } \\ & 9999 \end{aligned}$ | 80,83,88,89 |
| 705 | 450-749cc |  | $\begin{aligned} & \text { 1971-2013, } \\ & 9999 \end{aligned}$ | 80,83,88,89 |
| 706 | 750cc or greater |  | $\begin{aligned} & \text { 1974-2013, } \\ & 9999 \end{aligned}$ | 80,83,88,89 |
| 709 | Unknown cc |  | $\begin{aligned} & \text { 1969-2013, } \\ & 9999 \end{aligned}$ | 80-83,88,89 |
| ALL TERRAIN VEHICLES |  |  |  |  |
| 731 | 0-50cc | includes all ATVs designed solely for off-road use and have 3 | $\begin{aligned} & \text { 1965-91, } \\ & \text { 2005-13,9999 } \end{aligned}$ | 90 |
| 732 | 51-124cc | or 4 wheels. | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 90 |


| MAKE: | Yamaha (Cont.) | (76) |  | (YAMA) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| ALL TERRAIN VEHICLE (Cont.) |  |  |  |  |
| 733 | 125-349cc |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 90 |
| 734 | 350cc or greater |  | $\begin{aligned} & \text { 1993-2013, } \\ & 9999 \end{aligned}$ | 90. 97* |
| 739 | Unknown cc |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 90 |
| 998 | Other (Vehicle) | Snowmobiles, Golf Car | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 91, 95, 97* |

* Refer to Body Type attribute 97 (Other Vehicle Type) for remarks regarding side-by-side ATVs


## TRUCKS

| MAKE: | Brockway | (80) |  | (BROC) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| MEDIUM/HEAVY TRUCKS |  |  |  |  |
| 881 | Medium/Heavy - CBE |  | 1965-77,9999 | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 882 | Medium/Heavy - COE low entry |  | 1965-77,9999 | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 883 | Medium/Heavy - COE high entry |  | 1965-77,9999 | $\begin{aligned} & 60-64,66 \\ & 71,72,78 \end{aligned}$ |
| 884 | Medium/Heavy Unknown engine location |  | 1965-77,9999 | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 890 | Medium/Heavy - COE entry position unknown |  | 1965-77,9999 | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 898 | Other (medium/heavy truck) |  | 1965-77,9999 | $\begin{aligned} & 60-64,66 \\ & 71,72,78 \end{aligned}$ |
| BUSES |  |  |  |  |
| 981 | Bus**: Conventional (Engine out front) |  | 1965-77,9999 | 50-52,58,59 |
| 982 | Bus: Front engine, Flat front |  | 1965-77,9999 | 50-52,58,59 |
| 983 | Bus: Rear engine, Flat front |  | 1965-77,9999 | 50-52,58,59 |
| 988 | Other (bus) |  | 1965-77,9999 | 50-52,58,59 |
| 989 | Unknown (bus) |  | 1965-77,9999 | 50-52,58,59 |
| ** Use code "981"(bus) if the frontal plane or the engine location is unknown. |  |  |  |  |
| MOTOR HOME |  |  |  |  |
| 850 | Motor Home | Truck based | 1965-77,9999 | 65,73 |
| OTHER VEHICLE |  |  |  |  |
| 998 | Other (vehicle) |  | 1965-77,9999 | 91-93,97 |
| 999 | Unknown (BROCKWAY) |  | 1965-77,9999 | 99 |


| MAKE: | Diamond Reo or Reo | (81) |  | (DIAR) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| MEDIUM/HEAVY TRUCKS |  |  |  |  |
| 881 | Medium/Heavy - CBE | DC101,C116 | 1954-75,9999 | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 882 | Medium/Heavy - COE low entry |  | 1954-75,9999 | $\begin{aligned} & 60-64,66 \\ & 71,72,78 \end{aligned}$ |
| 883 | Medium/Heavy - COE high entry | C054-C088 | 1954-75,9999 | $\begin{aligned} & 60-64,66 \\ & 71,72,78 \end{aligned}$ |
| 884 | Medium/Heavy Unknown engine location |  | 1954-75,9999 | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 890 | Medium/Heavy - COE entry position unknown |  | 1954-75,9999 | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 898 | Other (medium/heavy truck) |  | 1954-75,9999 | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| BUSES |  |  |  |  |
| 981 | Bus**: Conventional (Engine out front) |  | 1954-75,9999 | 50-52,58,59 |
| 982 | Bus: Front engine, Flat front |  | 1954-75,9999 | 50-52,58,59 |
| 983 | Bus: Rear engine, Flat front |  | 1954-75,9999 | 50-52,58,59 |
| 988 | Other (bus) |  | 1954-75,9999 | 50-52,58,59 |
| 989 | Unknown (bus) |  | 1954-75,9999 | 50-52,58,59 |
| ** Use code "981"(bus) if the frontal plane or the engine location is unknown. |  |  |  |  |
| MOTOR HOME |  |  |  |  |
| 850 | Motor Home | Truck based | 1954-75,9999 | 65,73 |
| OTHER VEHICLE |  |  |  |  |
| 998 | Other (vehicle) |  | 1954-75,9999 | 91-93,97 |
| 999 | Unknown (DIAMOND REO | or REO) | 1954-75,9999 | 99 |


| MAKE: | Freightliner | (82) |  | (FRHT) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| LIGHT TRUCKS |  |  |  |  |
| 461 | Sprinter/Advantage | $\begin{aligned} & 2500 \text { (HC/SHC), } 3500 \\ & \text { (HC/SHC) } \end{aligned}$ | 2002-13,9999 | 21,22,28,29 |
| 462 | MT 35 Chassis |  | $\begin{aligned} & \text { 1985-2013, } \\ & 9999 \end{aligned}$ | 22, 40, 42 |
| 498 | Other (light truck) |  | $\begin{aligned} & \text { 1985-2013, } \\ & 9999 \end{aligned}$ | 20-22,28,29 |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1985-2013, } \\ & 9999 \end{aligned}$ | 20-22,28,29 |
| MEDIUM/HEAVY TRUCKS |  |  |  |  |
| 870 | Medium Heavy VanBased Vehicle | Sprinter | 2002-13,9999 | 55, 61-64 |
| 881 | Medium/Heavy - CBE |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 882 | Medium/Heavy - COE low entry |  | $\begin{aligned} & \text { 1968-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 883 | Medium/Heavy - COE high entry |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 884 | Medium/Heavy Unknown engine location |  | $\begin{aligned} & \text { 1963-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 890 | Medium/Heavy - COE entry position unknown |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 898 | Other (medium/heavy truck) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| BUSES |  |  |  |  |
| 981 | Bus**: Conventional (Engine out front) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 982 | Bus: Front engine, Flat front |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 983 | Bus: Rear engine, Flat front |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 988 | Other (bus) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 989 | Unknown (bus) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| MOTOR HOME |  |  |  |  |
| 850 | Motor Home | Truck based | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 65,73 |
| OTHER VEHICLE |  |  |  |  |
| 998 | Other (vehicle) |  | $\begin{aligned} & \text { 1963-2013, } \\ & 9999 \end{aligned}$ | 91-93,97 |
| 999 | Unknown (FREIGHTLINER) |  | $\begin{aligned} & \text { 1963-2013, } \\ & 9999 \end{aligned}$ | 99 |


| MAKE: | FWD | (83) |  | (FWD ) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| MEDIUM/HEAVY TRUCKS |  |  |  |  |
| 881 | Medium/Heavy - CBE |  | $\begin{aligned} & \text { 1965-2001, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 882 | Medium/Heavy - COE low entry |  | $\begin{aligned} & \text { 1965-2001, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 883 | Medium/Heavy - COE high entry |  | $\begin{aligned} & \text { 1965-2001, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 884 | Medium/Heavy Unknown engine location |  | $\begin{aligned} & \text { 1965-2001, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 890 | Medium/Heavy - COE entry position unknown |  | $\begin{aligned} & \text { 1965-2001, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 898 | Other (medium/heavy truck) |  | $\begin{aligned} & \text { 1965-2001, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| BUSES |  |  |  |  |
| 981 | Bus**: Conventional (Engine out front) |  | $\begin{aligned} & \text { 1965-2001, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 982 | Bus: Front engine, Flat front |  | $\begin{aligned} & \text { 1965-2001, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 983 | Bus: Rear engine, Flat front |  | $\begin{aligned} & \text { 1965-2001, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 988 | Other (bus) |  | $\begin{aligned} & \text { 1965-2001, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 989 | Unknown (bus) |  | $\begin{aligned} & \text { 1965-2001, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| ** Use code "981"(bus) if the frontal plane or the engine location is unknown. |  |  |  |  |
| MOTOR HOME |  |  |  |  |
| 850 | Motor Home | Truck based | $\begin{aligned} & \text { 1965-2001, } \\ & 9999 \end{aligned}$ | 65,73 |
| OTHER VEHICLE |  |  |  |  |
| 998 | Other (vehicle) |  | $\begin{aligned} & \text { 1965-2001, } \\ & 9999 \end{aligned}$ | 91-93,97 |
| 999 | Unknown (FWD) |  | $\begin{aligned} & \text { 1965-2001, } \\ & 9999 \end{aligned}$ | 99 |


| MAKE: | International Harvester/Navistar (84) |  | (INTL) - (NAVI) |  |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| LIGHT TRUCKS |  |  |  |  |
| 421 | Scout | Scout II, Utility pickup, SS-2, <br> Roadster, 800 series, <br> Traveler, Terra Traveltop, | 1962-80,9999 | 15 |
| 431 | Travelall | 1010-1210, 100-200 | 1963-75,9999 | 16 |
| 466 | Multistop Van | Metro RM, MS1510, 120-160, MS1210 | 1960-84,9999 | 22,28,29 |
| 481 | Pickup | $\begin{aligned} & \text { R-100-500, 900A-1500C/D, } \\ & 1010-1510 \end{aligned}$ | 1951-76,9999 | 31,33 |
| 498 | Other (light truck) |  | 1960-84,9999 | 15,16,22,28,29 |
| 499 | Unknown (light truck) |  | 1951-84,9999 | $\begin{aligned} & 15,16,19,22 \\ & 28,29 \end{aligned}$ |
| MEDIUM/HEAVY TRUCK |  |  |  |  |
| 881 | Medium/Heavy - CBE | Loadstar/Fleetstar, Paystar, CBE Transtar, 4200, Sseries Mixer, 8100, 8500, 9100, 9200, 9300, 9400, 9900, CXT, RXT, MXT | $\begin{aligned} & \text { 1963-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 882 | Medium/Heavy - COE low entry | CO, VCO, DCO, 190-1950, <br> Cargostar, LFM, 5370 <br> (Garbage), CF500/600 | $\begin{aligned} & \text { 1973-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 883 | Medium/Heavy - COE high entry | DCO, DCOT, UCO, VCOT, 405-series, COE Transtar, Unistar, Conco 707B, 9600 | $\begin{aligned} & \text { 1961-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 884 | Medium/Heavy Unknown engine location |  | $\begin{aligned} & \text { 1948-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 890 | Medium/Heavy - COE entry position unknown |  | $\begin{aligned} & \text { 1964-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66 \\ & 71,72,78 \end{aligned}$ |
| 898 | Other (medium/heavy truck) | ```Fire truck - R140-R306, CO 8190``` | $\begin{aligned} & \text { 1955-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| BUSES |  |  |  |  |
| 981 | Bus**: Conventional (Engine out front) | $\begin{aligned} & \text { R153-1853 Loadstar, } \\ & \text { 1603-1853 } \end{aligned}$ | $\begin{aligned} & \text { 1953-2013, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 982 | Bus: Front engine, Flat front | 173FC, 183FC | $\begin{aligned} & \text { 1972-2013, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 983 | Bus**: Rear engine, Flat front | 183RE, 193RE-transit | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 988 | Other (bus) |  | $\begin{aligned} & \text { 1953-2013, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
|  | Unknown (bus) |  | $\begin{aligned} & \text { 1953-2013, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| ** Use code "981"(bus) if the frontal plane or the engine location is unknown. |  |  |  |  |
| MOTOR HOME |  |  |  |  |
| 850 | Motor Home | Truck based | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 65,73 |


| MAKE: | International Harvester/Navistar (Cont.) (84) |  |  | (INTL) - (NAVI) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| OTHER VEHICLE |  |  |  |  |
| 998 | Other (vehicle) |  | $\begin{aligned} & \text { 1954-2013, } \\ & 9999 \end{aligned}$ | 91-93,97 |
| 999 | Unknown (INTL. HARVES | TER/ NAVISTAR) | $\begin{aligned} & \text { 1951-2013, } \\ & 9999 \end{aligned}$ | 79,99 |
| MAKE: | Kenworth | (85) |  | (KW) |
| Model | Codes | Includes | Model Years | Body Types |
| MEDIUM/HEAVY TRUCKS |  |  |  |  |
| 881 | Medium/Heavy - CBE | $\begin{aligned} & \text { 520, 540, T400, T600,T800, } \\ & \text { C500-550, W900, T300 } \end{aligned}$ | $\begin{aligned} & \text { 1947-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 882 | Medium/Heavy - COE low entry | L700 | $\begin{aligned} & \text { 1972-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 883 | Medium/Heavy - COE high entry | K100, K100E, K300 | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 884 | Medium/Heavy Unknown engine location |  | $\begin{aligned} & \text { 1954-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 890 | Medium/Heavy - COE entry position unknown |  | $\begin{aligned} & \text { 1964-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 898 | Other (medium/heavy truck) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| BUSES |  |  |  |  |
| 981 | Bus**: Conventional <br> (Engine out front) |  | $\begin{aligned} & \text { 1965-2004, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 982 | Bus: Front engine, Flat front |  | $\begin{aligned} & 1965-2004, \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 983 | Bus: Rear engine, Flat front |  | $\begin{aligned} & \text { 1965-2004, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 988 | Other (bus) |  | $\begin{aligned} & 1965-2004, \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 989 | Unknown (bus) |  | $\begin{aligned} & \text { 1965-2004, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| ** Use code "981"(bus) if the frontal plane or the engine location is unknown. |  |  |  |  |
| MOTOR HOME |  |  |  |  |
| 850 | Motor Home | Truck based | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 65,73 |
| OTHER VEHICLE |  |  |  |  |
| 998 | Other (vehicle) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 91-93,97 |
| 999 | Unknown (KENWORTH) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 99 |


| MAKE: | Mack | (86) |  | (MACK) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| MEDIUM/HEAVY TRUCKS |  |  |  |  |
| 881 | Medium/Heavy - CBE |  | $\begin{aligned} & \text { 1968-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 882 | Medium/Heavy - COE low entry |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 883 | Medium/Heavy - COE high entry |  | $\begin{aligned} & \text { 1977-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66 \\ & 71,72,78 \end{aligned}$ |
| 884 | Medium/Heavy Unknown engine location |  | $\begin{aligned} & \text { 1956-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 890 | Medium/Heavy - COE entry position unknown |  | $\begin{aligned} & \text { 1972-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 898 | Other (medium/heavy truck) |  | $\begin{aligned} & \text { 1971-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| BUSES |  |  |  |  |
| 981 | Bus**: Conventional (Engine out front) |  | $\begin{aligned} & \text { 1965-2004, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 982 | Bus: Front engine, Flat front |  | $\begin{aligned} & \text { 1976-2004, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 983 | Bus: Rear engine, Flat front |  | $\begin{aligned} & 1965-2004, \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 988 | Other (bus) |  | $\begin{aligned} & \text { 1965-2004, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 989 | Unknown (bus) |  | $\begin{aligned} & \text { 1965-2004, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| ** Use code "981"(bus) if the frontal plane or the engine location is unknown. |  |  |  |  |
| MOTOR HOME |  |  |  |  |
| 850 | Motor Home | Truck based | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 65,73 |
| OTHER VEHICLE |  |  |  |  |
| 998 | Other (vehicle) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 91-93,97 |
| 999 | Unknown (MACK) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 99 |


| MAKE: | Iveco/Magirus* | (88) |  | (IVEC) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| MEDIUM/HEAVY TRUCKS |  |  |  |  |
| 881 | Medium/Heavy - CBE | LCF | 1980-91,9999 | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 882 | Medium/Heavy - COE low entry | FL, FS | 1980-91,9999 | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 883 | Medium/Heavy - COE high entry |  | 1980-91,9999 | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 884 | Medium/Heavy Unknown engine location |  | 1980-91,9999 | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 890 | Medium/Heavy - COE entry position unknown |  | 1980-91,9999 | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 898 | Other (medium/heavy truck) |  | 1980-91,9999 | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| BUSES |  |  |  |  |
| 981 | Bus**: Conventional (Engine out front) |  | 1980-91,9999 | 50-52,58,59 |
| 982 | Bus: Front engine, Flat front |  | 1980-91,9999 | 50-52,58,59 |
| 983 | Bus: Rear engine, Flat front |  | 1980-91,9999 | 50-52,58,59 |
| 988 | Other (bus) |  | 1980-91,9999 | 50-52,58,59 |
| 989 | Unknown (bus) |  | 1980-91,9999 | 50-52,58,59 |
| ** Use code "981"(bus) if the frontal plane or the engine location is unknown. |  |  |  |  |
| MOTOR HOME |  |  |  |  |
| 850 | Motor Home | Truck based | 1980-91,9999 | 65,73 |
| OTHER VEHICLE |  |  |  |  |
| 998 | Other (vehicle) |  | 1980-91,9999 | 91-93,97 |
|  | Unknown (IVECO/MAGIR |  | 1980-91,9999 | 99 |


| MAKE: | Peterbilt | (87) |  | (PTRB) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| MEDIUM/HEAVY TRUCKS |  |  |  |  |
| 881 | Medium/Heavy - CBE | 357-379, 387, 385 | $\begin{aligned} & \text { 1974-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 882 | Medium/Heavy - COE low entry | 270 | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66 \\ & 71,72,78 \end{aligned}$ |
| 883 | Medium/Heavy - COE high entry | 362, 320 | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 884 | Medium/Heavy Unknown engine location |  | $\begin{aligned} & \text { 1961-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 890 | Medium/Heavy - COE entry position unknown |  | $\begin{aligned} & \text { 1964-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66 \\ & 71,72,78 \end{aligned}$ |
| 898 | Other (medium/heavy truck) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| BUSES |  |  |  |  |
| 981 | Bus**: Conventional (Engine out front) |  | $\begin{aligned} & \text { 1965-2004, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 982 | Bus: Front engine, Flat front |  | $\begin{aligned} & \text { 1965-2004, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 983 | Bus: Rear engine, Flat front |  | $\begin{aligned} & 1965-2004, \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 988 | Other (bus) |  | $\begin{aligned} & \text { 1965-2004, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 989 | Unknown (bus) |  | $\begin{aligned} & \text { 1965-2004, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| ** Use code "981"(bus) if the frontal plane or the engine location is unknown. |  |  |  |  |
| MOTOR HOME |  |  |  |  |
| 850 | Motor Home | Truck based | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 65,73 |
| OTHER VEHICLE |  |  |  |  |
| 998 | Other (vehicle) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 91-93,97 |
| 999 | Unknown (PETERBILT) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 99 |



## BUSES

NOTE: Refer to the PASSENGER CAR section for buses manufactured by Chevy, Dodge, Ford, GMC, Grumman, Isuzu, Mercedes, Mitsubishi and Volvo. Refer to the TRUCK section for buses manufactured by Brockway, Diamond Reo, Freightliner, FWD, International Harvester, Kenworth, Mack, Peterbilt, and White/Autocar-White/GMC. Refer to the OTHER MAKE section for buses manufactured by Neoplan, Carpenter Industries, DINA, Mid Bus, Orion, and Van Hool. Hino and Scania buses are located under OTHER MAKE (Medium/Heavy Trucks) since those manufacturers also make trucks.

| MAKE: | Bluebird | 90 |  | (BLUI) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| LIGHT TRUCKS |  |  |  |  |
| 461 | Van Based | van-based school bus, shuttle bus | $\begin{aligned} & \text { 1927-2013, } \\ & 9999 \end{aligned}$ | 21 |
| BUSES |  |  |  |  |
| 981 | Bus**: Conventional (Engine out front) |  | $\begin{aligned} & \text { 1927-2013, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| 982 | Bus: Front engine, Flat front |  | $\begin{aligned} & \text { 1927-2013, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| 983 | Bus: Rear engine, Flat front |  | $\begin{aligned} & \text { 1927-2013, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| 988 | Other (bus) |  | $\begin{aligned} & \text { 1927-2013, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| 989 | Unknown (bus) |  | $\begin{aligned} & \text { 1927-2013, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| 999 | Unknown (BLUEBIRD) |  | $\begin{aligned} & \text { 1927-2013, } \\ & 9999 \end{aligned}$ | 99 |

** Use code "981"(bus) if the frontal plane or the engine location is unknown.

| MAKE: | Eagle Coach |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| BUSES |  |  |  |  |
| 981 | Bus**: Conventional (Engine out front) |  | $\begin{aligned} & \text { 1948-2001, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| 982 | Bus: Front engine, Flat front |  | $\begin{aligned} & \text { 1948-2001, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| 983 | Bus: Rear engine, Flat front |  | $\begin{aligned} & \text { 1948-2001, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| 988 | Other (bus) |  | $\begin{aligned} & \text { 1948-2001, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| 989 | Unknown (bus) |  | $\begin{aligned} & \text { 1948-2001, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |


| MAKE: | Gillig |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| BUSES |  |  |  |  |
| 981 | Bus**: Conventional (Engine out front) |  | $\begin{aligned} & \text { 1932-2013, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| 982 | Bus: Front engine, Flat front |  | $\begin{aligned} & \text { 1932-2013, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| 983 | Bus: Rear engine, Flat front |  | $\begin{aligned} & \text { 1932-2013, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| 988 | Other (bus) |  | $\begin{aligned} & \text { 1932-2013, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
|  | Unknown (bus) |  | $\begin{aligned} & \text { 1932-2013, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |


| MAKE: | MCl | 93 |  | (MCIN) |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| BUSES |  |  |  |  |
| 981 | Bus**: Conventional (Engine out front) |  | $\begin{aligned} & \text { 1963-2013, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| 982 | Bus: Front engine, Flat front |  | $\begin{aligned} & \text { 1963-2013, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| 983 | Bus: Rear engine, Flat front |  | $\begin{aligned} & \text { 1963-2013, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| 988 | Other (bus) |  | $\begin{aligned} & \text { 1963-2013, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
|  | Unknown (bus) |  | $\begin{aligned} & \text { 1963-2013, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| ** Use code "981"(bus) if the frontal plane or the engine location is unknown. |  |  |  |  |
| MAKE: | Thomas Built | 94 |  | (THMS) |


| Model | Codes | Includes | Model Years | Body Types |
| :---: | :---: | :---: | :---: | :---: |
| LIGHT TRUCKS |  |  |  |  |
| 461 | Van Based | van-based school bus, shuttle bus | $\begin{aligned} & \text { 1936-2013, } \\ & 9999 \end{aligned}$ | 21 |
| BUSES |  |  |  |  |
| 981 | Bus**: Conventional (Engine out front) |  | $\begin{aligned} & \text { 1936-2013, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| 982 | Bus: Front engine, Flat front |  | $\begin{aligned} & \text { 1936-2013, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| 983 | Bus: Rear engine, Flat front |  | $\begin{aligned} & \text { 1936-2013, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| 988 | Other (bus) |  | $\begin{aligned} & \text { 1936-2013, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| 989 | Unknown (bus) |  | $\begin{aligned} & \text { 1936-2013, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| 999 | Unknown (THOMAS BUILT) |  | $\begin{aligned} & \text { 1936-2013, } \\ & 9999 \end{aligned}$ | 99 |

OTHER MAKE

| MAKE: | Other Make * | (98) |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES (Unknown if DOMESTIC or FOREIGN)** |  |  |  |  |
| 301 | Think | City | 2009-13,9999 | 03 |
| 302 | Meyers Motor | NmG | 2008-13,9999 | 02 |
| 398 | Other (automobile) | Solectra (electric: Force) | $\begin{aligned} & \text { 1945-2013, } \\ & 9999 \end{aligned}$ | 01-13 |

** Do not use Other Make (98) if Other Domestic (29) or Other Import (69) is applicable. LIGHT TRUCKS

498 Other (light truck)
Solectra (electric: Citivan 1960-2013, 14-16,19-22, Flash) 9999 28-33,39-42, 45, 48

LSVINEV
598 Other (LSV/NEV)
MOTORCYCLES
701 0-50cc
702 51-124cc
703 125-349cc
704 350-449cc
705 450-749cc
706 750cc or greater
709 Unknown cc

ALL TERRAIN VEHICLES

| 731 | $0-50 c c$ | includes all ATVs <br> designed solely for | $1965-2013$, | 90 |
| :--- | :--- | :--- | :--- | :--- |
| 732 | $51-124 c c$ | off-road use and have 3 | $1969-2013$, | 90 |
| 733 | $125-349 c c$ | or 4 wheels. Includes: Polaris | 9999 <br>  |  |
| 734 | $350 c c$ or greater |  | $1965-2013$, | 90 |
| 739 | Unknown cc |  | $1965-2013$, | 90 |
|  |  |  | 9999 |  |


| MAKE: Other Make * (Cont.) (98) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| MEDIUM/HEAVY TRUCKS |  |  |  |  |
| 802 | Auto-Union-DKW |  | 1965-889999 | $\begin{aligned} & 60-64,66 \\ & 71,72,78 \end{aligned}$ |
| 803 | Divco |  | 1963-88,9999 | $\begin{aligned} & 60-64,66 \\ & 71,72,78 \end{aligned}$ |
| 804 | Western Star |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 805 | Oshkosh | (includes trucks \& buses) | $\begin{aligned} & 1965-2013, \\ & 9999 \end{aligned}$ | $\begin{aligned} & 50,52-59,60-64, \\ & 66,71,72,78 \end{aligned}$ |
| 806 | Hino | (includes trucks \& buses) | $\begin{aligned} & \text { 1985-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 50-52,58,59,60- \\ & 64.66 .71 .72 .78 \end{aligned}$ |
| 807 | Scania | (includes trucks \& buses) | $\begin{aligned} & 1986-2004, \\ & 9999 \end{aligned}$ | $\begin{aligned} & 50-52,58,59,60- \\ & 64,66,71,72,78 \end{aligned}$ |
| 808 | UD |  | $\begin{aligned} & 1986-2013, \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 809 | Sterling |  | $\begin{aligned} & \text { 1998-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 881 | Medium/Heavy - CBE | DINA | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66 \\ & 71,72,78 \end{aligned}$ |
| 882 | Medium/Heavy - COE low entry | DINA | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66 \\ & 71,72,78 \end{aligned}$ |
| 883 | Medium/Heavy - COE high entry |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 884 | Medium/Heavy Unknown engine location |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66 \\ & 71,72,78 \end{aligned}$ |
| 870 | Medium/Heavy VanBased Vehicle |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 55, 61-64 |
| 890 | Medium/Heavy - COE entry position unknown |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 898 | Other (medium/heavy truck)** | e.g., Marmon, Ward LaFrance | $\begin{aligned} & \text { 1945-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66 \\ & 71,72,78 \end{aligned}$ |
| BUSES |  |  |  |  |
| 902 | Neoplan |  | $\begin{aligned} & \text { 1950-2013, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 903 | Carpenter |  | $\begin{aligned} & \text { 1923-2000, } \\ & 9999 \end{aligned}$ | 21,50-52,58,59 |
| 904 | Collins Bus |  | $\begin{aligned} & \text { 1967-2013, } \\ & 9999 \end{aligned}$ | 21 |
| 905 | DINA |  | $\begin{aligned} & \text { 1989-2004, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 906 | Mid Bus |  | $\begin{aligned} & \text { 1963-2013, } \\ & 9999 \end{aligned}$ | 21 |


| MAKE: Other Make * (Cont.) (98) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| BUS (Cont.) |  |  |  |  |
| 907 | Orion |  | $\begin{aligned} & \text { 1978-2013, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 908 | Van Hool |  | $\begin{aligned} & \text { 1947-2013, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 981 | Bus***: Conventional (Engine out front) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 982 | Bus: Front engine, Flat front |  | $\begin{aligned} & \text { 1976-2013, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 983 | Bus: Rear engine, Flat front |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| 988 | Other (bus) | **** (see following page) | $\begin{aligned} & \text { 1945-2013, } \\ & 9999 \end{aligned}$ | 50-52,58,59 |
| MOTOR HOME |  |  |  |  |
| 850 | Motor Home | Truck-based | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 65,73 |
| OTHER VEHICLE |  |  |  |  |
| 998 | Other (vehicle) | (e.g., farm vehicle, snowmobile, go-cart, golf carts) | $\begin{aligned} & \text { 1940-2013, } \\ & 9999 \end{aligned}$ | 91-93,95, 97 |
| 999 | Unknown (OTHER MAK |  | $\begin{aligned} & \text { 1940-2013, } \\ & 9999 \end{aligned}$ | 49,79,99 |

* Occurs when make is not explicitly listed here.
** Do not use Other Make (98) if Other Domestic (29) or Other Import (69) is applicable.
*** Use code "981" (bus) if the frontal plane or the engine location is unknown.
**** Prior to 1999, MCI buses were coded Other Make/Other Bus. Starting in 1999, MCI has its own Make Code 93.


## THIS PAGE INTENTIONALLY LEFT BLANK

UNKNOWN MAKE

| MAKE: | Unknown Make | (99) |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| AUTOMOBILES |  |  |  |  |
| 399 | Unknown (automobile) |  | $\begin{aligned} & \text { 1945-2013, } \\ & 9999 \end{aligned}$ | 01-13 |
| LIGHT TRUCKS |  |  |  |  |
| 499 | Unknown (light truck) |  | $\begin{aligned} & \text { 1945-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 14-16,19-22, \\ & 28-33,35,39-42,45, \\ & 48 \end{aligned}$ |
| LSV/NEV |  |  |  |  |
| 599 | Unknown (LSV/NEV) |  | 2000-13,9999 | 94 |
| MOTORCYCLES |  |  |  |  |
| 701 | 0-50cc |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 80-83, 88, 89 |
| 702 | 51-124cc |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 80-83, 88, 89 |
| 703 | 125-349cc |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 80-83, 88, 89 |
| 704 | 350-449cc |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 80-83, 88, 89 |
| 705 | 450-749cc |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 80-83, 88, 89 |
| 706 | 750cc or greater |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 80-83, 88, 89 |
| 709 | Unknown cc |  | $\begin{aligned} & \text { 1945-2013, } \\ & 9999 \end{aligned}$ | 80-83, 88, 89 |
| ALL TERRAIN VEHICLES |  |  |  |  |
| 731 | 0-50cc | includes all ATVs designed solely for | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 90 |
| 732 | 51-124cc | off-road use and have 3 or 4 wheels. | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 90 |
| 733 | 125-349cc |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 90 |
| 734 | 350 cc or greater |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 90 |
| 739 | Unknown cc |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 90 |
| MEDIUM/HEAVY TRUCKS |  |  |  |  |
| 870 | Medium Heavy VanBased Vehicle |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 55, 61-64 |
| 881 | Medium/Heavy - CBE |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 882 | Medium/Heavy - COE low entry |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 883 | Medium/Heavy - COE high entry |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |


| MAKE: | Unknown Make (Cont.) | (99) |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Model | Codes | Includes | Model Years | Body Types |
| MEDIUM/HEAVY TRUCKS (Cont.) |  |  |  |  |
| 884 | Medium/Heavy - Unknown engine location |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 890 | Medium/Heavy - COE entry position unknown |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| 898 | Other (medium/heavy truck) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | $\begin{aligned} & 60-64,66, \\ & 71,72,78 \end{aligned}$ |
| BUSES |  |  |  |  |
| 981 | Bus**: Conventional (Engine out front) |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| 982 | Bus: Front engine. Flat front |  | $\begin{aligned} & \text { 1976-2013, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| 983 | Bus: Rear engine, Flat front |  | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| 988 | Other (bus) |  | $\begin{aligned} & \text { 1945-2013, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| 989 | Unknown (bus) |  | $\begin{aligned} & \text { 1945-2013, } \\ & 9999 \end{aligned}$ | 50-52, 58, 59 |
| ** Use code "981"(bus) if the frontal plane or the engine location is unknown. |  |  |  |  |
| MOTOR HOME |  |  |  |  |
| 850 | Motor Home | Truck based | $\begin{aligned} & \text { 1965-2013, } \\ & 9999 \end{aligned}$ | 65, 73 |
| OTHER VEHICLE |  |  |  |  |
| 998 | Other (vehicle) | (e.g., farm vehicle, snowmobile, go-cart) | $\begin{aligned} & \text { 1943-2013, } \\ & 9999 \end{aligned}$ | 91-93, 95, 97 |
| 999 | Unknown (as to automobile, motored cycle, light truck or truck) |  | $\begin{aligned} & \text { 1945-2013, } \\ & 9999 \end{aligned}$ | 49, 79, 99 |

## BODY TYPE

FORMAT: 2 numeric
SAS NAME: Vehicle.Body_Typ, Person.Body_Typ

## ELEMENT VALUES:

## Automobiles:

01 Convertible (excludes sun-roof, t-bar)
02 2-Door Sedan, Hardtop, Coupe
03 3-Door/2-Door Hatchback
04 4-Door Sedan, Hardtop
05 5-Door/4-Door Hatchback
06 Station Wagon (excluding van and truck based)
07 Hatchback, Number of Doors Unknown
17 3-Door Coupe
08 Sedan/Hardtop, number of doors unknown
09 Other or Unknown automobile type

## Automobile Derivatives:

10 Auto-Based Pickup (includes Chevrolet - El Camino, GMC -Caballero, Ford Ranchero, Chevrolet - SSR; Subaru-Baha, Brat, and Volkswagen - Rabbit Pickup)
11 Auto-Based Panel (Cargo Station Wagon, auto-based Ambulance/Hearse)
12 Large Limousine (More than four side doors or stretched chassis)
13 Three-Wheel Automobile or Automobile Derivative

## Utility Vehicles:

14 Compact Utility (ANSI D16.1 Utility Vehicle Categories "Small" and "Midsize"):

- Small: Chevy-Tracker; GMC- Jimmy/Typhoon; Isuzu - Trooper II; Oldsmobile - Bravada (1991-94); Suzuki - Samurai, Sidekick. Midsize: Acura - SLX, RDX; Audi - Q5, Q7, Allroad; BMW - X1, X3, X5; Buick - Rendezvous, Rainier, Encore; Chevrolet - Captiva, S10Blazer/TrailBlazer, Tracker (1999 on), TrailBlazer (2003 on), Equinox; Diahatsu - Rocky; Dodge - Durango (1998-2003), Nitro, Raider; Ford Bronco II (1984 on), Escape, Explorer, Explorer Sport; GMC - Jimmy (1995 on), Envoy, Terrain; Honda - CRV, Passport, Element; Hummer - H3; Hyundai - Santa Fe, Tuscon, Veracruz (2007 only); Infiniti - QX4, JX35; Isuzu - Amigo, Axiom, Rodeo, Rodeo Sport, Vehicross, Trooper, Hombre; Jeep - Cherokee (1984 on), Commander, Grand Cherokee, Liberty, Patriot, Wagoneer, Wrangler; Lincoln - Aviator; Kia - Sportage, Sorrento; Land Rover - Defender (1993, 1995-1997), Discovery, Freelander (20022003) Evogue; Lexus - RX300, RX330, GX470; Mazda - CX5, Navajo, Tribute; Mercedes - M, ML, G, GLK; Mercury - Mariner, Mountaineer;

Mitsubishi - Montero, Montero Sport, Endeavor; Nissan - Juke, Pathfinder, Xterra; Oldsmobile - Bravada (1996 on); Pontiac - Aztek, Torrent; Saab -97x; Saturn - Vue; Subaru - B9 Tribeca, Forester, XV Crosstrek; Suzuki Vitara, Vitara V6, Grand Vitara, X90, XL7; Toyota - 4-Runner, FJ Cruiser, Highlander, RAV4; Volkswagen - Tiguan; Volvo - XC90.
15 Large utility (ANSI D16.1 Utility Vehicle Categories and "Full Size" and "Large")

- Full Size: Acura - MDX; AMC - Hummer; Buick - Enclave (2013 on), Cadillac - Escalade; Chevrolet Full-size Blazer, Tahoe, Traverse (2013 on); Chrysler - Aspen, Dodge - Durango (2004 on), Ford - Full-size Bronco (78 and after), Expedition; Honda - Pilot; Hyundai - Veracruz (2008 on); GMC - Acadia (2013 on), Jimmy (1991-1994), Yukon (Denali/XL); Infiniti QX56; Isuzu - Ascender; Jeep - Cherokee (83 and before); Kia - Mesa, Borrego; Land Rover - LR2, LR3, Freelander (2004 on), Range Rover; Mazda - CX-9, Mercedes Benz - GL; Nissan - Armada; Porsche Cayenne; Lexus - LX450/470; Lincoln - Navigator; Toyota - Land Cruiser, Sequoia; Volkswagen - Touareg.
- Large: Avanti - Studebaker XUV; AMC -Hummer (H1, H2)

16 Utility station wagon (includes suburban limousines), Cadillac - Escalade ESV; Chevrolet - Suburban (Yukon XL (2000 on), Travellall, Ford - Excursion, Jeep Grand Wagoneer)
19 Utility Vehicle, Unknown Body Type

## Van-Based Light Trucks (GVWR $<=\mathbf{1 0 , 0 0 0}$ lbs.):

20 Minivan (Buick-Terraza; Chevrolet-Astro, Lumina, Uplander, Venture; ChryslerTown and Country, Voyager; Dodge-Caravan, Grand Caravan; Ford-Aerostar, Windstar, Freestar, Transit Connect; GMC-Safari, Savana; Honda-Odyssey; Hyundai-Entourage; Isuzu-Oasis; Kia-Sedona; Mazda-MPV; Mercury-Monterey, Villager; Mistubishi-Minivan; Nissan-Altra EV, Axxess, Quest, Van; OldsmobileSilhouette; Plymouth-Voyager, Grand Voyager, Vista; Pontiac-Transport, Montana; Saturn-Relay; Toyota-Previa, Sienna; Volkswagon-Camper, Eurovan, Routan, Vanagon.
21 Large Van-Includes van-based buses (B150-B350, Sportsman, Royal Maxiwagon, Ram, Tradesman, Voyager [83 and before], E150-E350, Econoline, Clubwagon, Chateau, G10-G30, Chevy Van, Beauville, Sport Van, G15-G35, Rally Van, Vandura, Ford - Transit, Freightliner - Sprinter/Advantage, Mercedes Benz Sprinter, Dodge - Sprinter, Nissan - NV)
22 Step-van or walk-in van (GVWR <= 10,000 lbs.)
28 Other van type (Hi-Cube Van, Kary)
29 Unknown van type

## Light Conventional Truck (Pick-up style cab, GVWR $<=\mathbf{1 0 , 0 0 0}$ lbs.):

30 Compact pickup (GVWR < 4,500 Ibs.) (Chevrolet - Colorado, Courier, S-10, T-10, LUV; Dodge - D50, Colt P/U, Ram 50, Dakota; Plymouth - Arrow Pickup [foreign]; Ford - Courier, Ranger, Explorer Sport Trac; GMC - Canyon, Dakota, S-15, T-15, Sonoma, Honda - Ridgeline; Isuzu - Hombre, i-280, i-350; Mahindra - TR; Mazda - Pickup, B-Series; Mitsubishi - Pickup; Nissan/Datsun - Pickup, Frontier;
Toyota - Pickup, Tacoma)
31 Standard pickup (GVWR 4,500 to 10,000 lbs.) (AM General - Hummer Pickup;Avanti - Studebaker XUT; Cadillac - Escalade EXT; Chevrolet - Avalanche,Silverado, C-K 1500, C-K 2500, C-K 3500, S/T, Sierra, R100-R500; Dodge - RamPick up, Dakota, D100-D350, W100-W350, Ford - F100-F350; GMC - C10-C35,K10-K35, R10-R35, V10-V35; Jeep - Pickup, Comanche; Lincoln - Blackwood ,Mark LT; Mitsubishi - Raider; Nissan - Titan; Suzuki - Equator; Toyota - Tundra,T-100.)
32 Pickup with slide-in camper
33 Convertible pickup
39 Unknown (pickup style) light conventional truck type
Other Light Convention Trucks (GVWR < = 10,000 lbs.):
40 Cab Chassis Based (includes Rescue Vehicle, Light Stake, Dump, and TowTruck)
41 Truck Based Panel
45 Other light conventional truck type
48 Unknown light truck type
49
Unknown light vehicle type (automobile, utility vehicle, van, light truck)
Buses (excludes van-based buses with a GVWR <= 10,000 lbs.):
50 School Bus
51 Cross Country/Intercity Bus
52 Transit Bus (City Bus)
55 Van-Based Bus GVWR > 10,000 lbs.
58 Other Bus Type
59 Unknown Bus Type
Medium/Heavy Vehicle (GVWR > 10,000 lbs.):
60 Step Van (>10,000 lbs. GVWR)
61 Single-unit straight truck or Cab-Chassis (10,000 lbs. < GVWR < or = 19,500 lbs.)
62
Single-unit straight truck or Cab-Chassis (19,500 lbs. < GVWR < or $=26,000 \mathrm{lbs}$.)
Single-unit straight truck or Cab-Chassis (GVWR > 26,000 lbs.)
Single-unit straight truck or Cab-Chassis (GVWR unknown)
66
Truck-tractor (Cab only, or with any number of trailing units; any weight)
67 Medium/heavy Pickup (>10,000 lbs. GVWR)
71 Unknown if single-unit or combination unit Medium Truck (10,000 lbs. < GVWR <26,000 lbs.)
72 Unknown if single-unit or combination unit Heavy Truck (GVWR > 26,000 lbs.)
78 Unknown medium/heavy truck type
79 Unknown truck type (light/medium/heavy)

```
Motor Homes - (Do NOT code commercial vehicle elements for motor homes,
unless hazardous cargo is present):
    42 Light Truck Based Motorhome (Chassis Mounted)
    65 Medium/heavy truck based motor home
    73 Camper or motor home, unknown truck type
Motorcycles, Mopeds, All-Terrain Vehicles; All-Terrain Cycles:
    80 Motorcycle
    81 Moped (motorized bicycle)
    82 Three-wheel Motorcycle or Moped - not All-Terrain Vehicle
    83 Off-road Motorcycle (2-wheel)
    88 Other motored cycle type (mini-bikes, motor scooters, pocket motorcycles "pocket
        bikes")
    89 Unknown motored cycle type
    90 ATVIATC (All-Terrain Cycle)
Other Vehicles:
    91 Snowmobile
    92 Farm equipment other than trucks
    93 Construction equipment other than trucks (includes graders)
    95 Golf Cart
    94 Low Speed Vehicle (LSV) / Neighborhood Electric Vehicle (NEV)
    97 Other vehicle type (includes go-cart, fork-lift, city street sweeper, dune/swamp
        buggy)
    98 Not Reported
    99 Unknown body type
```

Definition: This element identifies a classification of this vehicle based on its general body configuration, size, shape, doors, etc.

## Remarks:

## SEE ADDITIONAL REMARKS BEFORE VEHICLE MAKE - V9

## AUTOMOBILES:

These attributes are used to classify different types of passenger cars. These type of light vehicles, referred to as automobiles, are designed primarily to transport eight or fewer persons.

01 (Convertible [excludes sun-roof and t-bar]) refers to a passenger car equipped with a removable or retractable roof. To qualify for this code, the entire roof must open. Convertible roofs are generally fabric; however, removable hardtops are also included. This attribute takes priority over 2-door or 4-door codes.

02 (2-Door Sedan, Hardtop, Coupe) refers to a passenger car equipped with two doors for ingress/egress and a separate trunk area for cargo (e.g., trunk lid hinged below the backlight). Folding rear seats do not necessarily violate the separate "trunk area" concept.

03 (3-Door/2-Door Hatchback) refers to a passenger car equipped with two doors for ingress/egress and a rear hatch opening for cargo (e.g., hinged above the backlight). The cargo area is not permanently partitioned from the passenger compartment area.

04 (4-Door Sedan, Hardtop) refers to a passenger car equipped with four doors for ingress/egress and a separate trunk area for cargo (e.g., trunk lid hinged below the backlight). Folding rear seats do not necessarily violate the separate "trunk area" concept.

05 (5-Door/4-Door Hatchback) refers to a passenger car equipped with four doors for ingress/egress and a rear hatch opening for cargo (e.g., hinged above the backlight). The cargo area is not permanently partitioned from the passenger compartment area.

06 (Station wagon [excluding van and truck based]) refers to a passenger car with an enlarged cargo area. The entire roof covering the cargo area is generally equal in height from front to rear and full height side glass is installed between the C and D-pillars. The rearmost area is not permanently partitioned from the forward passenger compartment area (e.g., "horizontal window shades" to hide cargo do not constitute partitions).

07 (Hatchback, Number of Doors Unknown) refers to a passenger car with an unknown number of doors for ingress/egress and a rear hatch opening for cargo (e.g., hinged above the backlight). The cargo area is not permanently partitioned from the passenger compartment area.

17 (3-door coupe) refers to a passenger car equipped with three doors for ingress/egress in which 2 of the doors are located on the driver's side and a separate trunk area for cargo (e.g., trunk lid hinged below the backlight). Folding rear seats do not necessarily violate the separate "trunk area" concept.

08 (Sedan/Hardtop, number of doors unknown) refers to a passenger car equipped with an unknown number of doors for ingress/egress and a separate trunk area for cargo (e.g., trunk lid hinged below the backlight). Folding rear seats do not necessarily violate the separate "trunk area" concept.

09 (Other or Unknown automobile type) is used for any passenger car that cannot be described by the other automobile codes OR when it is known that the vehicle is a passenger car, but there is insufficient data to determine the type. Do not use this attribute if the Police Accident Report (PAR) alone or in combination with other information gives sufficient detail to identify a more specific attribute.

- Example \#1: If the possible choices are codes "01," "02", or "09" but there is enough detail to identify that it is a 2-door and that it is NOT a convertible, then use 02 (2-Door Sedan, Hardtop, Coupe).
- Example \#2: If there is information that it is a 4-door and the PAR eliminates the possibility of a hatchback or station wagon, then use 04 (4-Door Sedan, Hardtop).


## AUTOMOBILE DERIVATIVES

This describes certain passenger cars that have been modified to perform cargo-related tasks.
10 (Auto-Based Pickup) refers to a passenger car based, pickup type vehicle. The roof area (and side glass) rearward of the front seats on a station wagon have been removed and converted into a pickup-type cargo box.

11 (Auto-Based Panel (Cargo Station Wagon, auto-based Ambulance/Hearse) refers to an automotive station wagon that may have sheet metal rearward of the B-pillar rather than glass.

12 (Large Limousine) - more than four side doors or stretched chassis refers to an automobile that has sections added within its wheelbase to increase length and passenger/cargo carrying capacity.

13 (Three-Wheel Automobile or Automobile Derivative) refers to three-wheel vehicles with an enclosed passenger compartment.

## UTILITY VEHICLES (<= 10,000 lbs. GVWR)

Utility Vehicles are designed for carrying persons, and generally considered a multi-purpose vehicle that is designed to have off-road capabilities. These vehicles are: generally four-wheel drive ( $4 \times 4$ ), have increased ground clearance, and are equipped with a strong frame. Four wheel drive automobiles are not considered utility vehicles.

14 (Compact Utility) refers to a short wheelbase and narrow tracked multi-purpose vehicle designed to operate in rugged terrain.

15 (Large Utility) refers to full-size multi-purpose vehicles primarily designed around a shortened pickup truck chassis. Generally a station wagon style body, some models are equipped with a removable top.

16 (Utility Station Wagon) refers primarily to a pickup truck based chassis enlarged to a station wagon.

19 (Utility Vehicle, Unknown Body Type) is used when it is known that the vehicle is a utility vehicle, but there is insufficient data to determine the specific type.

## VAN-BASED LIGHT TRUCKS ( $<=\mathbf{1 0 , 0 0 0}$ lbs. GVWR)

Van-Based Light Trucks (<=10,000 lbs. GVWR) are designed to maximize cargo/passenger area versus overall length. Basically a "box on wheels", these vehicles are identifiable by their enclosed cargo/passenger area and relatively short (or non-existent) hood.

20 (Minivan) refers to down-sized cargo or passenger unibody vans.

21 (Large Van) refers to a standard cargo or passenger van and includes van-based buses less than 10,001 lbs. GVWR. These vans will generally have a larger capacity in both volume and GVWR.

22 (Step Van or Walk-In Van [<=10,000 lbs. GVWR]) refers to a multi-stop delivery vehicle with a GVWR less than or equal to 10,000 lbs. Examples are the Grumman LLV used by the US Postal Service or the Aeromate manufactured by Utilimaster Motor Corporation.

28 (Other Van Type) refers to a cargo or delivery van where the chassis and cab portions from the B-pillar forward of this vehicle are the same as in Minivans or Large Vans with a frame mounted cargo area unit added behind the driver/cab area or if the van cannot be described as a Minivan, Large Van, Step-van or a Van-based motor home. Annotate the van type when using this code. This code takes priority over Minivans and Large Vans.

29 (Unknown Van Type) is used when it is known that this vehicle is a light van, but its specific type cannot be determined.

## LIGHT CONVENTIONAL TRUCKS (Pickup Style Cab, $<=10,000 \mathrm{lbs}$. GVWR)

Light Conventional Trucks are used to describe vehicles commonly referred to as pickup trucks and some of their derivatives. These light trucks are characteristically designed with a small cab containing a single row of seats (extended cabs with additional seats are available for some models), a large hood covering a conventional engine placement, and a separate open box area (approximately 180 to 240 centimeters long) for cargo.

30 (Compact Pickup) is used to describe a pickup truck having a width of 178 centimeters or less.

31 (Standard Pickup) is used to describe a pickup truck having a width of greater than 178 centimeters.

32 (Pickup with Slide-in Camper) is used to describe any pickup truck that is equipped with a slide-in camper. A slide-in camper is a unit that mounts within a pickup bed. Pickup bed caps, tonneau covers or frame mounted campers are not applicable for this code.

33 (Convertible Pickup) refers to a pickup truck equipped with a removable or retractable roof. To qualify for this code, the entire roof must open. Convertible roofs are generally fabric; however, removable hardtops are also included. This code takes priority over compact and large pickups.

39 (Unknown (Pickup Style) Light Conventional Truck Type) is used when this vehicle is a Light Conventional Truck, but there is insufficient data to determine the specific code.

## OTHER LIGHT TRUCKS ( $<=\mathbf{1 0 , 0 0 0}$ lbs. GVWR)

Other Light Trucks are used to describe vehicles that are based upon a conventional light pickup frame, but a commercial or recreational body has been affixed to the frame rather than a pickup box.

40 (Cab Chassis Based [includes rescue vehicles, light stake, dump and tow truck]) is used to describe a light vehicle with a pickup style cab and a commercial (non-pickup) body attached to the frame. Included are pickup based ambulances and tow trucks.

41 (Truck Based Panel) is used to describe a truck based station wagon that has sheet metal rather than glass above the beltline rearward of the B-pillars.

45 (Other Light Conventional Truck Type) is used for light conventional trucks that cannot be described elsewhere.

48 (Unknown Light Truck Type) is used when it is known that the vehicle is a light truck but further classification into one of the more detailed light truck categories (utility, van, pickup or other light trucks) is not possible. Example: It is known the light vehicle is a utility vehicle or van but it can't be determined which one.

49 (Unknown Light Vehicle Type [automobile, utility, van or light truck]) is used when it is known that the vehicle is a light vehicle, but insufficient data exists to specify what type of light vehicle it is.

## Buses (excludes van-based buses GVWR < or = 10,000 lbs.):

Buses are defined as any motor vehicle designed primarily to transport large groups of passengers (nine or more persons, including the driver).

50 (School Bus) (designed to carry students, not cross country or transit) is a bus designed to carry passengers to and from educational facilities and/or related functions. The vehicles are characteristically painted yellow and clearly identified as school buses. Use this code regardless of whether the vehicle is owned by a school system or a private company. School buses converted for other uses (e.g., church bus) also take this code.

51 (Cross Country/Intercity Bus) describes a bus body type designed to travel long distances between cities (e.g. Greyhound).

52 (Transit Bus [City Bus]) describes a bus body type designed for public transportation typically within a city.

55 (Van-Based Bus GVWR > 10,000 lbs.) describes a bus body type built on a van-based chassis.

58 (Other Bus Type) is a vehicle designed/converted to carry nine or more persons, including the driver, not described by the attributes school bus, cross country/intercity bus, transit bus, or van-based bus. Examples include a specialized tour bus or bus based motor home.

59 (Unknown Bus Type) is used when it is known the transport device is a bus but there is insufficient data to choose between the bus attributes.

## MEDIUM/HEAVY TRUCKS ( > 10,000 lbs. GVWR)

Medium/Heavy Trucks describe a single-unit truck specifically designed for carrying cargo on the same chassis as the cab. They pertain to a truck-tractor designed for towing trailers or semi-trailers. Although towing is their primary purpose, some truck-tractors are equipped with cargo areas located rearward of the cab.

60 (Step Van [ $>10,000$ lbs. GVWR]) defines a single-unit, enclosed body with a GVWR greater than $10,000 \mathrm{lbs}$. and an integral driver's compartment and cargo area. Step vans are generally equipped with a folding driver seat mounted on a pedestal and a sliding door for easy ingress/egress.

61-63 (Single-Unit Straight Truck or Cab-chassis) describes a non-articulated truck designed to carry cargo. The attribute selected is based on the applicable GVWR range for the vehicle. Includes "incomplete" or "cutaway".

64 (Single-Unit Straight Truck or Cab-chassis [GVWR unknown]) describes a medium/heavy non-articulated truck designed to carry cargo. It is known not to be a step van, van, or pickup truck, but its GVWR is unknown. Includes "incomplete" or "cutaway".

66 (Truck-Tractor [Cab only or with any number of trailing units]) describes a fifth wheel equipped tractor-trailer power unit. The number of trailing units is not a consideration.

67 (Medium/Heavy Pick-up [ $>10,000$ lbs. GVWR]) is a single-unit straight truck with a pickup body style with a GVWR > 10, 000 Ibs. Examples include the Ford Super Duty 350, 450, or 550.

78 (Unknown Medium/Heavy Truck Type) is used when it is unknown whether the medium/heavy truck is a single-unit truck or a truck-tractor and/or trailer combination and it is known that the vehicle is either a medium or heavy truck with GVWR $>10,000 \mathrm{lbs}$..

79 (Unknown Truck Type [light/medium/heavy)]) is used when it is known that this vehicle is a truck, but there is insufficient data to classify the vehicle further.

## MOTOR HOMES

Motor Homes are recreational vehicles mounted on an incomplete vehicle chassis that is suitable to live in and drive across the country. (Do NOT code commercial vehicle elements for motor homes, unless hazardous cargo is present.)

42 (Light Truck Based Motor Home [chassis mounted]) is used to describe a frame mounted recreational unit attached to a light van or conventional chassis.

65 (Medium/Heavy Truck Based Motor Home) describes a recreational vehicle mounted on a single unit medium/heavy truck chassis.

73 (Camper or Motor Home, unknown truck type) is used when it is known the vehicle is a camper or motor home, but the truck type is unknown.

## MOTORCYCLES, MOPEDS, ALL-TERRAIN VEHICLES, ALL-TERRAIN CYCLES

80 (Motorcycle) is used when a motor vehicle having a seat or saddle for the use of its operator is a two-wheeled open (e.g., no enclosed body) vehicle propelled by an internal combustion engine. Motorcycles equipped with a side car also use this code.

81 (Moped [motorized bicycle]) is used when the vehicle is a speed-limited motor-driven cycle capable of moving either by pedaling or by an internal combustion engine.

82 (Three-Wheeled Motorcycle or Moped) is used when the vehicle is a three-wheeled open vehicle propelled by an internal combustion engine or a three-wheeled motorized bicycle capable of moving either by pedaling or by an internal combustion engine.

83 (Off-road Motorcycle [2-wheel]) is used when the vehicle is a two-wheeled open vehicle propelled by an internal combustion engine designed or built for off road use only.

88 (Other Motored Cycle [mini-bike, motor scooter, pocket motorcycles "pocket bikes"]) is used when the vehicle in question does not qualify for attributes motorcycle, moped, threewheeled motorcycle or moped (e.g., motor scooter).

89 (Unknown Motored Cycle Type) is used when it is known that the vehicle is a motored cycle, but no further data is available.

90 (ATVIATC [All-Terrain Cycle]) is used for off-road recreational vehicles which cannot be licensed for use on public roadways. ATVIATCs have 3 or 4 wheels, a saddle type seat and handle bars for steering (no steering wheel). Does not include side-by-side ATVs (automobile type seats and steering wheel). See code 97 (Other Vehicle Type) for side-by-side ATV.

## OTHER VEHICLES

Other Vehicles describes all motored vehicles that are designed primarily for off-road use.
91 (Snowmobile) refers to a vehicle designed to be operated over snow propelled by an internal combustion engine.

92 (Farm Equipment Other Than Trucks) refers to farming implements other than trucks propelled by an internal combustion engine (e.g., farm tractors, combines, etc.).

93 (Construction Equipment Other Than Trucks) refers to construction equipment other than trucks propelled by an internal combustion engine (e.g., bulldozer, road grader, etc.).

95 (Golf Cart) is a motor vehicle that is designed and manufactured for operation on a golf course for sporting or recreational purposes. Golf carts or golf cars are different from code 94 (Low speed vehicle (LSV)/Neighborhood Electric Vehicle (NEV)) in that if they are manufactured to go less than 20 mph they are not subject to the Federal Motor Vehicle Safety Standard (FMVSS) 500. As a result, golf carts will not have a 17 digit VIN. Golf carts will have a nonstandard serial number that may be reported on the PAR. Also, typically golf carts will not have safety features required of LSV/NEV's under the FMVSS like safety belts, head lights, turn signal and tail lamps, rear view mirrors, etc. (See definition of LSV/NEV below).

94 (Low speed vehicle (LSV)/Neighborhood Electric Vehicle (NEV)) refers to a vehicle that is designed for travel on secondary roads with speed limits equal to or less than 35 mph . LSVs can sometimes resemble golf carts but differ in that they must adhere to Federal Motor Vehicle Safety Standard (FMVSS) 500. Provisions of FMVSS 500 include the following:

The Vehicle must have:

- Four wheels
- Top speed of at least 20 mph , but it cannot exceed 25 mph
- GVWR less than 3,001 pounds
- Head, turn signal and tail lamps
- Reflex reflectors
- Parking brake
- Rear view mirrors
- Windshield
- Safety belts
- Seventeen (17) character VIN

97 (Other Vehicle Type) is used when the motorized vehicle in question does not qualify for Construction equipment other than trucks, Farm equipment other than trucks, or Snowmobile (e.g., fork-lift, city street sweeper, dune/swamp buggy, side-by-side ATV (automobile type seats and steering wheel) go-kart, "kit" car, etc.).

## 98 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 98 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

99 (Unknown Body Type) is used when the available information regarding the type of vehicle is reported as Unknown.

## Consistency Checks:

## IF

(1D0P) SPECIAL USE equals 01,
(1Q0F) PERSON TYPE equals 01, and BODY TYPE equals 80-83, 88, 89,
(1R0P) SEATING POSITION equals 51, and BODY TYPE equals $50-52,55,58,59$,
(1Z2P) any SEQUENCE OF EVENTS equals 01, and (BODY TYPE equals 01-79, 82, 90-99, or any RELATED FACTORS-VEHICLE LEVEL equals 30), then ROLLOVER must equal 1, 2 or 9,
(2DOP) SPECIAL USE equals 02,
(2Q0F) PERSON TYPE equals 02, 03, 09, and BODY TYPE equals $01,02,04$, 08, 10, 17, 31-33, 39-41, 45, 48, 90, 91,
(2ROP) RESTRAINT SYSTEM/HELMET USE equals 00-04, 07-12,
(2UOP) BODY TYPE equals $80-83,88-91$,
(2U0Q) BODY TYPE equals 80-83, 88, 89,
(3AOP) SPECIAL USE equals 07,
(3Q0F) PERSON TYPE equals 02, 03, 09, and BODY TYPE equals 01-17, 19, 20, 22, 28-33, 39, 41, 42, 50-52, 55, $58,59,65,80-83,88-92,94,95,97$,

## THEN

BODY TYPE must equal 02-09, 12, 14-21, 28, 29, 49, 99.
SEATING POSITION must not equal 12-55, 99.
INJURY SEVERITY must not equal 0,9 .
ROLLOVER must equal 1, 2, 9.

BODY TYPE should equal 15,16 , 19-21, 28, 29, 45, 48, 50-52, 55, 58, 59. SEATING POSITION must not equal 31-50.

BODY TYPE must not equal 80-83, 88, 89, 90, 91.
AIR BAG DEPLOYED should equal 00.
AREAS OF IMPACT - INITIAL CONTACT POINT should not equal 14.

BODY TYPE must equal 60-64, 66, 67, 71, 72, 78, 79, 99.
SEATING POSITION must not equal 50.
(4AOP) BODY TYPE equals 80-83, 88, 89,
(4C1P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 01-05,
07-09, 14, 15, 17, 19, 94, 95, 97, and VEHICLE TRAILING does NOT equal 0 ,
(4C2P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 06, 11, 16, and VEHICLE TRAILING does NOT equal 0 ,
(4C3P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 12, and VEHICLE TRAILING does NOT equal 0 ,
(4C4P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals $80-83,88$, 89, and VEHICLE TRAILING does NOT equal 0 ,
(4C5P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 42, 73, and VEHICLE TRAILING does NOT equal 0 ,
(4C6P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 60-65, 71, 72, 79, and VEHICLE TRAILING does NOT equal 0 ,
(4C7P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 66, and VEHICLE TRAILING does NOT equal 0 ,
(4C8P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 91, and VEHICLE TRAILING does NOT equal 0 ,
(4C9P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 90, and VEHICLE TRAILING does NOT equal 0 ,
(4COP) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 99, and VEHICLE TRAILING does NOT equal 0 ,

## THEN

SPECIAL USE must not equal 01-03, 06, 07.
NUMBER OF OCCUPANTS must not be greater than 20.

NUMBER OF OCCUPANTS must not be greater than 22.

NUMBER OF OCCUPANTS must not be greater than 25.

NUMBER OF OCCUPANTS must not be greater than 5 .

NUMBER OF OCCUPANTS must not be greater than 30 .

NUMBER OF OCCUPANTS must not be greater than 55 .

NUMBER OF OCCUPANTS must not be greater than 77 .

NUMBER OF OCCUPANTS must not be greater than 10.

NUMBER OF OCCUPANTS must not be greater than 20.

NUMBER OF OCCUPANTS must not be greater than 10.

IF
(4DOP) SPECIAL USE equals 03,
(4F1P) NUMBER OF OCCUPANTS is less than 97, and BODY TYPE equals 01-05, 07-10, 13, 17, 80-83, 88-90, 91-94, 95, 97, and VEHICLE TRAILING equals 0 ,
(4F2P) NUMBER OF OCCUPANTS is less than 97, and BODY TYPE equals 06, 11, and VEHICLE TRAILING equals 0 ,
(4F3P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 12, and VEHICLE TRAILING equals 0 ,
(4F4P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals $80-83,88$, 89, and VEHICLE TRAILING equals 0 ,
(4F5P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 15, 16, 42, 73, and VEHICLE TRAILING equals 0 ,
(4F6P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 60-65, 71, 72, 79, and VEHICLE TRAILING equals 0 ,
(4F7P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 66, and VEHICLE TRAILING equals 0 ,
(4F8P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 91, and VEHICLE TRAILING equals 0 ,
(4F9P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 90, and VEHICLE TRAILING equals 0 ,
(4FOP) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 99 , and VEHICLE TRAILING equals 0 ,
(4N4P) MOTOR CARRIER IDENTIFICATION NUMBER does not equal 00-000000000,

## THEN

BODY TYPE must equal 21, 28, 29, 50-52, 55, 58, 59.
NUMBER OF OCCUPANTS must not be greater than 15 .

NUMBER OF OCCUPANTS must not be greater than 22.

NUMBER OF OCCUPANTS must not be greater than 25.

NUMBER OF OCCUPANTS must not be greater than 5 .

NUMBER OF OCCUPANTS must not be greater than 30.

NUMBER OF OCCUPANTS must not be greater than 55.

NUMBER OF OCCUPANTS must not be greater than 50 .

NUMBER OF OCCUPANTS must not be greater than 10.

NUMBER OF OCCUPANTS must not be greater than 20.

NUMBER OF OCCUPANTS must not be greater than 10.

BODY TYPE must equal 21, 28, 31, 40 , 45, 48-52, 55, 58-64, 66, 67, 71, 72, 78, 79, 92, 93, 99, or HM2 must equal 2 .
(4N5P) BODY TYPE does not equal 21, 28, 31, 40, 45, 48-52, 55, 58-64, 66, 67, $71,72,78,92,93$, or HM2 does not equal 2 ,
(4N6P) MOTOR CARRIER IDENTIFICATION NUMBER equals 77-777777777,
(4Q0F) PERSON TYPE equals 02, 03, 09, and BODY TYPE equals $80-83,88$, 89,
(4Q1F) PERSON TYPE equals 02, 03, and BODY TYPE equals 21 ,
(4SOP) BODY TYPE equals $80-82,83,88,89$,
(4S1P) BODY TYPE equals $80-83,88,89$ and HM1 does not equal 1,
(5AOP) BODY TYPE equals 80, 81, 83, 88, 89, and any RELATED FACTORS VEHICLE LEVEL does not equal 30,
(5B0P) JACKKNIFE equals 0, and BODY TYPE equals 66,
(5DOP) SPECIAL USE equals 04,
(5F0F) NUMBER OF OCCUPANTS equals 00-95, and BODY TYPE does not equal 50-52, 55, 58, 59,
(5Q0F) PERSON TYPE equals 02, and BODY TYPE equals 50-52, 55, 58, 59,
(5SOP) BODY TYPE equals 80-83, 88, 89 or 90,
(6A1P) UNDERRIDE/OVERRIDE equals 1-8,
(6DOP) SPECIAL USE equals 05,

MOTOR CARRIER IDENTIFICATION NUMBER must equal 00-000000000, 99-999999999.

BODY TYPE should equal 28,45 , 48-52, 55, 58-64, 66, 67, 71, 72, 78, 93 or HM1 should equal 2.
SEATING POSITION must not equal 12, 14-19, 22-50.

SEATING POSITION must not equal 50, 52.

EJECTION must equal 8.
COMPLIANCE WITH CDL
ENDORSEMENTS MUST equal 0.
ROLLOVER must equal 0 .

VEHICLE TRAILING must not equal 1-4.
BODY TYPE must equal 01-12, 15-17, 19-22, 28-33, 39-41, 45, 48-50, 55, 58, 59, 60-64, 66, 67, 71, 72, 78, 79, 90, 99.
the number of Person Level forms for that vehicle must be less than or equal to the NUMBER OF OCCUPANTS.
SEATING POSITION must not equal 11, 21-50, 99.
EXTRICATION must equal 0 .
BODY TYPE must not equal 80-83, 88-91.
BODY TYPE must equal 01-12, 14-17 19-22, 28-33, 39-41, 45, 48, 49, 55, 58-64, 66, 67, 71, 72, 78-82, 88-91, 94, 95, 97-99.
(6GOQ) any RELATED FACTORS - VEHICLE LEVEL equals 30,
(6Q0F) PERSON TYPE equals 02, 03, 09, and BODY TYPE equals 60-67, 71, 72, 78, 79,

BODY TYPE must equal 80 for this vehicle.
SEATING POSITION must not equal 31-49.

IF
(7DOP) SPECIAL USE equals 06,
(7Q0F) PERSON TYPE equals 09, and BODY TYPE equals $50-52,55,58,59$,
(8DOP) SPECIAL USE equals 08,
(8L9P) BODY TYPE does not equal 80-83, 88-91 and the CRASH EVENTS event equals 54, and the corresponding AREAS OF IMPACT (THIS VEHICLE) equals 19 in that row,
(8POP) PERSON TYPE equals 01, and AGE is less than 008 ,
(920P) any one of the fields MAKE, MODEL, BODY TYPE, and MODEL YEAR, equals Not Reported [MAKE (97), MODEL (997), BODY TYPE (98), and MODEL YEAR (9998)],
(930P) any one of the fields MAKE, MODEL, BODY TYPE, and MODEL YEAR, does not equal Not Reported [MAKE (97), MODEL (997), BODY TYPE (98), and MODEL YEAR (9998)],
(960P) MAKE is not 98, 99, and equals $\qquad$ _, and MODEL equals $\qquad$ ,
(981P) BODY TYPE equals $80-83,88,89$, 90, 91,
(982P) BODY TYPE does not equal 80-83, 88, 89, 90, 91,
(A380) FIRST HARMFUL EVENT equals 01 and this vehicle is involved in the first harmful event, and BODY TYPE does not equal $80-89$ for this vehicle, and RELATION TO TRAFFICWAY equals
(AE1P) VEHICLE CONFIGURATION equals 05-08,
(AF2P) VEHICLE CONFIGURATION equals 20, 21,

## THEN

BODY TYPE must equal 11, 14-17, 19, $21,22,28,29,40,41,45,48,49,61,62$, 64, 79, 98, 99.
SEATING POSITION must not equal 12-50, 52-54.
BODY TYPE must not equal 60-64, 66, 67, 71, 72, 78, 79, 99.
there should be a previous event with CRASH EVENTS event equal to 18 or 73 involving that vehicle.

BODY TYPE must not equal 01-12, 14-17, 19-22, 28-33, 39-42, 45, 48-52, $55,58-67,71,72,78-83,89,92,93$. the other three must also equal Not Reported.
the other three must also not be coded as Not Reported.

BODY TYPE must equal $\qquad$ .

RESTRAINT SYSTEM/HELMET USE must equal $05,16,17,19,29,97,98$, 99.

RESTRAINT SYSTEM/HELMET USE must not equal 05, 16, 17, 19, 29. LOCATION OF ROLLOVER should equal $\qquad$ respectively.

BODY TYPE must equal 66.
BODY TYPE must equal $20,21,50-52$, 55, 58, 59.

## THEN

(AHOP) VEHICLE CONFIGURATION does not equal 00, 99,
(AH1P) BUS USE equals 08,
(AH2P) BUS USE equals 06,
(ALOP) CARGO BODY TYPE equals 22,
(AMOP) CARGO BODY TYPE does not equal 00, 99,
(BEOP) BODY TYPE equals $80-83,88,89$,
(BPOP) MODEL YEAR is greater than 1999, and BODY TYPE does not equal 50-52, 58-66, 71-79, 80-83, 88-93, 95, 97, and SEATING POSITION equals 11, 13, 18, 19,
(D270) BODY TYPE equals 50-52, 55, 63, 66, 72, or HM1 equals 2,
(D440) COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 00,
(D560) VIOLATIONS CHARGED equals 66,
(P01F) PERSON TYPE equals 01-03, 09, and RESTRAINT SYSTEM/HELMET USE equals 01-04, 08, 10-12, and BODY TYPE does not equal 80-89,
(P094) EJECTION equals 8,
(P130) BODY TYPE equals 60-67, 71, 72, 78, 79, and PERSON TYPE equals 01, 03, and INJURY SEVERITY equals 4,
(P180) PERSON TYPE equals 01, and AGE is less than 009,
(P230) SEATING POSITION equals 21, 23, $28,29,31,33,38$ or 39 , and BODY TYPE equals 50-97,
(P290) AIR BAG DEPLOYED equals 01-03, 07-09, 20, 28, and BODY TYPE equals 01-49 and MODEL YEAR equals 1998 or newer,

BODY TYPE should equal $15,16,21,28$, 31, 40, 41, 45, 48-52, 55, 58-64, 66, 67, $71,72,78,92,93$, or HM2 must equal 2. BODY TYPE must equal $21,22,28,29$, 50-59.
BODY TYPE should equal 21, 52 or 55.
BODY TYPE must equal 21, 50-52, 55, 58, 59.
BODY TYPE should equal $15,16,21$, 28, 31, 40, 41, 45, 48-52, 55, 58-64, $66,67,71,72,78,92,93$, or HM2 must equal 2.
EJECTION PATH must equal 0.
AIR BAG DEPLOYED should not equal 00.

COMMERCIAL MOTOR VEHICLE LICENSE STATUS should not equal 00. BODY TYPE should not equal 50-52, $55,63,66,72$, and HM2 should not equal 2.
BODY TYPE should equal 80-83, 88, 89.

EJECTION should equal 0 or 7.

SEATING POSITION must equal 55, or BODY TYPE must equal 80-83, 88, 89. FATAL INJURY AT WORK should equal 1.

BODY TYPE should not equal 90 .
AIR BAG DEPLOYED should equal 00.

SEATING POSITION should equal 11, 13, 21, 23, 31 or 33.

## IF

(P310) EJECTION equals 1-3, and BODY TYPE does not equal 90, 91, 97,
(U080) BODY TYPE does not equal 50-59,
(U470) UNLIKELY: BODY TYPE equals 98.
(V020) VEHICLE TRAILING equals 1,
(V031) RELATED FACTORS-VEHICLE LEVEL equals 39,
(V032) RELATED FACTORS-VEHICLE LEVEL equals 40,
(V050) RESTRAINT SYSTEM/HELMET USE equals 05, 16, 17,19, 29,
(V051) BUS USE equals 01,
(V052) BUS USE equals 04,
(V053) BUS USE equals 05,
(V054) BUS USE equals 07,
(V055) BUS USE equals 00,
(V170) NUMBER OF OCCUPANTS is less than 97, and VEHICLE TRAILING equals 0, and BODY TYPE equals 01-05, 07-09, 14, 15, 17, 19, 94, 95, 97,
(V180) NUMBER OF OCCUPANTS is less than 97, and VEHICLE TRAILING equals 0, and BODY TYPE equals 06, 11,
(V190) NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 12,
(V200) NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 80-83, 88, 89,
(V210) NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0, and BODY TYPE equals $15,16,42$, 73,

## THEN

RESTRAINT SYSTEM/HELMET USE must not equal 05, 16, 17, 19, 29.
UNLIKELY: SPECIAL USE equals 02 or 03.

BODY TYPE should not equal 50-52, 55, 80-83, 88-91.
BODY TYPE should not equal 01,
12, 13, 32, 33, 42, 50-52, 55, 58, 59, 65, 73, 80-83, 88-92.
BODY TYPE should not equal 01, $12,13,32,33,42,50-52,55,58,59$, 60-67, 71-73, 78, 80-83, 88-93.
BODY TYPE must equal 80-83, 88-91.
BODY TYPE should equal 21,50 or 55.
BODY TYPE should equal 51.
BODY TYPE should equal 12, 16, 21, 51, 55 or 58.
BODY TYPE should equal 21, 22, 29, 50-59.
BODY TYPE must not equal 50-59.
NUMBER OF OCCUPANTS should not be greater than 8.

NUMBER OF OCCUPANTS should not be greater than 12.

NUMBER OF OCCUPANTS should not be greater than 15.

NUMBER OF OCCUPANTS should not be greater than 2.

NUMBER OF OCCUPANTS should not be greater than 12.

## THEN

(V220) NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals $60-65,71$, 72, 79,
(V230) NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 66,
(V240) NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 91,
(V250) NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 90,
(V260) NUMBER OF OCCUPANTS is, 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 99,
(V290) BODY TYPE equals 90,
(V320) BODY TYPE equals 50-52, 55, 58-66, 71-79 and SEATING POSITION does not equal 11, 13, 98 ,
(V330) SCHOOL BUS RELATED equals 1,
(V340) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 01-05, 07-09, 14, 15, 17, 19, 97, and VEHICLE TRAILING does NOT equal 0,
(V350) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 06, 11, 16, and VEHICLE TRAILING does NOT equal 0 ,
(V360) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 12, and VEHICLE TRAILING does NOT equal 0 ,

NUMBER OF OCCUPANTS should not be greater than 12.

NUMBER OF OCCUPANTS should not be greater than 5 .

NUMBER OF OCCUPANTS should not be greater than 2.

NUMBER OF OCCUPANTS should not be greater than 8 .

NUMBER OF OCCUPANTS should not be greater than 5 .

NUMBER OF OCCUPANTS should equal 01.
AIR BAG DEPLOYED should equal 00.

BODY TYPE of at least one of the involved vehicles should equal 50 (School Bus) or SPECIAL USE for at least one involved vehicle should equal 02 - Vehicle Used as School Bus, and BUS USE for at least one vehicle should equal 01.
NUMBER OF OCCUPANTS should not be greater than 8 .

NUMBER OF OCCUPANTS should not be greater than 12 .

NUMBER OF OCCUPANTS should not be greater than 15 .
(V370) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 80-83, 88, 89, and VEHICLE TRAILING does NOT equal 0,
(V380) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 42,73 , and VEHICLE TRAILING does NOT equal 0 ,
(V390) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 60-65, 71, 72, 79, and VEHICLE TRAILING does NOT equal 0 ,
(V400) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 66, and VEHICLE TRAILING does NOT equal 0 ,
(V410) NUMBER OF OCCUPANTS is less than 01-96, and BODY TYPE equals 91, and VEHICLE TRAILING does NOT equal 0,
(V420) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 90, and VEHICLE TRAILING does NOT equal 0 ,
(V430) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 98, 99, and VEHICLE TRAILING does NOT equal 0 ,
(V440) BODY TYPE equals 50,
(V46P) VEHICLE CONFIGURATION equals 21,
(V504) GVWR/GCWR equals 1,
(V505) GVWR/GCWR equals 9,
(V506) BODY TYPE equals 60,
(V507) BODY TYPE equals 01-21, 28-30, 32-39, 45-49,
(V50P) BODY TYPE equals 61, 62, 67, 71, and VEHICLE CONFIGURATION does not equal 04,

## THEN

NUMBER OF OCCUPANTS should not be greater than 02.

NUMBER OF OCCUPANTS should not be greater than 12.

NUMBER OF OCCUPANTS should not be greater than 12.

NUMBER OF OCCUPANTS should not be greater than 5 .

NUMBER OF OCCUPANTS should not be greater than 2.

NUMBER OF OCCUPANTS should not be greater than 8.

NUMBER OF OCCUPANTS should not be greater than 5 .

SCHOOL BUS RELATED should equal 1. BODY TYPE must equal 21, 50-52, 55, 58, 59.
BODY TYPE should equal 01-22, 28-39, 41-49.
BODY TYPE should not equal 61-63, 66, 67.
GVWR/GCWR should equal 2.
GVWR/GCWR should equal 0, 1.
GVWR/GCWR must equal 2, 9. (See GVWR/GCWR Remarks on how to use PCVina to determine GVWR.)

## THEN

(V51P) BODY TYPE equals 63, 66, 72,
(V540) BODY TYPE equals 42, 65, 73, and HM1 equals 1,
(V56P) VEHICLE CONFIGURATION equals 10,
(V57P) VEHICLE CONFIGURATION equals 05,
(V58P) VEHICLE CONFIGURATION equals 04,
(V59P) VEHICLE CONFIGURATION equals 06,
(V60P) VEHICLE CONFIGURATION equals 07,
(V61P) VEHICLE CONFIGURATION equals 08,
(V640) VEHICLE CONFIGURATION does not equal 00, 99,
(V64P) BODY TYPE equals 50-59, 60-64, 66-72, 78,
(V660) CARGO BODY TYPE does not equal 00, 99,
(V790) BODY TYPE equals 20,
(V800) BODY TYPE equals 21, 22, 28, 29,
(V810) BODY TYPE equals 67, and VEHICLE TRAILING equals 1-4,
(V840) BODY TYPE equals 50-59,
(V850) BODY TYPE equals 60,
(V860) HIT-AND-RUN equals 0, and BODY TYPE equals 61-64,

GVWR/GCWR must equal 3. (See GVWR/GCWR Remarks on how to use PCVina to determine GVWR.)
GVWR/GCWR should equal 0.
BODY TYPE must equal 01-22, 28-49.
CARGO BODY TYPE must equal 12, 96, and BODY TYPE must equal 66. BODY TYPE must not equal 66.

BODY TYPE must equal 66, and VEHICLE TRAILING must equal 1. BODY TYPE must equal 66, and VEHICLE TRAILING must equal 2. BODY TYPE must equal 66, and VEHICLE TRAILING must equal 3.
BODY TYPE should not equal 28, 30, 42, 45, 48, 49.
GVWR/GCWR must not equal 0, 1.
BODY TYPE should not equal 28, 30, 42, 45, 48, 49.
VEHICLE CONFIGURATION should equal 00, and CARGO BODY TYPE should equal 00.
VEHICLE CONFIGURATION should equal 00, 04, 10, 20, 21, 99, and CARGO BODY TYPE should equal 00, 01, 22, 99.
VEHICLE CONFIGURATION should equal 04, and CARGO BODY TYPE should equal 01, 03, 04, 09.
VEHICLE CONFIGURATION should equal 21, and CARGO BODY TYPE should equal 22.
VEHICLE CONFIGURATION should equal 01, 03, 04, and CARGO BODY TYPE should equal 01.
VEHICLE CONFIGURATION should equal 01, 02, 04, and CARGO BODY TYPE should equal 01-10, 12, 96-98.

IF
(V870) BODY TYPE equals 65,
(V880) HIT-AND-RUN equals 0, and BODY TYPE equals 66,
(V890) BODY TYPE equals 71, 72,
(V900) BODY TYPE equals 73,
(V910) BODY TYPE equals 78,
(V915) BODY TYPE equals 67, and VEHICLE TRAILING equals 0 ,
(V920) BODY TYPE equals 79,
(V930) VEHICLE CONFIGURATION equals 00, or CARGO BODY TYPE equals 00 ,
(V950) VEHICLE MODEL YEAR is less than 1994, and SEATING POSITION equals $31,33,39$,
(V961) MAKE equals 98, 99, and MODEL equals $\qquad$
(V980) BODY TYPE equals 50-52, 55, 58-64, $66,67,71,72,78,93$, or HM1 equals 2 ,
(VH06) BODY TYPE equals 82,

## Consistency Checks (GES Only):

(5A1P) BODY TYPE equals 60-79, and UNIT TYPE equals 1,
(5A2P) FINAL STRATUM equals 2,

## THEN

VEHICLE CONFIGURATION should equal 00, and CARGO BODY TYPE should equal 00.
VEHICLE CONFIGURATION should equal 05-08, 19, and CARGO BODY TYPE should equal 01-04, 06-12, 96-98. VEHICLE CONFIGURATION should equal 19, and CARGO BODY TYPE should equal 01-04, 08, 10, 96-98.
VEHICLE CONFIGURATION should equal 00, and CARGO BODY TYPE should equal 00.
VEHICLE CONFIGURATION should equal 19, and CARGO BODY TYPE should equal 98.
VEHICLE CONFIGURATION should equal 01, and CARGO BODY TYPE should equal 97.
VEHICLE CONFIGURATION should equal 99, and CARGO BODY TYPE should equal 99.
BODY TYPE should not equal 50-64, 66-72, 78, 79.

RESTRAINT SYSTEM/HELMET USE should not equal 01, 03, and BODY TYPE should equal 12, 15, 16, 19-21. BODY should equal $\qquad$ .

MOTOR CARRIER IDENTIFICATION NUMBER must not equal 00-000000000.
RELATED FACTORS-VEHICLE LEVEL must not equal 30 .

THEN
there should exist at least one vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2.
there should exist:

1) at least one vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and INJURY SEVERITY equals 4 for at least one occupant of that vehicle; or
2) one and only one vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and INJURY SEVERITY equals 3 for at least one occupant of that vehicle; or
3) 2 or more vehicles where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and at least 2 vehicles where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and INJURY SEVERITY equals 3 for at least one occupant of a vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2.
there should exist at least one vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and INJURY SEVERITY equals 1, 2, 3 or 5 for at least one occupant of that vehicle. there should exist no vehicles where BODY TYPE equals 60-79, and UNIT TYPE equals 1. VEHICLE LICENSE PLATE NUMBER should equal 0000000000.
STRATUM should not equal 4.
(VH88) UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and BODY TYPE equals 01-49 or 60-79,
(VH89) UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and BODY TYPE equals 01-49,
(VH90) UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and BODY TYPE equals 01-49 or 60-79,
(VH91) UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and BODY TYPE equals 01-49,

## THEN

STRATUM should not equal 3.

FINAL STRATUM must not equal 4.

FINAL STRATUM must not equal 3.

## VEHICLE MODEL YEAR

FORMAT: 4 numeric
SAS NAME: Vehicle.MOD_YEAR, Person MOD_YEAR; Parkwork.PMODYEAR

## ELEMENT VALUES:

Actual Four Digit Model Year
9998 Not Reported
9999 Unknown
Definition: This element identifies the manufacturer's model year of this vehicle.

## Remarks:

## SEE ADDITIONAL REMARKS BEFORE VEHICLE MAKE - V9

## 9998 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 9998 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

Code all four digits of the model year for which the vehicle was manufactured.
A vehicle manufactured as a 1985 model is to be coded as "1985."

## Consistency Checks:

## IF

(1COP) the MODEL YEAR is not equal to 9998 or 9999,

## THEN

the MODEL YEAR must not be greater than CRASH YEAR plus ONE.
(900P) VEHICLE IDENTIFICATION NUMBER (VIN) does not equal 0's, 8's or 9's and VEHICLE MODEL
YEAR is a valid year and greater than or equal to 1980 and VEHICLE MODEL YEAR equals $\qquad$ ,
(920P) any one of the fields MAKE, MODEL, BODY TYPE, and MODEL YEAR, equals Not Reported [MAKE (97), MODEL (997), BODY TYPE (98), and MODEL YEAR (9998)],
(921P) MAKE is not 97, 98, 99, and equals
$\qquad$ , and MODEL equals $\qquad$ _,
(930P) any one of the fields MAKE, MODEL, BODY TYPE, and MODEL YEAR, does not equal Not Reported [MAKE (97), MODEL (997), BODY TYPE (98), and MODEL YEAR (9998)],
(BPOP) MODEL YEAR is greater than 1999, and BODY TYPE does not equal 50-52, 58-66, 71-79, 80-83, 88-93, 95, 97 , and SEATING POSITION equals 11, 13, 18, 19,
(P290) AIR BAG DEPLOYED equals 01-03, 07-09, 20, 28, and BODY TYPE equals 01-49 and MODEL YEAR equals 1998 or newer,
(U490) UNLIKELY: GVWR/GVCR equals 8 and VEHICLE MODEL YEAR is greater than 1980 and not equal to 9998 or 9999 and VEHICLE IDENTIFICATION NUMBER does not equal 0's, 8's or 9's.
(U510) UNLIKELY: VEHICLE MODEL YEAR equals 9998.
(V010) MODEL YEAR should not be less than 1940.
(V011) VEHICLE MODEL YEAR is less than VEHICLE IDENTIFICATION NUMBER 1950,
(V620) CRASH MONTH is between January and March,
(V922) MAKE equals 98, 99, and MODEL equals $\qquad$ ,
(V950) VEHICLE MODEL YEAR is less than 1994, and SEATING POSITION equals 31, 33, 39,
must equal Os.
the VEHICLE MODEL YEAR should NOT be greater than the CRASH YEAR unless it equals 9998 or 9999 (contact Coding Assistance).
MODEL YEAR should equal $\qquad$ .

RESTRAINT SYSTEM/HELMET USE should not equal 01, 03, and BODY
TYPE should equal 12, 15, 16, 19-21.

# VEHICLE IDENTIFICATION NUMBER 

FORMAT: 17 alphanumeric
SAS NAME: Vehicle.VIN; Parkwork.PVIN

## ELEMENT VALUES:

| 00000000000000000 | No VIN Required |
| :--- | :--- |
|  | Any Alphanumeric Characters - Actual VIN number |
| 88888888888888888 | Not Reported |
| 99999999999999999 | Unknown |

Definition: This element records the vehicle identification number (VIN) of this vehicle.

## Remarks:

## SEE ADDITIONAL REMARKS BEFORE VEHICLE MAKE - V9

Vehicles manufactured after September 1980 conform to Federal Motor Vehicle Safety Standard 115. This standard requires that each VIN have 17 characters, not contain the letter "I", "O" or "Q", and pass a mathematical test (check digit). Vehicles older than 1980 may have VINs that are shorter.

Code the complete VIN. The VIN is always left-justified.
If the VIN is less than 17-characters long (pre-1981 VIN), leave the remaining characters blank. Do not zero-fill. Only enter 8s (Not Reported) or 9s (Unknown) when the entire VIN is missing or unknown.

Trailer VINs are not coded. If the VIN for the power unit is not available, code Unknown.
Enter all zero's or 0s (No VIN Required) if the vehicle is not required to have a VIN as per FMVSS 115 or the vehicle does not require registration (farm tractors, go-carts, etc.).

NOTE: For any multi-stage manufactured vehicle (e.g., school bus, motor home, limousine, tow truck, etc.), enter the VIN for the vehicle's power unit/chassis. Do not code the secondary manufacturer's serial number, which is not considered a VIN under FMVSS 115.

If the vehicle is manufactured by the Ford Motor Company and the VIN begins or ends with a script " $f$ ", the script " $f$ " is not entered.

Proceed to the next character, as in the example below.
VIN: f3U62S100932f

ENTER: 3U62S100932
In addition, if any hyphens or periods are contained in the string of alphanumeric characters, ignore them as in the example below.

VIN: SM-E. 3076421
ENTER: SME3076421

## 8s (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 8s (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

9s (Unknown) is used when the entire VIN is reported as Unknown or this is a hit-and-run vehicle, with no information available.

## FARS SPECIAL INSTRUCTION:

If the state will not allow transmittal of a complete standard VIN, code the right-most four characters as numeric zeroes. The vehicle registration file must be used to verify the VIN.

## GES SPECIAL INSTRUCTION:

Leave "Blank" any column which does not have a VIN character. If part of the VIN is missing or not decipherable, leave the column any such character would ordinarily occupy "Blank." In the special case where the first 11 columns of the VIN are blank, but part or all of columns 12 through 17 contain information, code Unknown instead of the partial information contained in the columns 12 through 17 of the VIN.

If the information from PC VINA or VINASSIST and the PAR are inconsistent, use the following guidelines:

- Make and model on the PAR takes precedence over the make and model indicated by the VIN.
- Model year - Use model year as indicated by VIN if the VIN Make and Model matches the make and model shown on the PAR.
- Body type - Use body type indicated by the VIN if the VIN Make and Model matches the make and model shown on the PAR.

If the information about make and model on the PAR is inconsistent, model takes precedence over the make.

## Consistency Checks:

## IF

(900P) VEHICLE IDENTIFICATION NUMBER (VIN) does not equal 0's, 8's or 9's and VEHICLE MODEL
YEAR is a valid year and greater than or equal to 1980 and VEHICLE MODEL YEAR equals $\qquad$ ,
(U490) UNLIKELY: GVWR/GVCR equals 8 and VEHICLE MODEL YEAR is greater than 1980 and not equal to 9998 or 9999 and VEHICLE IDENTIFICATION NUMBER does not equal 0's, 8's or 9's.
(V011) VEHICLE MODEL YEAR is less than VEHICLE IDENTIFICATION NUMBER 1950, must equal Os.
(V280) Possible error in VIN digit check
(V300) Possible error in VIN Production Number.
(V62P) CARGO BODY TYPE equals 01-12, GVWR/GCWR must equal 2, 3. 97, 98 , and VEHICLE IDENTIFICATION NUMBER does not equal Not Reported or Unknown,

## Consistency Checks (FARS Only):

IF

## THEN

(V270) Possible error in VIN character types or number of characters.

## THIS PAGE INTENTIONALLY LEFT BLANK

## VEHICLE TRAILING

FORMAT: 1 numeric
SAS NAME: Vehicle.TOW_VEH; Person.TOW_VEH; Parkwork.PTRAILER

## ELEMENT VALUES:

$0 \quad$ No Trailing Units
1 One Trailing Unit
2 Two Trailing Units
3 Three or more Trailing Units
4 Yes, Number of Trailing Units Unknown
5 Vehicle Towing Another Motor Vehicle - Fixed Linkage
6 Vehicle Towing Another Motor Vehicle - Non-Fixed Linkage
9 Unknown
Definition: This element identifies whether or not this vehicle had any attached trailing units or was towing another motor vehicle.

## Remarks:

Trailing unit applies to any device connected to a motor vehicle by a hitch, including tractortrailer combinations, a single-unit truck pulling a trailer (truck trailer), a boat trailer hitched onto a motor vehicle, etc.

If the case materials do not provide sufficient information if the linkage was fixed or not, consider the linkage as fixed.

A vehicle towing another motor vehicle is not considered to be a trailer but is considered to be a towed vehicle (see 5 (Vehicle Towing Another Motor Vehicle - Fixed Linkage) or 6 (Vehicle Towing Another Motor Vehicle - Non-Fixed Linkage)).

A converter dolly is a device used to hitch a trailer to another semi-trailer or straight truck and is not counted as a separate trailing unit. For combination vehicles (medium/heavy trucks), count only the cargo-carrying units.
$\mathbf{0}$ (No Trailing Units) is used when this vehicle was not pulling or towing a wheeled unit.
1 (One Trailing Unit) is used when on trailer was being pulled by this vehicle.
2 (Two Trailing Units) is used when this vehicle was pulling two trailers.
3 (Three or More Trailing Units) is used when this vehicle was pulling three or more trailers.

4 (Yes, Number of Trailing Units Unknown) is used when it is known that there was a trailer(s) but the number of trailers cannot be determined.

5 (Vehicle Towing Another Motor Vehicle - Fixed Linkage) is used to identify that a vehicle was towing another motor vehicle(s) connected by a fixed linkage. The towed vehicle will have two or more wheels on the ground. This will most commonly apply to drive-away/tow-away tow trucks. These are vehicles equipped with a mechanism designed to be attached to a towed vehicle (e.g., hoist). This attribute would also be used for saddle-mounted towed vehicles. An example of a saddle-mount unit would be a bobtail towing one or more other bobtails. This attribute does not apply to vehicles towed by being loaded on a flatbed or auto transporter.

6 (Vehicle Towing Another Motor Vehicle - Non-Fixed Linkage) is used to identify that a vehicle was towing another motor vehicle(s) connected by a non-fixed linkage. A non-fixed linkage includes ropes, chains or cables.

9 (Unknown) is used when it cannot be determined from any information if a unit was being pulled or towed.

## FARS SPECIAL INSTRUCTION:

For vehicles being towed by an illegal hitch (rope, chain, cable), use the 22 (Towing or Pushing Improperly) for the data element Related Factors-Driver Level.

## GES SPECIAL INSTRUCTION:

The intent of this data element is to determine if the vehicle was pulling a trailing unit. If the linkage is fixed, then the trailing unit is considered a towed unit. If the linkage is not fixed (e.g., one vehicle is pulling another using a rope), then each vehicle is considered to be separate.

## Consistency Checks:

## IF

(2BOP) JACKKNIFE equals 1-3,
(4C1P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 01-05, 07-09, 14, 15, 17, 19, 94, 95, 97, and VEHICLE TRAILING does NOT equal 0 ,
(4C2P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 06, 11, 16, and VEHICLE TRAILING does NOT equal 0,

THEN
VEHICLE TRAILING must not equal 0, 9.

NUMBER OF OCCUPANTS must not be greater than 20.

NUMBER OF OCCUPANTS must not be greater than 22.

## THEN

(4C3P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 12, and VEHICLE TRAILING does NOT equal 0 ,
(4C4P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 80-83, 88, 89, and VEHICLE TRAILING does NOT equal 0 ,
(4C5P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 42, 73 , and VEHICLE TRAILING does NOT equal 0 ,
(4C6P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 60-65, 71, 72, 79, and VEHICLE TRAILING does NOT equal 0 ,
(4C7P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 66, and VEHICLE TRAILING does NOT equal 0,
(4C8P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 91, and VEHICLE TRAILING does NOT equal 0 ,
(4C9P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 90 , and VEHICLE TRAILING does NOT equal 0 ,
(4COP) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 99, and VEHICLE TRAILING does NOT equal 0,
(4F1P) NUMBER OF OCCUPANTS is less than 97, and BODY TYPE equals 01-05, 07-10, 13, 17, 80-83, 88-90, 91-94, 95, 97, and VEHICLE TRAILING equals 0 ,
(4F2P) NUMBER OF OCCUPANTS is less than 97, and BODY TYPE equals 06, 11, and VEHICLE TRAILING equals 0 ,
(4F3P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 12, and VEHICLE TRAILING equals 0 ,

NUMBER OF OCCUPANTS must not be greater than 25.

NUMBER OF OCCUPANTS must not be greater than 5 .

NUMBER OF OCCUPANTS must not be greater than 30 .

NUMBER OF OCCUPANTS must not be greater than 55.

NUMBER OF OCCUPANTS must not be greater than 77 .

NUMBER OF OCCUPANTS must not be greater than 10 .

NUMBER OF OCCUPANTS must not be greater than 20.

NUMBER OF OCCUPANTS must not be greater than 10.

NUMBER OF OCCUPANTS must not be greater than 15 .

NUMBER OF OCCUPANTS must not be greater than 22.

NUMBER OF OCCUPANTS must not be greater than 25.
(4F4P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 80-83, 88, 89, and VEHICLE TRAILING equals 0 ,
(4F5P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals $15,16,42$, 73, and VEHICLE TRAILING equals 0 ,
(4F6P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 60-65, 71, 72, 79, and VEHICLE TRAILING equals 0 ,
(4F7P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 66, and VEHICLE TRAILING equals 0 ,
(4F8P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 91, and VEHICLE TRAILING equals 0 ,
(4F9P) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 90, and VEHICLE TRAILING equals 0 ,
(4FOP) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 99, and VEHICLE TRAILING equals 0 ,
(4ROP) SEATING POSITION equals 54,
(5B0P) JACKKNIFE equals 0 and BODY TYPE equals 66,
(5B0Q) JACKKNIFE equals 0 ,
(ADOP) VEHICLE CONFIGURATION equals 04, 06-08,
(AEOP) VEHICLE CONFIGURATION equals 05, and CARGO BODY TYPE does not equal 12,
(AL1P) SEQUENCE OF EVENTS equals 51, 62, 70,
(CIOP) VEHICLE TRAILING equals 1-4,
(V020) VEHICLE TRAILING equals 1,
(V170) NUMBER OF OCCUPANTS is less than 97, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 01-05, 07-09, 14, 15, 17, 19, 94, 95, 97,

## THEN

NUMBER OF OCCUPANTS must not be greater than 5.

NUMBER OF OCCUPANTS must not be greater than 30.

NUMBER OF OCCUPANTS must not be greater than 55.

NUMBER OF OCCUPANTS must not be greater than 50.

NUMBER OF OCCUPANTS must not be greater than 10.

NUMBER OF OCCUPANTS must not be greater than 20.

NUMBER OF OCCUPANTS must not be greater than 10.

VEHICLE TRAILING must not equal 0. VEHICLE TRAILING must not equal 1-4.

VEHICLE TRAILING must equal 0 or 9. VEHICLE TRAILING must not equal 0.

VEHICLE TRAILING must equal 0.

VEHICLE TRAILING must not equal 0.
JACKKNIFE must not equal 0 .
BODY TYPE should not equal 50-52, 55, 80-83, 88-91.
NUMBER OF OCCUPANTS should not be greater than 8.

## THEN

(V180) NUMBER OF OCCUPANTS is less than 97, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 06, 11,
(V190) NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 12,
(V200) NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 80-83, 88, 89,
(V210) NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 15, 16, 42, 73,
(V220) NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 60-65, 71, 72, 79,
(V230) NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 66,
(V240) NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 91,
(V250) NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 90,
(V260) NUMBER OF OCCUPANTS is, 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 99,
(V340) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 01-05, 07-09, 14, 15, 17, 19, 97, and VEHICLE TRAILING does NOT equal 0 ,
(V350) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 06, 11, 16, and VEHICLE TRAILING does NOT equal 0 ,
(V360) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 12, and VEHICLE TRAILING does NOT equal 0 ,

NUMBER OF OCCUPANTS should not be greater than 12 .

NUMBER OF OCCUPANTS should not be greater than 15 .

NUMBER OF OCCUPANTS should not be greater than 2.

NUMBER OF OCCUPANTS should not be greater than 12 .

NUMBER OF OCCUPANTS should not be greater than 12 .

NUMBER OF OCCUPANTS should not be greater than 5 .

NUMBER OF OCCUPANTS should not be greater than 2.

NUMBER OF OCCUPANTS should not be greater than 8 .

NUMBER OF OCCUPANTS should not be greater than 5 .

NUMBER OF OCCUPANTS should not be greater than 8 .

NUMBER OF OCCUPANTS should not be greater than 12 .

NUMBER OF OCCUPANTS should not be greater than 15 .
(V370) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 80-83, 88, 89, and VEHICLE TRAILING does NOT equal 0 ,
(V380) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 42, 73 , and VEHICLE TRAILING does NOT equal 0 ,
(V390) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 60-65, 71, 72, 79, and VEHICLE TRAILING does NOT equal 0 ,
(V400) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 66, and VEHICLE TRAILING does NOT equal 0 ,
(V410) NUMBER OF OCCUPANTS is less than 01-96, and BODY TYPE equals 91, and VEHICLE TRAILING does NOT equal 0,
(V420) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 90, and VEHICLE TRAILING does NOT equal 0 ,
(V430) NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 98, 99, and VEHICLE TRAILING does NOT equal 0 ,
(V59P) VEHICLE CONFIGURATION equals 06,
(V60P) VEHICLE CONFIGURATION equals 07,
(V61P) VEHICLE CONFIGURATION equals 08,
(V68P) CARGO BODY TYPE equals 12,
(V810) BODY TYPE equals 67, and VEHICLE TRAILING equals 1-4,
(V915) BODY TYPE equals 67, and VEHICLE TRAILING equals 0 ,
(V983) VEHICLE TRAILING equals 3,

## THEN

NUMBER OF OCCUPANTS should not be greater than 02.

NUMBER OF OCCUPANTS should not be greater than 12.

NUMBER OF OCCUPANTS should not be greater than 12.

NUMBER OF OCCUPANTS should not be greater than 5 .

NUMBER OF OCCUPANTS should not be greater than 2.

NUMBER OF OCCUPANTS should not be greater than 8 .

NUMBER OF OCCUPANTS should not be greater than 5 .

BODY TYPE must equal 66, and
VEHICLE TRAILING must equal 1. BODY TYPE must equal 66, and VEHICLE TRAILING must equal 2. BODY TYPE must equal 66, and VEHICLE TRAILING must equal 3. VEHICLE TRAILING must equal 5 . VEHICLE CONFIGURATION should equal 04, and CARGO BODY TYPE should equal 01, 03, 04, 09.
VEHICLE CONFIGURATION should equal 01, and CARGO BODY TYPE should equal 97.
STATE should equal 04, 08, 16, 18, 20 , 30-32, 38-41, 46, 49.

IF
(V984) STATE does not equal 04, 08, 16, 18, 20, 30-32, 38-41, 46, 49,
(V985) VEHICLE TRAILING equals 5,
(V991) VEHICLE TRAILING equals 0,
(V992) VEHICLE TRAILING equals 1,
(V993) VEHICLE TRAILING equals 2,
(V994) VEHICLE TRAILING equals 3,
(V995) VEHICLE TRAILING equals 4,
(V997) VEHICLE TRAILING equals 6,
(V998) VEHICLE TRAILING equals 9,

Consistency Check (GES Only):
IF
(V986) VEHICLE TRAILING equals 3,

## Consistency Checks (FARS Only):

## IF

(V16P) RELATED FACTORS-DRIVER LEVEL equals 88,

## THEN

VEHICLE TRAILING should not equal 3.
VEHICLE CONFIGURATION should not equal 00, 10, 19-21.
VEHICLE CONFIGURATION must not equal 04, 06-08.
VEHICLE CONFIGURATION must not equal 01, 02, 05, 07 or 08.
VEHICLE CONFIGURATION must not equal 01, 02, 05, 06 or 08.
VEHICLE CONFIGURATION must not equal 01, 02, 05-07.
VEHICLE CONFIGURATION must not equal 01, 02, 05-08.
VEHICLE CONFIGURATION must not equal 04, 06-08.
VEHICLE CONFIGURATION must not equal 04-07 or 08.

## THEN

PSU should equal 29, 30, 31, 64, 73, 74, 75, 76, 77, 78, 94.

## THEN

VEHICLE TRAILING must not equal 0 , 9.

## THIS PAGE INTENTIONALLY LEFT BLANK

## JACKKNIFE

FORMAT: 1 numeric
SAS NAME: Vehicle.J_KNIFE

## ELEMENT VALUES:

0 Not an Articulated Vehicle
1 No
2 Yes - First Event
3 Yes - Subsequent Event
Definition: This element identifies if this vehicle experienced a "jackknife" anytime during the unstabilized situation.

## Remarks:

Jackknife can occur at any time during the crash sequence. This element is applicable for all power unit/trailing unit combinations (e.g., truck tractor or single-unit truck with one or more trailers, articulated bus, car pulling a boat on a trailer, light utility vehicle/trailing unit combination, etc.).

Jackknife applies to a condition that occurs to an articulated vehicle, any vehicle with a trailing unit connected by a hitch (fixed linkage) while in motion. A jackknife occurs when there is an uncontrolled articulation between the power unit and the trailing unit in which the trailing unit does not follow directly behind the power unit (tracking), and the driver did not initiate the nontracking situation. The condition reflects a loss of control of the vehicle by the driver in which the trailing units' normal straight-line path behind the power unit is not maintained.

If the final resting configuration of the vehicle in the PAR diagram is in a jackknife position, it does not necessarily mean that the vehicle has jackknifed. Turning and backing are examples of driver initiated non-tracking controlled articulation and are not coded as a jackknife.

In the case materials, the terms "tractor jackknife" or "trailer swing" may be used to describe particular incidences of uncontrolled articulation. Either incident shall be coded as Jackknife. Jackknife is not likely to be a harmful event but may be part of an unstabilized condition just before the first harmful event.

0 (Not an Articulated Vehicle) is used when this vehicle is not a vehicle-trailing unit combination. This attribute can also be used when coding a hit-and-run vehicle when there is not an indication in the case materials that the hit and run vehicle had a trailer.
$\mathbf{1}$ (No) is used when no uncontrolled articulation was reported between a vehicle and a trailing unit.

2 (Yes - First Event) is used when an uncontrolled articulation was reported as occurring before or as part of the first injury or damage producing event for this vehicle.

3 (Yes - Subsequent Event) is used when an uncontrolled articulation occurs after the first injury or damage producing event for this vehicle.
*Note: In 2011 GES adopted the FARS element format. Prior to 2011 the GES Jackknife data element contained two attributes. Those attributes were 0 (No Jackknife Noted on the PAR) and 1 (Jackknife Occurred).

## Consistency Checks:

## IF

(2B0P) JACKKNIFE equals 1-3,
(3BOP) JACKKNIFE equals 2,3 ,
(5BOP) JACKKNIFE equals 0 and BODY TYPE equals 66,
(5B0Q) JACKKNIFE equals 0,
(7B0F) JACKKNIFE equals 2, 3,
(AK00) CARGO BODY TYPE equals 22, 96,
(AL8P) SEQUENCE OF EVENTS equals 51, 70,
(CIOP) VEHICLE TRAILING equals 1-4,
(V538) JACKKNIFE equals 2,
(VH70) UNIT TYPE equals 2-4,

## THEN

VEHICLE TRAILING must not equal 0 , 9.

TRAVEL SPEED must not equal 000. VEHICLE TRAILING must not equal 1-4.

VEHICLE TRAILING must equal 0 or 9. DRIVER PRESENCE must equal 1.
JACKKNIFE should equal 0.
JACKKNIFE must equal 2, 3.
JACKKNIFE must not equal 0.
PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must not equal 04, 05, 07-09 or 13 for this vehicle.
elements V15, V24, V31 must all be left blank.

## MOTOR CARRIER IDENTIFICATION NUMBER

FORMAT: 1 set 2 numeric, 1 set 9 alphanumeric
SAS NAME: Vehicle.MCARR_ID, parkwork.PMCARR_ID, Vehicle.MCARR_I1; parkwork.PMCARR_I1, Vehicle.MCARR_I2; parkwork.PMCARR_I2

## ELEMENT VALUES:

|  | Issuing Authority: |
| :---: | :--- |
| 00 | Not Applicable |
| 01-56 | State Code |
| 57 | US DOT |
| 58 | MC/MX (ICC) |
| 95 | Canada |
| 96 | Mexico |
| 88 | None |
| 77 | Not Reported |
| 99 | Unknown |
|  |  |
|  | Identification Number: |
|  | Actual Number |
| 0s | Not Applicable |
| 8s | None |
| 7s | Not Reported |
| 9 s | Unknown |

Definition: This element records the issuing authority and motor carrier identification number if applicable to this vehicle.

## Remarks:

The Motor Carrier Identification Number is recorded on the Truck Supplement or PAR next to the appropriate Source (Issuing Authority.) This information should be available on your Police Accident Report (PAR) or Truck and Bus Supplement with other elements required by the Federal Motor Carrier Safety Administration (FMCSA). You should expect to find motor carrier identification numbers for the following qualifying vehicles:

1. Light trucks pulling a trailer with gross combination weight rating (GCWR) greater than 10,000 lbs.
2. Medium/Heavy Trucks: vehicles with GVWR greater than 10,000 lbs.
3. Buses with 9 or more seats (including the driver).
4. Light Trucks, Vans and Passenger Vehicles displaying a hazardous materials placard.

Federal regulations require that almost all commercial trucks/buses operating across state lines that meet the above criteria (i.e., interstate) have Identification Numbers except those hauling "exempt" commodities (such as unprocessed agricultural products). This will be a US DOT or MC/MX (ICC) Number. Some states issue "Intrastate" motor carriers a state number that can also be recorded here.

Identification Number should be left justified. If less than 9 characters, left-justify and do not zero-fill.

## Examples of Left-Justified Coding of Identification Number



Note: Many carriers will have a US DOT or MC/MX (ICC) Number plus a State Number.
HIERARCHY: When Identification Numbers are available from more than one Source (Issuing Authority), it is most important to code the US DOT number then the MC/MX (ICC) number if one is available. It is next most important to code the Mexican or Canadian issued number. Finally, State-issued numbers should be coded.

57 (US DOT NUMBERS): US DOT is used in "Issuing Authority" if a US DOT Number or a State Number and US DOT Number are recorded on the PAR or Supplement. Enter the US DOT Number in "Identification Number."

- US DOT Numbers are in the process of being assigned to Intrastate motor carriers in a number of states. These should include the issuing state's two-character abbreviation on the end; e.g., US DOT 123456XX (where "XX" is the State abbreviation). See example of proper coding in diagram above.

58 (MC/MX (ICC) NUMBERS): MC/MX (ICC) is used in "Issuing Authority" if an MC/MX (ICC) Number or a State Number and an MC/MX (ICC) Number are recorded on the PAR or Supplement. Enter the MC/MX (ICC) Number in "Identification Number."

STATE NUMBERS: If only a State Number is recorded on the PAR or Supplement, then code the appropriate FARS State Code in "Issuing Authority" and enter the State Number in "Identification Number."

State Numbers are issued by a public utility commission, a public service commission, or some other state agency, to vehicles that operate either in interstate commerce or only within that state. However, some states do not regulate the motor carrier industry. Trucks and buses that operate strictly within such states (i.e., intrastate) may not have numbers.

CANADIAN/MEXICAN NUMBERS: Use attributes " 95 " or " 96 " in "Issuing Authority" if a Canadian or Mexican authority (respectively) has issued the only Carrier Identification Number recorded on the PAR or Supplement.

00/0s (Not Applicable) would apply when you would never expect this style of vehicle to have a Motor Carrie ID number (cars, motor homes, etc.). This vehicle would not appear on a truck supplement (supplemental truck elements on the PAR would be coded N/A).

88/8s (None) should be used when:

- you could expect this type of vehicle to have an ID Number, but it is exempt because of its use or activity at the time of the crash;
- this type of vehicle often does have a number (but vehicle is operated strictly intrastate and activity not regulated); or
- the PAR/supplement states "No Number."

Note: In some states, school buses are exempt from requiring a Motor Carrier ID Number
99/9s (Unknown) is used if the investigating officer reported the motor carrier identification number as unknown or when the body type of the vehicle is unknown.

## Example:

- An unidentified hit-and-run vehicle.


## 77/7s (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 77/7s (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

Note: For this element, Not Reported is used when you could expect this type of vehicle to have a Motor Carrier ID Number, but:

- the PAR or truck supplement leaves the field blank; or
- you don't have a supplement or a field on the PAR (no further information given).


## FARS SPECIAL INSTRUCTION:

If your state uses separate Truck/Bus Supplements, you should seek help to get routine access to them, just as with your state's PAR. Your state's SAFETYNET representative may be able to provide a Motor Carrier Identification Number.

## GES SPECIAL INSTRUCTION:

Issuing Authority and 8s (None) under Identification Number are new to GES in 2011.

## Consistency Checks:

## IF

## THEN

(4N1P) VEHICLE CONFIGURATION does not equal 00 ,
(4N2P) MOTOR CARRIER IDENTIFICATION NUMBER equals 00-000000000,
(4N3P) MOTOR CARRIER IDENTIFICATION NUMBER (Identification Number) equals 000000000 ,
(4N4P) MOTOR CARRIER IDENTIFICATION NUMBER does not equal 00-000000000,
(4N5P) BODY TYPE does not equal 21, 28, 31, 40, 45, 48-52, 55, 58-64, 66, 67, 71, 72, 78, 92, 93, or HM2 does not equal 2 ,
(4N6P) MOTOR CARRIER IDENTIFICATION NUMBER equals 77-777777777,
(4N7P) MOTOR CARRIER IDENTIFICATION NUMBER (Identification Number) equals 888888888 or 777777777 or 999999999 ,

MOTOR CARRIER IDENTIFICATION NUMBER must not equal 00-000000000.
VEHICLE CONFIGURATION must equal 00.

MOTOR CARRIER IDENTIFICATION NUMBER (Issuing Authority) must equal 00.

BODY TYPE must equal 21, 28, 31, 40 , 45, 48-52, 55, 58-64, 66, 67, 71, 72, 78, 79, 92, 93, 99 , or HM2 must equal 2. MOTOR CARRIER IDENTIFICATION NUMBER must equal 00-000000000, 99-999999999.

BODY TYPE should equal $28,45,48-52$, $55,58-64,66,67,71,72,78,93$, or HM1 should equal 2.
MOTOR CARRIER IDENTIFICATION NUMBER (Issuing Authority) should be filled respectively as 88 or 77 or 99 .

IF

## THEN

(4NAP) MOTOR CARRIER IDENTIFICATION NUMBER (Issuing Authority) equals 01-58, 95, 96,

MOTOR CARRIER IDENTIFICATION not equal 888888888,777777777 ,

NUMBER (Identification Number) should 999999997, 999999999.
(4NBP) MOTOR CARRIER IDENTIFICATION NUMBER (Issuing Authority) equals 01-58, 95, 96
(4NCP) MOTOR CARRIER IDENTIFICATION NUMBER ( Issuing Authority) is 00 or 77 or 88 or 99 ,

MOTOR CARRIER IDENTIFICATION NUMBER (Identification Number) must not equal 000000000.
MOTOR CARRIER IDENTIFICATION NUMBER (Identification Number) must be filled respectively as 000000000 or 777777777 or 88888888 or 999999999.
(U680) UNLIKELY: MOTOR CARRIER IDENTIFICATION NUMBER (Identification Number) equals 999999997.
(V980) BODY TYPE equals 50-52, 55, 58-64 MOTOR CARRIER IDENTIFICATION $66,67,71,72,78,93$, or HM1 equals 2 ,
(V981) VEHICLE CONFIGURATION equals 00 ,
(V982) MOTOR CARRIER IDENTIFICATION NUMBER does not equal 00-000000000,

## THIS PAGE INTENTIONALLY LEFT BLANK

# GROSS VEHICLE WEIGHT RATINGI GROSS COMBINATION WEIGHT RATING 

FORMAT: 1 numeric
SAS NAME: Vehicle.GVWR, parkwork.PGVWR

## ELEMENT VALUES:

0 Not Applicable
$1 \quad 10,000$ lbs. or less
2 10,001 lbs. - 26,000 lbs.
3 26,001 lbs. or more
8 Not Reported
9 Unknown

Definition: This element identifies the gross vehicle weight rating of this vehicle when applicable.

## Remarks:

Record the applicable weight range for a single vehicle's Gross Vehicle Weight Rating (GVWR) or combination vehicle's Gross Combination Weight Rating (GCWR).

It may appear as a numeric value or as a range of values like those displayed above. This information should be available on your Police Accident Report (PAR) or Truck and Bus Supplement with other elements required by the Federal Motor Carrier Safety Administration (FMCSA).

Gross Vehicle Weight Rating (GVWR) is the value specified by the manufacturer as the recommended maximum loaded weight of a single motor vehicle.

Gross Combination Weight Rating (GCWR) is the value specified by the manufacturer(s) as the recommended maximum loaded weight of a combination (articulated) motor vehicle. This is for truck tractors and single-unit trucks pulling a trailer(s). GCWR is the sum of the gross vehicle weight ratings (GVWR) of all units, power unit and its trailer(s).

For Truck/Trailer Combinations: If your state records the GVWR of the power unit and trailer(s) in separate fields, be sure to add together the GVWRs of all the units when recording this element.

0 (Not Applicable) should be used for vehicles $10,000 \mathrm{lbs}$. or less, not displaying a hazardous materials placard, for buses less than 9 seats (including driver), and for all motor homes.

1 (10,000 lbs. or less) should be used for passenger cars and light trucks with 10,000 lbs. or less GVWR/GCWR when displaying a hazardous materials placard or for buses with 9 or more seats (including driver) with 10,000 lbs. GVWR or less.

## 8 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 8 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

9 (Unknown) should be used when GVWR/GCWR information is reported as "Unknown" on your PAR or Truck/Bus Supplement and PCVINA is unable to return a value.

## PROCEDURE FOR VERIFICATION OF GVWR/GCWR RANGE:

The MDE provides PCVINA codes for GVWR. Next to Vehicle Identification Number (VIN), click on check box, and then click on "Gross Vehicle Weight" under the "R. L. Polk" column. Use the table below to translate the code for GVWR.

NOTE: PCVINA only provides the GVWR of a single vehicle or the GVWR of the power unit in a combination unit motor vehicle.

- For Truck / Trailer Combinations:

1. If the PCVINA VIN return fits within the range provided on the PAR or Truck and Bus supplement, use that value.
2. If the PCVINA VIN return falls below the range provided on the PAR or Truck and Bus Supplement, use the value provided on the crash report to account for the addition of the trailer's GVWR.

- If GVWRIGCWR information is unavailable or not reported on your PAR or Truck/Bus Supplement, and you have a valid VIN utilize the information on the power unit provided by PCVINA to code this element

See Comparison of PCVINA and Codes for GVWR/GCWR below.
COMPARISON OF PCVINA AND CODES FOR GVWR/GCWR

| PCVINA (trucks only) | FARS/GES CODES |
| :--- | :--- |
|  | $0-$ Not Applicable |
| $1-6,000$ lbs. or less | $1-10,000$ lbs. and less |
| $2-6,001-10,000$ lbs. | $2-10,001-26,000 \mathrm{lbs}$. |
| $3-10,001-14,000 \mathrm{lbs}$ |  |
| $4-14,001-16,000 \mathrm{lbs}$. |  |
| $5-16,001-19,500 \mathrm{lbs}$ |  |
| $6-19,501-26,000 \mathrm{lbs}$ |  |
| $7-26,001-33,000 \mathrm{lbs}$ |  |
| $8-33,001$ lbs. or more | $9-$ Unknown |
| $9-$ Unknown |  |

## NOTE:

This element is new to GES in 2011.
In FARS, prior to 2007, only the power unit was considered in recording the element Gross Vehicle Weight Rating (GVWR). Starting in 2007, the element was modified to allow Gross Combination Weight Rating (GCWR) to be recorded for combination vehicles to match the nationally accepted reporting criteria for this element (FMCSA's SAFETYNET and MMUCC).

Use of GCWR instead of GVWR will only impact these vehicles:

1. Light trucks, $10,000 \mathrm{lbs}$. or less, pulling trailers (truck/trailers) (greater than $10,000 \mathrm{lbs}$. GCWR)
2. Single-unit trucks, less than 26,000 lbs., pulling trailers (truck/trailers) (greater than 26,000 lbs. GCWR)

## Consistency Checks:

## IF

## THEN

(U490) UNLIKELY: GVWR/GVCR equals 8 and VEHICLE MODEL YEAR is greater than 1980 and not equal to 9998 or 9999 and VEHICLE IDENTIFICATION NUMBER does not equal 0's, 8's or 9's.
(V502) GVWR/GCWR equals 0, and HM1 equals 1,
(V503) GVWR/GCWR equals 1,
(V504) GVWR/GCWR equals 1,
(V505) GVWR/GCWR equals 9,

VEHICLE CONFIGURATION and CARGO BODY TYPE must equal 00.
HM2 should equal 2, or VEHICLE CONFIGURATION should equal 20. BODY TYPE should equal 01-22, 28-39, 41-49.
BODY TYPE should not equal 61-63, 66, 67.

## IF

(V506) BODY TYPE equals 60,
(V507) BODY TYPE equals 01-21, 28-30, 32-39, 45-49,
(V50P) BODY TYPE equals 61, 62, 67, 71, and VEHICLE CONFIGURATION does not equal 04,
(V51P) BODY TYPE equals 63, 66, 72,
(V532) VEHICLE CONFIGURATION equals 01, 02, 04-08, 19, 21,
(V540) BODY TYPE equals 42, 65, 73, and HM1 equals 1,
(V62P) CARGO BODY TYPE equals 01-12, 97-98, and VEHICLE IDENTIFICATION NUMBER does not equal Not Reported or Unknown,
(V64P) BODY TYPE equals 50-59, 60-64, 66-72, 78,
(V65P) GVWR/GCWR equals 2, 3,
(VA70) GVWR/GCWR equals 1, and HM2 equals 2 ,

THEN
GVWR/GCWR should equal 2.
GVWR/GCWR should equal 0, 1 .
GVWR/GCWR must equal 2, 9. (See GVWR/GCWR Remarks on how to use PCVina to determine GVWR.)
GVWR/GCWR must equal 3. (See GVWR/GCWR Remarks on how to use PCVina to determine GVWR.)
GVWR/GCWR should not equal 0 or 1.
GVWR/GCWR should equal 0 .
GVWR/GCWR must equal 2, 3.

GVWR/GCWR must not equal 0, 1 .
VEHICLE CONFIGURATION must not equal 00, and CARGO BODY TYPE must not equal 00 .
VEHICLE CONFIGURATION must equal 10.

## VEHICLE CONFIGURATION

FORMAT: 2 numeric
SAS NAME: Vehicle.V_Config, Parkwork.PV_Config

## ELEMENT VALUES:

00 Not Applicable
10 Vehicle 10,000 pounds or less placarded for hazardous materials
01 Single-Unit Truck (2-axle and GVWR more than 10,000 lbs.)
02 Single-Unit Truck (3 or more axles)
04 Truck Pulling Trailer(s)
05 Truck Tractor (Bobtail)
06 Truck Tractor/Semi-Trailer
07 Truck Tractor/Double
08 Truck Tractor/Triple
19 Truck More Than 10,000 lbs., Cannot Classify
20 Bus/Large Van (seats for 9-15 occupants, including driver)
21 Bus (seats for more than 15 occupants, including driver)
99 Unknown
Definition: This element identifies the general configuration of this vehicle when applicable.

## Remarks:

This information should be available on your PAR or Truck and Bus Supplement with other elements required by the Federal Motor Carrier Safety Administration (FMCSA).

In some states, the data element "Vehicle Configuration" or its attributes may appear under another title, such as: Unit Type, Vehicle Type, Type of Unit, etc. In many states, Vehicle Configuration is recorded for all vehicles. However, in our data systems, only code Vehicle Configurations for the following qualifying vehicles:

1. Light trucks pulling a trailer with gross combination weight rating (GCWR) greater than 10,000 lbs.
2. Medium/Heavy Trucks: vehicles with GVWR greater than $10,000 \mathrm{lbs}$.
3. Buses with 9 or more seats (including the driver).
4. Light Trucks, Vans and Passenger Vehicles displaying a hazardous materials placard.

If Vehicle Configuration is coded "01-99," Cargo Body Type should be coded "01-99."
$\mathbf{0 0}$ (Not Applicable) is used for automobiles, motorcycles, passenger vans (with less than 9 seats, including driver) and single-unit light trucks or cargo vans (10,000 lbs. or less GVWR), not carrying hazardous cargo.

A light truck carrying hazardous cargo is coded 10 (Vehicle $\mathbf{1 0 , 0 0 0}$ Pounds or Less Placarded for Hazardous Materials). When vehicles in this category are not displaying a hazardous materials placard, use $\mathbf{0 0}$ (Not Applicable).

01 (Single-Unit Truck [2-axle and GVWR more than 10,000 lbs.]) is a power unit that includes a permanently mounted cargo body (also called a straight truck) that has only two axles and a GVWR of over $10,000 \mathrm{lbs}$. This also includes a single-unit truck towing other vehicles where the towed vehicle has at least two wheels on the ground. (See Cargo Body Type attribute 12 (Vehicle Towing Another Motor Vehicle)).

02 (Single-Unit Truck [3 or more axles]) is a power unit that includes a permanently mounted cargo body (also called a straight truck) that has three or more axles. When counting axles on a single-unit truck, include raised axles. This also includes a single-unit truck towing other vehicles where the towed vehicle has at least two wheels on the ground. (See Cargo Body Type attribute 12 (Vehicle Towing Another Motor Vehicle)).

04 (Truck Pulling Trailer [s]) is used for single-unit trucks pulling a trailer.
05 (Truck Tractor [Bobtail]) is a motor vehicle consisting of a single motorized transport device designed primarily for pulling semi-trailers (e.g., cab only). These vehicles are sometimes referred to as a "bobtail." This also includes truck tractors towing other truck tractors in a saddlemount towing position, or towing other vehicles where the towed vehicle has at least two wheels on the ground. (See Cargo Body Type attribute 12 (Vehicle Towing Another Motor Vehicle)).

06 (Truck Tractor/Semi-Trailer) is used for truck tractors with one trailer. This attribute should not be used for single-unit trucks pulling a trailer.

## FARS SPECIAL INSTRUCTION:

NOTE: This attribute was used for truck tractors with any number of trailers before 2001.

07 (Truck Tractor/Double) is used for tractor pulling two trailers.
08 (Truck Tractor/Triple) is used for tractor pulling three trailers.
19 (Truck More Than 10,000 Ibs, Cannot Classify) is used when you know the vehicle meets the definition of a medium/heavy truck, but you can not select from the above attributes. An example is a vehicle with one trailer, but it is unknown whether it is a tractor-trailer or a singleunit truck pulling a trailer.

20 (Bus/Large Van [seats for 9-15 people, including driver]) is used for smaller van-based buses (less than 16 seats, including driver). Examples include commuter vans and van-based school buses.

21 (Bus [seats for more than 15 occupants, including driver]). A van-based bus qualifies for this attribute if it is configured to include enough seats. A CDL is required for the driver of this bus.

99 (Unknown) is used if the investigating officer indicates that the vehicle configuration is unknown or when the body type of the vehicle is unknown. For example, an unidentified hit-and-run vehicle would be coded as 99 (Unknown).

## Consistency Checks:

|  | IF | THEN |
| :--- | :--- | :--- |
| (4N1P) | VEHICLE CONFIGURATION does not |  |
|  | equal 00, | MOTOR CARRIER IDENTIFICATION <br> NUMBER must not equal |
|  |  | 00-000000000. |
| (4N2P) | MOTOR CARRIER IDENTIFICATION | VEHICLE CONFIGURATION must equal |
|  | NUMBER equals 00-000000000, | 00. |

## THEN

(V470) VEHICLE CONFIGURATION equals 01,
(V47P) VEHICLE CONFIGURATION equals 21,
(V502) GVWR/GCWR equals 0 , and HM1 equals 1,
(V503) GVWR/GCWR equals 1,
(V50P) BODY TYPE equals 61, 62, 67, 71, and VEHICLE CONFIGURATION does not equal 04,
(V531) BUS USE equals 01, 04-07, 98,
(V532) VEHICLE CONFIGURATION equals 01, 02, 04-08, 19, 21,
(V56P) VEHICLE CONFIGURATION equals 10,
(V57P) VEHICLE CONFIGURATION equals 05,
(V58P) VEHICLE CONFIGURATION equals 04,
(V59P) VEHICLE CONFIGURATION equals 06,
(V60P) VEHICLE CONFIGURATION equals 07,
(V61P) VEHICLE CONFIGURATION equals 08,
(V640) VEHICLE CONFIGURATION does not equal 00, 99,
(V65P) GVWR/GCWR equals 2, 3,
(V790) BODY TYPE equals 20,
(V800) BODY TYPE equals 21, 22, 28, 29,
(V810) BODY TYPE equals 67, and VEHICLE TRAILING equals 1-4,

CARGO BODY TYPE should be 01-05, 07, 12, 96-98.
CARGO BODY TYPE must equal 22.
VEHICLE CONFIGURATION and CARGO BODY TYPE must equal 00. HM2 should equal 2, or VEHICLE CONFIGURATION should equal 20. GVWR/GCWR must equal 2, 9. (See GVWR/GCWR Remarks on how to use PCVina to determine GVWR.) VEHICLE CONFIGURATION should equal 20, 21, and CARGO BODY TYPE should equal 22.
GVWR/GCWR should not equal 0 or 1.
BODY TYPE must equal 01-22, 28-49.
CARGO BODY TYPE must equal 12, 96, and BODY TYPE must equal 66. BODY TYPE must not equal 66.

BODY TYPE must equal 66, and VEHICLE TRAILING must equal 1. BODY TYPE must equal 66, and VEHICLE TRAILING must equal 2. BODY TYPE must equal 66, and VEHICLE TRAILING must equal 3.
BODY TYPE should not equal 28, 30, 42, 45, 48, 49.
VEHICLE CONFIGURATION must not equal 00 and CARGO BODY TYPE must not equal 00.
VEHICLE CONFIGURATION should equal 00, and CARGO BODY TYPE should equal 00. VEHICLE CONFIGURATION should equal 00, 04, 10, 20, 21, 99, and CARGO BODY TYPE should equal 00, 01, 22, 99.
VEHICLE CONFIGURATION should equal 04, and CARGO BODY TYPE should equal 01, 03, 04, 09.

## THEN

(V840) BODY TYPE equals 50-59,
(V850) BODY TYPE equals 60,
(V860) HIT-AND-RUN equals 0, and BODY TYPE equals 61-64,
(V870) BODY TYPE equals 65,
(V880) HIT-AND-RUN equals 0 , and BODY TYPE equals 66,
(V890) BODY TYPE equals 71, 72,
(V900) BODY TYPE equals 73,
(V910) BODY TYPE equals 78,
(V915) BODY TYPE equals 67, and
VEHICLE TRAILING equals 0 ,
(V920) BODY TYPE equals 79,
(V930) VEHICLE CONFIGURATION equals 00, or CARGO BODY TYPE equals 00 ,
(V940) HM1 equals 2,
(V981) VEHICLE CONFIGURATION equals 00 ,
(V982) MOTOR CARRIER IDENTIFICATION NUMBER does not equal 00000000000 ,
(V985) VEHICLE TRAILING equals 5,

VEHICLE CONFIGURATION should equal 21, and CARGO BODY TYPE should equal 22.
VEHICLE CONFIGURATION should equal 01, 03, 04, and CARGO BODY TYPE should equal 01.
VEHICLE CONFIGURATION should equal 01, 02, 04, and CARGO BODY TYPE should equal 01-10, 12, 96-98. VEHICLE CONFIGURATION should equal 00, and CARGO BODY TYPE should equal 00.
VEHICLE CONFIGURATION should equal 05-08, 19, and CARGO BODY TYPE should equal 01-04, 06-12, 96-98. VEHICLE CONFIGURATION should equal 19, and CARGO BODY TYPE should equal 01-04, 08, 10, 96-98.
VEHICLE CONFIGURATION should equal 00, and CARGO BODY TYPE should equal 00.
VEHICLE CONFIGURATION should equal 19, and CARGO BODY TYPE should equal 98.
VEHICLE CONFIGURATION should equal 01, and CARGO BODY TYPE should equal 97.
VEHICLE CONFIGURATION should equal 99, and CARGO BODY TYPE should equal 99.
BODY TYPE should not equal 50-64, 66-72, 78, 79.

VEHICLE CONFIGURATION should not equal 00, 99 and CARGO BODY TYPE should not equal 00, 99.
MOTOR CARRIER IDENTIFICATION NUMBER should equal 00-000000000.
VEHICLE CONFIGURATION should not equal 00 .

VEHICLE CONFIGURATION should not equal 00, 10, 19-21.

IF
(V991) VEHICLE TRAILING equals 0,
(V992) VEHICLE TRAILING equals 1,
(V993) VEHICLE TRAILING equals 2,
(V994) VEHICLE TRAILING equals 3,
(V995) VEHICLE TRAILING equals 4,
(V997) VEHICLE TRAILING equals 6,
(V998) VEHICLE TRAILING equals 9,
(VA70) GVWR/GCWR equals 1, and HM2 equals 2,
(VH75) UNIT TYPE equals 4,

THEN
VEHICLE CONFIGURATION must not equal 04, 06-08.
VEHICLE CONFIGURATION must not equal 01, 02, 05, 07 or 08.
VEHICLE CONFIGURATION must not equal 01, 02, 05, 06 or 08.
VEHICLE CONFIGURATION must not equal 01, 02, 05-07.
VEHICLE CONFIGURATION must not equal 01, 02, 05-08.
VEHICLE CONFIGURATION must not equal 04, 06-08.
VEHICLE CONFIGURATION must not equal 04-07 or 08.
VEHICLE CONFIGURATION must equal 10.

VEHICLE CONFIGURATION should not equal 05, 20, 21, 10.

## CARGO BODY TYPE

FORMAT: 2 numeric
SAS NAME: Vehicle.CARGO_BT

## ELEMENT VALUES:

00 Not Applicable (N/A)
01 Van/Enclosed Box
02 Cargo Tank
03 Flatbed
04 Dump
05 Concrete Mixer
06 Auto Transporter
07 Garbage/Refuse
08 Grain/Chips/Gravel
09 Pole-Trailer
10 Log
11 Intermodal Container Chassis
12 Vehicle Towing Another Motor Vehicle
22 Bus
96 No Cargo Body Type
97 Other
98 Unknown Cargo Body Type
99 Unknown
Definition: This element identifies the primary cargo carrying capability of this vehicle when applicable.

## Remarks:

This information should be available on the PAR or Truck and Bus Supplement with other elements required by the Federal Motor Carrier Safety Administration (FMCSA).

You should expect to find cargo body types for the following qualifying vehicles:

1. Light trucks pulling a trailer with gross combination weight rating (GCWR) greater than 10,000 lbs.
2. Medium/Heavy Trucks: vehicles with GVWR greater than $10,000 \mathrm{lbs}$.
3. Buses with 9 or more seats (including the driver).
4. Light Trucks, Vans and Passenger Vehicles displaying a hazardous materials placard.

00 (Not Applicable [N/A]) is used for automobiles, motorcycles, passenger vans (with less than 9 seats, including driver) and single-unit small trucks or vans (10,000 lbs. or less GVWR), not displaying hazardous material placard.

01 (Van/Enclosed Box) is used for all enclosed trailers and enclosed cargo vans.
03 (Flatbed) is used when the available information refers to a cargo body without sides or roof, with or without readily removable stakes which may be tied together with chains/slats or panels. This includes "stake trucks."

04 (Dump) is used when the available information refers to a cargo body designed to be tilted to discharge its load by gravity.

06 (Auto Transporter) is used when the available information refers to a cargo body capable of transporting multiple, fully assembled automobiles on an "auto transporter" trailer. Do not use this code for flatbeds transporting vehicles (e.g., flatbed tow truck, or flatbed semi-trailer carrying wrecked/salvaged automobiles).

07 (Garbage/Refuse) is used when the available information refers to a cargo body that is specifically designed to collect and transport garbage and refuse. This includes both conventional rear-loading and over-the-top bucket loading garbage trucks. Also included are recycle trucks and roll-off style garbage trucks.

08 (Grain/Chips/Gravel) is used when the available information refers to trucks that discharge their loads by gravity from the bottom (i.e., belly dump).

09 (Pole-Trailer) is used when the available information refers to a cargo body type that consists of a trailer designed to be attached to a towing vehicle by a reach or pole or by being boomed and secured to the towing vehicle. These are ordinarily used to carry property of a long or irregular shape, such as telephone poles. The pole trailer extends or retracts to accommodate varying lengths of cargo.

10 (Log) is used when the available information refers to a cargo body type with a fixed middle beam and side support posts specifically designed for carrying logs. This includes single-unit log trucks.

09 (Pole-Trailer) and 10 (Log) may be listed on a PAR as "Pole/Log". If the trailer can telescope to carry different log lengths, then it should be considered a 09 (Pole-Trailer).

11 (Intermodal Container Chassis) is used when the available information refers to a cargo body type used for a trailer specifically designed to have a rail or ship container mounted directly on the chassis. These should not be confused with van/enclosed box cargo body types. Intermodal containers may also be mounted on a flatbed trailer, in which case 03 (Flatbed) is the cargo body type.

12 (Vehicle Towing Another Motor Vehicle) is used when the available information refers to vehicles that have no cargo carrying capability but are in the act of towing another motor vehicle where the towed vehicle has at least two wheels on the ground. These are often called "drive-away, tow-aways" and will be applicable to tow trucks and specially rigged truck tractors. This includes "saddlemount" configurations. Does not apply to vehicles "towed" by being loaded on a flatbed or auto transporter.

22 (Bus) is a motor vehicle with seating for transporting nine or more persons, including the driver.

96 (No Cargo Body Type) is used for any medium heavy truck with no cargo carrying capability (bobtail); a truck chassis with a cab only (stripped chassis); and light trucks and passenger vehicles displaying a hazardous materials placard. Other examples of 96 (No Cargo Body Type) would be Sign Trucks, Fire Trucks, Tow Trucks, etc.

97 (Other) is used when the cargo body type is other than the body types listed above. This includes 2-axle, 6 tire pickups greater than $10,000 \mathrm{lb}$ without a trailer. This does not include a pickup pulling a trailer (truck/trailer). Use the Cargo Body Type of the attached trailer in these situations. This attribute previously included "log trucks" which are now recorded under 10 (Log).

98 (Unknown Cargo Body Type) is used when the vehicle qualifies for this data element but the cargo body type is not known or when there is not enough information to distinguish one cargo body type from another. An example would be contradictory data on whether the truck is a van/enclosed box or a flatbed.

99 (Unknown) is used when the investigating officer indicates it was unknown as to cargo body type or when the body type of the vehicle is unknown. For example, an unidentified hit-and-run vehicle.

NOTE: For truck/trailer vehicle configurations where the power unit and trailer have different cargo body types, code the cargo body type of the power unit. For example, a dump truck pulling a flatbed trailer should be coded as 04 (Dump).

For truck/trailer vehicle configurations where the power unit's Cargo Body Type would be coded 96 (No Cargo Body Type) or 97 (Other), code the cargo body of the trailer. For example: a dual-rear-wheel pickup truck pulling a flatbed trailer should be coded as 03 (Flatbed).

## FARS SPECIAL INSTRUCTION:

Prior to 2007, 12 (Vehicle Towing Another Motor Vehicle) was recorded as code "96 - No Cargo Body".

## Consistency Checks:

IF
(AB1P) VEHICLE CONFIGURATION equals 01,
(AEOP) VEHICLE CONFIGURATION equals 05, and CARGO BODY TYPE does not equal 12 ,
(AF1P) VEHICLE CONFIGURATION equals 20,
(AK00) CARGO BODY TYPE equals 22, 96,
(ALOP) CARGO BODY TYPE equals 22,
(AMOP) CARGO BODY TYPE does not equal 00, 99,
(V470) VEHICLE CONFIGURATION equals 01,
(V47P) VEHICLE CONFIGURATION equals 21,
(V502) GVWR/GCWR equals 0 , and HM1 equals 1 ,
(V531) BUS USE equals 01, 04-07, 98,
(V57P) VEHICLE CONFIGURATION equals 05 ,
(V62P) CARGO BODY TYPE equals 01-12, 97-98, and VEHICLE IDENTIFICATION NUMBER does not equal Not Reported or Unknown,
(V65P) GVWR/GCWR equals 2, 3,
(V660) CARGO BODY TYPE does not equal 00, 99,
(V68P) CARGO BODY TYPE equals 12,
(V790) BODY TYPE equals 20,
(V800) BODY TYPE equals 21, 22, 28, 29,

## THEN

CARGO BODY TYPE must NOT equal 22.

VEHICLE TRAILING must equal 0 .

CARGO BODY TYPE must equal 22.
JACKKNIFE should equal 0.
BODY TYPE must equal 21, 50-52, 55 , 58, 59.
BODY TYPE should equal 15, 16, 21, 28, 31, 40, 41, 45, 48-52, 55, 58-64, $66,67,71,72,78,92,93$, or HM2 must equal 2.
CARGO BODY TYPE should be 01-05, 07, 12, 96-98.
CARGO BODY TYPE must equal 22.
VEHICLE CONFIGURATION and CARGO BODY TYPE must equal 00. VEHICLE CONFIGURATION should equal 20, 21, and CARGO BODY TYPE should equal 22.
CARGO BODY TYPE must equal 12, 96, and BODY TYPE must equal 66.
GVWR/GCWR must equal 2, 3 .

VEHICLE CONFIGURATION must not equal 00, and CARGO BODY TYPE must not equal 00 .
BODY TYPE should not equal 28,30 , 42, 45, 48, 49.
VEHICLE TRAILING must equal 5 .
VEHICLE CONFIGURATION should equal 00, and CARGO BODY TYPE should equal 00.
VEHICLE CONFIGURATION should equal $00,04,10,20,21,99$, and CARGO BODY TYPE should equal 00, 01, 22, 99.
(V810) BODY TYPE equals 67, and VEHICLE TRAILING equals 1-4,
(V840) BODY TYPE equals 50-59,
(V850) BODY TYPE equals 60,
(V860) HIT-AND-RUN equals 0, and BODY TYPE equals 61-64,
(V870) BODY TYPE equals 65,
(V880) HIT-AND-RUN equals 0, and BODY TYPE equals 66,
(V890) BODY TYPE equals 71, 72,
(V900) BODY TYPE equals 73,
(V910) BODY TYPE equals 78,
(V915) BODY TYPE equals 67, and VEHICLE TRAILING equals 0 ,
(V920) BODY TYPE equals 79,
(V930) VEHICLE CONFIGURATION equals 00, or CARGO BODY TYPE equals 00,
(V940) HM1 equals 2,
(VH80) UNIT TYPE equals 4,

## THEN

VEHICLE CONFIGURATION should equal 04, and CARGO BODY TYPE should equal 01, 03, 04, 09.
VEHICLE CONFIGURATION should equal 21, and CARGO BODY TYPE should equal 22.
VEHICLE CONFIGURATION should equal 01, 03, 04, and CARGO BODY TYPE should equal 01.
VEHICLE CONFIGURATION should equal 01, 02, 04, and CARGO BODY TYPE should equal 01-10, 12, 96-98. VEHICLE CONFIGURATION should equal 00, and CARGO BODY TYPE should equal 00.
VEHICLE CONFIGURATION should equal 05-08, 19, and CARGO BODY TYPE should equal 01-04, 06-12, 96-98. VEHICLE CONFIGURATION should equal 19, and CARGO BODY TYPE should equal 01-04, 08, 10, 96-98.
VEHICLE CONFIGURATION should equal 00, and CARGO BODY TYPE should equal 00.
VEHICLE CONFIGURATION should equal 19, and CARGO BODY TYPE should equal 98.
VEHICLE CONFIGURATION should equal 01, and CARGO BODY TYPE should equal 97.
VEHICLE CONFIGURATION should equal 99, and CARGO BODY TYPE should equal 99.
BODY TYPE should not equal 50-64, 66-72, 78, 79.

VEHICLE CONFIGURATION should not equal 00, 99 and CARGO BODY TYPE should not equal 00, 99.
CARGO BODY TYPE should not equal 06, 07, 11, 12, 22.

## THIS PAGE INTENTIONALLY LEFT BLANK

## HAZARDOUS MATERIALS INVOLVEMENT/PLACARD

FORMAT: 1 set, 1 numeric; 1 set, 1 numeric; 1 set, 4 numeric; 1 set, 2 numeric; 1 set, 1 numeric

SAS NAME: Vehicle.HAZ_INV, Vehicle.HAZ_PLAC, Vehicle.HAZ_ID, Vehicle.HAZ_CNO, Vehicle.HAZ_REL, Parkwork.PHAZ_INV, Parkwork.PHAZPLAC, Parkwork.PHAZ_ID, Parkwork.PHAZ_CNO, Parkwork.PHAZ_REL

## ELEMENT VALUES:

HM1: Hazardous Materials Involvement
1 No
2 Yes
HM2: Placard (Did This Motor Vehicle Display a Hazardous Material (HM) Placard?)
0 Not Applicable
1 No
2 Yes
8 Not Reported
HM3: 4-digit Hazardous Material Identification Number
0000 Not Applicable
Actual 4-digit number except
8888 Not Reported
HM4: 2-digit Hazardous Material Class Number
00 Not Applicable
01-09 Actual 1-digit number (with leading zero)
88 Not Reported
HM5: Release of Hazardous Material from the Cargo Compartment
0 Not Applicable
1 No
2 Yes
8 Not Reported
Definition: This element identifies the presence of hazardous cargo for this vehicle and records information about the hazardous cargo when present.

## Remarks:

This element must be coded for all vehicles.

Placard and Hazardous Materials Released information should be available on your PAR or Truck and Bus Supplement with other elements required by the Federal Motor Carrier Safety Administration (FMCSA) for commercial vehicles.

Hazardous Material is a substance or material which has been designated by the U.S. Department of Transportation, or other authorizing entity, as capable of posing an unreasonable risk to health, safety and property when transported in commerce. Any motor vehicle transporting hazardous materials in quantities above the thresholds established by the U.S. Department of Transportation, or other authorized entity is required to display a hazardous materials placard.

## Exclusions:

- Fuel or oil carried by the vehicle for its own use.

Hazardous Materials Placard: is a sign required to be affixed to any motor vehicle transporting hazardous materials in quantities above the thresholds established by the U.S. Department of Transportation, or other authorized entity. This placard identifies the 1-digit hazard class division number, 4-digit hazardous material identification number or name of the hazardous material being transported.

Vehicle transporting hazardous materials should have a diamond-shaped placard affixed indicating the material carried. (See list of examples below.)

## HM1- Hazardous Materials Involvement

Definition: This element indicates whether the vehicle was carrying hazardous materials involvement.
$\mathbf{1}$ (No) is used when there is no indication of hazardous materials for this vehicle in the case materials. For cases involving a hit and run, the default is " 1 -No" when no details are reported regarding the hit and run vehicle.

If HM1 is $\mathbf{1}$ (No), HM2-HM5 will be coded Not Applicable.
2 (Yes) is used when hazardous materials were indicated for this vehicle in the case materials.

## Examples for code 2 (Yes):

1. The officer records any information about a placard, whether or not he indicates that the vehicle was carrying hazardous materials.
2. The officer does not record any information about a placard, however, you know that hazardous material was involved.
3. Information identifying hazardous material is blank, but you know that hazardous material was released.

## HM2 - Hazardous Materials Placard

Definition: This element indicates the presence of hazardous materials and whether the vehicle displayed a hazardous materials placard.
$\mathbf{0}$ (Not Applicable) is used when there is no indication of hazardous materials for this vehicle in the case materials (HM1 equals 2 (No)).
$\mathbf{1}$ (No) is used when hazardous materials are involved, but the officer indicates there was no placard.
$\mathbf{2}$ (Yes) is used when hazardous materials are involved, and the vehicle does have a placard.
8 (Not Reported) is used when hazardous materials are involved, but the crash report does not record any information about the presence of a placard.

## HM3 - 4-Digit Hazardous Materials Identification Number

Definition: This element indicates the 4-digit identification number.
0000 (Not Applicable) - No indication of hazardous materials for this vehicle in the case materials (HM1 equals 1 (No)).

Actual 4-digit Number - Record the 4-digit Hazardous Materials Identification Number reported in the case materials.

8888 (Not Reported) - Hazardous materials involved, but the 4-digit number was not recorded or this field is not available on your crash report. If you are provided the name of the hazardous material on your report but not the 4-digit number, use this attribute and be sure to record the 1-digit class number if it is provided.

## HM4 - 2-Digit Hazardous Materials Class Number

Definition: This element indicates the single-digit hazardous material class number for the vehicle.

00 (Not Applicable) - No indication of hazardous materials for this vehicle in the case materials (HM1 equals 1 (No)).

Actual 2-digit Class Number (01-09) - Record the 1-digit Hazardous Materials Class Number recorded on your crash report with a leading zero (e.g., if the 1-digit class number is 5, enter "05"). If you were given a two-digit number with decimal point, record only the first digit with a leading zero (e.g., if the class number is "1.3" you should record "01"). See chart on nine classes of Hazardous Materials on following page.

88 (Not Reported) - Hazardous Materials involved, but the 1-digit number was not recorded or this field is not available in the crash materials.

## HM5 - Release of Hazardous Materials from Cargo Compartment

Definition: This element indicates whether or not any hazardous cargo was released from the cargo tank or compartment.
$\mathbf{0}$ (Not Applicable) - No indication of hazardous materials for this vehicle in the case materials (HM1 equals 1 (No)).

1 (No) - Hazardous Materials involved, and the officer indicates there was no release of the material(s) from the cargo compartment.

2 (Yes) - Hazardous Materials involved, and the officer indicates there was a release of the material(s) from the cargo compartment.

8 (Not Reported) - Hazardous Materials involved, and you can't determine from the crash materials whether or not hazardous material was released from the cargo compartment.

Do not include fuel or oil carried by the vehicle for its own use which has been released.

## Guideline for recording multiple hazardous materials:

- If the case has a hazmat spill and you know which material was released always record that material.
- If you were to get two hazardous materials reported of different classes (1-9), report the material from DOT Hazmat Table 1 and its associated 4-digit UN number over materials in Table 2. Table 1 includes Hazard Class or Divisions: 1.1, 1.2. 1.3, 2.3, 4.3, 5.2, 6.1, 7.
- If you have two materials of the same class (e.g. both class 8 - Corrosive) report the material in greatest quantity if you have the information, if not report the material that is listed first on the report.


## Examples of Hazardous Materials are:

Any transport vehicle containing any quantity of the following classes of material must be placarded:

Explosives (1.1, 1.2, 1.3)
Poison Gas
Materials Dangerous When Wet

Poison
Radioactive

Any transport vehicle containing over 1,001 lbs. or more (gross weight) of the following classes of materials must be placarded:

Explosives (1.4, 1.5, 1.6)
Flammable and Non Flammable Gas
Flammable/Combustible Liquid
(gasoline, fuel oil)
Flammable Solid/Spontaneously
Combustible

Oxidizer/Organic Peroxide
Poison
Radioactive
Corrosive
Other (A material which presents a hazard during transportation which is not included in any other hazard class)

## FARS SPECIAL INSTRUCTION:

Beginning 2007, this element replaced the element "Hazardous Cargo".
9 CLASSES OF HAZARDOUS MATERIALS


## Consistency Checks:

IF

## THEN

BODY TYPE must equal $21,28,31,40$, 45, 48-52, 55, 58-64, 66, 67, 71, 72, 78, 79, 92, 93, 99, or HM2 must equal 2. MOTOR CARRIER IDENTIFICATION NUMBER must equal 00-000000000, 99-999999999.

BODY TYPE should equal 28, 45, 48-52, 55, 58-64, 66, 67, 71, 72, 78, 93, or HM1 should equal 2.

## THEN

(4S1P) BODY TYPE equals $80-83,88,89$ and HM1 does not equal 1,
(9KOP) HM2 equals 2,
(AHOP) VEHICLE CONFIGURATION does not equal 00, 99,
(AMOP) CARGO BODY TYPE does not equal 00, 99,
(D270) BODY TYPE equals 50-52, 55, 63, 66,72 , or HM1 equals 2 ,
(D280) VEHICLE CONFIGURATION equals 05-08, 21, or HM1 equals 2 ,
(D300) HM2 equals 2,
(D310) HM2 equals 2,
(D440) COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 00,
(D450) COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 00,
(D580) VIOLATIONS CHARGED equals 85, (V070) HM1 equals 2,
(V090) HM1 equals 2,
(V502) GVWR/GCWR equals 0, and HM1 equals 1,
(V503) GVWR/GCWR equals 1,
(V540) BODY TYPE equals 42, 65, 73, and HM1 equals 1,
(V570) HM1 equals 2,
(V580) HM1 equals 2,

COMPLIANCE WITH CDL
ENDORSEMENTS MUST equal 0.
REGISTRATION STATE must not equal 00.

BODY TYPE should equal $15,16,21$, 28, 31, 40, 41, 45, 48-52, 55, 58-64, $66,67,71,72,78,92,93$, or HM2 must equal 2.
BODY TYPE should equal $15,16,21$, 28, 31, 40, 41, 45, 48-52, 55, 58-64, $66,67,71,72,78,92,93$, or HM2 must equal 2.
COMMERCIAL MOTOR VEHICLE LICENSE STATUS should not equal 00.
COMMERCIAL MOTOR VEHICLE LICENSE STATUS should not equal 00. COMMERCIAL MOTOR VEHICLE LICENSE STATUS should not equal 00 or 99.
COMPLIANCE WITH CDL
ENDORSEMENTS should equal 1-3. BODY TYPE should not equal 50-52, $55,63,66,72$, and HM2 should not equal 2.
VEHICLE CONFIGURATION should not equal 05-08, 21, and HM2 should not equal 2.
HM1 should equal 2.
REGISTRATION STATE should not equal 92.
COMMERCIAL MOTOR VEHICLE LICENSE STATUS should equal 06, 99. VEHICLE CONFIGURATION and CARGO BODY TYPE must equal 00. HM2 should equal 2, or VEHICLE CONFIGURATION should equal 20. GVWR/GCWR should equal 0.

REGISTERED VEHICLE OWNER should not equal 0, 1, 2, 4. REGISTERED VEHICLE OWNER should equal 3.

## THEN

(V940) HM1 equals 2,
(V980) BODY TYPE equals 50-52, 55, 58-64, 66, 67, 71, 72, 78, 93, or HM1 equals 2,
(VA00) HM1 equals 1,
(VA10) HM1 equals 2,
(VA20) any of HM2, HM5 equals 0, or HM4 equals 00 or HM3 equals 0000,
(VA30) any of HM2, HM5 does not equal 0, or HM4 does not equal 00, or HM3 does not equal 0000,
(VA40) HM5 equals 2,
(VA50) HM3 equals 8888, and HM4 equals 88,
(VA60) HM3 does not equal 0000, 8888, or HM4 does not equal 00, 88,
(VA70) GVWR/GCWR equals 1, and HM2 equals 2,

## Consistency Checks (FARS Only):

VEHICLE CONFIGURATION should not equal 00, 99 and CARGO BODY TYPE should not equal 00, 99.
MOTOR CARRIER IDENTIFICATION NUMBER must not equal 00-000000000.
HM2, HM5 must equal 0, HM4 must equal 00 and HM3 must equal 0000.
HM2, HM5 must not equal 0, HM4 must not equal 00 and HM3 must not equal 0000.

HM1 must equal 1.
HM1 must equal 2.

HM3 should not equal 8888, or HM4 should not equal 88.
HM5 should not equal 2.
HM2 should equal 2.
VEHICLE CONFIGURATION must equal 10.
(V100) HM1 equals 2, and RELATED FACTORS-DRIVER LEVEL does not equal 19,

|  | IF |
| :--- | :--- |
| (V100) | HM1 equals 2, and RELATED <br> FACTORS-DRIVER LEVEL does not <br> equal 19, |

COMMERCIAL MOTOR VEHICLE LICENSE STATUS should not equal 01, 02, 05.

## THIS PAGE INTENTIONALLY LEFT BLANK

## BUS USE

FORMAT: 2 numeric
SAS NAME: Vehicle.Bus_Use, Parkwork.PBus_Use

## ELEMENT VALUES:

00 Not a Bus
01 School
04 Intercity
05 Charter/Tour
06 Transit/ Commuter
07 Shuttle
08 Modified for Personal/Private Use
98 Not Reported
99 Unknown
Definition: This data element describes the common type of bus service this vehicle was being used for at the time of the crash or the primary use for the bus if not in service at the time of the crash.

## Remarks:

Buses are any motor vehicle with seats to transport nine (9) or more people, including the driver's seat. This element does not include vans that are owned and operated for personal use.
$\mathbf{0 0}$ (Not a Bus) This should be used for vehicles with less than nine (9) seats (including the driver) and personal-use vans with nine (9) or more seats (including the driver) and also for vehicles that do not have a bus body type AND are not being used as a bus in the crash.

01 (School) is used for vehicles that meet the definition of a bus and are being used by a public or private school or district or contracted carrier operation on behalf of the entity, providing transport for school children (up to the 12th grade) to/from school (public or private) or any other school function or activity.

In most cases, the decision to use this code will be based on a reference to the vehicle as a school bus in the case materials. In this situation, assume the criteria are met unless it is otherwise stated in the case materials.

In addition, School includes buses that are not externally identifiable as a school/pupil transport vehicle. (For example, a transit bus, at the time of the crash, used exclusively [no other passengers except students] to transport students to/from the school or school-related activity.)

In most cases, the decision to use this code will be based on a reference to the vehicle as a school bus in the case materials. In this situation, assume the criteria are met unless it is otherwise stated in the case materials.

04 (Intercity) is used when a company provides for-hire, long-distance passenger transportation between cities over fixed routes with regular schedules (for example; Greyhound bus service between major cities).

05 (Charter/Tour) is used when a company provides transportation on a for-hire basis and demand-response basis, usually round-trip service for a tour group or outing.

06 (Transit/Commuter) is used for a government entity or private company which provides passenger transportation over fixed, scheduled routes, within primarily urban geographical areas. (For example; inner-city mass transit bus/van service.)

07 (Shuttle) is used when private companies provide transportation services for their own employees, non-governmental organizations (such as churches and non-profit groups), and non-educational units of government (such as departments of corrections). (Examples include buses/nine-passenger vans transporting people from airports, hotels, rental car companies, and business facility to facility.)

08 (Modified for Personal/Private Use) is used when a bus body type has been modified for personal or private use. For example, a bus with seats removed and exterior altered to allow for personal/ private hauling of cargo (instead of passengers). Also includes musical groups in cross-country bus with interior remodeled with home-like conveniences.

## 98 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 98 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

99 (Unknown) is used if the information about this vehicle is reported as Unknown (e.g., an unidentified hit-and-run vehicle).

Note: if the investigating officer indicates a bus was involved but not how it was being used, use 98 (Not Reported).

## Consistency Checks:

## IF

(AH1P) BUS USE equals 08,
(AH2P) BUS USE equals 06,
(V051) BUS USE equals 01,
(V052) BUS USE equals 04,
(V053) BUS USE equals 05,
(V054) BUS USE equals 07,
(V055) BUS USE equals 00, (V056) SPECIAL USE equals 02, (V057) SPECIAL USE equals 03,
(V330) SCHOOL BUS RELATED equals 1 ,
(V531) BUS USE equals 01, 04-07, 98,

## THEN

BODY TYPE must equal 21, 22, 28, 29, 50-59.
BODY TYPE should equal 21 or 52 or 55.

BODY TYPE should equal 21 or 50 or 55.

BODY TYPE should equal 51.
BODY TYPE should equal 12, 16, 21, 51,55 or 58.
BODY TYPE should equal 21, 22, 29, 50-59.
BODY TYPE must not equal 50-59.
BUS USE should equal 01.
BUS USE should equal 04-07, 99. BODY TYPE of at least one of the involved vehicles should equal 50 (School Bus), or SPECIAL USE for at least one involved vehicle should equal 02 - Vehicle Used as School Bus, and BUS USE for at least one vehicle should equal 01.
VEHICLE CONFIGURATION should equal 20, 21, and CARGO BODY TYPE should equal 22.

## THIS PAGE INTENTIONALLY LEFT BLANK

## SPECIAL USE

FORMAT: 2 numeric
SAS NAME: Vehicle.Spec_Use, Person.Spec_Use, Parkwork.PSP_USE

## ELEMENT VALUES:

00 No Special Use
01 Taxi
02 Vehicle Used for School Transport
03 Vehicle Used as Other Bus
04 Military
05 Police
06 Ambulance
07 Fire Truck
08 Non-Transport Emergency Services Vehicle
13 Incident Response
98 Not Reported
99 Unknown
Definition: This data element refers to a motor vehicle that is being used for a function other than the primary function for that type vehicle.

## Remarks:

This data element identifies any special use associated with this motor vehicle at the time of the crash. The special function served by this motor vehicle should be coded regardless of whether the function is marked on the vehicle.

00 (No Special Use) is used when the available information does not indicate or imply that this vehicle was applicable to any of the special uses listed above.

01 (Taxi) is used when this vehicle was being used during this trip (at the time of the crash) on a "fee-for-hire" basis to transport persons. Most of these vehicles will be marked and formally registered as taxis; however, vehicles which are used as taxis, even though they are not registered (e.g., Gypsy Cabs), are included here. Passengers do not have to be present at the time of the crash. Taxis and drivers which are off-duty at the time of the crash are coded as 00 (No Special Use). If it is unknown whether or not the taxi is on-duty, code as 01 (Taxi). This attribute also applies for limousines on a "fee-for-hire" basis.

02 (Vehicle Used for School Transport) is used for any motor vehicle that satisfies all the following criteria:

- operated, leased, owned or contracted by a public or private school-type institution;
- where the institution's students may range from pre-school through high school;
- whose occupants, if any, are associated with the institution; and,
- at the time of the crash the vehicle is being used for transportation to and from a school or on a school-sponsored activity or trip


## Note:

This attribute also includes vehicles which are not externally identifiable as a school/pupil transport vehicle, but do meet all of the other criteria above. (For example, a transit bus, at the time of the crash, used exclusively [no other passengers except students] to transport students to/from the school or school-related activity).

In most cases, the decision to use this attribute will be based on a reference to the vehicle as a school bus in the available information. In this situation, assume the criteria are met unless it is otherwise stated in the available information.

03 (Vehicle Used as Other Bus) is used when a motor vehicle is designed for transporting nine or more persons including the driver and does not satisfy the above "school bus" criteria. For example, BODY TYPE code "School Bus" transporting senior citizens to an activity.

04 (Military) is used for any vehicle which is owned by any of the Armed Forces regardless of body type. This attribute includes:

- military police vehicles;
- military ambulances;
- military hearses; and
- military fire vehicles.

05 (Police) is a vehicle equipped with police emergency devices (lights and siren) that is owned or subsidized by any local, county, State or Federal government entity. The police vehicle is presumed to be in special use at all times, although not necessarily in "emergency use." Vehicles not owned by a government entity that are used by law enforcement officers (e.g., undercover) are excluded.

06 (Ambulance) is used for any readily identifiable (lights or markings) vehicles designed to transport sick or injured persons. The ambulance is presumed to be in special use at all times, although not necessarily in "emergency use."

07 (Fire Truck) is used for any readily identifiable (lights or markings) vehicles specially designed and equipped to respond to fire, hazmat, medical and extrication incidents. This attribute includes medium and heavy vehicles such as engines, pumpers, ladder, platform aerial apparatus, heavy rescue vehicles, water tenders or tankers, brush or wilderness firefighting vehicles, etc.

08 (Non-Transport Emergency Services Vehicle) is used for any readily identified (lights and markings) vehicles that do not meet the criteria for $\mathbf{0 6}$ (Ambulance), $\mathbf{0 7}$ (Fire Truck) or 13
(Incident Response) and are specifically designed and equipped to respond to fire, hazmat, medical and extrication incidents. This attribute includes light vehicles such as sedans, van, SUVs, pickups, trucks, motorcycles, etc. This attribute includes vehicles that have been dispatched to an incident or have initiated operation in a non-emergency mode and are not transporting passengers, such as patients or suspects. An example of a NonTransport Emergency Services vehicle is a fire chief's unit, commonly an SUV.

13 (Incident Response) is used for Government vehicles typically equipped with a variety of tools, emergency medical equipment, traffic cones and control signs, absorbent material (for responding to spills), emergency and work lighting. These multipurpose response units are intended to assist law enforcement, fire and rescue personnel with trafficway incident management.

## 98 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 98 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

99 (Unknown) is used if the investigating officer reported special use as unknown.

## Consistency Checks:

## IF

(1D0P) SPECIAL USE equals 01,
(1DOQ) SPECIAL USE equals 00-03,
(2DOP) SPECIAL USE equals 02,
(3AOP) SPECIAL USE equals 07,
(3DOP) SPECIAL USE for any vehicle equals 02,
(4AOP) BODY TYPE equals 80-83, 88, 89,

## THEN

BODY TYPE must equal 02-09, 12, 14-21, 28, 29, 49, 99.
EMERGENCY MOTOR VEHICLE USE must equal 0.
BODY TYPE should equal 15, 16, 19-21, 28, 29, 45, 48, 50-52, 55, 58, 59. BODY TYPE must equal 60-64, 66, 67, 71, 72, 78, 79, 99.
SCHOOL BUS RELATED must equal 1.
SPECIAL USE must not equal 01-03, 06, 07.

IF
(4DOP) SPECIAL USE equals 03,
(5DOP) SPECIAL USE equals 04,
(5MOG) SPECIAL USE equals 06, and PERSON TYPE equals 02 or 09,
(6DOP) SPECIAL USE equals 05,
(7DOP) SPECIAL USE equals 06,
(8DOP) SPECIAL USE equals 08,
(AROP) SPECIAL USE equals 04,
(U050) UNLIKELY: SPECIAL USE equals 04, 08.
(U080) BODY TYPE does not equal 50-59, UNLIKELY: SPECIAL USE equals 02 or 03.
(U420) UNLIKELY: SPECIAL USE equals 98.
(V056) SPECIAL USE equals 02,
(V057) SPECIAL USE equals 03,
(V058) EMERGENCY MOTOR VEHICLE USE equals 2-5,
(V060) SPECIAL USE equals 04,
(V330) SCHOOL BUS RELATED equals 1,
(V560) SPECIAL USE equals 04,

## THEN

BODY TYPE must equal 21, 28, 29, 50-52, 55, 58, 59.
BODY TYPE must equal 01-12, 15-17
19-22, 28-33, 39-41, 45, 48-50, 55, 58, 59, 60-64, 66, 67, 71, 72, 78, 79, 90, 99.

RELATED FACTORS - PERSON (MV OCCUPANT) LEVEL should equal 86 or 92.
BODY TYPE must equal 01-12, 14-17 19-22, 28-33, 39-41, 45, 48, 49, 55, 58-64, 66, 67, 71, 72, 78-82, 88-91, 94, 95, 97-99.
BODY TYPE must equal 11, 14-17, 19, 21, 22, 28, 29, 40, 41, 45, 48, 49, 61, 62, 64, 79, 98, 99.
BODY TYPE must not equal 60-64, 66, 67, 71, 72, 78, 79, 99.
REGISTERED VEHICLE OWNER must not equal $0,1,2,4$.

BUS USE should equal 01.
BUS USE should equal 04-07, 99.
SPECIAL USE should equal 04-08, 13.
REGISTRATION STATE should equal 94.

BODY TYPE of at least one of the involved vehicles should equal 50 (School Bus), or SPECIAL USE for at least one involved vehicle should equal 02 - Vehicle Used as School Bus, and BUS USE for at least one vehicle should equal 01.
REGISTERED VEHICLE OWNER should equal 3 , and REGISTRATION STATE should equal 94.

## EMERGENCY MOTOR VEHICLE USE

FORMAT: 1 numeric
SAS NAME: Vehicle.EMER_USE, Person.EMER_USE, Parkwork.PEM_USE

## ELEMENT VALUES:

## 0 Not Applicable

2 Non-Emergency, Non-Transport
3 Non-Emergency Transport
4 Emergency Operation, Emergency Warning Equipment Not in Use
5 Emergency Operation, Emergency Warning Equipment in Use
8 Not Reported
9 Unknown
Definition: Emergency Motor Vehicle Use indicates operation of any motor vehicle that is legally authorized by a government authority to respond to emergencies with or without the use of emergency warning equipment, such as a police vehicle, fire truck or ambulance while actually engaged in such response.

## Remarks:

Emergency Use also refers to an official motor vehicle that is usually traveling with emergency signals in use; typically red light blinking, siren sounding, etc.

If Special Use is 04 (Military), 05 (Police), 06 (Ambulance), 07 (Fire Truck) or 08 (NonTransport, Emergency Services Vehicle), 13 (Incident Response) then refer to the case materials to determine if the vehicle was on an emergency response (i.e., red lights flashing, siren sounding, on route to hospital, etc.) at the time of the crash.

0 (Not Applicable) is used when Special Use for this vehicle is coded 00 (No Special Use), 01 (Taxi), 02 (Vehicle Used as School Transport) or 03 (Vehicle Used as Other Bus).

2 (Non-Emergency, Non-Transport) is used when the authorized emergency vehicle has been dispatched to an incident or has initiated operation in a non-emergency mode and is not transporting passengers, such as patients or suspects. The emergency vehicle operator is not using emergency lighting, audible siren or emergency vehicle maneuvers.

3 (Non-Emergency Transport) is used when the authorized emergency vehicle has been dispatched to an incident or has initiated a transport-related operation in a nonemergency mode. The emergency vehicle operator is not using emergency lighting, audible siren or emergency vehicle maneuvers. Example: transport of a suspect from
one location to another or interfacility transport of a patient in an ambulance to a nursing home.

4 (Emergency Operation, Emergency Warning Equipment Not in Use) is used when the authorized emergency vehicle has been dispatched to an incident or has initiated an emergency operation and has no emergency lighting or audible siren in use. The emergency vehicle operator may be using emergency vehicle maneuvers as allowed under state law. Examples: a police car in the last mile approaching a bank robbery; transport of a patient in an ambulance for which lights and sirens are not used per protocol.

5 (Emergency Operation, Emergency Warning Equipment in Use) is used when the authorized emergency vehicle has been dispatched to an incident or has initiated an emergency operation and is using an audible siren and/or has illuminated its emergency lighting devices. The emergency vehicle operator is using or is prepared to use emergency vehicle maneuvers as allowed by state law.

## 8 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 8 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

## Examples:

- The case materials are not clear as to whether the vehicle was on an emergency response.
- The case materials are not clear as to whether the vehicle is legally authorized by a government authority to respond to emergencies.

9 (Unknown) is used if the investigating officer reported emergency use as unknown.

## Consistency Checks:

|  | IF |
| :--- | :--- |
| (1D0Q) | SPECIAL USE equals 00-03, |
| (PB44) | PEDESTRIAN/BIKE TYPING - <br>  <br>  <br> PEDESTRIAN CRASH TYPE equals <br> (V058) <br> 240, <br>  <br>  <br>  <br>  <br> EMERGENCY MOTOR VEHICLE <br> USE equals 2-5, |

## THEN

EMERGENCY MOTOR VEHICLE USE must equal 0.
EMERGENCY MOTOR VEHICLE USE should equal 2-5 for at least one vehicle.

SPECIAL USE should equal 04-08, 13.

## THIS PAGE INTENTIONALLY LEFT BLANK

## TRAVEL SPEED

FORMAT: 3 numeric
SAS NAME: Vehicle.TRAV_SP

## ELEMENT VALUES:

000 Stopped Motor Vehicle In-Transport
001-151 Reported Speed Up to 151 MPH
997 Greater than 151 MPH
998 Not Reported
999 Unknown
Definition: This element records the speed the vehicle was traveling prior to the occurrence of the crash as reported by the investigating officer.

## Remarks:

Code the Travel Speed as indicated by the investigating officer. Do not enter the Speed Limit. Do not use estimates by drivers or witnesses reported in the case materials. If the police calculated a speed, please be aware that this may represent impact speed and not travel speed.

Code the nearest mph for this vehicle as reported on the case materials.

| Examples: | Reported Speed | Code |
| :--- | :--- | :--- |
| 40.2 mph | 40 |  |
|  | 40.5 mph | 41 |

If the officer gives a range, code the median speed and, if necessary, round up to the next higher whole number. If the officer gives a minimum speed (e.g., "at least 55 mph " or "in excess of 60 mph ", then use that speed (e.g., code as " 55 " and " 60 " respectively).

| Examples: | Reported Speed | Code |
| :--- | :--- | :---: |
|  | $40-50 \mathrm{mph}$ | 45 |
|  | $45-50 \mathrm{mph}$ | 48 |

000 (Stopped Motor Vehicle In-Transport) is used when this vehicle is stopped on the roadway.

## 998 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 998 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

## Examples:

1. the officer did not mention Travel Speed, or
2. did not indicate Travel Speed within a field in the case materials.

999 (Unknown) is used when the officer indicates that Travel Speed is unknown.

## Consistency Checks:

## IF

(3BOP) JACKKNIFE equals 2, 3,
(3B1P) CRASH TYPE equals 21-23,
(A090) NUMBER OF VEHICLE FORMS
SUBMITTED is greater than 001,
(A100) FIRST HARMFUL EVENT is not equal to $02,04,05,10,16,18$,
(A240) ROADWAY FUNCTION CLASS equals 01, 11, and RELATION TO JUNCTION (a) equals 0 ,
(AZAO) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 05 or 07,

## THEN

TRAVEL SPEED must not equal 000.
TRAVEL SPEED must equal 000 for this vehicle.
there should be at least one vehicle with TRAVEL SPEED of 001-151, 997-999, or blanks.
there should be one vehicle with
TRAVEL SPEED of 001-151, 997-999, or blanks.
TRAVEL SPEED should not equal 005-040 for any vehicle.

TRAVEL SPEED should equal 000 for this vehicle.
(U060) UNLIKELY: TRAVEL SPEED should equal 98 or 99.
(VH70) UNIT TYPE equals 2-4,
elements V15, V24, V31 must all be left blank.

# UNDERRIDE/OVERRIDE <br> (FARS Only) 

FORMAT: 1 numeric

SAS NAME: Vehicle.UNDERIDE, Parkwork.PUNDERIDE

## ELEMENT VALUES:

0 No Underride or Override Noted
1 Underriding a Motor Vehicle In-Transport, Underride, Compartment Intrusion
2 Underriding a Motor Vehicle In-Transport, Underride, No Compartment Intrusion
3 Underriding a Motor Vehicle In-Transport, Underride, Compartment Intrusion Unknown
4 Underriding a Motor Vehicle Not In-Transport, Underride, Compartment Intrusion
5 Underriding a Motor Vehicle Not In-Transport, Underride, No Compartment Intrusion
6 Underriding a Motor Vehicle Not In-Transport, Underride, Compartment Intrusion Unknown
$7 \quad$ Overriding a Motor Vehicle In-Transport
8 Overriding a Motor Vehicle Not In-Transport
9 Unknown if Underride or Override
Definition: This element indicates whether an underride or override occurred during the crash involving this vehicle.

## Remarks:

Rationale: Needed to identify the magnitude of crashes in which an underride or override occurs to support NHTSA rulemaking activities and motor vehicle bumper compatibility research.

NOTE: Prior to 2007, this element was limited to collisions involving a large vehicle (medium/heavy trucks) and a smaller body type (e.g., automobiles, utility vehicles, etc.). Beginning 2007, this element is open to all body types, excluding motorcycles, mopeds, ATVs and snowmobiles.

NOTE: Prior to 1994, coding of vehicle underrides and overrides was not captured as a separate element. It was included under Impact Points (clock point codes "15" and "16" [Underride and Override]). This change improved both the capture and detail relating to these events.

For underrides and overrides, it is important to determine the vehicle performing the action. Two vehicles cannot be considered to underride and override simultaneously.

In cases in which two vehicles collide "head-on" and one vehicle ends up under the other, you must determine whether an Underride or Override has occurred.

An Underride refers to a vehicle sliding under another vehicle during a crash. The classic example is an automobile striking the rear end or the side of a tractor-trailer and coming to a stop under the trailer. In this example, the automobile is the underriding vehicle. We distinguish between those underriding vehicles with compartment intrusion versus those with no compartment intrusion.

Compartment intrusion indicates a breach of the passenger compartment of this underriding (striking) vehicle. For example, damage to the windshield or glass area.

No compartment intrusion means that the underridden vehicle (struck vehicle) did not directly enter the passenger compartment of this vehicle (for example, damage to the hood or front bumper).

It is possible for an auto to completely underride the trailer without stopping. Underride is not applicable to motorcycles or snowmobiles.

An Override refers to a vehicle riding up over another (including a parked vehicle). A vehicle straddling a guardrail, for example, is not coded as an override.
$\mathbf{0}$ (No Underride or Override Noted) is used when there is no indication in the case materials that this vehicle was involved in and underride or override as defined above.

## UNDERRIDES AND VEHICLES UNDER OTHER VEHICLES

Codes "1-3" are used when this vehicle underrides a motor vehicle in-transport (includes those in motion outside the trafficway).

Codes "4-6" are used when this vehicle underrides a motor vehicle that is Not In-Transport. This includes parked/stopped off roadway motor vehicles, working motor vehicles (e.g., cherry picker, paint-striping truck).

## Compartment Intrusion Guidelines:

To use Codes " 1 or 4," the PAR should indicate that the passenger compartment of the underriding (striking) vehicle has been damaged. Sources of this information can be the PAR narrative and/or the vehicle damage scale. If the top of the vehicle is damaged, as noted by the vehicle damage scale, Codes "1 or 4" would apply.

Codes "2 and 5," Underride, No Compartment Intrusion, are used when a portion of the vehicle is under another, and it is known that there is no passenger compartment intrusion. Codes " 3 and 6 " are used when it is unknown if there is passenger compartment intrusion.

## OVERRIDES

7 (Overriding a Motor Vehicle In-Transport) is used when this vehicle overrides a motor vehicle in-transport (includes those in motion outside the trafficway).

8 (Overriding a Motor Vehicle Not In-Transport) is used when this vehicle overrides a motor vehicle not in-transport. This includes parked/stopped off roadway motor vehicles, working motor vehicles (e.g. cherry picker, paint-striping truck).

9 (Unknown if Underride or Override) is used when an Underride or Override occurred but it cannot be determined which is appropriate.

## Consistency Checks:

## IF

(6A1P) UNDERRIDE/OVERRIDE equals 1-8,
(9B3P) UNDERRIDE/OVERRIDE equals 7,
(9B4P) UNDERRIDE/OVVERIDE equals 8,
(9B5P) UNIT TYPE equals 2, 3,
(V750) UNDERRIDE/OVERRIDE equals 1-3,
(V760) UNDERRIDE/OVERRIDE equals 4-6,
(V770) UNDERRIDE/OVERRIDE equals 7 ,
(V780) UNDERRIDE/OVERRIDE equals 8,

## THEN

BODY TYPE must not equal 80-83, 88-91.
there must be at least one vehicle with UNIT TYPE equal to 1 .
there must at least one vehicle with UNIT TYPE equal 2-4. UNDERRIDE/OVERRIDE must equal 0 . FIRST HARMFUL EVENT or at least one SEQUENCE OF EVENTS (for this vehicle) should equal 12, 55.
FIRST HARMFUL EVENT or at least one SEQUENCE OF EVENTS (for this vehicle) should equal 14, 45. at least one SEQUENCE OF EVENTS (for this vehicle) must equal 12, 55. at least one SEQUENCE OF EVENTS (for this vehicle) must equal 14, 45.

## THIS PAGE INTENTIONALLY LEFT BLANK

## ROLLOVER

FORMAT: 1 numeric
SAS NAME: Vehicle.Rollover; Person.ROLLOVER

## ELEMENT VALUES:

0 No Rollover
1 Rollover, Tripped by Object/Vehicle
2 Rollover, Untripped
9 Rollover, Unknown Type
Definition: This element identifies whether a rollover or overturn occurred during the crash involving this vehicle.

## Remarks:

Rollover is defined as any vehicle rotation of 90 degrees or more about any true longitudinal or lateral axis. Rollover can also be referred to as overturn, and can occur at any time during this vehicle's critical crash envelope.

Rollover does not apply to 2-wheeled motorcycles for this element (use $\mathbf{0}$ (No Rollover)). However, in the First Harmful Event, Most Harmful Event and Sequence of Events you may use 01 (Rolloverl Overturn) to record that this vehicle (motorcycle) overturned.

A rollover can be used for 3- or 4-wheeled ATVs, snowmobiles, go-karts and 3-wheeled motorcycles.
$\mathbf{0}$ (No Rollover) is used when there is no indication that a rollover occurred.
1 (Rollover, Tripped by Object/Vehicle) is used when the vehicle's lateral motion is suddenly slowed or stopped by an opposing force, inducing a rollover. The opposing force may be produced by a curb, ditch, pot-hole, another vehicle, pavement or soil dug into by the vehicle's wheels. This includes instances where a vehicle impacts a fixed object (i.e., tree, barrier, pole or post) then rolls over.

2 (Rollover, Untripped) is used when a rollover occurs, but not as a result of a collision with an object or a vehicle or generated by any other opposing force as referred to in Rollover, Tripped by Object/Vehicle. An untripped rollover is one for which there is no obvious cause other than normal surface friction. This is usually the result of vehicle instability and there is no evidence of furrowing or gouging on the pavement, gravel, grass or dirt surface.

9 (Rollover, Unknown Type) is used when a rollover occurred, but there is not sufficient information to determine tripped versus untripped status.

## Consistency Checks:

IF
(1Z2P) any SEQUENCE OF EVENTS equals 01, and (BODY TYPE equals 01-79, 82, 90-99, or any RELATED FACTORS-VEHICLE LEVEL equals 30), then ROLLOVER must equal 1, 2 or 9,
(5AOP) BODY TYPE equals 80, 81, 83, 88, 89, and any RELATED FACTORS VEHICLE LEVEL does not equal 30,
(V700) ROLLOVER equals 2 ,
(V74P) UNIT TYPE equals 1, and
ROLLOVER equals $1,2,9$, or LOCATION OF ROLLOVER equals 1-7, 9,
(V75P) ROLLOVER is not blank,
(V76P) ROLLOVER is blank,
(V77P) ROLLOVER equals 1, 2, 9,
(V78P) ROLLOVER equals 0,
(V79P) ROLLOVER equals 2, and FIRST HARMFUL EVENT equals 01,

THEN
ROLLOVER must equal 1, 2, 9.

ROLLOVER must equal 0 .

CRASH TYPE should equal 01-10, 14, 98 or 99 for this vehicle. at least one SEQUENCE OF EVENTS must equal 01 for this vehicle.

LOCATION OF ROLLOVER must not be blank.
LOCATION OF ROLLOVER must be blank.
LOCATION OF ROLLOVER must equal 1-7, 9.
LOCATION OF ROLLOVER must equal 0.

CRASH TYPE must equal 01-10, 14, 15 or 98 for the vehicle involved in the first harmful event.

## LOCATION OF ROLLOVER

FORMAT: 1 numeric
SAS NAME: Vehicle.ROLINLOC

ELEMENT VALUES:
0 No Rollover
1 On Roadway
2 On Shoulder
3 On Median/Separator
4 In Gore
5 On Roadside
6 Outside of Trafficway
7 In Parking Lane / Zone
9 Unknown

Definition: This element identifies the location of the trip point or start of the vehicle's roll.

## Remarks:

1 (On Roadway) is used when the available information indicates the vehicle tripped or began its roll on the roadway. A Roadway is that part of a trafficway designed, improved and ordinarily used for motor vehicle travel. Where various classes of motor vehicles are segregated, that part of a trafficway used by a particular class is the roadway (i.e., travel lanes). Separate roadways may be provided for northbound and southbound traffic or for trucks and automobiles. This includes continuous left-turn lanes.

2 (On Shoulder) is used when the available information indicates the vehicle tripped or began its roll on the shoulder. A Shoulder is that part of a trafficway contiguous with the roadway for emergency use, for accommodation of stopped road vehicles and for lateral support of the roadway structure.

3 (On Median/Separator) is used when the available information indicates the vehicle tripped or began its roll on the median/separator. A Median is an area of a trafficway between parallel roads separating travel in opposite directions. Continuous left-turn lanes are not considered painted medians. A Separator is the area of a trafficway between parallel roads separating travel in the same direction or separating a frontage road.

4 (In Gore) is used when the available information indicates the vehicle tripped or began its roll in the gore. The Gore is an area of land where two roadways diverge or converge. The area is bounded on two sides by the edges of the roadways, which join at the point of divergence or convergence. The direction of traffic must be the same on both of these roadways. The area includes shoulders or marked pavement, if any, between the roadways.

5 (On Roadside) is used when the available information indicates the vehicle tripped or began its roll on the roadside. Roadside is the outermost part of the trafficway from the property line or other boundary into the edge of the first road.

6 (Outside of Trafficway) is used when the available information indicates the vehicle tripped or began its roll outside the right-of-way.

7 (In Parking LanelZone) refers to an area on the roadway, or next to the roadway, on which parking is permitted in marked or unmarked spaces. This includes curbside and edge ofroadway parking (for example, legal residential parking, city-street parking, etc.). Sometimes a strip of roadway can be designated for parking at certain hours of the day (parking lane) and for regular travel at other hours (travel lane). This code should NOT be used during hours when parking is NOT permitted (see $\mathbf{1}$ (On Roadway)).

9 (Unknown) is used when the location of the trip point cannot be determined from available resources.

| If Relation to Trafficway equals: | Then Location of Rollover should equal: |
| :--- | :--- |
| 01 - On Roadway | 1 - On Roadway |
| 02 - On Shoulder | 2 - On Shoulder |
| 03 - On Median | 3 - On Median/Separator |
| 04 - On Roadside | 5 - On Roadside |
| 05 - Outside Trafficway | 6 - Outside of Trafficway |
| 06 - Off Roadway - Location Unknown | 9 - Unknown |
| 07 - In Parking Lane/Zone | 7 - In Parking Lane/Zone |
| 08 - Gore | 4 - In Gore |
| 10 - Separator | 3 - On Median/Separator |
| 11 - Continuous Left-Turn Lane | 1 - On Roadway |
| 98 - Not Reported | 9 - Unknown |
| 99 - Unknown | 9 - Unknown |

## Consistency Checks:

## IF

(A380) FIRST HARMFUL EVENT equals 01 and this vehicle is involved in the first harmful event, and BODY TYPE does not equal 80-89 for this vehicle, and RELATION TO TRAFFICWAY equals
(V74P) UNIT TYPE equals 1, and ROLLOVER equals $1,2,9$, or LOCATION OF ROLLOVER equals 1-7, 9,
(V75P) ROLLOVER is not blank,
(V76P) ROLLOVER is blank,
(V77P) ROLLOVER equals 1, 2, 9,
(V78P) ROLLOVER equals 0 ,

## THEN

LOCATION OF ROLLOVER should equal $\qquad$ respectively.
at least one SEQUENCE OF EVENTS must equal 01 for this vehicle.

LOCATION OF ROLLOVER must not be blank.
LOCATION OF ROLLOVER must be blank.
LOCATION OF ROLLOVER must equal 1-7, 9.
LOCATION OF ROLLOVER must equal 0.

## THIS PAGE INTENTIONALLY LEFT BLANK

# AREAS OF IMPACT INITIAL CONTACT POINT / DAMAGED AREAS 

FORMAT: 2 subfields: Subfield 1, 2 numeric;, Subfield 2, Select all that apply
SAS NAME: Subfield 1: Vehicle.IMPACT1, Person.IMPACT1, Parkwork.PIMACT1 Subfield 2: Damage.MDAREAS

## ELEMENT VALUES:

## Subfield 1: Areas of Impact - Initial Contact Point

00 Non-Collision
01-12 Clock Points
13 Top
14 Undercarriage
61 Left
62 Left-Front Side
63 Left-Back Side
81 Right
82 Right-Front Side
83 Right-Back Side
18 Cargo/Vehicle Parts Set-In-Motion
19 Other Objects Set-In-Motion
98 Not Reported
99 Unknown
Subfield 2: Damaged Areas
01-12 Clock Values
13 Top
14 Undercarriage
15 No Damage
99 Damage Areas Unknown
Definition (Areas of Impact - Initial Contact Point): This subfield identifies the area on this vehicle that produced the first instance of injury to non-motorists or occupants of this vehicle, or that resulted in the first instance of damage to other property or to this vehicle.

Definition (Damaged Areas): This subfield identifies all the areas on this vehicle that were damaged in the crash as reflected in the case materials.

## Remarks:

If Areas of Impact- Initial Contact Point / Damaged Areas are provided on the crash report in this exact format, use the values from the report unless there are clear errors (e.g. officer switches vehicles by mistake). If these elements are not provided on the crash report in this exact format, then similar report fields, narrative or diagram information may be used to code
these elements. These subfields do not refer to direction of force of the impact. They identify the area(s) on the vehicle associated with the initial contact (Subfield 1) and all damage to the vehicle identified in the case material (Subfield 2).

## Areas of Impact / Initial Contact Point (Subfield 1):

This subfield identifies the area on this vehicle that produced the first instance of injury to nonmotorists or occupants of this vehicle, or that resulted in the first instance of damage to other property or to this vehicle. The event that produced the Initial Contact Point for this vehicle may or may not be the first harmful event for the crash. This data is derived from the Crash Events Table and will always be the first recorded Area(s) of Impact element value for each vehicle in the Crash Events Table.
*Note the same element values from Areas of Impact - Initial Contact Point are used to complete the Areas of Impact (AOI) fields in the Crash Events Table for all harmful events.

## Areas of Impact-Initial Contact Point Element Values Diagram



## 00 (Non Collision [Initial Contact Point])

If the first harmful event involving this vehicle in the Crash Events Table is a non-collision event then Initial Contact Point will be 00 (Non-Collision).
"01-12" refer to the points on a clock. The sides of the vehicle are divided into 5 equal segments, 01 through 05 for the right side and 07 through 11 for the left side. The front (12), back (06), top (13) and undercarriage (14) complete the outside surfaces of the vehicle. Use
the diagrams at the end of the element for examples of how the 5 equal side segments are created on several vehicle types.

As procedure, start by looking for one of the "clock" values 01-12 or specific situation values $00,13,14,18$. If sufficient detail is not available to choose one of these values, move out to the next set of values to try to identify the appropriate codes (i.e., 62-63, 82-83, then 61, 81). Lastly, for missing information pertaining to known harmful events, a 98 (Not Reported) attribute is available.

## 61-63 and 81-83:

Codes, 62-63 and 82-83 are used when there is not sufficient detail available in the case materials to identify a more specific area of impact , 01-05 and 07-11, but one of the quadrants can be identified (i.e., 62 (Left-Front Side), 63 (Left-Back Side), 82 (Right-Front Side) or 83 (Right-Back Side)). Also use these attributes if the case materials indicate that the damage area is "between" or overlapping two known clock points. (e.g., if the damage area is midway between or overlapping clock points 10 and 11, use 62 (Left-Front Side)).

Codes 61 and 81 are used when there is not sufficient detail available in the case materials to identify a more specific area of impact, 62-63 or 82-83, but one of the sides can be identified (i.e., 61 (Left) or 81 (Right)).

## Guideline for Resolving Ambiguous Information

If the language in the narrative is ambiguous AND the diagram or other case information don't provide resolution, use the area indicated first in the narrative wording to select the Area of Impact to code. See examples table below.

| Description | Coding |
| :--- | :---: |
| Front, left | 12 |
| Left, front | 62 |
| Front, corner | 12 |
| Right, rear | 83 |
| Back, right side | 06 |

It is important to note that area of impact refers mainly to the area of the vehicle that sustained the damage and does not depend upon the attitude of the vehicle (e.g., damage to a grille is still damage at 12 o-clock even if it was caused by sliding sideways past a utility pole).

However, 13 (Top) may raise questions. The front and rear windows of some vehicles may also be viewed from the top. It may also be difficult to code impacts to the hood and rear deck of a vehicle.

With 13 (Top) the direction of force sometimes has to be considered. The following are guidelines for using 13 (Top).

1. If the area was damaged by an impact that was received horizontally to an upright vehicle, use one of the codes "01 to 12, 61-63, 81-83."
2. If the area was damaged by an impact that was received from a vertical direction above the upright vehicle, use 13 (Top).
3. If the impact was received or direction of force was at an angle of less than 15 degrees above the horizontal, it is considered horizontal.
4. With a vehicle in other than upright attitudes, remember, it is the area of the vehicle which was damaged that is important.

14 (Undercarriage) refers to impacts to the tires/wheels, axles, exhaust system, etc.

## Special Instructions Involving Motorcycles:

For cases involving a motorcycle where the area of initial contact is described as "front tire/wheel" or "front end" code as 12 (front) or "rear tire/wheel" or "rear end" code as 06 (back) if the impact was received on a horizontal plane.

If the only event for a vehicle is a non-collision event, the Area of Impact - Initial is coded 00 (Non-Collision). If following a non-collision event, a vehicle has a collision event; Area of Impact, Initial Contact Point is still coded 00 (Non-Collision).

Hitting the ground during a non-collision crash is not considered an "impact" for this subfield.

## Set-In-Motion Attributes:

"Loads" of a vehicle includes persons or property upon or set-in-motion by the vehicle, persons boarding or alighting from the vehicle, and persons or property attached to and in position to move with the vehicle. A vehicle that propels part of its load or has set something in motion; striking another vehicle, person or property causing injury or damage; may not have a normal impact point; only the load has made contact with the person or other property. However, a value must be coded.

18 (Cargo/Vehicle Parts Set-In-Motion) is selected when the harmful event involves an impact between a fixed/non-fixed object or vehicle and cargo or parts from an in-transport motor vehicle which are set-in-motion. That is, use this code when the object set-in-motion is cargo (e.g., mattress, logs, tools, unsecured objects on the in-transport motor vehicle) or a part of an in-transport motor vehicle (e.g., hubcap or mirror).

## Example:

- Vehicle 1 (log truck) swerves to avoid a braking vehicle (Vehicle 2). A log becomes dislodged from Vehicle 1 and lands on Vehicle 2's top.
- Vehicle 1 Area of Impact, Initial Contact Point would be coded as 18 (Cargo/Vehicle Parts Set-In-Motion).
- Vehicle 2 Area of Impact, Initial Contact Point would be coded as 13 (Top).

19 (Other Object Set-In-Motion) is used when the harmful event involves an object set-in-motion by an in-transport motor vehicle which is NOT cargo or part of the intransport motor vehicle (e.g., kicked-up stone, motorcycle rider, parked vehicle, stop sign) or it is UNKNOWN whether the object was the cargo or a part of an in-transport motor vehicle.

## Example:

- Vehicle 1 kicks up a stone which impacts Vehicle 2's windshield.
- Vehicle 1 Area of Impact, Initial Contact Point would be coded as 19 (Other Object Set-In-Motion).
- Vehicle 2 Area of Impact, Initial Contact Point would be coded as 12 (Front).


## 98 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 98 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

## Areas of Impact - Initial Contact Point Examples of Not Reported:

- The case materials lack the detail to identify the initial contact point at all (e.g., narrative only states the vehicle departed the roadway and impacted a tree).
- The case materials lack the detail to identify the initial contact point among a number of possible choices for the first harmful event for the vehicle (e.g., crash report field indicates front and right side damage from separate impacts and does not clarify which area is associated with the initial impact).

99 (Unknown) is used if the investigating officer reported that the Initial Contact Point was unknown.

## Damaged Areas:

This subfield identifies all the areas on this vehicle that were damaged in the crash as reflected in the case materials.

Vehicles noted as "totaled":

This element is identifying the vehicle planes that were damaged so do not make the assumption that a vehicle noted in the case materials as "totaled" translates to all areas being damaged. This term is often referring to the cost to repair the damage not the areas damaged.

## Damaged Areas Element Values Diagram


*Note: When entering the data there are three short cut selections in MDE for identifying multiple areas. Those selections are:

1. All Areas - this will select all values 01-12, 13 (Top), and 14 (Undercarriage)
2. Left Side - this will select all the values 07-11.
3. Right Side - this will select all the values 01-05.

01-12 (Clock Values) refer to the points on a clock (see diagram above) to identify areas on the vehicle that were damaged in the crash. This subfield includes induced damage identified in the report. For example, the PAR shows an impact centered at 03 (AOI - Initial Contact) that produced damage in $02,03,04$. The sides of the vehicle are divided into 5 equal segments, 01 through 05 for the right side and 07 through 11 for the left side. The front (12), back (06), top (13) and undercarriage (14) complete the outside surfaces of the vehicle. Use the diagrams at the end of the element for examples of how the 5 equal side segments are created on several vehicle types.

13 (Top) includes damage to the hood, windshield, roof, rear window, and trunk deck.
14 (Undercarriage) includes damage to the tires/wheels, axles, exhaust system, etc.
15 (No Damage) is used for vehicles that experience harmful events but the events do not produce physical damage to the vehicle itself.

## Examples include:

- Vehicles that have the non-collision harmful events of gas inhalation, injured in vehicle, fell/jumped from vehicle, or other non-collision.
- Vehicles that have a collision event but the event does not produce damage to the vehicle such as; running over a pedestrian lying in the roadway, striking a bicyclist, striking another vehicle where only the struck vehicle is damaged, or when the only collision event is cargo falling from this vehicle that lands on another vehicle or person.

99 (Damage Areas Unknown) is used when the case materials do not indicate which area or areas received damage or when the information on the PAR is confusing or inadequate for the purposes of this determination.

## Handling of known events with unknown damage areas:

For situations where you have known damage areas associated with a specific event(s) and additional harmful events without knowing specific damage areas for the additional events, code only the known damage areas in this subfield. For example, if the PAR narrative only states that "V1 departed the roadway striking several trees" with the only indication of damage given as the initial front contact, and a PAR box marked 'Totaled', code only 12 for the known damage to the front of the vehicle.

## Handling of non-collision harmful events that produce vehicle damage:

For situations where there is damage to a vehicle associated with the non-collision harmful events (01) Rollover/Overturn, (02) Fire/Explosion, (03) Immersion or Partial Immersion, (16) Thrown or Falling Object, (44) Pavement Surface Irregularity (Ruts, Potholes, Grates, etc.), (51) Jackknife (harmful to this vehicle), or (72) Cargo/Equipment Loss or Shift (harmful to this vehicle) code the damage areas as reflected in the case materials.

## For example:

- A vehicle that was consumed by a fire or immersed in a river could be coded with all of the damage areas 01-12, 13, 14.
- A vehicle that rolls onto its right side and then roof could be coded as 01-05, 13.
- A vehicle that only has damage to the hood from a fire could be coded as 13.
- A vehicle that has a tree fall on it could be coded as 13.
- A vehicle that strikes a pothole could be coded as 14.

If a vehicle that experiences only these non-collision events has only "non-collision" reflected in the case materials for its damaged areas, then use 99 (Damage Areas Unknown).

## FARS and GES SPECIAL INSTRUCTION:

Prior to 2010, FARS recorded the Impact Point-Initial and the Impact Point-Principal for each vehicle. If a vehicle had no impacts throughout a crash, the Initial and Principal Impact Points were both " 00 - Non-Collision". Non-Collision Events (including Rollovers) are not considered "impacts".

If the vehicle first had a Non-Collision Event but then experienced a Collision Event later in the accident, the clock point on the vehicle associated with that collision was recorded as the Impact Point-Initial. If this was the only Collision Event for the vehicle, then it was also the Impact Point-Principal for the vehicle. Otherwise, Impact Point, Principal was the clock point on the vehicle associated with the Collision Event that produced the most severe incidence of injury or property damage involving this vehicle.

FARS began in 2010 recording INITIAL DAMAGED AREA and MOST DAMAGED AREA for this vehicle. If the initial damage to the vehicle is caused by a Non-Collision Event, the INITIAL DAMAGED AREA is coded " 00 - Non-Collision". The MOST DAMAGED AREA simply recorded the area of this vehicle sustaining the most damage in the crash. GES adopted the "most damaged area" data element in 2010.

Beginning in 2012, as a result of modifications to the Model Minimum Uniform Crash Criteria (MMUCC) FARS and GES renamed INITIAL DAMAGED AREA as INITIAL CONTACT POINT and replaced MOST DAMAGED with the new sub-field DAMAGED AREAS.

## Consistency Checks:

## IF

## (2UOQ) BODY TYPE equals 80-83, 88, 89,

(3B2P) CRASH TYPE equals 20, 24, 28, 34, $36,38,40,50-54,56,58$ or 60 ,
(3B3P) CRASH TYPE equals 21-23, 25-27, 29-31, 35, 37, 39 or 41,
(3B6P) CRASH TYPE equals 87,
(3B7P) CRASH TYPE equals 89,
(3CAO) EXTENT OF DAMAGE for this vehicle equals 0 ,
(420P) MANNER OF COLLISION equals 07, 08,
(421P) MANNER OF COLLISION equals 01,

## THEN

## AREAS OF IMPACT - INITIAL CONTACT POINT should not equal

 14.AREAS OF IMPACT-INITIAL CONTACT POINT must equal 12 for this vehicle. AREAS OF IMPACT-INITIAL CONTACT POINT must equal 6 for this vehicle. AREAS OF IMPACT-INITIAL CONTACT POINT must equal 01-05, 81-83 for this vehicle.
AREAS OF IMPACT-INTIAL CONTACT POINT must equal 07-11, 61-63 for this vehicle.
DAMAGED AREAS must equal 15.
there must be at least two vehicle forms with AREAS OF IMPACT-INITIAL CONTACT POINT equal to 01-05, 07-11, 61-63, 81-83, 98, 99.
AREAS OF IMPACT-INITIAL CONTACT POINT for one vehicle in the first harmful event must equal 12, and AREAS OF IMPACT-INITIAL CONTACT POINT for the other vehicle in the first harmful event must equal 06.

IF
(422P) MANNER OF COLLISION equals 02,
(423P) MANNER OF COLLISION equals 06,
(424P) MANNER OF COLLISION equals 09,
(425P) MANNER OF COLLISION equals 10,
(8L8Q) AREAS OF IMPACT (THIS
VEHICLE) equals 18 or 19 in the CRASH EVENTS,
(8L8R) the CRASH EVENTS event equals 54,
(8L8S) AREAS OF IMPACT (THIS
VEHICLE) equals 18 or 19 in the CRASH EVENTS and the corresponding event in that row equals 14, 45 or 54,
(8L8T) RELATED FACTORS-CRASH
LEVEL equals 14,

## THEN

AREAS OF IMPACT-INITIAL CONTACT POINT for one vehicle in the first harmful event must equal 12, and AREAS OF IMPACT- INITIAL CONTACT POINT for the other vehicle in the first harmful event must equal 12.
AREAS OF IMPACT-INITIAL CONTACT POINT for one vehicle in the first harmful event must equal 01, 11, 12, 98, 99, and AREAS OF IMPACT-INITIAL CONTACT POINT for the other vehicle in the first harmful event must equal 01-05, 07-11, 61-63, 81-83, 98, 99.
AREAS OF IMPACT-INITIAL CONTACT POINT for one vehicle in the first harmful event should equal 06, and AREAS OF IMPACT-INITIAL CONTACT POINT for the other vehicle in the first harmful event should equal 01-05, 07-11, 61-63, 81-83, 98, 99.
AREAS OF IMPACT- INITIAL
CONTACT POINT for one vehicle in the first harmful event should equal 06, and AREAS OF IMPACT- INITIAL
CONTACT POINT for the other vehicle in the first harmful event should equal 06, 98, 99.
the corresponding event in that row must not equal 12 or 55.

AREAS OF IMPACT (THIS VEHICLE) must equal 18 or 19 in that row.
RELATED FACTORS-CRASH LEVEL must equal 14.
there must exist at least one event in the CRASH EVENTS where AREAS OF IMPACT (THIS VEHICLE) equals 18 or 19 and the corresponding event in that row equals 14, 45 or 54.

IF
(8L8U) AREAS OF IMPACT (THIS
VEHICLE) equals 18 or 19 in the CRASH EVENTS and the corresponding event in that row equals 08, 09, 15, 49 ,
(8L8V) RELATED FACTORS-CRASH LEVEL equals 15 ,
(8L8X) AREAS OF IMPACT (THIS VEHICLE) equals 18,
(8L9P) BODY TYPE does not equal 80-83, 88-91 and the CRASH EVENTS event equals 54, and the corresponding AREAS OF IMPACT (THIS VEHICLE) equals 19 in that row,
(BZ10) CRITICAL EVENT - PRECRASH (EVENT) equals 53,
(BZ20) CRITICAL EVENT - PRECRASH (EVENT) equals 51, 52,

THEN
RELATED FACTORS-CRASH LEVEL must equal 15.
there must exist at least one event in the CRASH EVENTS where AREAS OF IMPACT (THIS VEHICLE) equals 18 or 19, and the corresponding event in that row equals 08-10, 15, 18 or 49. there should be a previous event involving that vehicle where the CRASH EVENTS event equals 60. there should be a previous event with CRASH EVENTS event equal to 18 or 73 involving that vehicle.

AREAS OF IMPACT-INITIAL CONTACT POINT should not equal 12 for this vehicle.
AREAS OF IMPACT-INITIAL CONTACT POINT should not equal 06 for this vehicle.
(FP1F) AREAS OF IMPACT - INITIAL CONTACT POINT equals blank, case status is flawed.
(VH81) any DAMAGED AREAS equals 15 or 99,
(VH82) EXTENT OF DAMAGE for this vehicle equals 2, 4, 6,
(VH83) the only harmful SEQUENCE OF EVENTS for this vehicle equals 04-06,
(VH84) the only harmful SEQUENCE OF EVENTS for this vehicle equals 01-03, 16, 44, 51, 72,
(VH85) AREAS OF IMPACT-INITIAL CONTACT POINT equals 61-63,
(VH86) AREAS OF IMPACT-INITIAL CONTACT POINT equals 81-83,
(VH87) HIT-AND-RUN equals 0 , and AREAS OF IMPACT-INITIAL CONTACT POINT equals 01-14,

DAMAGED AREAS must not equal 15.
DAMAGED AREAS should equal 15.

DAMAGED AREAS should not equal 15.

DAMAGED AREAS should include at least one of the codes 07-11.
DAMAGED AREAS should include at least one of the codes 01-05.
the corresponding code should be included in DAMAGED AREAS or DAMAGED AREAS should equal 15.

## CLOCKPOINT DIAGRAM



## THIS PAGE INTENTIONALLY LEFT BLANK

## EXTENT OF DAMAGE

FORMAT: 1 numeric
SAS NAME: Vehicle.DEFORMED

## ELEMENT VALUES:

0 No Damage
2 Minor Damage
4 Functional Damage
6 Disabling Damage
8 Not Reported
9 Unknown
Definition: This element indicates the amount of damage sustained by this vehicle in this crash as indicated in the case materials based on an operational damage scale.

## Remarks:

$\mathbf{0}$ (No Damage) is used when there is no damage indicated in the available information for this vehicle.

2 (Minor Damage) is damage that does not disable or affect the operation of the motor vehicle. This attribute is used when the case materials indicate damage to the vehicle to be Minor or less than Functional and the vehicle is not towed due to damage.

Examples of 2 (Minor Damage) include: dented or bent fenders, bumpers, grills, body panels and destroyed hubcaps.

4 (Functional Damage) is damage that is not disabling, but affects the operation of the motor vehicle or its parts. This attribute is used when the available information specifically indicates the damage is moderate or functional.

## Examples of 4 (Functional Damage) include:

- doors, windows, hood and trunk lids that will not operate properly;
- broken glass that obscures vision;
- damage that would prevent the motor vehicle from passing an official motor vehicle inspection;
- tire damage even though the tire may have been changed at the scene;
- bumpers that are loose;
- headlamp or taillight damage that would make night driving hazardous but would not affect daytime driving; and,
- damage to turn signals, horn or windshield wipers, that makes them inoperative.

6 (Disabling Damage) is damage that precludes departure of the motor vehicle from the crash scene in its usual daylight-operating manner after simple repairs. As a result, the motor vehicle would have had to have been towed, or carried from the crash scene, or assisted by an emergency motor vehicle. This attribute should be used when the available information specifically indicates disabling or severe damage. This attribute is also used when the damage is indicated to be of greater magnitude than Functional (moderate), e.g., major, extensive, totaled and the vehicle was towed from the scene.

## 8 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 8 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

9 (Unknown) is used when the available information specifically indicated the damage severity to be unknown.

Note: There is a distinction between the cost to repair the damage and the degree to which the damage affects the vehicle's operability (totaled, under/over monetary threshold). Operational damage is recorded here. For example, if the available information indicates that the vehicle was totaled and the vehicle was towed away, use 6 (Disabling Damage). However, if the available information indicates that the vehicle was totaled, but the vehicle was driven away, use 4 (Functional Damage).

## Consistency Checks:

## IF

(3COP) UNIT TYPE equals 1, and EXTENT OF DAMAGE equals 6,
(3C1P) EXTENT OF DAMAGE equals 0, 2,
(3C1Q) EXTENT OF DAMAGE equals 0, 2,
(3C2P) VEHICLE REMOVAL equals 2,
(3C3P) EXTENT OF DAMAGE equals 6,

## THEN

VEHICLE REMOVAL should equal 2, 8, 9.
VEHICLE REMOVAL must not equal 2. VEHICLE REMOVAL should equal 3 or 5.
EXTENT OF DAMAGE must equal 6, 8, 9.

VEHICLE REMOVAL must not equal 3.

IF

## THEN

(3CA0) EXTENT OF DAMAGE for this vehicle DAMAGED AREAS must equal 15. equals 0 ,
(VH82) EXTENT OF DAMAGE for this vehicle DAMAGED AREAS must not equal 15. equals 2, 4, 6,

## Consistency Check: (FARS ONLY)

(U370) UNLIKELY: EXTENT OF DAMAGE equals 8.

## THIS PAGE INTENTIONALLY LEFT BLANK

# VEHICLE REMOVAL 

FORMAT: 1 numeric
SAS NAME: Vehicle.TOWED, Parkwork.PTOWED

## ELEMENT VALUES:

2 Towed Due to Disabling Damage
3 Towed Not Due to Disabling Damage
5 Not Towed
8 Not Reported
9 Unknown

Definition: This data element describes the mode in which the vehicle left the scene of the crash.

## Remarks:

This data element describes the mode in which the vehicle left the scene of the crash. Towing includes vehicles carried from the scene on a flatbed tow truck.

If the vehicle is a combination vehicle (power unit and at least one trailer), the power unit and/or trailer(s) are considered when determining tow status. If the available information indicates the power unit, or trailer of a combination unit, sustained enough damage to require towing, consider this vehicle as towed due to damage.

## GES SPECIAL INSTRUCTION:

For articulated light vehicles, that are not commercial, do not code Vehicle Removal as "towed" if only the trailer portion of the combination is towed. The state specific tow rules for sampling also apply here.

2 (Towed Due to Disabling Damage) is used for any towing which is due to disabling damage caused by this crash which prohibits vehicle movement under its own power. Towed due to disabling damage includes any towing when the reason for towing is unknown. In other words, if a vehicle is reported in the case materials as towed but it cannot be determined whether it was due to disabling damage or for other reasons, then the default assumption is that this vehicle was towed due to disabling damage - the data element Extent of Damage can still be 8 (Not Reported) or 9 (Unknown).

If a vehicle was pushed by hand or by another vehicle after the crash because it was not drivable, then use 2 (Towed Due to Disabling Damage).

If a vehicle was towed due to damage AND for other reasons such as driver arrest, then code this vehicle as 2 (Towed Due to Disabling Damage).

3 (Towed Not Due to Disabling Damage) is used when the vehicle has been towed but the towing results from other than disabling damage (e.g., minor damage, functional damage, mired vehicles, driver arrested, injured driver, etc.).

5 (Not Towed) is used when it is specifically indicated in the available information that the vehicle was not towed or when the preponderance of the information available indicates that the vehicle was driven away or was not towed. Not Towed is also used when preponderance of the information available indicates that the vehicle remained at the scene unless the damage severity for the vehicle is noted as disabling on the PAR. If the preponderance of the information available indicates that the vehicle remained at the scene and the damage severity for the vehicle is noted as disabling on the PAR, then use 2 (Towed Due to Disabling Damage).

NOTE: The PAR narrative may be used to supercede and/or clarify the above information.

## 8 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 8 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

9 (Unknown) is used when the investigating officer indicates it was unknown as to how the vehicle was removed.

## Consistency Checks:

IF
THEN
(3COP) UNIT TYPE equals 1, and EXTENT OF DAMAGE equals 6 ,
(3C1P) EXTENT OF DAMAGE equals 0,2 ,
(3C1Q) EXTENT OF DAMAGE equals 0,2 ,
(3C2P) VEHICLE REMOVAL equals 2 ,
(3C3P) EXTENT OF DAMAGE equals 6 ,
(U430) UNLIKELY: VEHICLE REMOVAL equals 8.

Consistency Check (GES Only):

## IF

(5A3P) FINAL STRATUM equals 1, 5 or 6,
(5A4P) FINAL STRATUM equals 1,
(5A5P) FINAL STRATUM equals 5,
(5A6P) FINAL STRATUM equals 2,
(VH88) UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and BODY TYPE equals 01-49 or 60-79,

## THEN

there should exist at least one vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2.
there should exist:

1) at least one vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and INJURY SEVERITY equals 4 for at least one occupant of that vehicle; or
2) one and only one vehicle where BODY TYPE equals 01-49, and UNIT
TYPE equals 1, and VEHICLE REMOVAL equals 2, and INJURY SEVERITY equals 3 for at least one occupant of that vehicle; or 3) 2 or more vehicles where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and at least 2 vehicles where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and INJURY SEVERITY equals 3 for at least one occupant of a vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2. there should exist at least one vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and INJURY SEVERITY equals 1, 2, 3 or 5 for at least one occupant of that vehicle. there 1) should exist at least one vehicle where UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2; or 2) INJURY SEVERITY should equal 1-5 for at least one person in the crash.
STRATUM should not equal 4.

IF
(VH89) UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2 , and BODY TYPE equals 01-49,
(VH90) UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and BODY TYPE equals 01-49 or 60-79,
(VH91) UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and BODY TYPE equals 01-49,

THEN
STRATUM should not equal 3.

FINAL STRATUM must not equal 4.

FINAL STRATUM must not equal 3.

## SEQUENCE OF EVENTS

FORMAT: Read Only
SAS NAME: Cevent.SOE; Vevent.SOE

## ELEMENT VALUES:

## Non-Harmful Events:

61 Equipment Failure (blown tire, brake failure, etc.)
62 Separation of Units
63 Ran Off Roadway-Right
64 Ran Off Roadway-Left
71 End Departure
65 Cross Median
68 Cross Centerline
66 Downhill Runaway
67 Vehicle Went Airborne
69 Re-entering Roadway
70 Jackknife (non-harmful)
60 Cargo/Equipment Loss or Shift (non-harmful)

## Non-Collision Harmful Events:

01 Rollover/Overturn
02 Fire/Explosion
03 Immersion or Partial Immersion
04 Gas Inhalation
51 Jackknife (harmful to this vehicle)
06 Injured in Vehicle (Non-Collision)
44 Pavement Surface Irregularity (Ruts, Potholes, Grates, etc.)
07 Other Non-Collision
72 Cargo/Equipment Loss or Shift (harmful to this vehicle)
16 Thrown or Falling Object
05 Fell/Jumped from Vehicle

## Collision with Motor Vehicle In-Transport:

12 Motor Vehicle In-Transport
54 Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-inMotion from/by Another Motor Vehicle In-Transport
55 Motor Vehicle In Motion Outside the Trafficway

## Collision with Object Not Fixed:

08 Pedestrian
09 Pedalcyclist
10 Railway Vehicle
11 Live Animal

Ridden Animal or Animal-Drawn Conveyance
Other Object (Not Fixed)
Non-Motorist on Personal Conveyance
Parked Motor Vehicle
Working Motor Vehicle
Object Fell From Motor Vehicle In-Transport

## Collision with Fixed Object:

17 Boulder
19 Building
58 Ground
20 Impact Attenuator/Crash Cushion
50 Bridge Overhead Structure
21 Bridge Pier or Support
23 Bridge Rail (Includes Parapet)
24 Guardrail Face
52 Guardrail End
25 Concrete Traffic Barrier
57 Cable Barrier
26 Other Traffic Barrier
59 Traffic Sign Support
46 Traffic Signal Support
30 Utility Pole/Light Support
31 Other Post, Other Pole or Other Supports
32 Culvert
33 Curb
34 Ditch
35 Embankment
38 Fence
39 Wall
40 Fire Hydrant
41 Shrubbery
42 Tree (Standing Only)
48 Snow Bank
53 Mail Box
43 Other Fixed Object
99 Unknown
Definition: The events in sequence related to this motor vehicle, regardless of injury and/or property damage. Code each event for this vehicle in the order in which they occur, time wise, from the Police Accident Report (PAR) narrative and diagram.

## Remarks:

This data element is derived from the Crash Events Table. Recording of Crash Events ends at the last harmful event of the entire crash. Therefore, a non-harmful event (e.g., Crossing the Centerline) that occurs following the last harmful event of the crash will not be included.

Correction to the Sequence Events order must be made by revision to the Crash Events Table.

## Non-Harmful Event:

61 (Equipment Failure) (blown tire, brake failure, etc.) Examples of equipment failure include blown tires, brake failures, etc.

62 (Separation of Unit) is used when a trailing unit separates from its power unit or another trailing unit(s). This applies to truck tractors with trailer(s), single-unit trucks with a trailer and other vehicles pulling a trailer (e.g., car pulling a boat or motor home).

63 (Ran Off Roadway-Right) is used if the vehicle runs off the right side of the roadway. Identification of running off roadway can be determined from the case materials. This attribute can be used anytime in the event sequence before or after any harmful events.

64 (Ran Off Roadway-Left) is used if the vehicle runs off the left side of the roadway. Identification of running off roadway can be determined from the case materials. This attribute can be used anytime in the event sequence before or after any harmful events.

## Coding Guidelines for Running Off Roadway (Right or Left)

## For Divided Highways:

On a divided highway, a vehicle can run off the roadway by leaving the roadway and entering the median. When this occurs involving a vehicle on the correct side of a divided highway, the proper "Ran Off Roadway" attribute is always 64 (Ran Off Roadway - Left). 64 (Ran Off Roadway - Left) will also apply in situations where the vehicle traverses the median and continues across the opposing roadway.

## For vehicles turning at "T-intersections":

For "T-intersections" when the vehicle loses control when in a turn, choose right or left based upon the direction of travel for the vehicle's proper travel lane for their intended travel path. For vehicles traveling straight through "T-Intersections" use 71 (End Departure). See diagrams below.


71 (End Departure) is used if the vehicle leaves the roadway by traveling straight through the top of a "T-intersection" of a two-way trafficway or top of an intersecting one-way roadway. This code should also apply to vehicles traveling off the end of dead end roadways or into the barrier of a closed trafficway. See diagrams below.

71 - End Departure


65 (Cross Median) is used when a vehicle departs its roadway and traverses the median and enters the shoulder or travel lanes on the opposite side of a divided highway.

68 (Cross Centerline) is used when a vehicle crosses over the centerline of a two-way, undivided highway. The centerline must be delineated with paint or raised markers. This also includes unstabilized situations involving vehicles completely crossing over a continuous leftturn lane.

66 (Downhill Runaway) refers to any vehicle that cannot decelerate on a downhill grade.
67 (Vehicle Went Airborne) must only be used if the officer indicates by narrative or diagram that the vehicle left the ground (excludes vehicles going airborne during a rollover event). Examples: the vehicle drove off a cliff, the vehicle was launched into the air after striking another vehicle or after traversing a berm.

69 (Re-entering Roadway) is used when a vehicle that departed the roadway portion of the trafficway returns to the same roadway (e.g., a motor vehicle in transport runs off the roadway right, strikes the guardrail face, then re-enters the roadway and collides with another motor vehicle in transport).

70 (Jackknife [non-harmful]) applies to a condition that occurs to an articulated vehicle, (any vehicle with a trailing unit(s) connected by a hitch; e.g., truck tractor or single-unit truck with one or more trailers, articulated bus, car pulling a boat on a trailer, etc.) while in motion. The condition reflects a loss of control of the vehicle by the driver in which the trailer(s) yaws from its normal straight-line path behind the power unit.

60 (Cargo/Equipment Loss or Shift [non-harmful]) refers specifically to the loss or shift of items carried on or in a motor vehicle or its trailing unit, and not to the vehicle or trailing unit, itself. This attribute should never be used:

1. to refer to a "collision" event (see $\mathbf{5 4}$ (Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-in-Motion from/by Another Motor Vehicle InTransport))
2. to a harmful event related to the loss or shift of cargo in/on a vehicle causing damage to that vehicle, its cargo, or injury to its occupants (see 72 (Cargo/Equipment Loss or Shift [harmful to this vehicle])).

## Example:

A load of logs on a tractor semi-trailer shifts as the truck rounds a curve resulting in an overturn.

Non-Collision events involving motorcycles and vehicles with a "load":
Non-Collision events may occur before or after a collision event. They should not be coded as a separate event if they occur as part of a collision event.

## Examples:

- A motorcycle strikes a deer, overturns and the rider becomes separated from the vehicle. Code the collision event, not the non-collision "Rollover/Overturn" and "Vehicle Occupant Fell from Vehicle" that occur as part of the collision event.
- One tractor/trailer rear-ends another tractor/trailer. The impact pushes the lead vehicle's load into the back of the tractor cab with part falling onto the roadway. Code the collision event, not the non-collision "cargo-loss or shift" that occurred as part of the collision event.

01 (Rollover/Overturn) is used when a motor vehicle rotates (rollover) at least one quarter turn onto its side or end.

## NOTES regarding 01 (Rollover/Overturn):

- For motorcycles, laying the motorcycle down on its side is sufficient to 01 (Rollover/Overturn) as a harmful event if damage or injury is produced, even though the data element Rollover is not applicable to motorcycles.
- $\mathbf{5 8}$ (Ground) is not to be entered when the harmful event is $\mathbf{0 1}$ (Rollover/Overturn).
- A vehicle rolls over 3 quarter turns. This is one rollover event involving 3 quarter turns.
- If there is a $\mathbf{0 1}$ (Rollover/Overturn) that begins in another location but involves a ditch or embankment in the case (e.g., "rolled through the ditch", "rolled down the embankment", "came to rest against the embankment"), then the rule applies where if there is no damage associated with an impact with the fixed object during the rollover, it is not
included in the Crash Events. If there is indication that damage resulted from an impact with the fixed object, it is included in the Crash Events. This follows the same logic as striking a tree or another vehicle during an overturn.
- For a vehicle that rolls over, impacts a fence and continues to rollover. Only two events would be coded for that circumstance. The first event would be the rollover followed by an impact with the fence. In order for more than one rollover event to appear in a vehicles sequence of events, the vehicle must return to its wheels, and track for a period of time before experiencing a separate rollover event. This would be a rare occurrence and must be clearly identified in the case materials.

Note: For medium/heavy trucks with attached trailers by fixed linkage, when either the power unit or the trailer rolls over, the entire vehicle will be considered a rollover.

## GES SPECIAL INSTRUCTION:

For articulated light vehicles, that are not commercial do not code a Rollover/Overturn if only the trailer portion of the combination overturns.

02 (Fire/Explosion) is used for a vehicle fire or explosion that occurs during the crash sequence or as a result of the crash.

As it pertains to the occurrence of $\mathbf{0 2}$ (Fire/Explosion), the crash circumstances are not considered stabilized until the threat of damage to this vehicle, or injury consequences to this vehicle's occupants, has ceased. Therefore, the crash sequence is not considered stabilized until all occupants have exited the vehicle and the scene has been declared safe by police or other authority. Fires that occur at a later time to vehicles abandoned at the scene (e.g., in open fields, on hillsides, etc.) or to vehicles removed from the scene to another location (tow yard, curbside, etc.) are not considered part of the crash sequence.

03 (Immersion or Partial Immersion) is used when an in-transport motor vehicle enters a body of water and results in injury or damage. This code would also be used if the vehicle came to rest in water and the depth cannot be ascertained from case materials. NOTE: In immersion fatalities the injury to the person may be noted as "drowning".

04 (Gas Inhalation) includes injury or death as a result of toxic fumes, such as carbon monoxide fumes leaking from a motor vehicle in-transport.

51 (Jackknife [harmful to this vehicle]) applies to a condition that occurs to an articulated vehicle, (any vehicle with a trailing unit(s) connected by a hitch; e.g., truck tractor or single-unit truck with one or more trailers, articulated bus, car pulling a boat on a trailer, etc.) while in motion. The condition reflects a loss of control of the vehicle by the driver in which the trailer(s) yaws from its normal straight-line path behind the power unit, striking the power unit, causing damage to the power unit or trailer. Jackknife should only be coded as a harmful event if there is clear indication of damage to the jackknifed vehicle or injury to its occupants caused by the jackknife.

06 (Injured in Vehicle [Non-Collision]) is used when an occupant is injured during an unstabilized situation without a collision, excluding cargo/equipment loss or shift. Examples: Driver slams on brake, causing an unrestrained passenger to be injured. Driver makes a sharp turn causing driver to strike head on side window, knocking driver unconscious.

44 (Pavement Surface Irregularity [ruts, potholes, grates, etc.]) is used when the pavement surface irregularity is on a roadway. If the impact is with a surface irregularity (e.g. ruts, potholes) not on a roadway use the $\mathbf{5 8}$ (Ground).

07 (Other Non-Collision). Non-collision not captured in the listed non-collision attributes.

## Example:

Damage to the vehicle produced by its own dislodged vehicle parts (including hood flying up and contacting the windshield).

16 (Thrown or Falling Object) is used when any object (1) is thrown (intentionally or unintentionally) and impacts an in-transport vehicle, or (2) falls onto, into, or in the path of an in-transport motor vehicle. If a tree limb falls from a tree and is contacted by a car, enter 16 (Thrown or Falling Object). If a person maliciously throws an object off an overpass into traffic below, enter 16 (Thrown or Falling Object). This excludes contacts made by loads or objects set in-motion by a motor vehicle (see 54 (Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-in-Motion from/by Another Motor Vehicle InTransport)).

72 (Cargo/Equipment Loss or Shift [harmful to this vehicle]) refers specifically to the loss or shift of items carried on or in a motor vehicle or its trailing unit, and not to the vehicle or trailing unit, itself. This attribute is only used when the injury- or damage-producing event in the crash is the loss or shift of cargo in/on a vehicle causing damage to that vehicle, its cargo, or injury to its occupants. This attribute should never be used to refer to a "collision" event (see 54 (Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-in-Motion from/by Another Motor Vehicle In-Transport))

Example:
A pickup truck brakes rapidly to avoid a collision. This causes a piece of lumber in the pickup bed to smash through the rear window.

05 (Fell/Jumped from Vehicle) is used when an occupant of this vehicle falls or jumps (not suicide) from the vehicle causing injury. For example, an occupant of a motor vehicle intransport leans against the car door, it opens and the occupant falls out; or a person riding on a vehicle's exterior (hood, roof, running board, etc.) falls or jumps, and is injured by the fall. If an occupant falls or jumps from a vehicle and is struck by that vehicle, use this attribute.

12 (Motor Vehicle In-Transport) is used when the injury- or damage-producing event is two motor vehicles in-transport making contact within the trafficway boundaries. In-transport means that the motor vehicle is in-motion or on the roadway portion of a trafficway.

54 (Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-inMotion from/by Another Motor Vehicle In-Transport) is used when the injury- or damageproducing event is two motor vehicles in-transport making contact by something set-in-motion by one of the vehicles. In these circumstances, both vehicles should have this attribute in their Sequence of Events. In crashes involving harmful events caused by objects set-in-motion by a Motor Vehicle in-transport, remember that a vehicle's load is considered part of the vehicle.

## Examples:

1. If cargo falls from a truck (in-transport) and strikes another motor vehicle in-transport, this is treated as a two-vehicle crash. Therefore, the proper code for both vehicles is 54 (Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-in-Motion from/by Another Motor Vehicle In-Transport).
2. If cargo falls from a truck (in-transport) and strikes another vehicle that is not intransport, this is also treated as a two-vehicle crash; however in this example, the proper attribute is $\mathbf{1 4}$ (Parked Motor Vehicle) or 45 (Working Motor Vehicle) depending on which type of not in-transport vehicle was contacted by the load.
3. If cargo falls from a truck (in-transport) and strikes a pedestrian, the proper attribute would be 08 (Pedestrian).

55 (Motor Vehicle In Motion Outside the Trafficway) is used when the injury- or damageproducing event is two motor vehicles in-transport making contact outside the trafficway boundaries in a motor vehicle traffic crash.

## Example:

A vehicle loses control attempting to turn into a gas station and strikes another vehicle pulling away from the pump in the station lot.

08 (Pedestrian) is used for all those not on a personal conveyance. A person pushing a vehicle should be coded 08 (Pedestrian). A person being carried by another person should also be considered a 08 (Pedestrian).

09 (Pedalcyclist) is used for any person on a non-motorized other road vehicle propelled by pedaling. Examples include a bicycle, tricycle, unicycle or pedal car.

10 (Railway Vehicle) is any land vehicle that is (1) designed primarily for, or in use for, moving persons or property from one place to another on rails and (2) not in use on a land way other than a railway.

Inclusions:

- Street car on private way

Exclusions:

- Street car operating on trafficway

11 (Live Animal) is used for collisions with live animals (domesticated or wild) that are not themselves being used as transportation or to draw a wagon, cart or other transport device (see ANSI D16.1). Default to 11 (Live Animal) if it cannot be determined if the struck animal is alive, dead or if it was being ridden or drawing a transport device.

Use 49 (Ridden Animal or Animal-Drawn Conveyance) for ridden animals and animals drawing transport devices. See 18 (Other Object [Not Fixed]) for an animal carcass lying in the roadway.

18 (Other Object [Not Fixed]) is used when a motor vehicle in-transport strikes a nonfixed object that is known NOT to have been the cargo or part of another motor vehicle in-transport or when it is UNKNOWN whether the object was the cargo or part of another motor vehicle in-transport (i.e., refers to objects such as a dead body, animal carcass, construction cones or barrels, an unattached trailer, a bicycle without a rider or downed tree limbs or power lines.). For objects that have become separated from a motor vehicle in-transport, use attribute 73 (Objects Fell from Motor Vehicle In-Transport).

15 (Non-Motorist on Personal Conveyance) is used for pedestrians using personal conveyances. A personal conveyance is a device, other than a transport device, used by a pedestrian for personal mobility assistance or recreation. These devices can be motorized or human powered, but not propelled by pedaling.

Inclusions:

1) Rideable toys

- Roller Skates, in-line skates
- Skateboards
- Skates
- Baby carriage
- Scooters
- Toy Wagons

2) Motorized rideable toys

- Motorized skateboard
- Motorized toy car

3) Devices for personal mobility assistance

- Segway-style devices
- Motorized and non-motorized wheelchair
- Handicapped scooters

Exclusions:

- Golf cart
- Low Speed Vehicles (LSVs)
- Go-carts
- Minibike
- "Pocket" motorcycles
- Motor scooters
- Moped

14 (Parked Motor Vehicle) is used when the impact occurred between a motor vehicle intransport and a motor vehicle neither on a roadway nor in motion. A vehicle stopped off the roadway, its door open over a roadway, is not in-transport.

45 (Working Motor Vehicle) is used to indicate the motor vehicle contacted was in the act of performing construction, maintenance or utility work related to the trafficway when it became an involved unit. This "work" may be located within open or closed portions of the trafficway and motor vehicles performing these activities can be within or outside the trafficway boundaries. This code does not include private construction/maintenance vehicles, or vehicles such as garbage trucks, delivery trucks, taxis, emergency vehicles, tow trucks, etc.

## Examples:

1. Asphalt/steam roller working in a highway construction zone paving the roadway or flattening dirt.
2. State highway maintenance crew painting lane lines on the road, mowing grass on the roadside or median, repairing potholes, removing debris from the roadway, etc.
3. Utility truck or a "cherry picker", performing maintenance on power lines along the roadway or maintaining a traffic signal.
4. A private excavating company contracted by the State digging the foundation for a new overpass.
5. A state, county, or privately owned snow plow, plowing ice/snow as part of a highway maintenance activity.
6. Street sweeper sweeping the street.
7. A vehicle in a mobile work convoy displaying arrow boards or other signaling devices warning motorists of the work activity.
8. A law enforcement vehicle which is participating strictly in a stationary construction or mobile maintenance activity as a traffic slowing, control, signaling or calming influence.

## FARS SPECIAL INSTRUCTION:

NOTE: Before 2004, this code was called Transport Device Used as Equipment. It included other working activities in addition to construction, maintenance and utility work on trafficways. From 2004 forward, code " 45 " excludes working activities other than highway construction, maintenance or utility vehicles (e.g., garbage truck picking up trash, mail/delivery trucks while making deliveries, personal vehicles plowing snow, etc. These are considered motor vehicles In-transport). Use Related Factors-Vehicle Level code 42 (Other Working Vehicle [Not Construction, Maintenance, Utility, Police, Fire, or EMS Vehicle]) to identify these vehicles.

A question may arise when a police, fire or emergency medical vehicle is struck on the roadway while at the scene of a crash, at a traffic stop, or as traffic control. The question becomes, "has its function changed from being a motor vehicle in-transport to a working vehicle?" The answer is "no." Treat these situations as a motor vehicle in-transport striking another motor vehicle in-transport. Use Related Factors-Vehicle Level code 41 (Police, Fire, or EMS Vehicle Working at the Scene of an Emergency or Performing Other Traffic Control Activities) to identify that this vehicle was struck while performing these work activities.

73 (Object Fell From Motor Vehicle In-Transport) is used when a motor vehicle intransport impacts a non-fixed object at rest that is known to have been the cargo or part of another motor vehicle in-transport.

## Collision with Fixed Object:

The attributes 58 (Ground), 33 (Curb), 34 (Ditch) and 35 (Embankment) are grouped under the Collision with Fixed Object subset because they are intended to be harmful events in the crash (i.e. - they are associated with an impact that produces injury or damage). If there is no indication of damage from contact with the fixed object (e.g., "came to rest on the embankment" or "ran into the ditch"), then it is not included in the Crash Events.

17 (Boulder) is a rock of sufficient mass that when struck by a motor vehicle moves very little and remains basically intact.

19 (Building) is used when the vehicle impacts a roofed and walled structure built for permanent use. The type of construction material used is not of interest, nor is the use of the building.

58 (Ground) is used when the impact is with an earthen or paved surface off of the roadway. 58 (Ground) is not to be entered when the harmful event is $\mathbf{0 1}$ (Rollover/Overturn).

20 (Impact Attenuator/Crash Cushion) is a device for controlling the absorption of energy released during vehicle collision (crash cushion). Its most common application involves the protection of fixed roadside objects such as bridge piers, elevated gores at exit ramps, etc. Examples include barrels filled with water or sand, and plastic collapsible structures.

50 (Bridge Overhead Structure) is used when striking the bottom of a bridge while traveling on a trafficway underneath it.

21 (Bridge Pier or Support) is a square or round column of stone, concrete, brick, steel or wood for supporting a bridge between abutments. This attribute includes the bridge abutments which are supporting the ends of a bridge. Abutments are generally designed for retaining or supporting the embankment under bridge ends and composed of stone, concrete, brick or wood (includes the wing-walls).

23 (Bridge Rail [Includes Parapet]) is a wooden, brick, stone, concrete or metal fence-like structure which runs along the outermost edge of the roadway or sidewalk on the bridge or a rail constructed along the top of a parapet. Balustrade is often used synonymously with parapet.

- Bridges do not need to support another roadway. It may be an overpass for a train or even for a viaduct (water conduit).

24 (Guardrail Face) is a low barrier that has the primary longitudinal structure composed of metal (plates, mesh, box beam, etc.). A guardrail is differentiated from 25 (Concrete Traffic Barrier) by the material making up the greatest part of the longitudinal portion of the structure. In the case of guardrails, this is metal whereas in concrete barriers this is concrete (including concrete rails). If the crash report does not differentiate between guardrail face and end, default to guardrail face.

Guardrails, which serve as bridge rails, should be coded as 23 (Bridge Rail [Includes Parapet]).

52 (Guardrail End) is coded if a vehicle strikes the end of a guardrail. Guardrails can have a separate flat or rounded piece of metal attached to the end of an expanse of guardrail face.

## BRIDGE COMPONENTS



25 (Concrete Traffic Barrier) refers to the longitudinal traffic barriers constructed of concrete. This includes all temporary concrete barriers regardless of location (i.e., temporary Jersey Barrier on a bridge being used to control traffic during bridge repair/construction). Concrete walls (vertical side surfaces) do not apply here; see 39 (Wall).

57 (Cable Barrier) refers to a flexible barrier system which uses several cables typically supported by steel posts. These barriers are designed to help lessen impact or keep vehicles within the confines of the road.

26 (Other Traffic Barrier) is used for all other longitudinal barriers such as wood or rock and unknown barrier composition type.

59 (Traffic Sign Support) is used when the post supporting a traffic sign, or the sign itself, is hit by a motor vehicle in-transport. This includes mile marker posts and signs above the trafficway.

46 (Traffic Signal Support) is used when the post supporting a traffic signal, or the signal itself, is hit by a motor vehicle in-transport.

30 (Utility Pole/Light Support) refers to supports for highway lighting systems, not including other private lighting systems (e.g., parking lot lights). 30 (Utility Pole/Light Support) is used for electrical, telephone, cable \& other utility pole-type supports.

31 (Other Post, Other Pole or Other Supports) is used for posts other than highway signs. (e.g., reflectors on poles along side of roadway, parking meters, flag poles, etc.). For mail box posts, use 53 (Mail Box).

32 (Culvert) is a man-made drain or channel crossing under a road, sidewalk, etc.
33 (Curb) is a concrete or asphalt structure that borders the roadway. It provides drainage control and pavement edge delineation. The face of the curb may be sloped or vertical. Ensure that the PAR provides some indication that damage has occurred when a vehicle strikes a curb.

34 (Ditch) includes any man-made structure for drainage purposes. A ditch ends where a culvert begins and resumes on the opposite side of the culvert. Reference to a "ditchbank", "embankment of the ditch", or "ditch embankment" should be coded under 34 (Ditch).

35 (Embankment) is a raised structure to hold back water, to carry a roadway or the result of excavation or washout (including erosion) which may be faced with earth (or rock, stone or concrete). A 35 (Embankment) can usually be differentiated from a 39 (Wall) by its incline whereas a wall is usually vertical. However, there are exceptions to this; such as a retaining wall that may be inclined or a vertical embankment that is caused by a natural event such as a washout.

In crashes involving a field approach or crossing, if in doubt about when to use 32 (Culvert), 34 (Ditch) or 35 (Embankment) use the following criteria:
a. Use 34 (Ditch) if the driver would not have been able to recover from the ditch even if there had been no field approach (crossing).
b. Use 35 (Embankment) if the driver would have been able to recover from the ditch, but struck the field approach (crossing) prior to doing so.
c. Use 35 (Embankment) if it is not known whether or not the driver would have been able to recover from the ditch and a field approach (crossing) is involved.
d. Use 32 (Culvert) if it is specifically indicated that the vehicle struck a culvert in the field approach.

38 (Fence) includes the fence posts. A Fence can be made of wood, chain link, stone, etc
39 (Wall) is a primarily vertical structure composed of concrete, metal, timber or stone which is not part of a building or a fence but typically is used for retaining earth, abating noise, and separating areas (but not for containment as in the primary function of a fence). Also included as a 39 (Wall) are headwalls (or endwalls) that are sometimes provided on culvert ends principally to protect the sides of the embankment around the culvert opening against erosion. This does not include wing-walls, which are attached to ends of bridge abutments and extend back at an angle from the roadway. Wingwalls should be coded as 21 (Bridge Pier or Support).

40 (Fire Hydrant) refers to the roadside device used by fire departments to provide water for fighting fires. Usually made of steel, these devices are also referred to as fire plugs or fire stand pipes in some areas.

41 (Shrubbery) refers to vegetation which is usually of a woody multi-stemmed variety and in most instances is low growing rather than tall. May also be called bushes. Some common examples are boxwood, hawthorn and mountain laurel.

42 (Tree [Standing Only]) is used when a vehicle strikes a standing tree. This includes impacts from overhanging branches or tree stumps. If a vehicle strikes a tree lying in the roadway, use 18 (Other Object [Not Fixed]). If a tree falls on a vehicle as it is passing by, use 16 (Thrown or Falling Object).

48 (Snow Bank) is used when snowfall and/or road plowing creates essentially fixed barriers of snow/ice which are not snow-covered earth or rock embankments.

53 (Mail Box) refers to a private residence mail/newspaper box including the post. A cluster of private mailboxes is included in this attribute. This element does not include U.S. Mailbox, which are typically blue and are for general public use. Code a U.S. Mailbox as 43 (Other Fixed Object).

43 (Other Fixed Object) is used when the object is fixed (considered a permanent structure) and is not described by any of the other fixed object attributes.

## Examples:

- Bus shelters
- Pedestrian walkways
- Toll booths
- Guy wires supporting utility poles
- U. S. Mailbox for public use

Other examples would include property damage to standing crops, yards and other vegetation (excluding: 41 (Shrubbery), 42 (Tree [Standing Only]), and 58 (Ground)) if noted on the crash report.

99 (Unknown) is used when police indicate unknown.

## Consistency Checks:

## IF

## THEN

(1ZON) SEQUENCE OF EVENTS for this vehicle should not include more than one occurrence of 01. Please see SEQUENCE OF EVENTS remarks for 01 (Rollover/Overturn) to confirm coding.
(1Z1N) SEQUENCE OF EVENTS for this vehicle should not equal 01,67 consecutively or 67, 01 consecutively.
(1Z1P) any SEQUENCE OF EVENTS equals 66,
(1Z2P) any SEQUENCE OF EVENTS equals 01, and (BODY TYPE equals 01-79, 82, 90-99, or any RELATED FACTORS-VEHICLE LEVEL equals 30), then ROLLOVER must equal 1, 2 or 9,
(2ZOF) any SEQUENCE OF EVENTS equals 12, 14, 45, 54, 55,
(4ZOP) SEQUENCE OF EVENTS equals 02,
(4Z1P) UNIT TYPE equals 1 and FIRE OCCURRENCE equals 1,
(5ZOF) SEQUENCE OF EVENTS equals 08,
(671F) the only harmful event in the SEQUENCE OF EVENTS for this vehicle equals 02 or 04,
(6Z0F) SEQUENCE OF EVENTS equals 09,
(7ZOF) any SEQUENCE OF EVENTS equals 05, 06,
(8L8Q) AREAS OF IMPACT (THIS VEHICLE) equals 18 or 19 in the CRASH EVENTS,
(8L8R) the CRASH EVENTS event equals 54,
(8L8S) AREAS OF IMPACT (THIS VEHICLE) equals 18 or 19 in the CRASH EVENTS and the corresponding event in that row equals 14, 45 or 54,
(8L8T) RELATED FACTORS-CRASH LEVEL equals 14,
(8L8U) AREAS OF IMPACT (THIS VEHICLE) equals 18 or 19 in the CRASH EVENTS and the corresponding event in that row equals 08, 09, 15, 49,

THEN
ROADWAY GRADE should equal 6 for this vehicle.
ROLLOVER must equal 1, 2, 9.

NUMBER OF VEHICLE FORMS SUBMITTED must be greater than 001.
FIRE OCCURRENCE for this vehicle must equal 1.
at least one SEQUENCE OF EVENTS must equal 02.
at least one person must have PERSON
TYPE equal to 05, 10.
CRITICAL EVENT - PRECRASH (EVENT) must equal 98.
at least one person must have PERSON TYPE equal to 06, 07.
at least one occupant of this vehicle (PERSON TYPES 01, 02, 09) must have INJURY SEVERITY equal to 1-5, or blank.
the corresponding event in that row must not equal 12 or 55.

AREAS OF IMPACT (THIS VEHICLE) must equal 18 or 19 in that row. RELATED FACTORS-CRASH LEVEL must equal 14.
there must exist at least one event in the CRASH EVENTS where AREAS OF IMPACT (THIS VEHICLE) equals 18 or 19 and the corresponding event in that row equals 14, 45 or 54.
RELATED FACTORS-CRASH LEVEL must equal 15.
(8L8V) RELATED FACTORS-CRASH LEVEL equals 15,
(8L8X) AREAS OF IMPACT (THIS VEHICLE) equals 18,
(8L9P) BODY TYPE does not equal 80-83, 88-91, and CRASH EVENTS event equals 54, and the corresponding AREAS OF IMPACT (THIS VEHICLE) equals 19 in that row,
(8ZOF) any SEQUENCE OF EVENTS equals 15,
(9B9P) any SEQUENCE OF EVENTS equals 55,
(A230) SEQUENCE OF EVENTS equals 10,
(A520) SEQUENCE OF EVENTS equals 10,
(A521) any SEQUENCE OF EVENTS equals 46,
(A495) TRAFFICWAY DESCRIPTION equals 0 ,
(AL1P) SEQUENCE OF EVENTS equals 51, 62, 70,
(AL2P) SEQUENCE OF EVENTS equals 45, (AL5P) If UNIT TYPE equals 1 ,
(AL6P) MOST HARMFUL EVENT equals $\qquad$ —, and UNIT TYPE equals 1,
(AL8P) SEQUENCE OF EVENTS equals 51, 70,
(AM1P) FIRST HARMFUL EVENT equals 54 or 73, or SEQUENCE OF EVENTS equals 54,73 for any vehicle,
(AM2P) any SEQUENCE OF EVENTS equals 25 or 57,
(BZ40) CRITICAL EVENT - PRECRASH (EVENT) equals 01,

## THEN

there must exist at least one event in the CRASH EVENTS where AREAS OF IMPACT (THIS VEHICLE) equals 18 or 19, and the corresponding event in that row equals 08-10, 15, 18 or 49.
there should be a previous event involving that vehicle where the CRASH EVENTS event equals 60. there should be a previous event with CRASH EVENTS event equal to 18 or 73 involving that vehicle.
at least one Person Level (Not a MV Occupant) form must have a PERSON TYPE code of 08.
there must be at least one other vehicle with UNIT TYPE equal to 1.
ROADWAY FUNCTION CLASS should not equal 01, 11.
TRAFFIC CONTROL DEVICE should not equal 01-09, 20-29, 40-50, 98.
SPEED LIMIT should equal 05-50, 98 or 99 for this vehicle.
the first event in SEQUENCES OF EVENTS for this vehicle should not equal $63,64,69$ or 71.
VEHICLE TRAILING must not equal 0 .
WORK ZONE should equal 1-4.
at least one event in the SEQUENCE OF
EVENTS must equal the MOST
HARMFUL EVENT.
at least one event in the SEQUENCE OF EVENTS must equal $\qquad$ -
JACKKNIFE must equal 2, 3.
one RELATED FACTORS-CRASH LEVEL must equal 14.

TRAFFICWAY DESCRIPTION should equal 3,6 .
at least one SEQUENCE OF EVENTS must equal 61 for this vehicle.
(BZ50) CRITICAL EVENT - PRECRASH (EVENT) equals 12, and PREIMPACT LOCATION is not equal to 5,
(BZ60) CRITICAL EVENT - PRECRASH (EVENT) equals 13, and PREIMPACT LOCATION is not equal to 5,
(BZ70) CRITICAL EVENT - PRECRASH (EVENT) equals 14,
(BZ90) CRASH TYPE equals 01-05, and PRE-IMPACT LOCATION is not equal to 5,
(BZ91) CRASH TYPE equals 06-10, and PRE-IMPACT LOCATION is not equal to 5 ,
(PB00) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 110-910,
(PB02) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 111-980,
(V74P) UNIT TYPE equals 1, and
ROLLOVER equals $1,2,9$, or LOCATION OF ROLLOVER equals 1-7, 9,
(V750) UNDERRIDE/OVERRIDE equals 1-3,
(V760) UNDERRIDE/OVERRIDE equals 4-6,
(V770) UNDERRIDE/OVERRIDE equals 7,
(V780) UNDERRIDE/OVERRIDE equals 8,
(V990) any SEQUENCE OF EVENTS equals 61,
(VH70) UNIT TYPE equals 2-4,
(VH83) the only harmful SEQUENCE OF EVENTS for this vehicle equals 04-06,
at least one SEQUENCE OF EVENTS must equal 64 for this vehicle.
at least one SEQUENCE OF EVENTS must equal 63 for this vehicle.
at least one SEQUENCE OF EVENTS must equal 71 for this vehicle.
at least one SEQUENCE OF EVENTS prior to the first harmful event must equal 63.
at least one SEQUENCE OF EVENTS prior to the first harmful event must equal 64.
at least one SEQUENCE OF EVENTS for the striking vehicle must equal 08 or 15.
at least one SEQUENCE OF EVENTS for the striking vehicle must equal 09.
at least one SEQUENCE OF EVENTS must equal 01 for this vehicle.

FIRST HARMFUL EVENT or at least one SEQUENCE OF EVENTS (for this vehicle) should equal 12, 55.
FIRST HARMFUL EVENT or at least one SEQUENCE OF EVENTS (for this vehicle) should equal 14, 45. at least one SEQUENCE OF EVENTS (for this vehicle) must equal 12, 55.
at least one SEQUENCE OF EVENTS (for this vehicle) must equal 14, 45. CONTRIBUTING CIRCUMSTANCES, MOTOR VEHICLE should not equal 00. elements V15, V24, V31 must all be left blank.
DAMAGED AREAS should equal 15.

## IF

(VH84) the only harmful SEQUENCE OF EVENTS for this vehicle equals 01-03, 16, 44, 51, 72,

## MOST HARMFUL EVENT

FORMAT: 2 numeric
SAS NAME: Vehicle.M_HARM; parkwork.PM_HARM

## ELEMENT VALUES:

## Non-Collision Most Harmful Events:

01 Rollover/Overturn
02 Fire/Explosion
03 Immersion or Partial Immersion
04 Gas Inhalation
51 Jackknife (harmful to this vehicle)
06 Injured in Vehicle (Non-Collision)
44 Pavement Surface Irregularity (Ruts, Potholes, Grates, etc.)
07 Other Non-Collision
16 Thrown or Falling Object
72 Cargo/Equipment Loss or Shift (harmful to this vehicle)
05 Fell/Jumped from Vehicle

## Collision with Motor Vehicle In-Transport:

12 Motor Vehicle In-Transport
54 Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-inMotion from/by Another Motor Vehicle In-Transport
55 Motor Vehicle In Motion Outside the Trafficway

## Collision with Object Not Fixed:

08 Pedestrian
09 Pedalcyclist
10 Railway Vehicle
11 Live Animal
49 Ridden Animal or Animal Drawn Conveyance
18 Other Object (Not Fixed)
15 Non-Motorist on Personal Conveyance
14 Parked Motor Vehicle
45 Working Motor Vehicle
73 Object Fell From Motor Vehicle In-Transport

## Collision with Fixed Object:

## 17 Boulder

19 Building
58 Ground
20 Impact Attenuator/Crash Cushion

Bridge Overhead Structure
Bridge Pier or Support
Bridge Rail (Includes Parapet)
Guardrail Face
Guardrail End
Concrete Traffic Barrier
Cable Barrier
Other Traffic Barrier
Traffic Sign Support
Traffic Signal Support
Utility Pole/Light Support
Other Post, Other Pole or Other Supports
Culvert
Curb
Ditch
Embankment
Fence
Wall
Fire Hydrant
Shrubbery
Tree (Standing Only)
Snow Bank
Mail Box
Other Fixed Object
Unknown
Definition: This element identifies the event that resulted in the most severe injury or, if no injury, the greatest property damage involving this motor vehicle.

## Remarks:

Must be the major event FOR THIS VEHICLE, even if different from the FIRST HARMFUL EVENT.

## Code for each vehicle. May be different for each vehicle.

## Code using the following hierarchy:

## (A) FATALITIES take precedence over INJURIES.

1. If this vehicle is involved in more than one event which causes fatality to its own occupants or to non-motorists, choose the event which causes the greatest number of fatalities to occupants of this vehicle or to non-motorists (not occupants of other vehicles).
2. If this vehicle is involved in more than one event that causes fatality to its own occupants or to non-motorists; and if there are an equal number of fatalities in each
such event, choose the fatal event that is worst with respect to other injuries and property damage.
3. At last resort, choose the fatal event that occurred first, time-wise.
(B) INJURIES take precedence over PROPERTY DAMAGE.
4. If the vehicle is not involved in events that cause fatality to its occupants or to nonmotorist, choose the event that produces the worst injury.
5. If in doubt, choose the event with the greatest number of injuries.
6. If in doubt, choose the event that occurred first, time-wise.

## (C) If only PROPERTY DAMAGE results for this vehicle:

1. Choose the event causing the most damage.
2. If in doubt, choose the event that happened first, time-wise.

Non-Collision events involving motorcycles and vehicles with a "load":
Non-Collision events may occur before or after a collision event. They should not be coded as a separate event if they occur as part of a collision event.

## Examples:

- A motorcycle strikes a deer, overturns and the rider becomes separated from the vehicle. Code the collision event, not the non-collision "Rollover/Overturn" and "Vehicle Occupant Fell from Vehicle" that occur as part of the collision event.
- One tractor/trailer rear-ends another tractor/trailer. The impact pushes the lead vehicle's load into the back of the tractor cab with part falling onto the roadway. Code the collision event, not the non-collision "cargo-loss or shift" that occurred as part of the collision event.

01 (Rollover/Overturn) is used when a motor vehicle rotates (rollover) at least one quarter turn onto its side or end. For motorcycles, laying the motorcycle down on its side is sufficient to code 01 (Rollover/Overturn) as a harmful event if damage or injury is produced, even though the data element Rollover is not applicable to motorcycles. 58 (Ground) is not to be entered when the harmful event is $\mathbf{0 1}$ (Rollover/Overturn).

If there is a 01 (Rollover/Overturn) that begins in another location but involves a ditch or embankment in the case (e.g., "rolled through the ditch", "rolled down the embankment", "came to rest against the embankment"), then the rule applies where if there is no damage associated with an impact with the fixed object during the rollover, it is not included in the Crash Events. If there is indication that damage resulted from an impact with the fixed object, it is included in the Crash Events. This follows the same logic as striking a tree or another vehicle during an overturn.

Note: For medium/heavy trucks with attached trailers by fixed linkage, when either the power unit or the trailer rolls over, the entire vehicle will be considered a rollover.

## GES SPECIAL INSTRUCTION:

For articulated light vehicles, that are not commercial do not code a Rollover/Overturn if only the trailer portion of the combination overturns.

02 (Fire/Explosion) is used for a vehicle fire or explosion that occurs during the crash sequence or as a result of the crash.

As it pertains to the occurrence of $\mathbf{0 2}$ (Fire/Explosion), the crash circumstances are not considered stabilized until the threat of damage to this vehicle, or injury consequences to this vehicle's occupants, has ceased. Therefore, the crash sequence is not considered stabilized until all occupants have exited the vehicle and the scene has been declared safe by police or other authority. Fires that occur at a later time to vehicles abandoned at the scene (e.g., in open fields, on hillsides, etc.) or to vehicles removed from the scene to another location (tow yard, curbside, etc.) are not considered part of the crash sequence.

03 (Immersion or Partial Immersion) is used when an in-transport motor vehicle enters a body of water and results in injury or damage. This code would also be used if the vehicle came to rest in water and the depth cannot be ascertained from case materials. NOTE: In immersion fatalities the injury to the person may be noted as "drowning".

04 (Gas Inhalation) includes injury or death as a result of toxic fumes, such as carbon monoxide fumes leaking from a motor vehicle in-transport.

51 (Jackknife [harmful to this vehicle]) applies to a condition that occurs to an articulated vehicle, (any vehicle with a trailing unit(s) connected by a hitch; e.g., truck tractor or single-unit truck with one or more trailers, articulated bus, car pulling a boat on a trailer, etc.) while in motion. The condition reflects a loss of control of the vehicle by the driver in which the trailer(s) yaws from its normal straight-line path behind the power unit, striking the power unit, causing damage to the power unit or trailer. Jackknife should only be coded as a harmful event if there is clear indication of damage to the jackknifed vehicle or injury to its occupants caused by the jackknife.

06 (Injured in Vehicle [Non-Collision]) is used when an occupant is injured during an unstabilized situation without a collision, excluding cargo/equipment loss or shift. Examples: Driver slams on brake, causing an unrestrained passenger to be injured. Driver makes a sharp turn causing driver to strike head on side window, knocking driver unconscious.

44 (Pavement Surface Irregularity [ruts, potholes, grates, etc.]) is used when the pavement surface irregularity is on a roadway. If the impact is with a surface irregularity (e.g. ruts, potholes) not on a roadway use the 58 (Ground).

07 (Other Non-Collision). Non-collision not captured in the listed non-collision attributes.

## Example:

Damage to the vehicle produced by its own dislodged vehicle parts (including hood flying up and contacting the windshield).

16 (Thrown or Falling Object) is used when any object (1) is thrown (intentionally or unintentionally) and impacts an in-transport vehicle, or (2) falls onto, into, or in the path of an in-transport motor vehicle. If a tree limb falls from a tree and is contacted by a car, enter 16 (Thrown or Falling Object). If a person maliciously throws an object off an overpass into traffic below, enter 16 (Thrown or Falling Object). This excludes contacts made by loads or objects set in-motion by a motor vehicle (see 54 (Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-in-Motion from/by Another Motor Vehicle InTransport)).

72 (Cargo/Equipment Loss or Shift [harmful to this vehicle)) refers specifically to the loss or shift of items carried on or in a motor vehicle or its trailing unit, and not to the vehicle or trailing unit, itself. This attribute is only used when the injury- or damage-producing event in the crash is the loss or shift of cargo in/on a vehicle causing damage to that vehicle, its cargo, or injury to its occupants. This attribute should never be used to refer to a "collision" event (see 54 (Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-in-Motion from/by Another Motor Vehicle In-Transport)).

## Example:

A pickup truck brakes rapidly to avoid a collision. This causes a piece of lumber in the pickup bed to smash through the rear window.

05 (Fell/Jumped from Vehicle) is used when an occupant of this vehicle falls or jumps (not suicide) from the vehicle causing injury. For example, an occupant of a motor vehicle intransport leans against the car door, it opens and the occupant falls out; or a person riding on a vehicle's exterior (hood, roof, running board, etc.) falls or jumps, and is injured by the fall. If an occupant falls or jumps from a vehicle and is struck by that vehicle, use this attribute.

12 (Motor Vehicle In-Transport) is used when the injury- or damage-producing event is two motor vehicles in-transport making contact within the trafficway boundaries. This attribute would also apply for a not in-transport vehicle struck by an in-transport vehicle. For example, if a motor vehicle in-transport hits a parked vehicle, its event is 14 (Parked Motor Vehicle) and the event for the parked vehicle is 12 (Motor Vehicle In-Transport).

54 (Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-inMotion from/by Another Motor Vehicle In-Transport) is used when the injury- or damageproducing event is two motor vehicles in-transport making contact by something set-in-motion by one of the vehicles. In these circumstances, both vehicles should have this attribute in their Sequence of Events. In crashes involving harmful events caused by objects set-in-motion by a Motor Vehicle in-transport, remember that a vehicle's load is considered part of the vehicle.

## Examples:

1. If cargo falls from a truck (in-transport) and strikes another motor vehicle in-transport, this is treated as a two-vehicle crash. Therefore, the proper code for both vehicles is 54
(Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-in-Motion from/by Another Motor Vehicle In-Transport).
2. If cargo falls from a truck (in-transport) and strikes another vehicle that is not intransport, this is also treated as a two-vehicle crash; however in this example, the proper attribute is $\mathbf{1 4}$ (Parked Motor Vehicle) or $\mathbf{4 5}$ (Working Motor Vehicle) depending on which type of not in-transport vehicle was contacted by the load.
3. If cargo falls from a truck (in-transport) and strikes a pedestrian, the proper attribute would be 08 (Pedestrian).

55 (Motor Vehicle In Motion Outside the Trafficway) is used when the injury- or damageproducing event is two motor vehicles in-transport making contact outside the trafficway boundaries in a motor vehicle traffic crash.

## Example:

A vehicle loses control attempting to turn into a gas station and strikes another vehicle pulling away from the pump in the station lot.

08 (Pedestrian) is used for all those not on a personal conveyance. A person pushing a vehicle should be coded 08 (Pedestrian). A person being carried by another person should also be considered a 08 (Pedestrian).

09 (Pedalcyclist) is used for any person on a non-motorized other road vehicle propelled by pedaling. Examples include a bicycle, tricycle, unicycle or pedal car.

10 (Railway Vehicle) is any land vehicle that is (1) designed primarily for, or in use for, moving persons or property from one place to another on rails and (2) not in use on a land way other than a railway.

Inclusions:

- Street car on private way

Exclusions:

- Street car operating on trafficway

11 (Live Animal) is used for collisions with live animals (domesticated or wild) that are not themselves being used as transportation or to draw a wagon, cart or other transport device (see ANSI D16.1). Default to $\mathbf{1 1}$ (Live Animal) if it cannot be determined if the struck animal is alive, dead or if it was being ridden or drawing a transport device.

Use 49 (Ridden Animal or Animal-Drawn Conveyance) for ridden animals and animals drawing transport devices. See 18 (Other Object [Not Fixed]) for an animal carcass lying in the roadway.

18 (Other Object [Not Fixed]) is used when a motor vehicle in-transport strikes a nonfixed object that is known NOT to have been the cargo or part of another motor vehicle in-transport or when it is UNKNOWN whether the object was the cargo or part of another motor vehicle in-transport (i.e., refers to objects such as a dead body, animal carcass, construction cones or barrels, an unattached trailer, a bicycle without a rider or
downed tree limbs or power lines.). For objects that have become separated from a motor vehicle in-transport, use attribute 73 (Objects Fell from Motor Vehicle In-Transport).

15 (Non-Motorist on Personal Conveyance) is used for pedestrians using personal conveyances. A personal conveyance is a device, other than a transport device, used by a pedestrian for personal mobility assistance or recreation. These devices can be motorized or human powered, but not propelled by pedaling.
Inclusions:

1) Rideable toys

- Roller Skates, in-line skates
- Skateboards
- Skates
- Baby carriage
- Scooters
- Toy Wagons

2) Motorized rideable toys

- Motorized skateboard
- Motorized toy car

3) Devices for personal mobility assistance

- Segway-style devices
- Motorized and non-motorized
wheelchair
- Handicapped scooters

Exclusions:

- Golf cart
- Low Speed Vehicles (LSVs)
- Go-carts
- Minibike
- "Pocket" motorcycles
- Motor scooters
- Moped

14 (Parked Motor Vehicle) is used when the impact occurred between a motor vehicle intransport and a motor vehicle neither on a roadway nor in motion. A vehicle stopped off the roadway, its door open over a roadway, is not in-transport. This attribute would also apply for a not in-transport vehicle struck by another not in-transport vehicle. For example, if a motor vehicle in-transport hits a parked vehicle and pushes it into a second parked vehicle, the event for the second parked vehicle is 14 (Parked Motor Vehicle).

45 (Working Motor Vehicle) is used to indicate the motor vehicle contacted was in the act of performing construction, maintenance or utility work related to the trafficway when it became an involved unit. This "work" may be located within open or closed portions of the trafficway and motor vehicles performing these activities can be within or outside the trafficway boundaries. This code does not include private construction/maintenance vehicles, or vehicles such as garbage trucks, delivery trucks, taxis, emergency vehicles, tow trucks, etc.

## Examples:

1. Asphalt/steam roller working in a highway construction zone paving the roadway or flattening dirt.
2. State highway maintenance crew painting lane lines on the road, mowing grass on the roadside or median, repairing potholes, removing debris from the roadway, etc.
3. Utility truck or a "cherry picker", performing maintenance on power lines along the roadway or maintaining a traffic signal.
4. A private excavating company contracted by the State digging the foundation for a new overpass.
5. A state, county, or privately owned snow plow, plowing ice/snow as part of a highway maintenance activity.
6. Street sweeper sweeping the street.
7. A vehicle in a mobile work convoy displaying arrow boards or other signaling devices warning motorists of the work activity.
8. A law enforcement vehicle which is participating strictly in a stationary construction or mobile maintenance activity as a traffic slowing, control, signaling or calming influence.

NOTE: Before 2004, this code was called Transport Device Used as Equipment. It included other working activities in addition to construction, maintenance and utility work on trafficways. From 2004 forward, code " 45 " excludes working activities other than highway construction, maintenance or utility vehicles (e.g., garbage truck picking up trash, mail/delivery trucks while making deliveries, personal vehicles plowing snow, etc. These are considered motor vehicles In-transport). Use Related Factors-Vehicle Level code 42
(Other Working Vehicle [Not Construction, Maintenance, Utility, Police, Fire, or EMS Vehicle]) to identify these vehicles.

A question may arise when a police, fire or emergency medical vehicle is struck on the roadway while at the scene of a crash, at a traffic stop, or as traffic control. The question becomes, "has its function changed from being a motor vehicle in-transport to a working vehicle?" The answer is "no." Treat these situations as a motor vehicle in-transport striking another motor vehicle in-transport. Use Related Factors-Vehicle Level code 41 (Police, Fire, or EMS Vehicle Working at the Scene of an Emergency or Performing Other Traffic Control Activities) to identify that this vehicle was struck while performing these work activities.

## 73 (Object Fell From Motor Vehicle In-Transport) is used when a motor vehicle intransport impacts a non-fixed object at rest that is known to have been the cargo or part of another motor vehicle in-transport.

## Collision with Fixed Object

The attributes 58 (Ground), 33 (Curb), 34 (Ditch) and 35 (Embankment) are grouped under the Collision w/ Fixed Object subset because they are intended to be harmful events in the crash (i.e. - they are associated with an impact that produces injury or damage). If there is no indication of damage from contact with the fixed object (e.g., "came to rest on the embankment" or "ran into the ditch"), then it is not included in the Crash Events.

17 (Boulder) is a rock of sufficient mass that when struck by a motor vehicle moves very little and remains basically intact. It may be considered as a fixed object.

19 (Building) is used when the vehicle impacts a roofed and walled structure built for permanent use. The type of construction material used is not of interest, nor is the use of the building.

58 (Ground) is used when the impact is with an earthen or paved surface off of the roadway. 58 (Ground) is not to be entered when the harmful event is 01 (Rollover/Overturn).

20 (Impact Attenuator/Crash Cushion) is a device for controlling the absorption of energy released during vehicle collision (crash cushion). Its most common application involves the protection of fixed roadside objects such as bridge piers, elevated gores at exit ramps, etc. Examples include barrels filled with water or sand, and plastic collapsible structures.

50 (Bridge Overhead Structure) is used when striking the bottom of a bridge while traveling on a trafficway underneath it.

21 (Bridge Pier or Support) is a square or round column of stone, concrete, brick, steel or wood for supporting a bridge between abutments. This attribute includes the bridge abutments which are supporting the ends of a bridge. Abutments are generally designed for retaining or supporting the embankment under bridge ends and composed of stone, concrete, brick or wood (includes the wing-walls).

BRIDGE COMPONENTS


23 (Bridge Rail [Includes Parapet]) is a wooden, brick, stone, concrete or metal fence-like structure which runs along the outermost edge of the roadway or sidewalk on the bridge or a rail constructed along the top of a parapet. Balustrade is often used synonymously with parapet.

- Bridges do not need to support another roadway. It may be an overpass for a train or even for a viaduct (water conduit).

24 (Guardrail Face) is a low barrier that has the primary longitudinal structure composed of metal (plates, mesh, box beam, etc.). A guardrail is differentiated from 25 (Concrete Traffic Barrier) by the material making up the greatest part of the longitudinal portion of the structure. In the case of guardrails, this is metal whereas in concrete barriers this is concrete (including concrete rails). If the crash report does not differentiate between guardrail face and end, default to guardrail face.

Guardrails, which serve as bridge rails, should be coded as 23 (Bridge Rails [Includes Parapet]).

52 (Guardrail End) is coded if a vehicle strikes the end of a guardrail. Guardrails can have a separate flat or rounded piece of metal attached to the end of an expanse of guardrail face.

25 (Concrete Traffic Barrier) refers to the longitudinal traffic barriers constructed of concrete. This includes all temporary concrete barriers regardless of location (i.e., temporary Jersey Barrier on a bridge being used to control traffic during bridge repair/construction). Concrete walls (vertical side surfaces) do not apply here; see 39 (Wall).

57 (Cable Barrier) refers to a flexible barrier system which uses several cables typically supported by steel posts. These barriers are designed to help lessen impact or keep vehicles within the confines of the road.

26 (Other Traffic Barrier) is used for all other longitudinal barriers such as wood or rock and unknown barrier composition type.

59 (Traffic Sign Support) is used when the post supporting a traffic sign, or the sign itself, is hit by a motor vehicle in-transport. This includes mile marker posts and signs above the trafficway.

46 (Traffic Signal Support) is used when the post supporting a traffic signal, or the signal itself, is hit by a motor vehicle in-transport.

30 (Utility Pole/Light Support) refers to supports for highway lighting systems, not including other private lighting systems (e.g., parking lot lights). $\mathbf{3 0}$ (Utility Pole/Light Support) is used for electrical, telephone, cable \& other utility pole-type supports.

31 (Other Post, Other Pole or Other Supports) is used for posts other than highway signs. (e.g., reflectors on poles along side of roadway, parking meters, flag poles, etc.). For mail box posts, use 53 (Mail Box).

32 (Culvert) is a man-made drain or channel crossing under a road, sidewalk, etc.

33 (Curb) is a concrete or asphalt structure that borders the roadway. It provides drainage control and pavement edge delineation. The face of the curb may be sloped or vertical. Ensure that the PAR provides some indication that damage has occurred when a vehicle strikes a curb.

34 (Ditch) includes any man-made structure for drainage purposes. A ditch ends where a culvert begins and resumes on the opposite side of the culvert. Reference to a "ditchbank", "embankment of the ditch", or "ditch embankment" should be coded under 34 (Ditch).

35 (Embankment) is a raised structure to hold back water, to carry a roadway or the result of excavation or washout (including erosion) which may be faced with earth (or rock, stone or concrete). A 35 (Embankment) can usually be differentiated from a 39 (Wall) by its incline whereas a wall is usually vertical. However, there are exceptions to this; such as a retaining wall that may be inclined or a vertical embankment that is caused by a natural event such as a washout.

In crashes involving a field approach or crossing, if in doubt about when to use 32 (Culvert), 34 (Ditch) or 35 (Embankment) use the following criteria:
a. Use 34 (Ditch) if the driver would not have been able to recover from the ditch even if there had been no field approach (crossing).
b. Use 35 (Embankment) if the driver would have been able to recover from the ditch, but struck the field approach (crossing) prior to doing so.
c. Use 35 (Embankment) if it is not known whether or not the driver would have been able to recover from the ditch and a field approach (crossing) is involved.
d. Use 32 (Culvert) if it is specifically indicated that the vehicle struck a culvert in the field approach.

38 (Fence) includes the fence posts. A Fence can be made of wood, chain link, stone, etc
39 (Wall) is a primarily vertical structure composed of concrete, metal, timber or stone which is not part of a building or a fence but typically is used for retaining earth, abating noise, and separating areas (but not for containment as in the primary function of a fence). Also included as a 39 (Wall) are headwalls (or endwalls) that are sometimes provided on culvert ends principally to protect the sides of the embankment around the culvert opening against erosion. This does not include wing-walls, which are attached to ends of bridge abutments and extend back at an angle from the roadway. Wingwalls should be coded as 21 (Bridge Pier or Support).

40 (Fire Hydrant) refers to the roadside device used by fire departments to provide water for fighting fires. Usually made of steel, these devices are also referred to as fire plugs or fire stand pipes in some areas.

41 (Shrubbery) refers to vegetation which is usually of a woody multi-stemmed variety and in most instances is low growing rather than tall. May also be called bushes. Some common examples are boxwood, hawthorn and mountain laurel.

42 (Tree [Standing Only]) is used when a vehicle strikes a standing tree. This includes impacts from overhanging branches or tree stumps. If a vehicle strikes a tree lying in the roadway, use 18 (Other Object [Not Fixed]). If a tree falls on a vehicle as it is passing by, use 16 (Thrown or Falling Object).

48 (Snow Bank) is used when snowfall and/or road plowing creates essentially fixed barriers of snow/ice which are not snow-covered earth or rock embankments.

53 (Mail Box) refers to a private residence mail/newspaper box including the post. A cluster of private mailboxes is included in this attribute. This element does not include U.S. Mailbox, which are typically blue and are for general public use. Code a U.S. Mailbox as 43 (Other Fixed Object).

43 (Other Fixed Object) is used when the object is fixed (considered a permanent structure) and is not described by any of the other fixed object attributes.

## Examples:

- Bus shelters
- Pedestrian walkways
- Toll booths
- Guy wires supporting utility poles
- U. S. Mailbox for public use

Other examples would include property damage to standing crops, yards and other vegetation (excluding: 41 (Shrubbery), 42 (Tree [Standing Only]), and 58 (Ground)) if noted on the crash report.

99 (Unknown) is used when police indicate unknown.

## Consistency Checks:

## IF

(AL3P) UNIT TYPE equals 2-4,
(AL4P) there is one and only one parked vehicle (UNIT TYPE equals 2 or 3) in the crash,
(AL5P) If UNIT TYPE equals 1 ,
(AL6P) MOST HARMFUL EVENT equals $\qquad$ ,
and UNIT TYPE equals 1 ,

## THEN

MOST HARMFUL EVENT must not equal 54 for this vehicle.
MOST HARMFUL EVENT for the parked vehicle must not equal 14.
at least one event in the SEQUENCE OF EVENTS must equal the MOST HARMFUL EVENT. at least one event in the SEQUENCE OF EVENTS must equal $\qquad$

## RELATED FACTORS - VEHICLE LEVEL

FORMAT: 2 numeric occurring 2 times
SAS NAME: Vehicle.VEH_SC1; Vehicle.VEH_SC2. parkwork.PVEH_SC1, parkwork.PVEH_SC2

## ELEMENT VALUES:

## 00 None

## Special Vehicle Flags:

30 3-Wheeled Motorcycle Conversion
*32 Vehicle Registration for Handicapped
33 Vehicle Being Pushed by Non-Motorist
35 Reconstructed/Altered Vehicle
36 Electric/Alternative Fuel Vehicle
*37 Transporting Children To/From Head Start/Day Care
39 Highway Construction, Maintenance or Utility Vehicle, In-Transport (Inside or Outside Work Zone)
40 Highway Incident Response Vehicle
41 Police, Fire, or EMS Vehicle Working at the Scene of an Emergency or Performing Other Traffic Control Activities
42 Other Working Vehicle (Not Construction, Maintenance, Utility, Police, Fire, or EMS Vehicle)
44 Adaptive Equipment
99 Unknown

## *FARS ONLY ATTRIBUTES

Remarks:

| Related Factors |  | Examples |
| :--- | :--- | :--- |
| $\mathbf{0 0}$ | None |  |
| Special Vehicle Flags: | 3-Wheeled Motorcycle Conversion | Identifies motorcycles that were converted to a 3- <br> wheeled configuration from a 2-wheeled OEM <br> motorcycle. These vehicles will not have Body <br> Type "82 (Three-Wheel Motorcycle)" available <br> in the manufacturer's Make/Model/Model <br> Year/Body Type table. |
| 30 |  |  |


| Related Factors |  | Examples |
| :--- | :--- | :--- |
| Vehicle Registration for |  |  |
| Handicapped |  |  |\(\left.\quad \begin{array}{l}Vehicle registered and/or specially equipped for the <br>

handicapped. <br>
This can be derived from vehicle registration. <br>
Excludes placards which can be moved from one <br>
vehicle to the other.\end{array}\right\}\)

| Related Factors |  | Examples |
| :--- | :--- | :--- |
| $\mathbf{4 0}$ | Highway Incident Response <br> Vehicle | State government-owned vehicles, whose function <br> is to drive the major highways to assist motorists <br> with flat tires, provide gas, etc. <br> Could be called: DOT Help, Good Samaritans, <br> Courtesy Patrol, Motorist Assist Vehicle, etc. |
| $\mathbf{4 1}$ | Police, Fire, or EMS Vehicle <br> Working at the Scene of an <br> Emergency or Performing Other <br> Traffic Control Activities | Police car, fire truck or ambulance at the scene of a <br> crash. <br> Fire truck at the scene of a fire. <br> Police car leading or trailing a convoy or funeral. <br> Police car blocking the entrance to a parade route. <br> Police car at a check point. |
| $\mathbf{4 2}$ | Other Working Vehicle (Not <br> Construction, Maintenance, Utility, <br> Police, Fire, or EMS Vehicle) | Garbage truck picking up trash. <br> Personal pickup with a snow blade plowing. <br> UPS or postal vehicle stopped in the roadway while <br> making a delivery. |
| $\mathbf{4 4}$ | Adaptive Equipment | Special adaptive equipment for handicapped <br> operator(s) of this vehicle. |
| $\mathbf{9 9}$ | Unknown | Examples of adaptive equipment are: Extended <br> brake/gas pedals, special steering apparatus, <br> hand brakes or accelerator, etc. |

## *FARS ONLY ATTRIBUTES

Definition: This element identifies factors related to this vehicle expressed by the investigating officer.

## Remarks:

Care must be used to distinguish vehicle conditions from Related Factors-Driver Level. Driver irresponsibility will be explicitly stated in police report for coding as a Related Factors-Driver Level. Vehicle conditions include manufacturer defects, driver's changes that are defective, and maintenance conditions. Related Factors-Driver Level 24 (Operating Without Required Equipment) can be coded in conjunction with vehicle level conditions.

Attributes 30-44 are flags used to identify this vehicle as one with special circumstances. They do not necessarily imply that this circumstance caused the crash.

## Use of 00 (None)

Use when no factors are noted; zero-fill all fields. 00 (None) implies that the investigating officer indicated "no factors." Also, use 00 (None) to complete remaining fields when you will be recording less than two related factors. DO NOT leave any remaining fields blank.

## Use of 99 (Unknown)

Use when 99 (Unknown) is reported for the vehicle condition in the Police Accident Report itself and none of the special circumstances exist. In these circumstances, nine-fill all fields. If 99 (Unknown) is used for any field, ALL fields must be 99 (Unknown). DO NOT leave any remaining fields blank.

## Consistency Checks:

## IF

## THEN

(1G0P) one RELATED FACTORS-VEHICLE LEVEL equals 99,
(1Z2P) any SEQUENCE OF EVENTS equals 01, and (BODY TYPE equals 01-79,
82, 90-99, or any RELATED
FACTORS-VEHICLE LEVEL equals 30), then ROLLOVER must equal 1, 2 or 9,
(2GOP) either RELATED FACTORS-VEHICLE the other factor must also equal blanks. LEVEL equals blanks,
(3GOP) the first RELATED FACTORS- the other factor must also equal 00.
VEHICLE LEVEL equals 00,
(4GOP) A RELATED FACTORS-VEHICLE LEVEL between 30 and 44 can be used only once per vehicle form.
(5AOP) BODY TYPE equals 80, 81, 83, 88, ROLLOVER must equal 0. 89, and any RELATED FACTORS VEHICLE LEVEL does not equal 30,
(6G0Q) any RELATED FACTORS - VEHICLE LEVEL equals 30,
(9C1P) UNIT TYPE equals 4,
(ASOP) RELATED FACTORS-VEHICLE LEVEL equals 32,
(VH06) BODY TYPE equals 82,
(V031) RELATED FACTORS-VEHICLE LEVEL equals 39,
(V032) RELATED FACTORS-VEHICLE LEVEL equals 40,

BODY TYPE must equal 80 for this vehicle.
RELATED FACTORS-VEHICLE LEVEL must not equal 39.
REGISTERED VEHICLE OWNER must not equal 0 .
RELATED FACTORS-VEHICLE LEVEL must not equal 30.
BODY TYPE should not equal 01, 12, 13, 32, 33, 42, 50-52, 55, 58,59, 65, 73, 80-83, 88-92.
BODY TYPE should not equal 01, 12, 13, 32, 33, 42, 50-52, 55, 58,59, 60-67, 71-73, 78, 80-83, 88-93.

## THEN

REGISTRATION STATE must not equal 00, 92.
REGISTERED VEHICLE OWNER should equal 1-3.
REGISTRATION STATE should not equal 00, 92.
REGISTERED VEHICLE OWNER should not equal 0 .

## THIS PAGE INTENTIONALLY LEFT BLANK

## FIRE OCCURRENCE

FORMAT: 1 numeric
SAS NAME: Vehicle.FIRE_EXP, Person.FIRE_EXP, Parkwork.PFIRE

## ELEMENT VALUES:

0 No or Not Reported
1 Yes
Definition: This element identifies whether or not a fire in any way related to the crash occurred in this vehicle.

## Remarks:

For the purposes of this element, "vehicle" is defined to mean the power unit plus any and all trailing units associated with the power unit.

If it cannot be determined that a fire occurred in the vehicle during the crash, use 0 (No or Not Reported).

1 (Yes) is used when the case materials indicate that this vehicle sustained fire damage.
In a multi-vehicle crash where a fire occurs, only the vehicles sustaining fire damage should be coded as 1 (Yes).

Fires that begin in a vehicle before the first impact may be counted. If fire damage is produced, 02 (Fire/Explosion) would be the first harmful event.

If the Most Harmful Event for this vehicle is $\mathbf{0 2}$ (Fire/Explosion), or a fire in the vehicle is produced by damage in the crash, use $\mathbf{1}$ (Yes). The involved vehicles may be at rest for a short period of time.

If the vehicles are at rest long enough to raise a question about the fire's relationship to the crash's damage-producing events, use 0 (No or Not Reported).

## Examples for Fire Occurrence:

## Examples

## Code

1. Car (V\#1) strikes tank truck (V\#2) in rear, the car catches on fire with no fire occurring for the tank truck.
2. Vehicle \#1 catches fire, causing driver to strike vehicle \#2.
3. Vehicle \#1 catches fire, causing driver to stop vehicle in roadway and all occupants exit vehicle. Two minutes later, a second car (V\#2) rear-ends the stopped car and its driver is killed from collision. (Attributes reflect the second crash.)

V\#1 - 1 (Yes) V\#2 - 0 (No or Not Reported) V\#1 - 1 (Yes) V\#2 - 0 (No or Not Reported) V\#1 - 0 (No or Not Reported) V\#2-0 (No or Not Reported)

## Consistency Checks:

## IF

(4ZOP) SEQUENCE OF EVENTS equals 02,
(4Z1P) UNIT TYPE equals 1, and FIRE OCCURRENCE equals 1,
(540F) FIRST HARMFUL EVENT equals 02,

## THEN

FIRE OCCURRENCE for this vehicle must equal 1.
at least one SEQUENCE OF EVENTS must equal 02.
the vehicle involved in the first harmful event must have FIRE OCCURRENCE equal to 1.

## THIS PAGE INTENTIONALLY LEFT BLANK

## THIS PAGE INTENTIONALLY LEFT BLANK

## VEHICLE NUMBER - DRIVER LEVEL

FORMAT: 3 numeric
SAS NAME: Vehicle.Veh_No

## ELEMENT VALUES:

000-999

Definition: This element identifies the vehicle number associated with this driver.

## Remarks:

Must be coded on an original submission
System-Generated (MDE System Only)
See Vehicle Number-Vehicle Level for assignments numbers.
FOR DRIVERLESS, PARKED/STOPPED OFF ROADWAY/WORKING MOTOR VEHICLES AND MOTOR VEHICLES IN MOTION OUTSIDE THE TRAFFICWAY, ONLY CODE DRIVER PRESENCE (D4) AND RELATED FACTORS-DRIVER LEVEL (D24).

## Consistency Check:

(CSI2) There must be exactly one Driver Level form corresponding to each Vehicle Level form.

## THIS PAGE INTENTIONALLY LEFT BLANK

## DRIVER PRESENCE

FORMAT: 1 numeric
SAS NAME: Vehicle.Dr_Pres

## ELEMENT VALUES:

0 No Driver Present/Not Applicable
1 Yes
9 Unknown
Definition: This element identifies whether or not a driver was present in this vehicle at the onset of the unstabilized situation.

## Remarks:

$\mathbf{0}$ (No Driver Present/Not Applicable) is used when there is no person who was controlling this vehicle at the time of the crash.

Also, use 0 (No Driver Present/Not Applicable) when Unit Type for this vehicle is not a motor vehicle in-transport (Unit Type attributes "2, 3, 4"). Use this attribute regardless of the presence of an occupant in the driver's seat.
$\mathbf{1}$ (Yes) is used when there is a person who is physically controlling the vehicle at the onset of the unstabilized situation for this crash. Do not use this attribute for a child sitting in the driver's seat unless the case materials indicate the child was in control of the vehicle. Hit-andrun drivers are included in this attribute. A driver under medical distress would be included.
This attribute includes when it is known there was a driver but it is unknown which occupant was the driver at the time of the crash.

9 (Unknown) is used when it is unknown if there was a driver present in the vehicle at the time of the crash.

If coded $\mathbf{0}$ (No Driver Present/Not Applicable) or 9 (Unknown), all other elements on the Driver Level must be left blank. A Person Level - Occupant of a Motor Vehicle form with Person Type equal to $\mathbf{0 1}$ (Driver of a Motor Vehicle In-Transport) must not be submitted for that vehicle.

If coded $\mathbf{0}$ (No Driver Present/Not Applicable) or 9 (Unknown), Related Factors-Driver Level are coded "00".

## Consistency Checks:

|  | IF | THEN |
| :---: | :---: | :---: |
| (1HOF) | DRIVER PRESENCE equals 0,9 , | PREVIOUS SPEEDING CONVICTIONS must be blank. |
| (1H1F) | DRIVER PRESENCE equals 0, 9 , | DRIVER'S LICENSE STATE must be blank. |
| (1H2F) | DRIVER PRESENCE equals 0, 9 , | LICENSE COMPLIANCE WITH CLASS OF VEHICLE must be blank. |
| (1H3F) | DRIVER PRESENCE equals 0, 9 , | NON-CDL LICENSE STATUS and COMMERCIAL MOTOR VEHICLE LICENSE STATUS must be blank. |
| (1H4F) | DRIVER PRESENCE equals 0, 9, | COMPLIANCE WITH LICENSE RESTRICTIONS must be blank. |
| (1H6F) | DRIVER PRESENCE equals 0, 9, | VIOLATIONS CHARGED must be blank. |
| (1H7F) | DRIVER PRESENCE equals 0,9 , | PREVIOUS RECORDED CRASHES must be blank. |
| (1H8F) | DRIVER PRESENCE equals 0,9 , | PREVIOUS RECORDED <br> SUSPENSIONS must be blank. |
| (1H9F) | DRIVER PRESENCE equals 0, 9 , | PREVIOUS DWI CONVICTIONS must be blank. |
| (1HAF) | DRIVER PRESENCE equals 0, 9 , | PREVIOUS OTHER HARMFUL MV CONVICTIONS must be blank. |
| (1HBF) | DRIVER PRESENCE equals 0,9 , | DATE OF LAST CRASH, SUSPENSION, CONVICTION must be blank. |
| (1HCF) | DRIVER PRESENCE equals 0,9 , | DATE OF FIRST CRASH, SUSPENSION, CONVICTION must be blank. |
| (1HDF) | DRIVER PRESENCE equals 0, 9 , | DRIVER HEIGHT (feet and inches) must equal blank. |
| (1HEF) | DRIVER PRESENCE equals 0,9 , | DRIVER WEIGHT must equal blank. |
| (1HFF) | DRIVER PRESENCE equals 0, 9 , | SPEEDING RELATED must be blank. |
| (1HJF) | DRIVER'S VISION OBSCURED BY equals 95 , | DRIVER PRESENCE must equal 0 or 9. |
| (2FOF) | NUMBER OF OCCUPANTS equals 00 , | DRIVER PRESENCE must equal 0. |
| (2HOF) | DRIVER PRESENCE equals 0, 9 , | RELATED FACTORS-DRIVER LEVEL must not equal $04,08,12,13,15,16$, 19, 52, 53, 58, 59, 73, 74, 77-88. |
| (2H1F) | UNIT TYPE equals 1, and DRIVER PRESENCE equals 0 or 9 , | DRIVER'S VISION OBSCURED BY must equal 95 . |
| (3BAP) | UNIT TYPE equals 1 , and DRIVER PRESENCE equals 0 , | CRASH TYPE must equal 00, 04, 09, 15, 32, 42, 48, 52, 62, 66, 74, 84, 90, 93 or 98. |

(3BGP) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 00,
(3H0F) DRIVER PRESENCE equals 1,
(4HOF) DRIVER PRESENCE equals 0, 9,
(5LOF) RELATED FACTORS-DRIVER LEVEL equals 20,
(5L1F) RELATED FACTORS-DRIVER
LEVEL equals 04, 08, 12, 13, 15, 16, 19, 52, 53, 58, 59, 73, 74, 77-88,
(6HOP) DRIVER PRESENCE equals 0, 9,
(6H1P) DRIVER PRESENCE equals 0, 9,
(7B0F) JACKKNIFE equals 2, 3,
(9A3P) UNIT TYPE equals 2-4,
(9C4P) UNIT TYPE equals 1, and DRIVER PRESENCE equals 0 or 9,
(9C5P) DRIVER MANEUVERED TO AVOID equals 95,
(A080) DRIVER PRESENCE equals 0, and FIRST HARMFUL EVENT equals 12, and NUMBER OF VEHICLE FORMS SUBMITTED equals 002,
(AZ20) UNIT TYPE equals 1, and DRIVER PRESENCE equals 0 or 9,
(BJOP) DRIVER PRESENCE equals 0, 9,
(BJ1P) UNIT TYPE equals 1, and DRIVER PRESENCE equals 0 or 9,
(BJ2P) UNIT TYPE equals 1, and DRIVER PRESENCE equals 1 ,
(BJ3P) UNIT TYPE equals 1, and DRIVER DISTRACTED BY equals 16,
(BNOP) DRIVER PRESENCE equals 0, 9,

THEN

## DRIVER PRESENCE must equal 0 or

 9.there must be one and only one Person Level form for that vehicle with PERSON TYPE equal to 01, or there must be no Person Level form for that vehicle with PERSON TYPE equal to 01 and at least two Person Level forms for that vehicle with PERSON TYPE equal to 09.
there must not be a Person Level form for that vehicle with PERSON TYPE equal to 01.
DRIVER PRESENCE must not equal 1, 9.

DRIVER PRESENCE must not equal 0 or 9.

DRIVER'S ZIP CODE must be blank. CONDITION (IMPAIRMENT) AT TIME OF CRASH (D23) must be blank.
DRIVER PRESENCE must equal 1.
DRIVER PRESENCE must equal 0.
DRIVER MANEUVERED TO AVOID must only equal 95.
DRIVER PRESENCE must equal 0 or 9.
one RELATED FACTORS-DRIVER LEVEL should equal 20.

PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 00.
COMPLIANCE WITH LICENSE ENDORSEMENTS must be blank. DRIVER DISTRACTED BY must equal 16.

DRIVER DISTRACTED BY must not equal 16 or blank.
DRIVER PRESENCE must equal 0 or 9.
COMMERCIAL MOTOR VEHICLE LICENSE STATUS must be blank.
(CBOP) REGISTERED VEHICLE OWNER equals 6,
(D330) DRIVER PRESENCE equals 0, and REGISTRATION STATE is not equal to 00, 92, 99,
(FDOF) DRIVER PRESENCE is blank, case status is flawed.
(PB30) PEDESTRIAN/BIKE TYPING -
PEDESTRIAN CRASH TYPE equals 220,
(PB60) PERSON TYPE equals 05 or 08, and DRIVER PRESENCE equals 0 for the motor vehicle which strikes the non-motorist
(PB61) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 220,

Consistency Checks (GES Only):
motorist.
at least one DRIVER PRESENCE must equal 0 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST. PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE should equal 220.

DRIVER PRESENCE should equal 0 for the motor vehicle striking the nonmotorist.

## -

IF
(1HGF) DRIVER PRESENCE equals 0 or 9,

THEN
DRIVER PRESENCE must equal 0.
REGISTERED VEHICLE OWNER should equal 3-6.

## DRIVER'S LICENSE STATE (FARS Only)

FORMAT: 2 numeric
SAS NAME: Vehicle.L_STATE

## ELEMENT VALUES:

| 01 | Alabama | 33 | New Hampshire |
| :--- | :--- | :--- | :--- |
| 02 | Alaska | 34 | New Jersey |
| 03 | American Samoa | 35 | New Mexico |
| 04 | Arizona | 36 | New York |
| 05 | Arkansas | 37 | North Carolina |
| 06 | California | 38 | North Dakota |
| 08 | Colorado | 39 | Ohio |
| 09 | Connecticut | 40 | Oklahoma |
| 10 | Delaware | 41 | Oregon |
| 11 | District of Columbia | 42 | Pennsylvania |
| 12 | Florida | 43 | Puerto Rico |
| 13 | Georgia | 44 | Rhode Island |
| 14 | Guam | 45 | South Carolina |
| 15 | Hawaii | 46 | South Dakota |
| 16 | Idaho | 47 | Tennessee |
| 17 | Illinois | 48 | Texas |
| 18 | Indiana | 49 | Utah |
| 19 | Iowa | 50 | Vermont |
| 20 | Kansas | 51 | Virginia |
| 21 | Kentucky | 52 | Virgin Islands |
| 22 | Louisiana | 53 | Washington |
| 23 | Maine | 54 | West Virginia |
| 24 | Maryland | 55 | Wisconsin |
| 25 | Massachusetts | 56 | Wyoming |
| 26 | Michigan | 93 | Indian Nation |
| 27 | Minnesota | 94 | U.S. Government |
| 28 | Mississippi | 95 | Canada |
| 29 | Missouri | 96 | Mexico |
| 30 | Montana | 97 | Other Foreign Country |
| 31 | Nebraska | 98 | Not Reported |
| 32 | Nevada | 99 | Unknown |
|  |  |  |  |

Definition: This element identifies the state of issue for the license held by this driver.

## Remarks:

If no license is required or driver is not licensed, use the resident State of the driver. U.S. Government is used to indicate the license was issued by the U.S. Government, such as military or State Department Foreign Service.

## 98 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 98 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

## Consistency Checks:

|  | IF | THEN |
| :---: | :---: | :---: |
| (1H1F) | DRIVER PRESENCE equals 0, 9, | DRIVER'S LICENSE STATE must be blank. |
| (1IOP) | DRIVER'S LICENSE STATE equals 99, | NON-CDL LICENSE STATUS must not equal 0-4, 6, and COMMERCIAL MOTOR VEHICLE LICENSE STATUS must not equal 00-08. |
| (1KOP) | DRIVER'S LICENSE STATE equals 99, | LICENSE COMPLIANCE WITH CLASS OF VEHICLE must not equal 0-3. |
| (2IOP) | DRIVER'S LICENSE STATE equals 99, | COMPLIANCE WITH LICENSE <br> RESTRICTIONS must not equal 0-3. |
| (3I1P) | DRIVER'S LICENSE STATE equals 99, | all driver history counters PREVIOUS RECORDED CRASHES must equal 99 |
| (3I2P) | DRIVER'S LICENSE STATE equals 99, | all driver history counters PREVIOUS RECORDED SUSPENSIONS AND REVOCATIONS must equal 99. |
| (3I3P) | DRIVER'S LICENSE STATE equals 99, | all driver history counters PREVIOUS DWI CONVICTIONS must equal 99. |
| (314P) | DRIVER'S LICENSE STATE equals 99, | all driver history counters PREVIOUS SPEEDING CONVICTIONS must equal 99. |

IF
(3I5P) DRIVER'S LICENSE STATE equals 99,
(BIOP) DRIVER'S LICENSE STATE equals 99,
(CJ00) PREVIOUS RECORDED CRASHES equals 98,
(D010) DRIVER'S LICENSE STATE equals 96, 97,
(D020) DRIVER'S LICENSE STATE equals 96, 97,
(D030) DRIVER'S LICENSE STATE equals 96, 97,
(D040) DRIVER'S LICENSE STATE equals 96, 97,
(D050) DRIVER'S LICENSE STATE equals 96, 97,
(D180) DRIVER LICENSE STATE equals 9597,
(D320) DRIVER'S LICENSE STATE does not equal 93-99,
(D480) DRIVER'S LICENSE STATE equals 09, 13, 28, 30, 35, 49,
(D710) DRIVER'S LICENSE STATE equals $02,04,09,15,20,21,30,38,40,56$,

## THEN

all driver history counters PREVIOUS OTHER HARMFUL MV CONVICTIONS must equal 99.
COMPLIANCE WITH CDL ENDORSEMENTS must not equal 1, 2.
DRIVER'S LICENSE STATE should equal 09, 13, 28, 30, 35, 49.
PREVIOUS RECORDED CRASHES should equal 99.
PREVIOUS RECORDED SUSPENSIONS AND REVOCATIONS should equal 99.
PREVIOUS DWI CONVICTIONS should equal 99.
PREVIOUS SPEEDING CONVICTIONS should equal 99.
PREVIOUS OTHER HARMFUL MV CONVICTIONS should equal 99.
DRIVER ZIP CODE should not equal 99999.

DRIVER'S ZIP CODE should equal 9999 or be a valid zip code for DRIVER'S LICENSE STATE. PREVIOUS RECORDED CRASHES should equal 98.
NON-CDL LICENSE TYPE should not equal 2.

## Consistency Checks (FARS Only):

## IF

## THEN

(U410) UNLIKELY: DRIVER'S LICENSE STATE equals 98.

## THIS PAGE INTENTIONALLY LEFT BLANK

## DRIVER'S ZIP CODE

FORMAT: 5 numeric
SAS NAME: Vehicle.DR_Zip

## ELEMENT VALUES:

00000 Not a Resident of U.S. or Territories
nnnnn Actual Value
99999 Unknown
Definition: This element identifies the zip code of this driver's area of residence.

## Remarks:

Code only the first five digits of nine-digit zip codes.
00000 (Not Resident of US or Territories) is used when the address found on the PAR indicates that the driver resides at an address which has not been assigned a ZIP code by the US Post Office.

99999 (Unknown) is used whenever the Zip code cannot be determined. For example, use this attribute when no information is provided on the PAR about the driver (e.g., hit-and-run). In addition, use this code if the driver, licensed or not, has no permanent address. For example, the driver could be living out of his/her vehicle (camper, motor home, etc.) or the driver could be "homeless."

If a ZIP CODE is listed on the PAR but it is not a valid number use attribute 99999 (Unknown).

## FARS SPECIAL INSTRUCTION:

Use the following guidelines to resolve discrepancies between the Police Accident Report (PAR) and Driver License File:

- If the street address is the same on both sources but the zip codes differ, use the zip code from the License File.
- If you have internet access available, you may use the web site https://tools.usps.com/go/ZipLookupAction!input.action to confirm you have the correct address.
- If the street addresses on the two sources differ, then use the zip code for the address reported on the PAR.
- If you have both a residence address and a different mailing address (e.g., a P.O. Box) use the zip code for the residence address.

If the PAR indicates an address in-state and a driver's license from another state is recorded (with a different residence address), attempt to determine the most current address for the driver. If the most current address cannot be determined, use the zip code that corresponds to the address from the DRIVER'S LICENSE STATE.

## GES SPECIAL INSTRUCTION:

For the purposes of this variable, a driver is considered to reside at the address listed on the police accident report. This address was most likely taken from the driver's license given to the police officer and/or from the licensing state's driver license file.

If the driver's address is present and the Zip code is missing or not available, then determine the correct Zip code by using the National Five Digit Zip Code \& Post Office Directory.

## Consistency Checks:

## IF

(6HOP) DRIVER PRESENCE equals 0, 9, DRIVER'S ZIP CODE must be blank.
(BYOP) DRIVER'S ZIP CODE must be a valid code, blanks, 00000 or 99999.
(D160) NON-CDL LICENSE STATUS does DRIVER'S ZIP CODE should not equal not equal 9, or COMMERCIAL
MOTOR VEHICLE LICENSE STATUS does not equal 99,
(D180) DRIVER LICENSE STATE equals DRIVER ZIP CODE should not equal 95-97,
(D320) DRIVER'S LICENSE STATE does not equal 93-99,
99999.

## THEN

 99999.DRIVER'S ZIP CODE should equal
9999 or be a valid zip code for DRIVER'S LICENSE STATE.

## NON-CDL LICENSE TYPE/STATUS

(FARS Only)

FORMAT: 1 numeric occurring 2 times.
SAS NAME: Vehicle.L_TYPE; Vehicle.L_STATUS

## ELEMENT VALUES:

Type:
0 Not Licensed
1 Full Driver License
2 Intermediate Driver License
7 Learner's Permit
8 Temporary License
9 Unknown License Type

Status:
0 Not Licensed
1 Suspended
2 Revoked
3 Expired
4 Canceled or Denied
6 Valid
9 Unknown License Status

Definition: This element identifies in two subfields the type license held by this driver and the status of the license at the time of the crash.

## Source:

Official driver record and police report. Official driver records take precedence over policereported information.

## Remarks:

Prior to 1993, this element was Driver License Status and included codes " 5 - Valid-Single Class" and "6 - Valid-Multiple Class."

Starting in 2004, this element was modified to capture both non-CDL license type and status to accommodate graduated driver license (GDL) programs.

This element is used to establish the driver's license type and status for all license classes except the commercial driver's license (CDL). It also captures the type and status of the NON-CDL driving privilege for drivers with CDLs.

The NON-CDL License Type/Status is coded for all drivers, including drivers with a CDL.
Use the "Type" field to record whether the driver has a full driver's license, intermediate driver's license, learner's permit, temporary license, or is not licensed. Use the "Status" field to record if the license is valid, suspended, revoked, expired, canceled or denied.

When involved drivers are in the military, the analyst should be cautious because some States automatically (without driver application) renew drivers' licenses or extend the license until the individual is discharged. Each state analyst should be familiar with their state's policy on military personnel and code these license variables accordingly.

In addition, when out-of-state driver requests are made the analyst requesting the data should note that the driver is in the military.
$\mathbf{0}$ (Not Licensed) (for both Type and Status). $\mathbf{0}$ (Not Licensed) should be used only when it has been reasonably established that the driver is not licensed (anywhere). Takes precedence over all other NON-CDL License Type/Status attributes. Drivers who have a license but fail to have their license with them at the time of the crash should be coded according to the type (class) of license they possess and the validity of the license. If the police report indicates that the driver has "no license," the analyst should first determine whether this means that the person was not in possession of his/her license at the time of the crash, or that the driver is not a registered motor vehicle operator. A review of the violations cited section of the police report may yield some clues in this matter. If the person is cited for not possessing his/her license or for not having one, then code this information in variables D21 and D24, Violations Charged and Related Factors-Driver Level. If the analyst is uncertain as to whether or not the person possesses a license, then code Unknown should be used.

## NON-CDL LICENSE TYPE REMARKS:

1 (Full Driver License) is used for unlimited driving privileges (with no GDL restrictions). This is based on your state's eligibility guidelines.

7 (Learner's Permit) and 2 (Intermediate Driver License) are the first two stages of a tiered licensing process that allows young drivers to obtain full driver license privileges through safe driving practices. Typical restrictions include minimum age requirements, passing vision/ knowledge tests, and supervision by adult driver over the age of 21 . Other requirements may include limiting the number of passenger in the vehicle, occupants must wear seatbelts, zero alcohol tolerance and no at-fault crashes or convictions for a period of time.

NOTE: Beginning in 2004, if 7 (Learner's Permit) or 2 (Intermediate Driver License) has expired, code Type as 2 (Intermediate Driver License) or 7 (Learner's Permit) and Status as 3 (Expired). (Prior to 2004, an expired Learner's Permit was coded as 0 (Not Licensed).

NOTE: It is important that you know your state's Graduated Driver License restrictions. GDL program restrictions vary from state-to-state.

2 (Intermediate Driver License) is the second stage of obtaining a full license privilege. It is typically for drivers between the ages of 16 and 17 , and does not require total supervision during daylight hours (e.g., adult supervision during the hours of midnight to 5 am ). A 2 (Intermediate Driver License) may be suspended or revoked under certain violations. Other conditions may
include conviction-free performance, seat-belt use for occupants, and some age restrictions for passengers. If any restriction is violated, this GDL restriction period can be extended.

NOTE: 2 (Intermediate Driver License) does not apply for states that do not have a GDL program. However, your state may have a Learner's Permit. Also, your state may not use the name "Intermediate Driver License" and may call it something else.

NOTE: 7 (Learner's Permit) is the first stage of obtaining a full license privilege. It is typically for drivers between 14 and 16 years of age, and typically requires total adult supervision, seat-belt use for occupants, and conviction-free performance. If any restriction is violated, this GDL restriction period can be extended.

8 (Temporary License) includes any type of non-permanent license issued for a period of time less than that for a permanent license (e.g., temporary license to drive within a resort area; temporary license issued to foreign nationals). Short-term permanent licenses are not temporary (e.g., license issued to elderly drivers requiring frequent re-testing).

7 (Learner's Permit) and 2 (Intermediate Driver License) held by young drivers awaiting a 1 (Full Driver's License) are not to be coded 8 (Temporary License).

9 (Unknown License Type) should be used when the type of the license is unknown.
9 (Unknown License Type) is also used when it is unknown whether the driver had a license or not (e.g., hit-and-run).

## NON-CDL LICENSE STATUS REMARKS:

$\mathbf{0}$ (Not Licensed) should be used only when it has been reasonably established that the driver is not registered (anywhere). $\mathbf{0}$ (Not Licensed) takes precedence over all other Non-CDL License Status attributes. Drivers who have a license but fail to have their license with them at the time of the crash should be coded according to the type (class) of license they possess and the validity of the license. If the police report indicates that the driver has "no license," the analyst should first determine whether this means that the person was not in possession of his/her license at the time of the crash, or that the driver is not a registered motor vehicle operator. A review of the violations cited section of the police report may yield some clues in this matter. If the person is cited for not possessing his/her license or for not having one, then code this information in variables D21 and D24, Violations Charged and Related Factors-Driver Level. If the analyst is uncertain as to whether or not the person possesses a license, then code 9 (Unknown) should be used.

1 (Suspended), 2 (Revoked) or 3 (Expired) are used if a 1 (Full Driver License)* is suspended, revoked, or expired. A 2 (Intermediate Driver License) may be 1 (Suspended) or 2 (Revoked) under certain violations. If 7 (Learner's Permit) or 2 (Intermediate Driver License) has expired, then code 3 (Expired).

Examples: If a $\mathbf{1}$ (Full Driver License) is revoked or suspended but limited driving is permitted (e.g., to and from work), use the following criteria:
a. If the crash occurs during permitted times of driving, code Non-CDL License Type as 1 (Full Driver License) and Status as 6 (Valid), code Compliance With License Restrictions as 1 (Restrictions Complied With), and code Related Factors-Driver Level as 19 (Legally Driving on Suspended or Revoked License).
b. If the crash occurs during invalid times for driving, code Non-CDL License Type as 1 (Full Driver License) and Status as 1 (Suspended) or 2 (Revoked), code Compliance With License Restrictions as 2 (Restriction Not Complied With), and do not use Related Factors-Driver Level as 19 (Legally Driving on Suspended or Revoked License).

1 (Suspended) takes precedence over all other License Status attributes except 0 (Not Licensed).

4 (Canceled or Denied) is used whenever the driver's official driver record indicates the driver's license* (1) was canceled; or (2) the driver's request for license, or an extension of one, was denied.

6 (Valid) refers to any license held by the driver that is valid for a class of vehicle*. If the driver is in violation of some aspect of his/her license (e.g., one of the restrictions) do not consider the license as being not valid. Record the restriction on element Compliance with License Restrictions if applicable. If the police cite the driver for the violation, then the information would be recorded under elements D21 and D24 (Violations Charged and/or Related Factors-Driver Level).

9 (Unknown License Status) should be used when the status of the license is unknown. 9 (Unknown License Status) is also used when it is unknown whether the driver had a license or not (e.g., hit-and-run).

See reference table for coding elements D7 and D10, following the remarks section of element (D10) License Compliance with Class Of Vehicle.

## * NON-CDL privilege only

## IMPORTANT NOTE:

In distinguishing license requirements from restrictions focus upon whether or not all drivers possessing the type of license are mandated to obey the requirement. If they are, then the requirement is not a restriction, but rather part of the definition of the license. Restrictions, on the other hand, are requirements specific to individual drivers.

## Consistency Checks:

## IF

(1H3F) DRIVER PRESENCE equals 0,9 ,
(1IOP) DRIVER'S LICENSE STATE equals 99,
(5IOP) NON-CDL LICENSE STATUS equals 0 ,
(5I1P) NON-CDL LICENSE STATUS for this person equals 9 ,
(6IOP) NON-CDL LICENSE STATUS equals 9 , and COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 00 ,
(7IOP) COMPLIANCE WITH LICENSE RESTRICTIONS equal 1 , and RELATED FACTORS-DRIVER LEVEL equals 19,
(7KOP) any VIOLATIONS CHARGED equals 71,
(8IOP) NON-CDL LICENSE STATUS equals 0-4, 9 ,
(8JOP) NON-CDL LICENSE TYPE equals 0,
(8J1P) NON-CDL LICENSE STATUS equals 0,
(D060) NON-CDL LICENSE STATUS equals 1-4, 6, or COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 1-8, and PERSON TYPE equals 01,
(D100) NON-CDL LICENSE STATUS equals 9,
(D110) NON-CDL LICENSE STATUS equals 9,
(D120) NON-CDL LICENSE STATUS equals 9 ,

## THEN

NON-CDL LICENSE STATUS and COMMERCIAL MOTOR VEHICLE LICENSE STATUS must be blank. NON-CDL LICENSE STATUS must not equal 0-4, 6, and COMMERCIAL MOTOR VEHICLE LICENSE STATUS must not equal 00-08.
COMPLIANCE WITH LICENSE
RESTRICTIONS must not equal 1-3, 9 .
COMMERCIAL MOTOR VEHICLE
LICENSE STATUS should equal 99.
COMPLIANCE WITH LICENSE RESTRICTIONS must not equal 1-3.

NON-CDL LICENSE STATUS must equal 6.

NON-CDL LICENSE STATUS must equal $0,1,2$, or COMMERCIAL MOTOR VEHICLE LICENSE STATUS must equal 01, 02, 05.
RELATED FACTORS-DRIVER LEVEL must not equal 19 .
NON-CDL LICENSE STATUS must equal 0 .
NON-CDL LICENSE TYPE must equal 0.

AGE should not be less than 015 .
all driver history counters PREVIOUS RECORDED CRASHES should equal 99.
all driver history counters PREVIOUS RECORDED SUSPENSIONS AND REVOCATIONS should equal 99. all driver history counters PREVIOUS DWI CONVICTIONS should equal 99 .

IF
(D130) NON-CDL LICENSE STATUS equals 9,
(D140) NON-CDL LICENSE STATUS equals 9 ,
(D160) NON-CDL LICENSE STATUS does not equal 9 , or COMMERCIAL MOTOR VEHICLE LICENSE STATUS does not equal 99 ,
(D260) NON-CDL LICENSE STATUS equals 9 , or COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 99,
(D340) NON-CDL LICENSE STATUS equals 1-4, 6, 9, or COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 01-08, 99,
(D350) VIOLATIONS CHARGED equals 71,
(D380) NON-CDL LICENSE STATUS equals 9
(D390) NON-CDL LICENSE STATUS equals 0,
(D400) NON-CDL LICENSE STATUS equals 0-4,
(D620) NON-CDL LICENSE TYPE equals 7,
(D630) NON-CDL LICENSE TYPE equals 2,
(D640) AGE equals 014-017, and PERSON TYPE equals 01,
(D650) AGE equals 018-120, and PERSON TYPE equals 01, and NON-CDL LICENSE STATUS does not equal 0 ,
(D680) NON-CDL LICENSE TYPE does not equal 0,9 ,
(D690) NON-CDL LICENSE TYPE equals 2, 7, and COMPLIANCE WITH LICENSE RESTRICTIONS equals 2,
(D700) NON-CDL LICENSE TYPE equals 1, and COMPLIANCE WITH LICENSE RESTRICTIONS equals 2 ,

THEN
all driver history counters PREVIOUS SPEEDING CONVICTIONS should equal 99.
all driver history counters PREVIOUS OTHER HARMFUL MV CONVICTIONS should equal 99.
DRIVER'S ZIP CODE should not equal 99999.

COMPLIANCE WITH LICENSE RESTRICTIONS should not equal 0 .

## LICENSE COMPLIANCE WITH CLASS

 OF VEHICLE should not equal 0 .NON-CDL LICENSE STATUS should not equal 0, 3, 6, 9 .
LICENSE COMPLIANCE WITH CLASS OF VEHICLE should equal 1, 9. LICENSE COMPLIANCE WITH CLASS OF VEHICLE should not equal $2,3,8,9$. LICENSE COMPLIANCE WITH CLASS OF VEHICLE should not equal 3, 8, 9 . AGE (for the driver) should equal 014-016.
AGE (for the driver) should equal 015-017.
NON-CDL LICENSE TYPE should equal 2, 7.
NON-CDL LICENSE TYPE should equal 1.

NON-CDL LICENSE STATUS should not equal 0,9 .
RELATED FACTORS-DRIVER LEVEL should equal 73,74 .

RELATED FACTORS-DRIVER LEVEL should equal 74 .

## IF

## THEN

(D710) DRIVER'S LICENSE STATE equals 02, 04, 09, 15, 20, 21, 30, 38, 40, 56,
(D730) RELATED FACTORS-DRIVER LEVEL equals 73,

NON-CDL LICENSE TYPE should not equal 2.
COMPLIANCE WITH LICENSE RESTRICTIONS should equal 2 , and NON-CDL LICENSE TYPE should equal 2, 7.

See the following tables for additional guidance for coding Non-CDL License Type/Status for young drivers with GDL License (7 (Learner's Permit) and 2 (Intermediate Driver Licenses)) and CDL Drivers:

|  | Coding Scenarios for CDL Licenses | $\frac{\text { D7 }}{\frac{\text { Non-CDL }}{\text { Type }}}$ | $\begin{aligned} & \frac{\text { D7 }}{\text { Non- }} \\ & \frac{\text { CDL }}{\text { Status }} \end{aligned}$ | $\begin{gathered} \frac{\text { D8 }}{\text { CMV }} \\ \text { Status } \end{gathered}$ | $\begin{aligned} & \frac{\text { D10 }}{\text { Comp }} \\ & \text { Class } \end{aligned}$ | $\frac{\text { D11 }}{\text { Comp. wl }} \text { Restriction }$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | CDL w/no endorsement valid, driving a CDL vehicle (no endorsement required). Non-CDL License Type/Status is Full License/Valid. | 1 | 6 | 6 | 3 | 0 |
| 2. | CDL w/hazardous material endorsement, valid driving CDL vehicle w/hazardous cargo. Non-CDL License Type/Status is Full License/Valid. | 1 | 6 | 6 | 3 | 1 |
| 3. | CDL w/hazardous material endorsement, valid driving non-CDL vehicle. Non-CDL License Type/Status is Full License/Valid. | 1 | 6 | 6 | 3 | 0 |
| 4. | CDL w/ no endorsements suspended, driving a CDL (double bottom) vehicle. Non-CDL License Type/Status is Full License/Valid. | 1 | 6 | 1 | 2 | 2 |
| 5. | CDL w/tanker endorsement, disqualified, driving a tanker. Non-CDL License Type/Status is Full License/Suspended. | 1 | 1 | 5 | 2 | 1 |
| 6. | CDL w/tanker endorsement suspended, driving a nonCDL vehicle. Non-CDL License Type/Status is Full License/Valid. | 1 | 6 | 1 | 3 | 0 |
| 7. | Non-CDL license driving CDL 24 passenger bus. Non-CDL License Type/Status is Full License/Valid. | 1 | 6 | 0 | 2 | 2 |
| 8. | Non-CDL license driving 24 passenger bus. Non-CDL License Type/Status is Full License/Suspended. | 1 | 1 | 0 | 2 | 2 |
| 9. | *CDL w/no endorsements valid, driving CDL vehicle (endorsement requirement unknown). Non-CDL License Type/Status is Full License/Suspended. | 1 | 1 | 6 | 8 | 9 |
| 10. | *CDL w/no endorsements *CDL w/tanker endorsements valid, driving non-CDL vehicle. NonCDL License Type/Status is Full License/Suspended. | 1 | 1 | 6 | 2 | 0 |
| 11. | *CDL w/tanker endorsements valid, driving non-CDL vehicle. Non-CDL License Type/Status is Full License/Suspended. | 1 | 1 | 6 | 2 | 0 |

* possible, but unlikely situation


1. A 16-year-old driver with a valid Intermediate License driving a vehicle during prohibited driving hours without corrective lenses.
2. A 15-year-old with a valid Learner's Permit driving alone (adult supervision required).
3. A 16-year-old with a valid Intermediate License not complying with seat-belt requirement during permitted daytime driving hours.
4. A 17-year-old driver with a valid Intermediate License. The officer reported there was a 19-year-old non-family passenger, in violation of the state's GDL requirements.
5. An 18-year-old driver with an expired Learner's Permit driving with no violations of GDL restrictions.
6. A 15-year-old with a suspended Learner's Permit is driving without required prescription lenses, and is complying with all GDL restrictions.
7. A driver with a suspended Intermediate Driver's License complying with all GDL restrictions.
8. A 19-year-old with a valid Intermediate License which was extended due to prior GDL violations is driving a truck greater than 26,000 lbs. requiring a CDL during prohibited hours.
9. A driver with a valid Full Driver's License driving without required corrective lenses.

| NON- | NON-CDL | COMPLIANCE | RELATED |
| :---: | :---: | :---: | :---: |
| CDL | STATUS | WITH LICENSE | FACTORS- |
| TYPE |  | RESTRICTIONS | DRIVER |
|  |  |  | LEVEL |

2

7

2

2

7

7

2

2
6
2
73
74
1
2

3
1
00
00
1


1
6
2

## THIS PAGE INTENTIONALLY LEFT BLANK

# COMMERICIAL MOTOR VEHICLE LICENSE STATUS (FARS Only) 

FORMAT: 2 numeric
SAS NAME: Vehicle.CDL_STAT

ELEMENT VALUES:

| 00 | No (CDL) |
| :--- | :--- |
| 01 | Suspended |
| 02 | Revoked |
| 03 | Expired |
| 04 | Canceled or Denied |
| 05 | Disqualified |
| 06 | Valid |
| 07 | Learner's Permit |
| 08 | Other - Not Valid |
| 99 | Unknown License Status |

Definition: This element indicates the status for a driver's Commercial Driver's License (CDL) if applicable.

## Remarks:

This element indicates the status for a driver's Commercial Driver's License (CDL).
As of April 1, 1992, all states require a driver to have a CDL for driving a commercial motor vehicle in excess of $\mathbf{2 6 , 0 0 0}$ pounds; or for transporting hazardous materials in sufficient amounts to be placarded; or for transporting 16 or more passengers, including the driver.

See the table on the following page for guidance on coding this element and related driver status elements.

05 (Disqualified) is used for commercial drivers who have their CDL privilege taken away for violations against the federal regulations. Although similar to suspension, the reasons for "disqualification" of a CDL may differ from state suspension reasons.
$\mathbf{0 8}$ (Other - Not Valid) should be used when a CDL is surrendered or not valid due to the lack of medical clearance.

99 (Unknown License Status) should be used when the status of the CDL license is unknown or when it is unknown whether the driver had a CDL license or not (e.g., hit-and-run).

## Consistency Checks:

|  | IF | THEN |
| :---: | :---: | :---: |
| (1H3F) | DRIVER PRESENCE equals 0,9 , | NON-CDL LICENSE STATUS and COMMERCIAL MOTOR VEHICLE |
|  |  | LICENSE STATUS must be blank. |
| (110P) | DRIVER'S LICENSE STATE equals 99, | NON-CDL LICENSE STATUS must not equal 0-4, 6 , and COMMERCIAL |
|  |  | MOTOR VEHICLE LICENSE STATUS must not 00-08. |
| (511P) | NON-CDL LICENSE S | COMMERCIAL MOTOR VEHICLE |
|  | person equals 9 , | LICENSE STATUS should equal |
| (6IOP) | NON-CDL LICENSE STATUS equals | COMPLIANCE WITH LICENSE |
|  | 9 , and COMMERCIAL MOTOR | RESTRICTIONS must not equal 1-3. |
|  | VEHICLE LICENSE STATUS equals 00, |  |
| (7KOP) | any VIOLATIONS CHARGED equals 71, | NON-CDL LICENSE STATUS must equal $0,1,2$, or COMMERCIAL MOTOR VEHICLE LICENSE STATUS must equal 01, $02,05$. |
| (BNOP) | DRIVER PRESENCE equals 0,9 , | COMMERCIAL MOTOR VEHICLE LICENSE STATUS must be blank. |
| (CCOP) | COMMERCIAL MOTOR VEHICLE | COMPLIANCE WITH CDL |
|  | LICENSE STATUS equals 00, 99, | ENDORSEMENTS must not equal 1. |
| (D060) | NON-CDL LICENSE STATUS equals | AGE should not be less than 015. |
|  | 1-4, 6, or COMMERCIAL MOTOR |  |
|  | VEHICLE LICENSE STATUS equals |  |
|  | 1-8, and PERSON TYPE equals 01, |  |
| (D160) | NON-CDL LICENSE STATUS does not equal 9 , or COMMERCIAL | DRIVER'S ZIP CODE should not equal 99999. |
|  | MOTOR VEHICLE LICENSE STATUS does not equal 99 , |  |
| (D260) | NON-CDL LICENSE STATUS equals | COMPLIANCE WITH LICENSE |
|  | 9 , or COMMERCIAL MOTOR | RESTRICTIONS should not |
|  | VEHICLE LICENSE STATUS equals | equal 0 . |
|  | 99, |  |
| (D270) | BODY TYPE equals $50-52,55,63,66$, | COMMERCIAL MOTOR VEHICLE |
|  | 72, or HM1 equals 2, | LICENSE STATUS should not equal 00. |
| (D280) | VEHICLE CONFIGURATION equals | COMMERCIAL MOTOR VEHICLE |
|  | 05-08, 21, or HM1 equals 2 , | LICENSE STATUS should not equal 00 |
| (D300) | HM2 equals 2 , | COMMERCIAL MOTOR VEHICLE |
|  |  | LICENSE STATUS should not equal 00 |

IF
(D340) NON-CDL LICENSE STATUS equals 1-4, 6, 9, or COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 01-08, 99,
(D420) COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 00,
(D430) COMPLIANCE WITH CDL ENDORSEMENTS equals 1-3,
(D440) COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 00,
(D450) COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 00,
(D460) COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 99,
(D5D0) any VIOLATIONS CHARGED equals 16, and COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 06,
(V090) HM1 equals 2,
(V100) HM1 equals 2, and RELATED FACTORS-DRIVER LEVEL does not equal 19,

THEN
LICENSE COMPLIANCE WITH CLASS OF VEHICLE should not equal 0.

COMPLIANCE WITH CDL ENDORSEMENTS should not equal 1-3.
COMMERCIAL MOTOR VEHICLE LICENSE STATUS should not equal 00. BODY TYPE should not equal 50-52, 55, $63,66,72$, and HM2 should not equal 2. VEHICLE CONFIGURATION should not equal 05-08, 21, and HM2 should not equal 2.
COMPLIANCE WITH CDL
ENDORSEMENTS should equal 0, 3, 9 . at least one CONDITION
(IMPAIRMENT) AT TIME OF CRASH (D23) must equal 09.

COMMERCIAL MOTOR VEHICLE LICENSE STATUS should equal 06, 99. COMMERCIAL MOTOR VEHICLE LICENSE STATUS should not equal 01, 02, 05.

|  | Coding Scenarios for CDL Licenses | $\begin{aligned} & \frac{\text { D7 }}{\text { Non- }} \\ & \frac{\text { CDL }}{\text { Type }} \\ & \hline \end{aligned}$ | $\begin{gathered} \frac{\text { D7 }}{\text { Non- }} \\ \text { SDL } \\ \text { Status } \end{gathered}$ | $\begin{gathered} \text { D8 } \\ \text { STV } \\ \text { Status } \end{gathered}$ Status | D10 <br> Comp <br> Class | $\begin{gathered} \frac{\text { D11 }}{\text { Comp. }} \\ \text { Restrict } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | CDL w/no endorsement valid, driving a CDL vehicle (no endorsement required). Non-CDL License Type/Status is Full License/Valid. | 1 | 6 | 6 | 3 | $\frac{\text { ion }}{0}$ |
| 2. | CDL w/hazardous material endorsement, valid driving CDL vehicle w/hazardous cargo. Non-CDL License Type/Status is Full License/Valid. | 1 | 6 | 6 | 3 | 1 |
| 3. | CDL w/hazardous material endorsement, valid driving non-CDL vehicle. Non-CDL License Type/Status is Full License/Valid. | 1 | 6 | 6 | 3 | 0 |
| 4. | CDL w/ no endorsements suspended, driving a CDL (double bottom) vehicle. Non-CDL License Type/Status is Full License/Valid. | 1 | 6 | 1 | 2 | 2 |
| 5. | CDL w/tanker endorsement, disqualified, driving a tanker. Non-CDL License Type/Status is Full License/Suspended. | 1 | 1 | 5 | 2 | 1 |
| 6. | CDL w/tanker endorsement suspended, driving a non-CDL vehicle. Non-CDL License Type/Status is Full License/Valid. | 1 | 6 | 1 | 3 | 0 |
| 7. | Non-CDL license driving CDL 24 passenger bus. Non-CDL License Type/Status is Full License/Valid. | 1 | 6 | 0 | 2 | 2 |
| 8. | Non-CDL license driving 24 passenger bus. NonCDL License Type/Status is Full License/Suspended. | 1 | 1 | 0 | 2 | 2 |
| 9. | *CDL w/no endorsements valid, driving CDL vehicle (endorsement requirement unknown). Non-CDL License Type/Status is Full License/Suspended. | 1 | 1 | 6 | 8 | 9 |
| 10. | *CDL w/no endorsements *CDL w/tanker endorsements valid, driving non-CDL vehicle. NonCDL License Type/Status is Full License/Suspended. | 1 | 1 | 6 | 2 | 0 |
| 11. | *CDL w/tanker endorsements valid, driving non-CDL vehicle. Non-CDL License Type/Status is Full License/Suspended. | 1 | 1 | 6 | 2 | 0 |

## COMPLIANCE WITH CDL ENDORSEMENTS

(FARS Only)

FORMAT: 1 numeric
SAS NAME: Vehicle.L_ENDORS

## ELEMENT VALUES:

0 No Endorsements Required for the vehicle
1 Endorsement(s) Required, complied with
2 Endorsement(s) Required, not complied with
3 Endorsement(s) Required, compliance unknown
9 Unknown, if required
Definition: This element indicates whether the vehicle driven at the time of the crash requires endorsement(s) on a Commercial Driver's License (CDL) and whether this driver is complying with the CDL endorsements.

## Remarks:

These endorsements include: double/triple bottoms, passenger vehicles with 16 passengers, tank, hazardous materials, combined tank/hazardous materials, and others. This element is to be coded independently from CDL Status. The driver is not automatically failing to comply with a CDL endorsement by not having a valid CDL.

0 (No Endorsements Required for the vehicle) is used when this vehicle requires no special endorsement on a CDL or requires no CDL to operate.

1 (Endorsement(s) Required, complied with) is used when this vehicle requires a CDL and requires a particular endorsement or set of endorsements, and the driver has a CDL and is in compliance with the specific endorsements. (Note: The status of the CDL is not used in determining if the driver has complied with the endorsement.)

2 (Endorsement(s) Required, not complied with) is used when this vehicle requires a CDL and particular endorsement(s) on the CDL, but the driver does not have a CDL or does not have the particular endorsement(s) required for the vehicle driven. The driver may have some other endorsement(s). (Note: The status of the CDL is not used in determining if the driver has complied with the endorsement.)

3 (Endorsement(s) Required, compliance unknown) is used when this vehicle requires a CDL and particular endorsement(s) on the CDL, but it is not known whether the driver was in compliance with the particular endorsement(s) or it is not known whether the driver had a CDL.

9 (Unknown, if required) is used when it is unknown if the vehicle requires a CDL, or when it is unknown if an endorsement is required on a CDL to operate the crash vehicle. The driver may or may not have a CDL.

## Consistency Checks:

## IF

(4S1P) BODY TYPE equals $80-83,88,89$ and HM1 does not equal 1,
(BIOP) DRIVER'S LICENSE STATE equals 99,
(BJOP) DRIVER PRESENCE equals 0, 9,
(BKOP) LICENSE COMPLIANCE WITH CLASS OF VEHICLE equals 1,
(BLOP) COMPLIANCE WITH CDL ENDORSEMENTS equals 1, and any RELATED FACTORSDRIVER LEVEL equals 19,
(CCOP) COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 00, 99,
(CGOP) LICENSE COMPLIANCE WITH CLASS OF VEHICLE equals 0 ,
(D310) HM2 equals 2,
(D410) LICENSE COMPLIANCE WITH CLASS OF VEHICLE equals 0 ,
(D420) COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 00,
(D430) COMPLIANCE WITH CDL ENDORSEMENTS equals 1-3,
(D460) COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 99,

## THEN

COMPLIANCE WITH CDL ENDORSEMENTS MUST equal 0. COMPLIANCE WITH CDL ENDORSEMENTS must not equal 1, 2. COMPLIANCE WITH LICENSE ENDORSEMENTS must be blank. COMPLIANCE WITH CDL ENDORSEMENTS must not equal 1-3, 9.

LICENSE COMPLIANCE WITH CLASS OF VEHICLE must equal 3.

COMPLIANCE WITH CDL ENDORSEMENTS must not equal 1. COMPLIANCE WITH CDL ENDORSEMENTS must not equal 1, 3. COMPLIANCE WITH CDL ENDORSEMENTS should equal 1-3. COMPLIANCE WITH CDL ENDORSEMENTS should not equal 1-3, 9.

COMPLIANCE WITH CDL
ENDORSEMENTS should not equal 1-3. COMMERCIAL MOTOR VEHICLE LICENSE STATUS should not equal 00. COMPLIANCE WITH CDL ENDORSEMENTS should equal 0, 3, 9.

The table below provides guidance for coding this element for the type of license and vehicle driven in the crash:

| DRIVER LICENSE | VEHICLE DRIVEN IN THE CRASH | D9 |
| :---: | :---: | :---: |
| NON-CDL | AUTOMOBILE | 0 |
|  | NON-CDL TRUCK/BUS | 0 |
|  | CDL, NOT REQUIRING ENDORESEMENT | 0 |
|  | CDL, REQUIRING ENDORSEMENT | 2 |
|  | CDL, UNKNOWN IF REQUIRED | 9 |
| CDL W/NO | AUTOMOBILE | 0 |
| ENDORSEMENT | NON-CDL TRUCK/BUS | 0 |
|  | CDL, NOT REQUIRING ENDORESEMENT | 0 |
|  | CDL, REQUIRING ENDORSEMENT | 2 |
|  | CDL, UNKNOWN IF REQUIRED | 9 |
| CDL W/ | AUTOMOBILE | 0 |
| ENDORSEMENT | NON-CDL TRUCK/BUS | 0 |
|  | CDL, NOT REQUIRING ENDORESEMENT | 0 |
|  | CDL, MATCHING ENDORSEMENT | 1 |
|  | CDL, W/DIFFERENT ENDORSEMENT | 2 |
|  | CDL, UNKNOWN IF REQUIRED | 9 |
| CDL, ENDORSEMENT | AUTOMOBILE | 0 |
| UNKNOWN | NON-CDL TRUCK/BUS | 0 |
|  | CDL, NOT REQUIRING ENDORESEMENT | 0 |
|  | CDL, REQUIRING ENDORSEMENT | 3 |
|  | CDL, UNKNOWN IF REQUIRED | 9 |
| CDL UNKNOWN | AUTOMOBILE | 0 |
|  | NON-CDL TRUCK/BUS | 0 |
|  | CDL, NOT REQUIRING ENDORESEMENT | 0 |
|  | CDL, REQUIRING ENDORSEMENT | 3 |
|  | CDL, UNKNOWN IF REQUIRED | 9 |
| NOT LICENSED | AUTOMOBILE | 0 |
|  | NON-CDL TRUCK/BUS | 0 |
|  | CDL, NOT REQUIRING ENDORESEMENT | 0 |
|  | CDL, REQUIRING ENDORSEMENT | 2 |
|  | CDL, UNKNOWN IF REQUIRED | 9 |

## THIS PAGE INTENTIONALLY LEFT BLANK

# LICENSE COMPLIANCE WITH CLASS OF VEHICLE 

(FARS Only)

FORMAT: 1 numeric
SAS NAME: Vehicle.L_COMPL

## ELEMENT VALUES:

0 Not licensed
1 No license required for this class vehicle
2 No valid license for this class vehicle
3 Valid license for this class vehicle
8 Unknown if CDL and/or CDL endorsement required for this vehicle.
9 Unknown
Definition: This element refers to the type of license possessed or not possessed by the driver for the class of vehicle being driven at the time of the crash.

## Source:

Official driver record and police report. Official driver records take precedence over police reported information.

## Remarks:

This element is coded according to the driver's Non-CDL License Status when driving a vehicle not requiring a CDL and to the driver's Commercial Motor Vehicle License Status when driving a vehicle requiring a CDL.

Also see Remarks for D7 on military personnel.
$\mathbf{0}$ (Not licensed) should be used only when it has been reasonably established that the driver is not licensed (anywhere) and where D7 equals $\mathbf{0}$ (Not licensed). Drivers who have a license but fail to have their license with them at the time of the crash should be coded according to the type of license they possess and the class of vehicle they were driving. $\mathbf{0}$ (Not licensed) should not be used in this instance. If the police report indicates that the driver has "no license," the analyst must first determine whether this means the person was not in possession of his/her license at the time of the crash or that the driver is not a licensed motor vehicle operator. A review of the violations cited section of the police report might yield some clues in this matter. If the person is cited for not possessing his/her license or for not having one, then code this information in variables D21 and D24 (Violations Charged and Related FactorsDriver Level). If the analyst is uncertain as to whether or not the person possesses a license, then 9 (Unknown) should be used.

1 (No license required for this class vehicle) means that a license was not required for the vehicle being driven (e.g., mopeds in some states).

2 (No valid license for this class vehicle) may be used for suspended, revoked, canceled or expired driving privileges. It also refers to drivers with a valid license but not for the class of vehicle driven at the time of the crash. As an example, the driver has an "operator's license" when a "public passenger" type license is required. For this driver, $\mathbf{2}$ (No valid license for this class vehicle) should be coded. Another common situation occurs when a separate license is required for a motorcycle. If the driver possesses a valid license for a passenger car but not for the motorcycle, then $\mathbf{2}$ (No valid license for this class vehicle) should be used if the driver was involved in this crash while driving a motorcycle.

A license (or a portion of the license applicable to the class vehicle driven) that is not in effect because of some action taken by the State, such as suspended, revoked, etc., is not to be coded as valid. Similarly, learner's permits that are not used under the proper conditions (for example, a required licensed driver for the class of vehicle driven is not present to accompany the driver involved) are not to be coded as valid either.

2 (No valid license for this class vehicle) should be used for suspended, revoked, disqualified, canceled or expired CDL licenses when the vehicle requires a CDL (see table for Commercial Motor Vehicle License Status).

3 (Valid license for this class vehicle) refers to the class of vehicle being driven. As an example, the driver has a "motorcycle" driver's license only and was driving a motorcycle at the time of the crash; 3 (Valid license for this class vehicle) should be used. On the other hand, a driver might possess a multiple-class license allowing him or her to drive a passenger car as well as a motorcycle. If the vehicle being driven at the time of the crash is a passenger car, also code this element $\mathbf{3}$ (Valid license for this class vehicle). If the vehicle driver requires a CDL and the CDL status is valid, use $\mathbf{3}$ (Valid license for this class vehicle).

8 (Unknown if CDL and/or CDL endorsement required for the vehicle) should be used if it cannot be determined if the vehicle driven requires a CDL or CDL endorsement. There should be sufficient cause to suspect the need for a CDL or CDL endorsement to use this code, such as the vehicle's size ( $26,001 \mathrm{lbs}$. or more), configuration (tractor/trailer, combinations, tankers, etc.), or possibly hauling hazardous cargo.

9 (Unknown) should be used when the driver has a license but the type or validity are uncertain or if it is unknown whether the driver had a license or not (e.g., hit-and-run).

A cross-reference table for coding variables D7 and D10 follows. Consult this table only when the driver is operating a vehicle that does not require a CDL.

## Cross Reference Table for D7 and D10

| D7 (Status) | D10 | 0 | 1 | 2 | 3 | 8 | 9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 |  | Y | Y | N | N | N | N |
| 1 |  | N | Y | Y | N | N | N |
| 2 |  | N | Y | Y | N | N | N |
| 3 |  | N | Y | Y | N | N | N |
| 4 |  | N | Y | Y | N | N | N |
| 6 |  | N | Y | Y | Y | N | Y |
| 9 |  | N | Y | N | N | N | Y |

$\mathrm{Y}=$ Valid Combination
$\mathrm{N}=$ Invalid Combination
REMINDER: D7 = Applies to any license entry in the driver's record (except CDL) D10 = Applies to this vehicle only

## Consistency Checks:

## IF

(1H2F) DRIVER PRESENCE equals 0,9 ,
(1KOP) DRIVER'S LICENSE STATE equals 99,
(6LOP) COMPLIANCE WITH LICENSE RESTRICTIONS equals 1 , and RELATED FACTORS-DRIVER LEVEL equals 19,
(8LOP) LICENSE COMPLIANCE WITH
CLASS OF VEHICLE equals 0-2, 9,
(9JOP) LICENSE COMPLIANCE WITH
CLASS OF VEHICLE equals 0,1 ,
(BKOP) LICENSE COMPLIANCE WITH CLASS OF VEHICLE equals 1 ,
(BLOP) COMPLIANCE WITH CDL ENDORSEMENTS equals 1, and any RELATED FACTORS-DRIVER LEVEL equals 19,
(CGOP) LICENSE COMPLIANCE WITH CLASS OF VEHICLE equals 0 ,

## THEN

LICENSE COMPLIANCE WITH CLASS OF VEHICLE must be blank.
LICENSE COMPLIANCE WITH CLASS OF VEHICLE must not equal 0-3.
LICENSE COMPLIANCE WITH CLASS OF VEHICLE must equal 3.

RELATED FACTORS-DRIVER LEVEL must not equal 19 .
COMPLIANCE WITH LICENSE
RESTRICTIONS must not equal 1-3, 9 . COMPLIANCE WITH CDL ENDORSEMENTS must not equal 1-3, 9 .
LICENSE COMPLIANCE WITH CLASS OF VEHICLE must equal 3.

COMPLIANCE WITH CDL ENDORSEMENTS must not equal 1, 3 .

IF
(D340) NON-CDL LICENSE STATUS equals 1-4, 6, 9, or COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 01-08, 99,
(D380) NON-CDL LICENSE STATUS equals 9,
(D390) NON-CDL LICENSE STATUS equals 0,
(D400) NON-CDL LICENSE STATUS equals 0-4,
(D410) LICENSE COMPLIANCE WITH CLASS OF VEHICLE equals 0 ,

## THEN

LICENSE COMPLIANCE WITH CLASS OF VEHICLE should not equal 0.

LICENSE COMPLIANCE WITH CLASS OF VEHICLE should equal 1, 9.
LICENSE COMPLIANCE WITH CLASS OF VEHICLE should not equal 2, 3, 8, 9. LICENSE COMPLIANCE WITH CLASS OF VEHICLE should not equal 3, 8, 9 . COMPLIANCE WITH CDL ENDORSEMENTS should not equal 1-3, 9.

## COMPLIANCE WITH LICENSE RESTRICTIONS <br> (FARS Only)

FORMAT: 1 numeric
SAS NAME: Vehicle.L_RESTRI

## ELEMENT VALUES:

0 No Restrictions or Not Applicable
1 Restrictions Complied With
2 Restrictions Not Complied With
3 Restrictions, Compliance Unknown
9 Unknown
Definition: This element identifies if a driver was compliant with restrictions on their license.

## Remarks:

Refers to both physical restrictions (corrective lenses, automatic transmission, etc.) and imposed restrictions (limited driving). Starting in 2004, it also refers to any limitations imposed on Learner's Permits and Intermediate Licenses in states with Graduated Driver Licensing (GDL) programs. (e.g., driving during prohibited periods [midnight to 5 AM]; driving without adult supervision, etc.). (See "Coding Scenarios for GDL Licensing Program" table on two pages ahead.)

Code all applicable restrictions regardless of license status.

## Examples:

If a Non-CDL License Type of $\mathbf{1}$ (Full Driver License) is revoked or suspended but limited driving is permitted (e.g., to and from work), use the following criteria:
a. If the crash occurs during permitted times of driving, code Non-CDL License Type as 1 (Full Driver License) and Status as 6 (Valid), code Compliance With License Restrictions as 1 (Restrictions Complied With), and code Related Factors-Driver Level as 19 (Legally Driving on Suspended or Revoked License).
b. If the crash occurs during invalid times for driving, code Non-CDL License Type as 1 (Full Driver License) and Status as 1 (Suspended) or 2 (Revoked), code Compliance With License Restrictions as 2 (Restriction Not Complied With), and do not use Related Factors-Driver Level as 19 (Legally Driving on Suspended or Revoked License).

If due to a CDL, a driver has more than one license restriction, code compliance for the most appropriate license restrictions based on the vehicle being driven at the time of the crash. (i.e. - if vehicle being driven requires a CDL, use the CDL license restrictions).
$\mathbf{0}$ (No Restrictions or Not Applicable) is used when the driver has no restrictions on their license, when the driver is unlicensed or when they are operating a vehicle that does not require a license.

1 (Restrictions Complied With) is used when the driver is in compliance with the restrictions for their driver's license.

2 (Restrictions Not Complied With) is used when the driver is not compliant with the restrictions for their driver's license.

3 (Restrictions, Compliance Unknown) is used when it is known that this driver has restrictions on their license but compliance is not known.

9 (Unknown) is used when it is unknown if the driver is licensed or when it is unknown if a licensed driver had restrictions.

## Consistency Checks:

## IF

(1H4F) DRIVER PRESENCE equals 0,9 ,
(2IOP) DRIVER'S LICENSE STATE equals 99,
(5IOP) NON-CDL LICENSE STATUS equals 0,
(6IOP) NON-CDL LICENSE STATUS equals 9, and COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 00,
(6LOP) COMPLIANCE WITH LICENSE RESTRICTIONS equals 1 , and RELATED FACTORS-DRIVER LEVEL equals 19,
(7IOP) COMPLIANCE WITH LICENSE RESTRICTIONS equals 1, and RELATED FACTORS-DRIVER LEVEL equals 19,
(8J2P) RELATED FACTORS-DRIVER LEVEL equals 73, 74,

## THEN

COMPLIANCE WITH LICENSE RESTRICTIONS must be blank. COMPLIANCE WITH LICENSE RESTRICTIONS must not equal 0-3. COMPLIANCE WITH LICENSE RESTRICTIONS must not equal 1-3, 9 . COMPLIANCE WITH LICENSE RESTRICTIONS must not equal 1-3.

LICENSE COMPLIANCE WITH CLASS OF VEHICLE must equal 3.

NON-CDL LICENSE STATUS must equal 6.

COMPLIANCE WITH LICENSE RESTRICTIONS must equal 2.

## IF

## THEN

(9JOP) LICENSE COMPLIANCE WITH CLASS OF VEHICLE equals 0,1 ,
(D260) NON-CDL LICENSE STATUS equals 9 , or COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 99,
(D690) NON-CDL LICENSE TYPE equals 2, 7, and COMPLIANCE WITH LICENSE RESTRICTIONS equals 2,
(D700) NON-CDL LICENSE TYPE equals 1, and COMPLIANCE WITH LICENSE RESTRICTIONS equals 2,
(D730) RELATED FACTORS-DRIVER LEVEL equals 73,

COMPLIANCE WITH LICENSE RESTRICTIONS must not equal 1-3, 9.

COMPLIANCE WITH LICENSE RESTRICTIONS should not equal 0 .

RELATED FACTORS-DRIVER LEVEL should equal 73,74 .

RELATED FACTORS-DRIVER LEVEL should equal 74.

COMPLIANCE WITH LICENSE RESTRICTIONS should equal 2, and NON-CDL LICENSE TYPE should equal 2, 7.

## CODING SCENARIOS FOR <br> GRADUATED DRIVER'S LICENSING PROGRAM

1. A 16-year-old driver with a valid Intermediate License driving a vehicle during prohibited driving hours without corrective lenses.
2. A 15-year-old with a valid Learner's Permit driving alone (adult supervision required).
3. A 16-year-old with a valid Intermediate License not complying with seat-belt requirement during permitted daytime driving hours.
4. A 17-year-old driver with a valid Intermediate License. The officer reported there was a 19-year-old non-family passenger, in violation of the state's GDL requirements.
5. An 18-year-old driver with an expired Learner's Permit driving with no violations of GDL restrictions.
6. A 15-year-old with a suspended Learner's Permit is driving without required prescription lenses, and is complying with all GDL restrictions.
7. A driver with a suspended Intermediate Driver's License complying with all GDL restrictions.
8. A 19-year-old with a valid Intermediate License which was extended due to prior GDL violations is driving a truck greater than 26,000 lbs. Requiring a CDL during prohibited hours.
9. A driver with a valid Full Driver's License driving without required corrective lenses.

## NON-CDL NON- COMP.WI CDL LIC.RES. STATUS <br> RELATED TYPE <br> FACTORSDRIVER LEVEL

6
2
73, 74

7

2

2
6
2
73

7

7

2

2
6
2
73
00
3
1

73

73

3

1
2

1
6
2
1




# DRIVER HEIGHT (FARS Only) 

FORMAT: 1 set 1 numeric, 1 set 2 numeric
SAS NAME: Vehicle.DR_HGT

## ELEMENT VALUES:

|  | Feet: |
| :---: | :--- |
| 0 | See Inches |
| $2-8$ | Actual Feet |
| 9 | Unknown |
|  | Inches: |
| $00-11$ | Actual Inches |
| $24-96$ |  |
| 98 | Other |
| 99 | Unknown |

Definition: This element identifies a driver's height.

## Remarks:

Use the driver licensing files to code this element. The Coroner's Report may be used and may contain more current/accurate information.

Code the driver's height in feet and inches, if available. Inches less than 10 must be rightjustified with a leading "0" (e.g., nine inches is coded "09"). If Height is only available in total inches, then code INCHES and code FEET as " 0 ."

The tallest Height that can be recorded in total INCHES is 96 inches (8 ft). The tallest Height that can be recorded in FEET and INCHES is 8 ft . 11 inches. If the driver is taller than 96 inches, then you must code Height as feet and inches. If the driver is taller than 8 ft . -11 inches, then you must code the DRIVER HEIGHT as "Other" (0 FEET, 98 INCHES).

DRIVER HEIGHT less than "3 Feet" or greater than "7 Feet - 0 Inches" or less than "36 Inches" or greater than "0 Feet - 84 Inches" will raise an error flag.

## Consistency Checks:

IF
(1HDF) DRIVER PRESENCE equals 0,9 ,
(4H1P) DRIVER HEIGHT/INCHES is less than 12,
(4H2P) DRIVER HEIGHT/INCHES is greater than 11,
(4H3P) DRIVER HEIGHT/FEET is 2-8, DRIVER HEIGHT/ INCHES must equal
(4H5P) DRIVER HEIGHT/INCHES equals 99, (4H6P) DRIVER HEIGHT/INCHES equals 98, (4H7P) DRIVER HEIGHT/FEET is 0 ,
(D600) DRIVER HEIGHT/INCHES is greater than 11,
(D610) DRIVER HEIGHT/FEET is not blank,

00-11.
DRIVER HEIGHT/INCHES must equal 99.

THEN
DRIVER HEIGHT (feet and inches) must equal blank.
DRIVER HEIGHT/FEET must not be blank.
DRIVER HEIGHT/FEET must equal 0 .

DRIVER HEIGHT/FEET must equal 9.
DRIVER HEIGHT/FEET must equal 0. DRIVER HEIGHT/INCHES must equal 24-96, 98.
DRIVER HEIGHT/INCHES should not be less than 48.
DRIVER HEIGHT/FEET should not be less than 3.
(U260) UNLIKELY: DRIVER HEIGHT is less than 3 feet or greater than 7 feet, verify data.
(U280) UNLIKELY: DRIVER HEIGHT is less than 36 inches or greater than 84 inches, verify data.

# DRIVER WEIGHT (FARS Only) 

FORMAT: 3 numeric
SAS NAME: Vehicle.DR_WGT

## ELEMENT VALUES:

| 040-700 | Actual weight in pounds |
| :---: | :--- |
| 998 | Other |
| 999 | Unknown |

Definition: This element identifies a driver's weight.

## Remarks:

Use the driver licensing files to code this element. The Coroner's Report may be used and may contain more current/accurate information.

Code the driver's weight in pounds, if available.
Weight should be right justified.
Weights less than 100 lbs. must be coded with a leading "0" in the left-most position (e.g., 98 lbs. is coded "098").

DRIVER WEIGHT less than 50 lbs. or greater than 399 lbs. will raise an error flag.

## Consistency Checks:

## IF

## THEN

(1HEF) DRIVER PRESENCE equals 0, 9, DRIVER WEIGHT must equal blank. (U290) UNLIKELY: DRIVER WEIGHT is less than 50 lbs. or greater than 399 lbs., verify data.

## THIS PAGE INTENTIONALLY LEFT BLANK

## DRIVER LEVEL COUNTERS

## (FARS Only)

PREVIOUS RECORDED CRASHES*
PREVIOUS RECORDED SUSPENSIONS AND REVOCATIONS* PREVIOUS DWI CONVICTIONS* PREVIOUS SPEEDING CONVICTIONS* PREVIOUS OTHER HARMFUL MV CONVICTIONS *

FORMAT: 2 numeric for each element
SAS NAME: Vehicle.PREV_ACC, Vehicle.PREV_SUS, Vehicle.PREV_DWI, Vehicle.PREV_SPD, Vehicle.PREV_OTH

## ELEMENT VALUES:

$$
\begin{array}{ll}
\text { 00 } & \text { None } \\
\text { 01-97 } & \text { Actual Value, but any value greater than } 05 \text { will be questioned (except for "Previous } \\
& \text { Recorded Suspensions and Revocations" when any value greater than } 10 \text { will be } \\
\text { questioned). } \\
98 & \text { Crashes not reported on Driving Record (valid only for Previous Recorded Crashes) } \\
99 & \text { Unknown }
\end{array}
$$

Definition for Previous Recorded Crashes: This element records any previous crashes for this driver. Counts only events occurring within three years from the crash date.

Definition for Previous Recorded Suspensions and Revocations: This element records any previous license suspensions or revocations for this driver. Counts only events occurring within three years from the crash date.

Definition for Previous DWI Convictions: This element records any previous DWI convictions for this driver. Counts only events occurring within three years from the crash date.

Definition for Previous Speeding Convictions: This element records any previous Speeding convictions for this driver. Counts only events occurring within three years from the crash date.

Definition for Previous Other Harmful MV Convictions: This element records any other previous moving violations or convictions for this driver. Counts only events occurring within three years from the crash date.

D14, D15, D16
D17, D18

## Remarks:

If a driver has been DISQUALIFIED for a CDL, record this event in PREVIOUS RECORDED SUSPENSIONS AND REVOCATIONS. DO NOT include the current crash in any of the counters.

Remember there is a difference between a violation and a conviction. The violation is not counted in Previous DWI, Previous Speeding and Previous Other Harmful Moving Violation Convictions. These elements refer ONLY TO CONVICTIONS. Both convictions and violations appear on driver records in many states. Be careful that you code the conviction dates and NOT the violation dates.

DWI refers to both alcohol and drug convictions.
When you are responding to another state's request for driver data, do the following:

1. In the counters, record both in-state and out-of-state convictions, crashes, suspensions and revocations that appear on your state's record.
2. List out-of-state activity that is included in the counters in the area provided on the OUT-OF-STATE DRIVER DATA RESPONSE (see example on next page).

The Out-of-State Driver Data Response is provided through the message system.
Drivers can have a driving record or driver's license from more than one state. When you are coding the driver level counter elements (Crashes, Suspensions, Revocations, DWI, Speeding and Other Harmful MV Conviction), be sure to combine distinct events from all of the records you have. Be careful not to double-count the same event. Also use Related Factors - Driver Level 89 (Driver has a Driving Record or Driver's License From More Than One State) when this situation occurs.

## OUT-OF-STATE DRIVER DATA RESPONSE



## PREVIOUS RECORD (Number Of)

CRASHES __ SUSP/REVO ___ DWI__ SPEED ___ OTHER CONV.__

LAST CRASH, SUSP., DWI, ETC. / / FIRST CRASH, SUSP., DWI, ETC / /
OUT-OF-STATE VIOLATIONS INCLUDED* ABOVE:
*(INCLUDE KNOWN OUT-OF-STATE CRASHES, SUSP/REV., DWI, SPEED, ETC. IN PREVIOUS RECORD COUNTS ABOVE AND LIST BELOW)

| VIOLATION | CONVICT | VIOLATION | STATE | ACC,SUSPIREV,DWI, |
| :--- | :--- | :--- | :--- | :--- |
| DATE | DATE | (TRANSLATION) |  | SPEED OR OTHER? |

## COMMENTS:

NOTES TO SENDING ANALYST:
Please be careful not to include PREVIOUS RECORD information for events which occur after the DATE OF CRASH
Please fill all appropriate fields. Don't leave blanks

D14, D15, D16
D17, D18
PREVIOUS OTHER HARMFUL MV CONVICTIONS includes all other motor vehicle convictions. Some examples of convictions include:

- running a red light,
- reckless driving,
- improper lane changing,
- failure to yield, etc.
* For Element $\qquad$ , Values greater than $\qquad$ are unlikely and will raise an error flag:


## Element

## Value

PREVIOUS RECORDED CRASHES 5
PREVIOUS RECORDED SUSPENSIONS AND REVOCATIONS 10
PREVIOUS DWI CONVICTIONS
5
PREVIOUS SPEEDING CONVICTIONS 5
PREVIOUS OTHER HARMFUL MV CONVICTION 5
Make sure you know what constitutes a MOVING VIOLATION in your state. The DMV should be able to help you determine these.

## Consistency Checks:

|  | IF | THEN |
| :---: | :---: | :---: |
| (1H7F) | DRIVER PRESENCE equals 0,9 , | PREVIOUS RECORDED CRASHES must be blank. |
| (1H8F) | DRIVER PRESENCE equals 0, 9, | PREVIOUS RECORDED SUSPENSIONS must be blank. |
| (1H9F) | DRIVER PRESENCE equals 0, 9, | PREVIOUS DWI CONVICTIONS must be blank |
| (1H0F) | DRIVER PRESENCE equals 0, 9, | PREVIOUS SPEEDING CONVICTIONS must be blank. |
| (1HAF) | DRIVER PRESENCE equals 0, 9, | PREVIOUS OTHER HARMFUL MV CONVICTIONS must be blank. |
| (1JOP) | any counter equals 99, | all counters must equal 99. |
| (1J1P) | any counter equals 99, | DATE OF LAST CRASH, SUSPENSION, CONVICTION must equal 999999. |
| (1J2P) | any counter equals 99, | DATE OF FIRST CRASH, SUSPENSION, CONVICTION must equal 999999. |
| (2JOP) | all counters are not blanks and PREVIOUS RECORDED CRASHES is not equal to 98 and any counter are | DATE OF LAST CRASH, SUSPENSION, CONVICTION must not equal 000000, 999999. |

(2J1P) all counters are not blanks and PREVIOUS RECORDED CRASHES is not equal to 98 and any counter are not equal to 00, 99,
(3I1P) DRIVER'S LICENSE STATE equals 99,
(312P) DRIVER'S LICENSE STATE equals 99 ,
(313P) DRIVER'S LICENSE STATE equals 99,
(314P) DRIVER'S LICENSE STATE equals 99,
(315P) DRIVER'S LICENSE STATE equals 99,
(4JOP) all counters are not blanks and the sum of all counters less than 98 is equal to 1 ,
(CJOO) PREVIOUS RECORDED CRASHES equals 98,
(D010) DRIVER'S LICENSE STATE equals 96, 97,
(D020) DRIVER'S LICENSE STATE equals 96, 97,
(D030) DRIVER'S LICENSE STATE equals 96, 97,
(D040) DRIVER'S LICENSE STATE equals 96, 97 ,
(D050) DRIVER'S LICENSE STATE equals 96, 97,
(D100) NON-CDL LICENSE STATUS equals 9 ,
(D110) NON-CDL LICENSE STATUS equals 9 ,
(D120) NON-CDL LICENSE STATUS equals 9 ,

## THEN

DATE OF FIRST CRASH, SUSPENSION, CONVICTION must not equal 000000, 999999.
all driver history counters PREVIOUS RECORDED CRASHES must equal 99. all driver history counters PREVIOUS RECORDED SUSPENSIONS AND REVOCATIONS must equal 99.
all driver history counters PREVIOUS DWI CONVICTIONS must equal 99. all driver history counters PREVIOUS SPEEDING CONVICTIONS must equal 99.
all driver history counters PREVIOUS
OTHER HARMFUL MV CONVICTIONS must equal 99.
DATE OF LAST CRASH, SUSPENSION, CONVICTION must equal DATE OF FIRST CRASH, SUSPENSION, CONVICTION.
DRIVER'S LICENSE STATE should equal 09, 13, 28, 30, 35, 49.
PREVIOUS RECORDED CRASHES should equal 99.
PREVIOUS RECORDED SUSPENSIONS AND REVOCATIONS should equal 99.
PREVIOUS DWI CONVICTIONS should equal 99.
PREVIOUS SPEEDING CONVICTIONS should equal 99.
PREVIOUS OTHER HARMFUL MV CONVICTIONS should equal 99.
all driver history counters PREVIOUS
RECORDED CRASHES should equal 99.
all driver history counters PREVIOUS RECORDED SUSPENSIONS AND REVOCATIONS should equal 99.
all driver history counters PREVIOUS
DWI CONVICTIONS should equal 99.

D14, D15, D16
D17, D18
IF

## THEN

(D130) NON-CDL LICENSE STATUS equals 9,
all driver history counters PREVIOUS SPEEDING CONVICTIONS should equal 99.
(D140) NON-CDL LICENSE STATUS equals 9, all driver history counters PREVIOUS OTHER HARMFUL MV CONVICTIONS should equal 99.
(D480) DRIVER'S LICENSE STATE equals 09, 13, 28, 30, 35, 49, PREVIOUS RECORDED CRASHES should equal 98.
(U210) UNLIKELY: PREVIOUS RECORDED CRASHES is greater than 5 and less than 98.
(U220) UNLIKELY: PREVIOUS RECORDED SUSPENSIONS AND REVOCATIONS is greater than 10 and less than 98.
(U230) UNLIKELY: PREVIOUS DWI CONVICTIONS is greater than 5 and less than 98.
(U240) UNLIKELY: PREVIOUS SPEEDING CONVICTIONS is greater than 5 and less than 98.
(U250) UNLIKELY: PREVIOUS OTHER HARMFUL MV CONVICTIONS is greater than 5 and less than 98.

# DATE OF FIRST AND LAST CRASH, SUSPENSION, CONVICTION <br> (FARS Only) 

FORMAT: 1 set 2 numeric, 1 set 4 numeric for each element.
SAS NAME: Vehicle.FIRST_MO, Vehicle.FIRST_YR / Vehicle.LAST_MO, Vehicle.LAST_YR

## ELEMENT VALUES:

|  | Month: |
| :---: | :--- |
| 00 | No Record |
| $01-12$ | Actual Month |
| 99 | Unknown |
|  |  |
| 0000 | Year: |
|  | No Record |
| 9999 | All 4 Digits of Actual Year |
| Unknown |  |

Definition for Date of First Crash, Suspension, Conviction: This element identifies the date of the first crash, suspension, or conviction. Counts only dates of events occurring within three years from the crash date.

Definition for Date of Last Crash, Suspension, Conviction: This element identifies the date of the last crash, suspension, or conviction. Counts only dates of events occurring within three years from the crash date.

## Remarks:

Code only dates of events occurring within three years from the crash date.
Code the month and year in that order.
This element, although it contains two pieces of information, should be treated as one element. That is never leave month blank without leaving the year blank, and vice versa.

## Consistency Checks:

IF
(1HCF) DRIVER PRESENCE equals 0, 9,

## THEN

DATE OF FIRST CRASH, SUSPENSION, CONVICTION must be blank.
(1HBF) DRIVER PRESENCE equals 0,9 ,
(1J1P) If any counter equals 99,
(1J2P) If any counter equals 99,
(2JOP) all counters are not blanks and PREVIOUS RECORDED CRASHES is not equal to 98 and any counter are not equal to 00, 99,
(2J1P) all counters are not blanks and PREVIOUS RECORDED CRASHES is not equal to 98 and any counter are not equal to 00, 99 ,
(2KOP) DATE OF FIRST CRASH, SUSPENSION, CONVICTION must be less than or equal to DATE OF LAST CRASH, SUSPENSION, CONVICTION.
(3J1P) all counters equal 00,
(4JOP) all counters are not blanks and the sum of all counters less than 98 is equal to 1 ,
(4K2P) Month of DATE OF FIRST CRASH, SUSPENSION, CONVICTION equals 00 ,
(4K3P) Year of DATE OF FIRST CRASH, Month (of same) must equal 00. SUSPENSION, CONVICTION equals 0000,
(5JOP) If the sum of all counters less than 98 is greater than fifteen,

DATE OF FIRST CRASH, SUSPENSION, CONVICTION must equal 000000. DATE OF LAST CRASH, SUSPENSION, CONVICTION must equal DATE OF FIRST CRASH, SUSPENSION, CONVICTION.
Year (of same) must equal 0000.

DATE OF LAST CRASH, SUSPENSION, CONVICTION must not equal DATE OF FIRST CRASH, SUSPENSION, CONVICTION.
(5KOP) The Year of DATE OF FIRST CRASH, SUSPENSION, CONVICTION must be within three years of the Year of CRASH DATE.
(990P) any counter equals 99,
all counters and DATE OF LAST CRASH, SUSPENSION, CONVICTION and DATE OF FIRST CRASH, SUSPENSION, CONVICTION must equal 9999.

## THEN

(D150) the sum of all counters less than 98 is DATE OF LAST CRASH, SUSPENgreater than five but less than fifteen, SION, CONVICTION should not equal DATE OF FIRST CRASH, SUSPENSION, CONVICTION.

## THIS PAGE INTENTIONALLY LEFT BLANK

## VIOLATIONS CHARGED

FORMAT: 2 numeric. Select all the apply.
SAS NAME: Violatn.MVIOLATN

## ELEMENT VALUES:

00 None

## Reckless/Careless/Hit-and-Run Type Offenses

Manslaughter or homicide
Willful reckless driving; driving to endanger; negligent driving
Unsafe reckless (not willful, wanton reckless) driving
Inattentive, careless, improper driving
Fleeing or eluding police
Fail to obey police, fireman, authorized person directing traffic
Hit-and-run, fail to stop after crash
Fail to give aid, information, wait for police after crash
Serious violation resulting in death

## Impairment Offenses

11 Driving while intoxicated (alcohol or drugs) or BAC above limit (any detectable BAC for CDLs)
Driving while impaired
Driving under influence of substance not intended to intoxicate
Drinking while operating
Illegal possession of alcohol or drugs
Driving with detectable alcohol
Refusal to submit to chemical test
Alcohol, drug or impairment violations generally

## Speed-Related Offenses

Racing
Speeding (above the speed limit)
Speed greater than reasonable \& prudent (not necessarily over the limit)
Exceeding special limit (e.g.: for trucks, buses, cycles, or on bridge, in school zone, etc.)
25 Energy speed (exceeding 55 mph, non-pointable)
26 Driving too slowly
29 Speed related violations, generally

## Rules of the Road - Traffic Sign \& Signals

Fail to stop for red signal
Fail to stop for flashing red

Violation of turn on red (fail to stop \& yield, yield to pedestrians before turning)
Fail to obey flashing signal (yellow or red)
Fail to obey signal, generally
Violate RR grade crossing device/regulations
Fail to obey stop sign
Fail to obey yield sign
Fail to obey traffic control device

## Rules of the Road - Turning, Yielding, Signaling

Turn in violation of traffic control (disobey signs, turn arrow or pavement markings; this is not a right-on-red violation)
Improper method \& position of turn (too wide, wrong lane)
Fail to signal for turn or stop
Fail to yield to emergency vehicle
Fail to yield, generally
Enter intersection when space insufficient
Turn, yield, signaling violations, generally

## Rules of the Road - Wrong Side, Passing \& Following

Driving wrong way on one-way road
Driving on left, wrong side of road, generally
Improper, unsafe passing
Pass on right (drive off pavement to pass)
Pass stopped school bus
Fail to give way when overtaken
Following too closely
Wrong side, passing, following violations, generally

## Rules of the Road - Lane Usage

Unsafe or prohibited lane change
Improper use of lane (enter of 3-lane road, HOV designated lane)
Certain traffic to use right lane (trucks, slow-moving, etc.)
Motorcycle lane violations (more than two per lane, riding between lanes, etc.)
Motorcyclist attached to another vehicle
Lane violations, generally

## Non-Moving - License and Registration Violations

Driving while license withdrawn (including violation of provisions of work permit)
Other driver license violations
Commercial driver violations (log book, hours, permits carried)
Vehicle registration violations
Fail to carry insurance card
Driving uninsured vehicle
Non-moving violations, generally

## Equipment

Lamp violations
Brake violations
Failure to require restraint use (by self or passengers)
Motorcycle equipment violations (helmet, special equipment)
Violation of hazardous cargo regulations
Size, weight, load violations
Equipment violations, generally

## License, Registration \& Violations

Parking
Theft, unauthorized use of motor vehicle
Driving where prohibited (sidewalk, limited access, off truck route)
Not Reported
Other moving violation (coasting, backing, opening door)
Unknown VIOLATION(s)
Definition: This element identifies all violations charged to this driver in this crash.

## Remarks:

This refers to those violations to the Vehicle Code charged as noted on the police accident report. Code all violations listed on the PAR for this driver.

If you are unable to distinguish between the violations within a specific category, use the General Code (i.e., 09, 19, 29, 39, 49, 59, 69, 79, 89) for that category.

00 (None) is used when there is indication that no violations were charged to this driver or when no violations are noted in the case materials for this driver and that indicates no violations were charged to the driver.

## GES SPECIAL INSTRUCTION:

In cases where the investigating officer has designated "pending" in the case materials use 00 (None).

## 97 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 97 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

99 (Unknown Violation(s)) is used when it is known that this driver had one or more violations but the specific violation(s) or violation category(ies) cannot be identified.

## Examples:

- If it is known a driver had two violations but they cannot be identified code 99 (Unknown Violation(s)) once.
- If the driver has a known specific violation(s) and other unspecified violation(s) code all the specific violation(s) and code 99 (Unknown Violation(s)) once.


## FARS SPECIAL INSTRUCTION:

In cases where the investigating officer has designated "pending", always follow up whenever possible to confirm a violation was charged before entering 00 (None) or 99 (Unknown).

## Consistency Checks:

IF
(1H6F) DRIVER PRESENCE equals 0, 9 , (6KOP) VIOLATION CHARGED equals 71,
(7KOP) any VIOLATIONS CHARGED equals 71,

THEN
VIOLATIONS CHARGED must be blank. RELATED FACTORS-DRIVER LEVEL must not equal 19 .
NON-CDL LICENSE STATUS must equal $0,1,2$, or COMMERCIAL MOTOR VEHICLE LICENSE STATUS must equal 01, $02,05$.
(7K1P) VIOLATIONS CHARGED code 99 must not be used more than once per driver.
(8KOP) VIOLATIONS CHARGED equals
HIT-AND-RUN must not equal 0 . 07, 08,
(A270) any VIOLATIONS CHARGED equals 31-35, 37,
(D080) VIOLATION CHARGED equals 01-06, 09, 31-69, 81-91, 98,
(D090) VIOLATIONS CHARGED equals 11-19, and PERSON TYPE equals 01, 03 ,
(D350) VIOLATIONS CHARGED equals 71,
TRAFFIC CONTROL DEVICE should equal 01-20, 98.
RELATED FACTORS-DRIVER LEVEL should not all equal 00, 99.
POLICE REPORTED ALCOHOL INVOLVEMENT should equal 1, or POLICE REPORTED DRUG INVOLVEMENT should equal 1.
NON-CDL LICENSE STATUS should not equal $0,3,6,9$.

## THEN

(D500) VIOLATIONS CHARGED equals 05,
(D530) any VIOLATIONS CHARGED equals 36 for a vehicle involved in the first harmful event,
(D560) VIOLATIONS CHARGED equals 66,
(D570) any VIOLATIONS CHARGED equals 83,
(D580) VIOLATIONS CHARGED equals 85,
(D5A0) VIOLATIONS CHARGED equals 21-25, 29,
(D5B0) any VIOLATIONS CHARGED equals 11-13, 18, 19,
(D5C0) VIOLATIONS CHARGED equals 14 or 16,
(D5D0) any VIOLATIONS CHARGED equals 16, and COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 06,
(D5E0) any VIOLATIONS CHARGED equals only that one code and no other must be 00 or 97,
(U440) UNLIKELY: VIOLATIONS CHARGED equals 97.

## THIS PAGE INTENTIONALLY LEFT BLANK

## SPEEDING RELATED

FORMAT: 1 numeric
SAS NAME: Vehicle.Speedrel

## ELEMENT VALUES:

0 No
2 Yes, Racing
3 Yes, Exceeded Speed Limit
4 Yes, Too Fast for Conditions
5 Yes, Specifics Unknown
9 Unknown
Definition: This element identifies if the driver's speed was related to the crash as identified by law enforcement.

## Remarks:

Speed can be indicated in the case materials by the police issuing a citation for a speed offense, by their indicating a related or contributing factor, or through a description in the narrative.
$\mathbf{0}$ (No) is used if the case materials do not indicate any speed related charges (violations, citations) and do not indicate any speed related factors.

2 (Yes, Racing) is used when two or more motor vehicles are engaged in a speedrelated competition on the trafficway.

3 (Yes, Exceeded Speed Limit) is used when a motor vehicle is traveling above the posted/statutory speed limit on certain designated roadways and/or by certain types of vehicles; e.g., for trucks, buses, motorcycles, on bridge, at night, in school zone, etc.). Do not compare an estimated travel speed to the posted speed limit for determining the correct attribute for this data element.

4 (Yes, Too Fast for Conditions) is used when a vehicle is traveling at a speed that was unsafe for the road, weather, traffic or other environmental conditions at the time.

5 (Yes, Specifics Unknown) is used when it is known that Speed or Speeding applies but it cannot be determined which of the more specific attributes apply.

9 (Unknown) is used if the police state that the circumstances of the crash are unknown (i.e., it is unknown what factors, if any, may have been present at the time of the crash).

## Consistency Checks:

## IF

(1HFF) DRIVER PRESENCE equals 0,9 , (D5A0) VIOLATIONS CHARGED equals 21-25, 29,

## THEN

SPEEDING RELATED must be blank. SPEEDING RELATED must equal 2-5.

## CONDITION (IMPAIRMENT) AT TIME OF CRASH

FORMAT: 2 numeric. Select all that apply
SAS NAME: Drimpair.DRIMPAIR

## ELEMENT VALUES:

00 None/Apparently Normal
01 III, Blackout
02 Asleep or Fatigued
03 Walking with a Cane or Crutches
04 Paraplegic Or Restricted To Wheelchair
05 Impaired Due To Previous Injury
06 Deaf
07 Blind
08 Emotional (depressed, angry, disturbed, etc)
09 Under the Influence of Alcohol, Drugs or Medication
10 Physical Impairment - No Details
96 Other Physical Impairment
98 Not Reported
99 Unknown If Impaired
Definition: This element identifies physical impairments to this driver or non-motorist which may have contributed to the cause of the crash as identified by law enforcement.

## Remarks:

Select all that apply.
These impairments can appear anywhere in the case materials--in the narrative section, in the violations section, in a column entitled "Contributing Factors" or "Driver Action", etc. Do not consider pedestrian, non-motorist or witness statements unless verified by the investigating police officer by being reported in the narrative section of the crash report.

## 00 (NonelApparently Normal) is used when:

- When the case materials make a positive statement that the individual was apparently normal or "none" was indicated on the PAR.
- When the case materials do not indicate an impairment in an available field and not reporting an impairment in that field indicates 00 (None/Apparently Normal).
- When the investigating officer

0 is limited in the number of factors that can be displayed
o and cannot select an impairment in addition to another factor relevant to the crash
0 and some other factor is selected
0 and no other indication of impairment exists in the case materials.

- For omission of information see 98 (Not Reported) guidance below.

01 (III, Blackout) is used when indicated in the case materials. Enter this attribute even if the source of the illness or loss of consciousness is alcohol or drug related. Use this attribute if the driver or non-motorist had fainted and/or seizures were identified.

02 (Asleep or Fatigued) is used when indicated in the case materials. Also, use this attribute when the investigating officer indicates the person was drowsy or sleepy. Alcohol or other drugs may be the source of this impairment.

03 (Walking with a Cane or Crutches) is used when non-motorist is walking with a cane or crutches when indicated in the case materials.

04 (Paraplegic or Restricted to Wheelchair) is used if this person has to use a wheelchair or is paraplegic (may or may not have used a wheelchair).

05 (Impaired Due to Previous Injury) is used if the case materials specifically indicates this condition (e.g., if a person is involved in this crash subsequent to his/her involvement in a previous crash in which the person was injured). This attribute should be extremely rare.

06 (Deaf) is used when this condition is attributed to this person in the case materials.
07 (Blind) is used when this condition is attributed to this person in the case materials.
08 (Emotional [depressed, angry, disturbed, etc.]) is used when the person is arguing with someone, is having a disagreement, is depressed and/or is emotionally upset.

09 (Under the Influence of Alcohol, Drugs or Medication) is used when the investigating officer indicates that the individual was under the influence of alcohol, drugs or medication.

10 (Physical Impairment-No Details) is used when the case materials indicate a physical impairment existed but provides no further details about the impairment.

96 (Other Physical Impairment) is used when the case materials indicate that a physical impairment was involved but it isn't a listed attribute.

## 98 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 98 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

99 (Unknown if Impaired) is used if the investigating officer states that the physical impairment of this person is unknown. Hit-and-Run drivers are included in this attribute.

## Consistency Checks:

## IF

(4X2F) any CONDITION (IMPAIRMENT) AT TIME OF CRASH (D23) equals 00 or 98 or 99,
(4X4F) any CONDITION (IMPAIRMENT) AT TIME OF CRASH (D23) equals 09,
(6H1P) DRIVER PRESENCE equals 0, 9,
(D5B0) any VIOLATIONS CHARGED equals 11-13, 18, 19,
(D5C0) VIOLATIONS CHARGED equals 14 or 16,
(D5D0) any VIOLATIONS CHARGED equals 16, and COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 06,
(U530) UNLIKELY: any CONDITION (IMPAIRMENT) AT TIME OF CRASH (D23) equals 03, 05 or 07.

## THIS PAGE INTENTIONALLY LEFT BLANK

## RELATED FACTORS - DRIVER LEVEL

FORMAT: 2 numeric occurring 4 times
SAS NAME: Vehicle.DR_SF1, Vehicle.DR_SF2, Vehicle.DR_SF3, Vehicle.DR_SF4

## ELEMENT VALUES:

00 None

## Physical/Mental Condition:

06 Careless Driving
08 Aggressive Driving / Road Rage
*13 Mentally Challenged
*04 Reaction to or Failure to Take Drugs/Medication
*12 Mother of Dead Fetus/Mother of Infant Born Post Crash

## Miscellaneous Factors:

*15 Seat Back Not In Normal Upright Position, Seat Back Reclined
18 Traveling on Prohibited Trafficways
*19 Legally Driving on Suspended or Revoked License
20 Leaving Vehicle Unattended with Engine Running Leaving Vehicle Unattended in Roadway
21 Overloading or Improper Loading of Vehicle With Passengers or Cargo
22 Towing or Pushing Improperly
23 Failure to Dim Lights or to Have Lights on When Required
24 Operating Without Required Equipment
*26 Following Improperly
*27 Improper or Erratic Lane Changing
*28 Failure to Keep in Proper Lane
*29 Illegal Driving on Road Shoulder, in Ditch, on Sidewalk or on Median
*30 Making Improper Entry To or Exit From Trafficway
*31 Starting or Backing Improperly
32 Opening Closure into Moving Traffic or While Vehicle is in Motion
*33 Passing Where Prohibited by Posted Signs, Pavement Markings, Hill or Curve, or School Bus Displaying Warning Not to Pass Line
*34 Passing on Wrong Side
*35 Passing With Insufficient Distance, or Inadequate Visibility, or Failing to Yield to Overtaking Vehicle
36 Operating the Vehicle in an Erratic, Reckless or Negligent Manner Operating at Erratic or Suddenly Changing Speeds
16 Police or Law Enforcement Officer
37 Police Pursuing This Driver or Police Officer in Pursuit
*38 Failure to Yield Right-of-Way
*40 Passing Through or Around Barrier
*41 Failure to Observe Warnings or Instructions on Vehicles Displaying Them
*42 Failure to Signal Intentions
*45 Driving Less Than Posted Minimum
*47 Making Right Turn From Left-Turn Lane, Left Turn from Right-Turn Lane
*48 Making Other Improper Turn
50 Driving Wrong Way on One-Way Trafficway
51 Driving on Wrong Side of Road (Intentional or Unintentional)
*52 Operator Inexperience
*53 Unfamiliar with Roadway
54 Stopped in Roadway (Vehicle Not Abandoned)
*57 Locked Wheel
58 Overcorrecting
59 Getting Off/Out of or On/In to a Vehicle

## Special Circumstances:

*73 Driver Has Not Complied With Learner's Permit or Intermediate Driver License Restrictions (GDL Restrictions)
*74 Driver Has Not Complied With Physical or Other Imposed Restrictions (not including GDL Restrictions)
*89 Driver has a Driving Record or Driver's License from More Than One State
91 Non-Traffic Violation Charged (manslaughter, homicide, or other assault offense committed without malice)

## Skidding, Swerving, Sliding Due To:

*77 Severe Crosswind
*78 Wind From Passing Truck
*79 Slippery or Loose Surface
*80 Tire Blowout or Flat
*81 Debris or Objects in Road
*82 Ruts, Holes, Bumps in Road
*83 Live Animals in Road
*84 Vehicle in Road
*85 Phantom Vehicle
*86 Pedestrian, Pedal Cyclist, or Other Non-Motorist
*87 Ice, Snow, Slush, Water, Sand, Dirt, Oil, Wet Leaves on Road
*88 Trailer Fishtailing or Swaying
99 Unknown

## * FARS ONLY ATTRIBUTES

Definition: This element identifies factors related to this driver expressed by the investigating officer.

## Remarks:

| Related Factors |  | $\begin{array}{l}\text { Driver Violations Cited } \\ \text { or Noted by Police }\end{array}$ | Examples/Notes |
| :--- | :--- | :--- | :--- |
| $\mathbf{0 0}$ | None |  |  |
| Physical/Mental Condition |  | Careless Driving | $\begin{array}{l}\text { Driving Without Due Care; } \\ \text { Operating vehicle in careless } \\ \text { manner. }\end{array}$ |
| $\mathbf{0 6}$ | Careless Driving | $\begin{array}{l}\text { Aggressive Driving / } \\ \text { Road Rage }\end{array}$ | Aggressive Driving |
| Officer must use the term |  |  |  |
| "Aggressive" in describing this |  |  |  |
| driver's behavior. Can be |  |  |  |
| indicated in the report under |  |  |  |
| related/contributing factors, |  |  |  |
| violations charged or in the |  |  |  |
| narrative. You may encounter |  |  |  |
| the term "Road Rage" used to |  |  |  |
| describe aggressive driving |  |  |  |
| behavior. The two terms are not |  |  |  |
| technically interchangeable but |  |  |  |
| both will be coded here. |  |  |  |$\}$


|  | Related Factors | Driver Violations Cited or Noted by Police | Examples/Notes |
| :---: | :---: | :---: | :---: |
| Miscellaneous Factors: |  |  |  |
| *15 | Seat Back Not In <br> Normal Upright <br> Position, Seat Back <br> Reclined |  |  |
| 18 | Traveling on Prohibited Trafficways |  | Driving on prohibited trafficway/roadway (example: mopeds on interstate). <br> Trucks prohibited on this trafficway. |
| *19 | Legally Driving on Suspended or Revoked License |  | Individual with suspended/revoked license allowed to drive only to and from work. <br> License restricted/occupational license issued. <br> Modification of conditions/restrictions. |
| 20 | Leaving Vehicle Unattended with Engine Running. <br> Leaving Vehicle Unattended in Roadway. | Parked double. <br> Parked on bridge, tunnel. Parking within intersection. | "Unattended" signifies "driverless." |
| 21 | Overloading or Improper Loading of Vehicle With Passengers or Cargo | Unsecured or uncovered load violation. | Having more than 3 passengers in the front seat. <br> Trunk open with extra large cargo protruding. <br> Sitting/standing on rails, tailgate of pickup or improperly sitting in bed of pickup. <br> Overweight/over length/oversize. |
| 22 | Towing or Pushing Improperly | Push vehicle in dangerous manner. | Towing with improper connection (e.g., only a cable, etc.) <br> Using vehicle to push another vehicle. |


|  | Related Factors | Driver Violations Cited or Noted by Police | Examples/Notes |
| :---: | :---: | :---: | :---: |
| 23 | Failure to Dim Lights or to Have Lights on When Required | Fail to use proper headlight beam. <br> Fail to dim headlights for, approaching vehicle, when following another. <br> Using fog lights when prohibited. | Headlamps adjusted improperly, causing glare. <br> Failing to have headlights on in tunnels. <br> Motorcycle not using lights as required. |
| 24 | Operating Without Required Equipment | Defective or no lamps, brakes, mirrors, muffler, flares, wipers, horn, snow tires, chains, etc. | May be used for failure to use restraints, child safety seat or no motorcycle helmets ONLY if officer makes an issue that it is a factor in this case. Not for PAR box marked "not used." <br> Not to be used simply if PAR Restraint Use box is marked "Not Used". <br> For vehicles that : <br> - Do not have extended side mirrors when required (e.g. pulling a trailer) <br> - Required snow tires <br> - Seatbelts have been removed from the vehicle <br> - Failure to use headlights or fog lamps <br> - Airbag was not reinstalled |
| *26 | Following Improperly | Following fire truck too closely. <br> Failure to maintain safe passing distance between trucks. <br> Following vehicles in caravan too closely to allow entry. <br> Following too close, generally. | Following too closely for weather conditions. <br> NOTE: Improper Lane Change signifies "in the process," while 26 (Following Improperly) denotes "after or before the process of lane change." |
| *27 | Improper or Erratic Lane Changing | Unsafe lane change. Failure to obey "no lane change" sign. | Weaving in and out of traffic. |


| Related Factors |  | Driver Violations Cited or Noted by Police | Examples/Notes |
| :---: | :---: | :---: | :---: |
| *28 | Failure to Keep in Proper Lane | Trucks and buses, slower vehicles to keep right. | Vehicle crosses centerline and strikes oncoming vehicle. <br> Indication of "drove left of center" which includes 2 lane roadways where no painted centerline is present. <br> Vehicle going straight in turn lane. <br> Vehicle using more than one lane on its side of a multi-lane highway. <br> Does not apply to vehicles that run off the roadway or that cross the median. <br> Also does not apply when a vehicle leaves its lane because of a previous impact. <br> See 51 (Driving on Wrong Side of Road [Intentional or Unintentional]) for Driving on Wrong Side of Road. |
| *29 | Illegal Driving on Road Shoulder, in Ditch, on Sidewalk or on Median |  | Example: Driving on the shoulder to avoid stopped traffic and striking a pedestrian walking on the shoulder. <br> Intentionally driving on shoulder, median, roadside, etc. <br> Not to be used as an avoidance maneuver or as a result of a critical or harmful event |
| *30 | Making Improper Entry To or Exit From Trafficway | Driving onto or from controlled access highway where prohibited. | Entering highway from adjacent pasture, field. <br> Entering highway on exit ramp, or exiting on entrance ramp, going the wrong way. <br> NOTE: Don't confuse with 51 (Driving on Wrong Side of Road [Intentional or Unintentional]) |
| *31 | Starting or Backing Improperly | Unsafe start from parked position. | Backing up on one-way. <br> Starting onto highway from parked position on shoulder. |


|  | Related Factors | Driver Violations Cited or Noted by Police | Examples/Notes |
| :---: | :---: | :---: | :---: |
| 32 | Opening Closure into Moving Traffic or While Vehicle is in Motion | Opening door into moving traffic. | Opening trunk while vehicle is in motion. |
| *33 | Passing Where Prohibited by Posted Signs, Pavement Markings, Hill or Curve, or School Bus Displaying Warning Not to Pass Line | Overtaking streetcar on left or right. Overtaking vehicle stopped to allow pedestrian movement. | Passing stopped school bus. Crossing over solid line to pass. Passing uphill; mainly violations as designated by traffic controls. |
| *34 | Passing on Wrong Side | Passing on right prohibited. | $\begin{aligned} & \text { Passing on right. } \\ & \text { Passing on right shoulder, } \\ & \quad \text { emergency lane, or roadside. } \end{aligned}$ |
| *35 | Passing With Insufficient Distance, or Inadequate Visibility, or Failing to Yield to Overtaking Vehicle | Passing with insufficient sight distance. | Mainly passing violations based on faulty judgment. |
| 36 | Operating the Vehicle in an Erratic, Reckless or Negligent Manner Operating at Erratic or Suddenly Changing Speeds | Driving to endanger, willful or wanton disregard. <br> Reckless driving reduced from DUI. | Must be explicitly stated on police record. Acceleration followed by sudden braking. |
| 16 | Police or Law Enforcement Officer |  | Federal, state or local law enforcement officer working at the time of the crash. <br> Includes military and park police, border patrol and all other sworn law enforcement officers. |
| 37 | Police Pursuing This Driver or Police Officer in Pursuit | Fleeing or attempting to elude police officer. | "Hot pursuit." <br> This officer in pursuit of motorists or this motorist being pursued by police. |


|  | Related Factors | Driver Violations Cited or Noted by Police | Examples/Notes |
| :---: | :---: | :---: | :---: |
| *38 | Failure to Yield Right-ofWay | Failure to yield to pedestrian. <br> Failure to yield to emergency vehicles. <br> Failure to yield to streetcar already in intersection. | Primarily intersection-related. Care should be used to distinguish yield violations from lane violations. |
| *39 | Failure to Obey Actual Traffic Signs, Traffic Control Devices or Traffic Officers. Failure to Obey Safety Zone Traffic Laws. | Failure to obey flashing signal. <br> Violation of turn on red. <br> Failure to obey lane use control signal. <br> Failure to obey stop signs. <br> Failure to obey yield sign. | Often times incorrectly coded in conjunction with 38 (Failure to Yield Right-of-Way). Care must be used to distinguish from 38 (Failure to Yield Right-of-Way). <br> When vehicle does not stop when required by traffic control. <br> When vehicle stops, but fails to yield, code 38 (Failure to Yield Right-of-Way) (4-way stops). <br> Violating yield sign, code as 38 (Failure to Yield Right-of-Way) and 39 (Failure to Obey Actual Traffic Signs, Traffic Control Devices or Traffic Officers. Failure to Obey Safety Zone Traffic Laws). <br> Passing around railroad gates. |
| *40 | Passing Through or Around Barrier | Driving in prohibited area (play street, construction, etc.). | Denotes "demarcated" area. |
| *41 | Failure to Observe Warnings or Instructions on Vehicles Displaying Them |  | Failure to follow construction instructions (e.g., arrows directing traffic mounted on vehicle), instructions on emergency vehicles (ambulances, fire trucks, police cars). <br> Failure to observe right-turn warning on trucks, buses. <br> Failure to heed hazard lights on disabled vehicle, school bus arm. |


|  | Related Factors | Driver Violations Cited or Noted by Police | Examples/Notes |
| :---: | :---: | :---: | :---: |
| *42 | Failure to Signal Intentions | Failure to sound horn at curve on mountain road. <br> Failure to signal upon stopping to turn. | Failure to signal by either lamp turn signal or hand. |
| *45 | Driving Less Than Posted Minimum |  | Driving too slowly, so as to impede traffic. |
| *47 | Making Right Turn From Left-Turn Lane, Left Turn from Right-Turn Lane |  | To distinguish from 27 (Improper or Erratic Lane Changing) police officer must have knowledge of driver's intention. |
| *48 | Making Other Improper Turn | Too wide right or left turn. <br> Unsafe U-turn (from shoulder, etc.). | To distinguish from 39 (Failure to Obey Actual Traffic Signs, Traffic Control Devices or Traffic Officers. Failure to Obey Safety Zone Traffic Laws) implies judgmentoriented actions, not those explicitly stated by the law. (Too wide at right or left turn unsafe U-turn.) |
| 50 | Driving Wrong Way on One-Way Trafficway |  | To distinguish from 51 (Driving on Wrong Side of Road [Intentional or Unintentional]) On a divided highway, although each side is "one-way," driving against traffic should be coded as 51 (Driving on Wrong Side of Road [Intentional or Unintentional])not 50 (Driving Wrong Way on One-Way Traffic). |


| Related Factors |  | $\begin{array}{c}\text { Driver Violations Cited } \\ \text { or Noted by Police }\end{array}$ | $\begin{array}{c}\text { Examples/Notes }\end{array}$ |
| :--- | :--- | :--- | :--- |
| 51 | $\begin{array}{l}\text { Driving on Wrong Side } \\ \text { of Road (Intentional or } \\ \text { Unintentional) }\end{array}$ | $\begin{array}{l}\text { Driving on wrong side of } \\ \text { highway. }\end{array}$ | $\begin{array}{l}\text { Driving wrong way on Rotary } \\ \text { Intersection. } \\ \text { Driving on left half of approaching } \\ \text { bridge, tunnel. } \\ \text { To distinguish from 28 (Failure to } \\ \text { keep in proper lane) when a } \\ \text { vehicle loses control and } \\ \text { crosses the centerline of an } \\ \text { undivided highway, it is coded } \\ \text { as 28 not 51. }\end{array}$ |
| $* 52$ | Operator Inexperience |  | $\begin{array}{l}\text { New drivers, new truck/bus driver; } \\ \text { based on the judgment of the } \\ \text { police officer. }\end{array}$ |
| Unfamiliar with vehicle. |  |  |  |\(\left.\} \begin{array}{l}Possibly out-of-state licenses. <br>

New stretch of road, based on the <br>
judgment of the police officer.\end{array}\right\}\)

| Related Factors |  | Driver Violations Cited or Noted by Police | Examples/Notes |
| :---: | :---: | :---: | :---: |
| 59 | Getting Off/Out of or On/In to a Vehicle |  | Applies for either moving or nonmoving vehicles. <br> To distinguish from 32 (Opening Closure into Moving Traffic or While Vehicle is in Motion). <br> This attribute takes precedence, not to be coded in conjunction with 32 (Opening Closure into Moving Traffic or While Vehicle is in Motion). |
| *77 | Skidding, Swerving, <br> Sliding Due To: <br> Severe Crosswind |  |  |
| *78 | Wind From Passing Truck |  |  |
| *79 | Slippery or Loose Surface |  | Refers to actual condition of roadway surface, e.g., loose gravel roadway. <br> Slippery or old worn blacktop. Newly paved surface. |
| *80 | Tire Blowout or Flat |  |  |
| *81 | Debris or Objects in Road |  | Nails, glass, trash cans, tire retread, trash, dead animals, pile of sand, barricades, etc. |
| *82 | Ruts, Holes, Bumps in Road |  |  |
| *83 | Live Animals in Road |  |  |
| *84 | Vehicle in Road |  | Includes both contact and noncontact vehicles that remain at the scene. |


| Related Factors |  | Driver Violations Cited or Noted by Police | Examples/Notes |
| :---: | :---: | :---: | :---: |
| *85 | Phantom Vehicle |  | Non-contact vehicle that leaves the scene as described by the police officer. |
| *86 | Pedestrian, Pedal Cyclist, or Other NonMotorist |  |  |
| *87 | Ice, Snow, Slush, Water, Sand, Dirt, Oil, Wet Leaves on Road |  | This is for the substances on roadway that causes roadway to be slick, which may interfere with traction. <br> These are not part of the roadway design (see 79 (Slippery or Loose Surface)). |
| *88 | Trailer Fishtailing or Swaying |  | Describes where a trailer fishtails or sways causing vehicle to weave in traffic or swerve. <br> Includes trucks \& cars pulling a trailer. <br> This may or may not result in a jackknife. |
| *73 | Special Circumstances <br> Driver Has Not <br> Complied With Learner's <br> Permit or Intermediate <br> Driver License <br> Restrictions (GDL <br> Restrictions) |  | Learner's/Intermediate nighttime restrictions (e.g., midnight - 6 AM). <br> Learner's/Intermediate unsupervised driving restrictions. <br> Learner's/Intermediate passenger restriction. <br> Mandatory Seat Belt Use Restriction. |


| Related Factors |  | Driver Violations Cited <br> or Noted by Police | Examples/Notes |
| :--- | :--- | :--- | :--- |
| $* 74$ | Driver Has Not <br> Complied With Physical <br> or Other Imposed <br> Restrictions (not <br> including GDL <br> Restrictions) |  | Driving without corrective lenses <br> when required. <br> Driving without required equipment <br> (e.g., automatic transmission, <br> adaptive controls, etc.). <br> Violating special privileges on a <br> suspended/revoked license for <br> other than permitted activities <br> (e.g., driving permitted only to <br> and from work). Not to be used <br> for general "driving on a <br> suspended or revoked license". |
| *89 | Driving vehicle without "Interlock <br> System" when required. |  |  |
| Record or Driver's <br> License from More Than <br> One State |  | Any combination of a state license <br> or record. <br> Regardless of the status of the <br> license or the driving privilege. |  |
| $9 \mathbf{9 1}$ | Non-Traffic Violation <br> Charged (manslaughter, <br> homicide, or other <br> assault offense <br> committed without <br> malice) | "Criminal" charges such as: |  |
| 99 | Unknown | Driver charged with <br> intoxicated assault. <br> Driver charged with vehicular <br> manslaughter. |  |

## *FARS ONLY ATTRIBUTES

## Remarks:

Code information provided in the narrative by the investigating officer. It is the officer's assessment.

This is a nominal list only and does NOT imply a hierarchy.
NOTE: RELATED FACTORS-DRIVER LEVEL SHOULD BE CODED ONLY FOR THE DRIVER'S OF "IN-TRANSPORT VEHICLES" (UNIT TYPE "1").

## RELATED FACTORS FOR ALL OTHER MOTOR VEHICLE OCCUPANTS SHOULD BE CODED UNDER RELATED FACTORS-PERSON (MV OCCUPANT) LEVEL (INCLUDING ALL OCCUPANTS IN UNIT TYPES " 2 , 3 AND 4".)

## Use of 00 (None)

Use when no factors are noted; zero-fill all fields. $\mathbf{0 0}$ (None) implies that the investigating officer indicated "no factors." Also, use $\mathbf{0 0}$ (None) to complete remaining fields when you will be recording less than four related factors. DO NOT leave any remaining fields blank.

## Use of 99 (Unknown)

Use when the circumstances surrounding the crash are unknown and reported as "unknown" by the investigating officer. In these circumstances, nine-fill all fields. If Unknown is used for any field, ALL fields must be $\mathbf{9 9}$ (Unknown). DO NOT leave any remaining fields blank.

## FARS SPECIAL INSTRUCTION:

In a case involving Police Pursuit, 37 (Police Pursuing This Driver or Police Officer in Pursuit) should be used when pursuit has been initiated by police and is active at the time of the crash (also see Related Factors-Crash Level, for use of 20 (Police Pursuit Involved)). It can be used for either the pursued driver or the pursuing police officer.

Definition of Police Pursuit: A pursuit is an event that is initiated when a law enforcement officer, operating an authorized emergency vehicle, gives notice to stop (either through the use of visual or audible emergency signals or a combination of emergency devices) to a motorist who the officer is attempting to apprehend, and that motorist fails to comply with the signal by either maintaining his/her speed, increasing speed, or taking other evasive action to elude the officer's continued attempts to stop the motorist. A pursuit is terminated when the motorist stops, or when the attempt to apprehend is discontinued by the officer or at the direction of a competent authority.

73 (Driver Has Not Complied With Learner's Permit or Intermediate Driver License Restrictions [GDL Restrictions]) is used to indicate that a young driver was not in compliance with a Learner's Permit or Intermediate Driver License restriction under a state's Graduated Driver's License (GDL) program. (See table for examples.) This should not be used for restrictions for eyeglasses, lenses, equipment or other physical restrictions (see 73 (Driver Has Not Complied With Other Imposed Restrictions [not including GDL Restrictions])). Call Coding Assistance Program for coding guidance and see FARShelf for examples.

## Consistency Checks:

## IF

(1LOP) any RELATED FACTORS-DRIVER LEVEL equals blanks,

THEN
all RELATED FACTORS-DRIVER
LEVEL must equal blanks.

## THEN

(2HOF) DRIVER PRESENCE equals 0,9 ,

| (2LOP) | any RELATED FACTORS-DRIVER |
| :---: | :---: |
|  | LEVEL equal 99, |

(3LOP) any RELATED FACTORS-DRIVER LEVEL equals 00,
(5LOF) RELATED FACTORS-DRIVER LEVEL equals 20,
(5L1F) RELATED FACTORS-DRIVER LEVEL equals 04, 08, 12, 13, 15, 16, 19, 52, 53, 58, 59, 73, 74, 77-88,
(6KOP) VIOLATION CHARGED equals 71 ,
(7LOP) Any RELATED FACTORS-DRIVER LEVEL can be used only once per driver
$\begin{array}{ll} & \text { form. } \\ \text { (9LOF) } & \text { PERSON TYPE equals 01, and } \\ & \text { RELATED FACTORS-DRIVER } \\ \text { (A080) } & \text { LEVEL equals 12, } \\ & \text { DRIVER PRESENCE equals } 0 \text {, and } \\ & \text { FIRST HARMFUL EVENT equals 12, } \\ & \text { and NUMBER OF VEHICLE FORMS }\end{array}$
$\begin{array}{ll} & \text { form. } \\ \text { (9LOF) } & \text { PERSON TYPE equals 01, and } \\ & \text { RELATED FACTORS-DRIVER } \\ \text { (A080) } & \text { LEVEL equals 12, } \\ & \text { DRIVER PRESENCE equals } 0 \text {, and } \\ & \text { FIRST HARMFUL EVENT equals 12, } \\ & \text { and NUMBER OF VEHICLE FORMS }\end{array}$
$\begin{array}{ll} & \text { form. } \\ \text { (9LOF) } & \text { PERSON TYPE equals 01, and } \\ & \text { RELATED FACTORS-DRIVER } \\ \text { (A080) } & \text { LEVEL equals 12, } \\ & \text { DRIVER PRESENCE equals } 0 \text {, and } \\ & \text { FIRST HARMFUL EVENT equals 12, } \\ & \text { and NUMBER OF VEHICLE FORMS }\end{array}$
$\begin{array}{ll} & \text { form. } \\ \text { (9LOF) } & \text { PERSON TYPE equals 01, and } \\ & \text { RELATED FACTORS-DRIVER } \\ \text { (A080) } & \text { LEVEL equals 12, } \\ & \text { DRIVER PRESENCE equals } 0 \text {, and } \\ & \text { FIRST HARMFUL EVENT equals 12, } \\ & \text { and NUMBER OF VEHICLE FORMS }\end{array}$
$\begin{array}{ll} & \text { form. } \\ \text { (9LOF) } & \text { PERSON TYPE equals 01, and } \\ & \text { RELATED FACTORS-DRIVER } \\ \text { (A080) } & \text { LEVEL equals 12, } \\ & \text { DRIVER PRESENCE equals } 0 \text {, and } \\ & \text { FIRST HARMFUL EVENT equals 12, } \\ & \text { and NUMBER OF VEHICLE FORMS }\end{array}$
$\begin{array}{ll} & \text { form. } \\ \text { (9LOF) } & \text { PERSON TYPE equals 01, and } \\ & \text { RELATED FACTORS-DRIVER } \\ \text { (A080) } & \text { LEVEL equals 12, } \\ & \text { DRIVER PRESENCE equals } 0 \text {, and } \\ & \text { FIRST HARMFUL EVENT equals 12, } \\ & \text { and NUMBER OF VEHICLE FORMS }\end{array}$
$\begin{array}{ll} & \text { form. } \\ \text { (9LOF) } & \text { PERSON TYPE equals 01, and } \\ & \text { RELATED FACTORS-DRIVER } \\ & \text { LEVEL equals 12, } \\ \text { (A080) } & \text { DRIVER PRESENCE equals } 0, \text { and } \\ & \text { FIRST HARMFUL EVENT equals 12, } \\ & \text { and NUMBER OF VEHICLE FORMS }\end{array}$ SUBMITTED equals 002,
(D470) any RELATED FACTORS-DRIVER LEVEL equals 37,

## Consistency Checks (FARS ONLY): <br> Consister

|  | IF |
| :--- | :--- |
| (6LOP) | COMPLIANCE WITH LICENSE |
|  | RESTRICTIONS equals 1, and |
|  | RELATED FACTORS-DRIVER |
|  | LEVEL equals 19, |
| (7IOP) | COMPLIANCE WITH LICENSE |
|  | RESTRICTIONS equals 1, and |
|  | RELATED FACTORS-DRIVER |
|  | LEVEL equals 19, |
| (8IOP) | NON-CDL LICENSE STATUS equals |
| (8J2P) | RELATE |
|  | REVELED FACTORS-DRIVER |
| (8LOP) | LICENSE COMPLIANCE WITH |
|  | CLASS OF VEHICLE equals 0-2, 9, |

SEX must equal 2, and AGE must be greater than 012.
one RELATED FACTORS-DRIVER LEVEL should equal 20.
at least one RELATED FACTORSCRASH LEVEL should equal 20.
RELATED FACTORS-DRIVER LEVEL must not equal $04,08,12,13,15,16$, 19, 52, 53, 58, 59, 73, 74, 77-88.
then all RELATED FACTORS-DRIVER LEVEL must equal 99.
all remaining RELATED FACTORS-
DRIVER LEVEL must equal 00.
DRIVER PRESENCE must not equal 1 , 9.

DRIVER PRESENCE must not equal 0 or 9.

RELATED FACTORS-DRIVER LEVEL must not equal 19.

IF
(BLOP) COMPLIANCE WITH CDL ENDORSEMENTS equals 1, and any RELATED FACTORSDRIVER LEVEL equals 19,
(D080) VIOLATION CHARGED equals 01-06, 09, 31-69, 81-91, 98,
(D690) NON-CDL LICENSE TYPE equals 2, 7, and COMPLIANCE WITH LICENSE RESTRICTIONS equals 2 ,
(D700) NON-CDL LICENSE TYPE equals 1, and COMPLIANCE WITH LICENSE RESTRICTIONS equals 2 ,
(D730) RELATED FACTORS-DRIVER LEVEL equals 73 ,
(V100) HM1 equals 2, and RELATED FACTORS-DRIVER LEVEL does not equal 19,
(V16P) RELATED FACTORS-DRIVER LEVEL equals 88 ,

## THEN

LICENSE COMPLIANCE WITH CLASS OF VEHICLE must equal 3.

RELATED FACTORS-DRIVER LEVEL should not all equal 00, 99.
RELATED FACTORS-DRIVER LEVEL should equal $73,74$.

RELATED FACTORS-DRIVER LEVEL should equal 74 .

COMPLIANCE WITH LICENSE RESTRICTIONS should equal 2, and NON-CDL LICENSE TYPE should equal 2, 7.
COMMERCIAL MOTOR VEHICLE LICENSE STATUS should not equal 01, 02, 05.
VEHICLE TRAILING must not equal 0 , 9.

## THIS PAGE INTENTIONALLY LEFT BLANK

## THIS PAGE INTENTIONALLY LEFT BLANK

## PRECRASH DATA OVERVIEW

Precrash data elements are completed for each of the in-transport vehicles in the case. This means that the entire crash is first completed from the perspective of one vehicle, then from the perspective of a second vehicle, if any, and so forth. The precrash data elements are:

Driver Distracted By,
Pre-Event Movement (Prior to Recognition of Critical Event),
Critical Precrash Category,
Critical Precrash Event,
Attempted Avoidance Maneuver,
Pre-Impact Stability,
Pre-Impact Location,
Crash Type
The precrash data elements are designed to identify the following:
what was this vehicle doing just prior to the critical precrash event, what made this vehicle's situation critical, what was the avoidance response, if any, to this critical situation, and what was the movement of the vehicle just prior to impact?

The most important determination that must be made for each in-transport vehicle is: what was this vehicle's Critical Precrash Event, (i.e., what action by this vehicle, another vehicle, person, animal, or non-fixed object was critical to this vehicle's crash?). Once the critical event is determined, the remaining precrash data elements are coded relative to this selected Critical Precrash Event.

Do not consider culpability as a factor for determining precrash data. Many crash scenarios will suggest fault, but this is considered coincidental rather than by design.

## Critical Crash Envelope

The critical crash envelope begins at the point where:
(1) the driver recognizes an impending danger (e.g., deer runs into the roadway), or
(2) the vehicle is in an imminent path of collision with another vehicle, pedestrian, pedalcyclist, other non-motorist, object, or animal.

The critical crash envelope ends when:
(1) (a) the driver has made a successful avoidance maneuver, and
(b) has full steering control, and
(c) the vehicle is tracking; or
(2) the driver's vehicle impacts another vehicle, pedestrian, pedalcyclist, other non-motorist, object or animal.

## Simple Single Critical Crash Envelope

Most crashes involve only a single critical crash envelope in which the object contacted is captured under the Critical Precrash Event, (e.g., a vehicle is traveling straight on a roadway and a deer runs into the roadway and is struck by the vehicle). This scenario, and similar ones, are very straightforward and will not present many problems.

## Complex Single Critical Crash Envelope

However, some single critical crash envelopes are more complex.
Example A: A driver avoids one obstacle and immediately impacts another vehicle, person, object, or animal. Because immediate is defined as not having an opportunity, or sufficient time, to take any additional avoidance actions, the Critical Precrash Event is related to the vehicle, person, object, or animal which the driver successfully avoided instead of the vehicle's first harmful event (i.e., its impact); see examples 3 and 5 below.

Example B: The driver avoids an obstacle only to (a) lose steering control and/or (b) have the vehicle stop tracking, and the vehicle subsequently impacts another vehicle, person, object, or animal. Regardless of whether the driver:

1) attempted to regain steering control
2) caused the vehicle to resume a tracking posture or
3) avoided the impacted vehicle, person, object, or animal,
the Critical Precrash Event is similarly related to the vehicle, person, object or animal which the driver successfully avoided because the driver's critical crash envelope was never stabilized.

In both examples above, the Attempted Avoidance Maneuver records the successful action taken to avoid the Critical Precrash Event.

Vehicles that are not involved in an impact with another vehicle, person, object, or animal in the sequence of crash events (that define this crash) are not included.

The coding order for a single critical crash envelope is illustrated below.

## Multiple Critical Crash Envelopes

When a case involves multiple critical crash envelopes, select only the final critical crash envelope. In this situation, encode the element Pre-Event Movement (Prior to Recognition of Critical Event) as: Successful avoidance maneuver to a previous critical event. The final critical crash envelope is the one that resulted in this vehicle's first harmful event (i.e., its impact) as shown in the following illustration.

Typical Order of a Single Critical Crash Envelope


## Typical Order of Multiple Critical Crash Envelopes

# End of First Envelope <br> Beginning of Second Envelope 



When there is doubt as to whether this vehicle had experienced a complex single, or multiple critical crash envelopes, choose the Critical Precrash Category/Event, to the vehicle, person, object, or animal which the driver successfully avoided (i.e., default to Complex Single). See Complex Single Critical Crash Envelope examples A and B above.

The following pages have: a method protocol, a flowchart illustrating the proper method and protocol for determining the precrash data elements, and seven examples of various crash event sequences which contain one or more critical crash envelopes.

## Method Protocol

Consider the information obtained from the Police Report, and any supplemental documents as inputs to your decision making process.

## 1. Determine Critical Precrash Category / Critical Precrash Event.

What action by this vehicle, another vehicle, person, animal, or object was critical to this driver becoming involved in the crash (i.e., use the "BUT FOR"* test)?

ASK yourself questions (a) through (f) below. Proceed through each question that applies to the crash you are researching. Stop when the answer to the questions is "Yes". This is the Critical Precrash Category.
(a) Did the vehicle exhibit a control loss?
(b) Does the evidence suggest that the vehicle was in an environmentally dangerous position?
(c) Was another vehicle "in" this vehicle's lane?
(d) Was another vehicle entering into this vehicle's lane?
(e) Was a pedestrian, pedalcyclist, or other non-motorist in or approaching this vehicle's path?
(f) Was an animal in or approaching this vehicle's path or was an object in this vehicle's path?
2. Determine Driver Distracted By
3. Pre-Event Movement (Prior to Recognition of Critical Event).
4. Determine Attempted Avoidance Maneuver.

What does your information indicate that the driver tried to do to avoid the crash?
5. Determine Pre-Impact Stability
6. Determine Pre-Impact Location

* FOR EXAMPLE:
"But for" Vehicle \# going left-of-center, this vehicle would not have been involved in this crash.
"But for" having entered into the intersection, this vehicle would not have been involved in this crash.


## Precrash Methodology Flowchart

## * FOR EXAMPLE :

"But for" Vehicle \# going left-of-center, this vehicle would not have been involved in this crash.

| Police |
| :---: | :---: |
| Weport |
| What action by this vehicle, another vehicle, person, animal, or object |
| was critical to this vehicle's crash -- Use the "BUT FOR TEST" |

## Precrash General Rules

1. Attempted Avoidance Maneuver assesses what the driver's action(s) was during the critical crash envelope in response to his/her realization of impending danger.
2. The mere presence of a traffic control signal/sign typically does not make the situation critical when determining Critical Precrash Event.

For example: A single vehicle approaches a stop sign and departs the right side of the road impacting a tree, in an attempt to avoid passing through the intersection. The sign has no bearing and therefore, does not make the situation critical.
3. When you know the Critical Precrash Category, but are unable to select a specific Critical Precrash Event, use the following guideline:

Default to one of the "Other" or "Unknown" attributes within each Critical Precrash Event category, rather than coding the entire Critical Precrash Category as "Other critical precrash event".
4. If control is loss due to driver illness such as heart attacks, diabetic comas, etc., then Critical Precrash Event should be coded as "Other cause of control loss."
5. When coding Critical Precrash Category as "This vehicle loss of control", the loss of control must have occurred prior to the driver doing any avoidance maneuver. If the driver attempts a maneuver (i.e., brakes, steers, etc.) as a result of the driver's perception of a vehicle, object, pedestrian, or non-motorist, then select the vehicle, object, pedestrian, or non-motorist as the critical event because that is what made the situation critical. If the vehicle is in a yaw prior to the driver taking an avoidance action, then loss-of-control is what made it critical (e.g., critical curve scuff, hydroplaning, etc.).
6. When determining Critical Precrash Category/Event if you do not know from available sources which driver had the right-of-way at a controlled or uncontrolled intersection, then use the following as a guideline:
a. If the junction is controlled by a 3-way / 4-way stop sign, or is uncontrolled, then use the common rule that the vehicle on the right has the right-of-way for determining encroachment.
b. If the junction is controlled by an on-colors traffic control device, and both drivers claim a green light, then both vehicles are in an environmentally dangerous position, and Critical Precrash Event for both vehicles should be This Vehicle Traveling (Critical Precrash category) Crossing over (passing through) intersection (Critical Precrash Event).
7. When two vehicles are initially traveling on the same trafficway and one executes a left turn with the right-of-way (i.e. green arrow), use Other Motor Vehicle Encroaching Into Lane - From opposite direction-over right lane line for the turning vehicle's critical event. This applies to Crash Types 68, 69.

If the vehicles were initially on different trafficways (Crash Types 76, 77 and 82, 83) the critical event for the vehicle turning left with the right-of-way should be Other Motor Vehicle Encroaching - From crossing street across path.
8. "Fixed" objects (e.g., trees, poles, fire hydrants, etc.,) cannot be in the roadway.
9. A motor vehicle is stopped in a travel lane and is impacted by another motor vehicle ricocheting off a vehicle. The Critical Precrash Event for the vehicle stuck by the ricocheting vehicle is in the category of either: Other Motor Vehicle In Lane or Other Motor Vehicle Encroaching Into Lane.
10. Pre-Impact stability should be indicated as "Tracking" if the following are met:
a. no skid marks are present on the diagram or mentioned in the narrative.
b. the case materials do not indicate skidding AND
c. the vehicle did not rotate 30 degrees or more (either clockwise or counterclockwise).

Trafficway and its component definitions (i.e., roadway, road, shoulder and median) can be found in the ANSI D16.1 Manual on the Classification of Motor Vehicle Traffic Accidents.

## Example 1

Vehicle 2 is northbound and passing through an intersection on a roadway without a traffic control. The driver of vehicle 1 is dialing on a cellular phone. Vehicle 1 is eastbound on a crossing roadway with a stop sign but did not see it. Driver of Vehicle 2 was attentive but did not see Vehicle 1 approaching. Vehicle 1 crashes into the side of vehicle 2. Vehicle 1 braked (leaving skid marks) just prior to impact, without any steering.

Vehicle 1
Vehicle 2

| Driver Distracted By | (Distractions) while <br> manipulating cellular phone | Looked but did not see |
| :---: | :---: | :---: |
| Pre-Event Movement | Going straight | Going straight |
| Critical Pre-Crash <br> (Category) | This Vehicle Traveling | Other motor vehicle encroaching into |
| lane |  |  |
| Critical Pre-Crash <br> (Event) | Crossing over (passing <br> through) intersection | From crossing street, across path |
| Attempted Avoidance <br> Maneuver | Braking (lockup) | No avoidance maneuver |
| Pre-Impact Stability | Skidding longitudinally - <br> rotation less than 30 degrees | Tracking |
| Pre-Impact Location | Stayed in original travel lane | Stayed in original travel lane |
| Crash Type | 88 | 89 |

In this example, vehicle 1 has one critical crash envelope ( $V_{1} C C E$ ) which begins at the point where driver 1 recognizes that vehicle 1 is in an imminent collision path with vehicle 2 . Vehicle 1 's critical crash envelope ends at the point of impact with vehicle 2.

Vehicle 2 has one critical crash envelope ( $V_{2} C C E$ ). Although the driver of vehicle 2 did not recognize the danger, vehicle 2's critical crash envelope begins at the point where vehicle 2 is in an imminent path of collision with vehicle 1. Vehicle 2's critical crash envelope ends at the point of impact with vehicle 1.

## Example 1 (Diagram)




## Example 2

Vehicle 1 and vehicle 2 are traveling in opposite directions on the same roadway. The driver of vehicle 1 was texting on cell phone and crosses over the center line into the travel lane of vehicle 2. Vehicle 2 attempted to avoid vehicle 1 by steering right onto the shoulder and accelerating. Vehicle 1 impacted vehicle 2 in the side.
\(\left.$$
\begin{array}{ccc}\hline & \text { Vehicle 1 } & \text { Vehicle 2 } \\
\hline \text { Driver Distracted By } & \begin{array}{c}\text { (Distractions) while } \\
\text { manipulating cellular phone }\end{array} & \text { Not distracted } \\
\hline \text { Pre-Event Movement } & \text { Going straight } & \text { Going straight } \\
\hline \begin{array}{c}\text { Critical Pre-Crash } \\
\text { (Category) }\end{array} & \text { This vehicle traveling } & \begin{array}{c}\text { Other motor vehicle encroaching } \\
\text { into lane }\end{array} \\
\hline \begin{array}{c}\text { Critical Pre-Crash (Event) }\end{array} & \begin{array}{c}\text { Over the lane line on left side of } \\
\text { travel lane }\end{array}
$$ \& From opposite direction over left <br>

lane line\end{array}\right]\)| Attempted Avoidance | No avoidance maneuver |
| :---: | :---: |
| Maneuver |  |$\quad$ Accelerating and steering right

In this example, vehicle 1 has one critical crash envelope ( $V_{1} C C E$ ) which begins at the point where vehicle 1 crosses over the lane line and ends at the point of impact with vehicle 2.

Vehicle 2 has one critical crash envelope ( $\mathrm{V}_{2} C C E$ ) which begins at the point where driver 2 recognizes vehicle 1 encroaching into his/her travel lane. Vehicle 2's critical crash envelope ends at the point of impact with vehicle 1.


## Example 3

Vehicle 1 and vehicle 2 are traveling in opposite directions on the same roadway. The driver of vehicle 1 brakes (without lockup) and steers left to avoid a pedestrian who darted into his/her travel lane. Vehicle 1 crosses over the center line into the travel path of vehicle 2. The driver of vehicle 2 was talking with a passenger and not paying close attention to driving and at the last second attempted to avoid vehicle 1 by braking and steering right off the road. Vehicle 2 skids and rotates clockwise about 45 degrees before it is impacted in the front by vehicle 1.

| Driver Distracted By | Vehicle 1 | Vehicle 2 |
| :---: | :---: | :---: |
| Pre-Event Movement | Going straight | (Distractions) by other <br> occupant(s) |
| Critical Pre-Crash (Category) | Pedestrian, Pedacyclist, or <br> other non-motorist | Other Motor Vehicle <br> encroaching into lane |
| Critical Pre-Crash (Event) | Pedestrian in Road | From opposite direction over <br> left lane line |
| Attempted Avoidance | Braking and steering left | Braking and steering right |
| Maneuver | Tracking | Skidding laterally - clockwise |
| rotation |  |  |

In this example, vehicle 1 has one critical crash envelope ( $\mathrm{V}_{1} \mathrm{CCE}$ ). Vehicle 1's critical crash envelope involved a successful avoidance of a pedestrian [i.e., Critical Precrash Event equals Pedestrian in Road] which resulted in an immediate impact to vehicle 2. Therefore, the pedestrian is coded as the critical precrash event for vehicle 1. Vehicle 1's avoidance maneuver is for this example, the action taken to avoid the pedestrian.

Vehicle 2 has one critical crash envelope ( $\mathrm{V}_{2} \mathrm{CCE}$ ) which begins at the point where driver 2 recognized and reacted to vehicle 1 in his/her travel lane and ends at the point of impact with vehicle 1.


## Example 4

Vehicle 1 and vehicle 2 are traveling in the same direction in adjacent lanes on a divided highway (with a painted median). While the driver of vehicle 1 was using an electric razor, the vehicle has a blow out, driver 1 loses control, crosses the left lane line and impacts the right rear of vehicle 2 . Vehicle 2 is redirected across the painted median, skidding and rotating clockwise, and subsequently impacts vehicle 3 . Vehicle 3 attempted to avoid vehicle 2 by steering right and accelerating.

|  | Vehicle 1 | Vehicle 2 |
| :---: | :---: | :---: |
| Driver Distracted By | (Distractions) while using or reaching <br> for device/object brought into in vehicle | Not Reported |
| Pre-Event Movement | Going straight | Going straight |
| Critical Pre-Crash <br> (Category) | This vehicle loss control due to: | Other motor vehicle encroaching <br> into lane |
| Critical Pre-Crash <br> (Event) | Blow out/flat tire | From adjacent lane (same <br> direction) - over right lane line |
| Attempted Avoidance <br> Maneuver | No avoidance maneuver | No avoidance maneuver |
| Pre-Impact Stability | Tracking | Tracking |
| Pre-Impact Location | Stayed on roadway, but left original |  |
| travel lane | Stayed in original travel lane |  |
| Crash Type | 45 | 44 |

## Vehicle 3

| Driver Distracted By | Not distracted |
| :---: | :---: |
| Pre-Event Movement | Going straight |
| Critical Pre-Crash <br> (Category) | Other motor vehicle encroaching <br> into lane |
| Critical Pre-Crash <br> (Event) | From opposite direction - over left |
| lane line |  |

## Example 4 (cont'd)

In this example, vehicle 1 has one critical crash envelope ( $\mathrm{V}_{1} \mathrm{CCE}$ ) which begins with control loss due to the blow out and ends at the point of impact with vehicle 2 . The blow out is the critical precrash event.

Vehicle 2 has two critical crash envelopes $\left(\mathrm{V}_{2} \mathrm{CCE}_{1}\right.$ and $\left.\mathrm{V}_{2} \mathrm{CCE}_{2}\right)$. Vehicle 2's first critical crash envelope $\left(\mathrm{V}_{2} \mathrm{CCE}_{1}\right)$ begins when vehicle 1 enters vehicle 2's travel lane and ends at the point of impact with vehicle 1. Vehicle 2's second critical crash envelope ( $\mathrm{V}_{2} \mathrm{CCE}_{2}$ ) begins immediately after the first impact and ends at the point of impact with vehicle 3. Use the critical crash envelope which resulted in vehicle 2's first impact $\left(\mathrm{V}_{2} \mathrm{CCE}_{1}\right)$, because NHTSA is only interested in coding the critical crash envelope which leads to a vehicle's first harmful event.

For this example, Vehicle 3 has one critical crash envelope ( $V_{3} C C E$ ) which begins when driver 3 recognizes and reacts to vehicle 2 which is in an imminent path of collision with vehicle 3 and ends at the point of impact with vehicle 2.


## Example 5

Vehicle 1 and vehicle 2 are traveling in opposite directions on the same roadway. A noncontact vehicle is parked in front of a noncontact truck-tractor (with a trailer) on the road shoulder and suddenly enters the roadway into vehicle 1's travel lane. The driver of vehicle 1 instantly brakes (with lockup) and steers left (with counterclockwise rotation) to avoid the noncontact vehicle. Vehicle 1 crosses over the center line and immediately impacts vehicle 2. Vehicle 2 had no avoidance maneuvers.

|  | Vehicle 1 | Vehicle 2 |
| :---: | :---: | :---: |
| Driver Distracted By | Not distracted | Not Reported |
| Pre-Event Movement | Going Straight | Going Straight |
| Critical Pre-Crash (Category) | Other motor vehicle encroaching into lane | Other motor vehicle encroaching into lane |
| Critical Pre-Crash (Event) | From parking lane, median, shoulder, roadside | From opposite direction over left lane line |
| Attempted Avoidance Maneuver | Braking and steering left | No avoidance actions |
| Pre-Impact Stability | Skidding laterally - counterclockwise rotation | Tracking |
| Pre-Impact Location | Stayed on roadway but left original travel lane | Stayed in original travel lane |
| Crash Type | 58 | 59 |

In this example, vehicle 1 has one critical crash envelope ( $\mathrm{V}_{1} \mathrm{CCE}$ ). Vehicle 1's critical crash envelope involved a successful avoidance of a noncontact vehicle and resulted in an immediate impact to vehicle 2. Vehicle 1's critical crash envelope was initiated by the noncontact vehicle; afterwards there was no opportunity for subsequent avoidance actions. Therefore, the encroachment of the noncontact vehicle into vehicle 1's travel lane is coded as the critical precrash event for vehicle 1. Vehicle 1's avoidance maneuver is coded as the action taken to avoid the noncontact vehicle.

Vehicle 2 has one critical crash envelope $\left(V_{2} C C E\right)$ which begins at the point where vehicle 1 is in an imminent path of collision with vehicle 2 and ends at the point of impact with vehicle 1.

The noncontact vehicle and the noncontact truck were not involved in an impact in the sequence of crash events and are therefore not coded.

## Example 5 (Diagram)



## Example 6

Vehicle 1 is traveling eastbound. A noncontact vehicle (NCV) is westbound and attempts to turn left in front of Vehicle 1 into an intersecting private driveway. Vehicle 1 braked (without lockup) and steered left to avoid the noncontact vehicle. The driver of Vehicle 1 successfully avoided the noncontact vehicle and maintained full control, but crossed into the westbound lane. Now traveling the wrong way in the westbound lane, Vehicle 1 attempted to steer right and return to the eastbound lane but struck Vehicle 2 head on. Vehicle 2 attempted to avoid the crash by braking and steering right.

|  | Vehicle 1 | Vehicle 2 |
| :---: | :---: | :---: |
| Driver Distracted By | Not distracted | Not distracted |
| Pre-Event Movement | Successful avoidance maneuver to <br> a previous critical event | Going straight |
| Critical Pre-Crash <br> (Category) | Other motor vehicle in lane | Other motor vehicle in lane |
| Critical Pre-Crash <br> (Event) | Traveling in opposite direction | Traveling in opposite direction |
| Attempted Avoidance |  |  |
| Maneuver |  |  |$\quad$ Steering right $\quad$ Braking and steering right $\quad$ Tracking | Pre-Impact Stability | Tracking | Stayed in original travel lane |
| :---: | :---: | :---: |
| Pre-Impact Location | Stayed in original travel lane | 52 |
| Crash Type |  |  |

In this example, Vehicle 1 has two critical crash envelopes, (V1CCE 1 , and V1CCE2). Vehicle 1's first critical crash envelope (V1CCE ${ }_{1}$ ) ends at the point where the driver of Vehicle 1 made a successful avoidance maneuver and maintained full control of the vehicle. Vehicle 1's second critical crash envelope (V1CCE2) begins immediately following the successful avoidance maneuver and ends at the point of impact with Vehicle 2. Use the critical crash envelope which resulted in Vehicle 1's first impact (V1CCE2).

Vehicle 2 has one critical crash envelope (V2CCE1) which begins at the point where the driver of Vehicle 2 recognizes Vehicle 1 in his/her lane and ends at the point of impact with Vehicle 1.

The noncontact vehicle was not involved in an impact with another vehicle, person, animal, or object in the sequence of crash events and is therefore not included.

## Example 6 (cont'd)

Vehicle 2 has one critical crash envelope ( $\mathrm{V}_{2} C C E$ ) which begins at the point where driver 2 recognizes vehicle 1 in his/her travel lane and ends at the point of impact with vehicle 1. The noncontact vehicle was not involved in an impact with another vehicle, person, animal, or object.


## Example 7

Vehicle 1 and Vehicle 2 are traveling in opposite directions on the same roadway. A police car (with lights activated) is making a traffic stop on the side of the road. The driver of Vehicle 1 is looking at the activity on his left. Before he can react, Vehicle 1 crosses the centerline and the front of vehicle 1 strikes the front of Vehicle 2. The driver of Vehicle 2 also noticed the police activity, but he was attentive to the slowing traffic ahead. Vehicle 2 attempted to avoid the crash by braking and steering right.
\(\left.$$
\begin{array}{ccc} & \text { Vehicle 1 } & \text { Vehicle 2 } \\
\hline \text { Driver Distracted By } & \begin{array}{c}\text { Distracted by outside person, object, } \\
\text { or event }\end{array} & \text { Not distracted } \\
\hline \text { Pre-Event Movement } & \text { Going straight } & \text { Going straight } \\
\hline \begin{array}{c}\text { Critical Pre-Crash } \\
\text { (Category) }\end{array} & \text { This vehicle traveling } & \begin{array}{c}\text { Other motor vehicle encroaching } \\
\text { into lane }\end{array} \\
\hline \begin{array}{c}\text { Critical Pre-Crash } \\
\text { (Event) }\end{array} & \text { Over the lane line on left side of travel } \\
\text { lane }\end{array}
$$ \quad \begin{array}{c}From opposite direction, over <br>

left lane line.\end{array}\right]\)| Braking and steering right |
| :---: |



## VEHICLE NUMBER - PRECRASH LEVEL

FORMAT: 3 numeric
SAS NAME: Vehicle.Veh_No

## ELEMENT VALUES:

001-999
Definition: This element identifies the number assigned to this vehicle in the crash.

## Remarks:

Each motor vehicle in a crash must be assigned a unique number by the Analyst. Order is not important.

Numbers assigned to vehicles must be consecutive, starting with '001' with no missing numbers.

## THIS PAGE INTENTIONALLY LEFT BLANK

## CONTRIBUTING CIRCUMSTANCES, MOTOR VEHICLE

FORMAT: 2 numeric. Select all the apply.
SAS NAME: Factor.MFACTOR

## ELEMENT VALUES:

00 None

01 Tires
02 Brake System
03 Steering
04 Suspension
05 Power Train
06 Exhaust System
07 Head Lights
08 Signal Lights
09 Other Lights
10 Wipers
11 Wheels
12 Mirrors
13 Windows/Windshield
14 Body, Doors
15 Truck Coupling / Trailer Hitch / Safety Chains
16 Safety Systems
17 Vehicle Contributing Factors - No Details
97 Other
98 Not Reported
99 Unknown
Definition: This element describes the possible pre-existing motor vehicle defects or maintenance conditions that may have contributed to the crash.

## Remarks:

Rationale: Important for determining the significance of pre-existing problems, including equipment and operation, in motor vehicles involved in crashes that could be useful in determining the need for improvements in manufacturing and consumer alerts.

00 (None) is used:

- when the case materials make a positive statement that the vehicle had no defects or "none" was indicated on the PAR.
- when the case materials do not indicate a defect in an available field and not reporting a defect in that field indicates None.
- when the investigating officer is limited in selection and cannot select a defect in addition to another factor relevant to crash and no other indication of a defect exists in the case materials.
- For omission of information see Not Reported guidance below.

01 (Tires) include any defect of a tire. If the contributing factor is of the wheel (e.g., a lug nut comes off), then use 11 (Wheels).

02 (Brake System) includes parking brakes.
03 (Steering) is used when the case materials indicate the following may have contributed to the crash: tie rod ends, kingpins, power steering components and ball joints.

04 (Suspension) is used when the case materials indicate that the vehicle's suspension components may have contributed to the crash. These include, springs, shock absorbers, struts and control arms.

05 (Power Train) is used when the case materials indicate that the vehicles power train components may have contributed to the crash. Examples are: universal joints, drive shaft and transmission. This also includes engine, differential and stuck throttles.

06 (Exhaust System) includes exhaust manifold(s), headers, muffler, catalytic converter, tailpipe, etc.

09 (Other Lights) is used for an indication of the tail lights contributing to the crash. It also used when the case materials indicated the "lights" of the vehicle contributed to the crash and when the case materials are coded as "other."

11 (Wheels) include loss of lug nuts.
13 (Windows/Windshield) is used when there is a pre-existing defect to the windows or windshield such as improper tinting or cracks.

14 (Body, Doors) includes trunk, hood, tailgate, rear doors of cargo vans, etc.
15 (Truck Coupling/Trailer Hitch/Safety Chains) applies to a defective trailer hitch or an improper trailer hitch. If the case material cites this attribute.

16 (Safety Systems) is used when the case materials indicate that the air bags failed to deploy or the air bag deployed inappropriately. Also, use this when a seat belt failure is described, such as webbing excessively worn or came unlatched. Excludes: improper use.

17 (Vehicle Contributing Factors - No Details) is used if a vehicle "factor" or "defect" is indicated the case materials but no information is given concerning the nature of the "factor."

97 (Other) includes any other component described in the case materials that is not listed in the above attribute list, such as, horns.

## 98 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 98 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

99 (Unknown) is used only if the case material specifically indicates an "unknown defect" or "unknown contributing factor."

## Consistency Checks:

## IF

## THEN

(1L4P) any DRIVER'S VISION OBSCURED BY equals 09,
(1L5P) any DRIVER'S VISION OBSCURED BY equals 10,
(3D70) CRITICAL EVENT - PRECRASH (EVENT) equals 01-04,
(3DB0) any CONTRIBUTING CIRCUMSTANCES, MOTOR VEHICLE equals 00 or 98 or 99,
(V990) any SEQUENCE OF EVENTS equals 61,
at least one CONTRIBUTING CIRCUMSTANCES, MOTOR VEHICLE must equal 97.
at least one CONTRIBUTING
CIRCUMSTANCES, MOTOR VEHICLE must equal 07 or 08 or 09.
CONTRIBUTING CIRCUMSTANCES, MOTOR VEHICLE must not equal 00. only that one code and no other must be coded for this vehicle.

CONTRIBUTING CIRCUMSTANCES, MOTOR VEHICLE should not equal 00.

## THIS PAGE INTENTIONALLY LEFT BLANK

## TRAFFICWAY DESCRIPTION

FORMAT: 1 numeric
SAS NAME: VEHICLE.VTRAFWAY

## ELEMENT VALUES:

0 Non-Trafficway or Driveway Access
1 Two-Way, Not Divided
2 Two-Way, Divided, Unprotected (Painted > 4 Feet) Median
3 Two-Way, Divided, Positive Median Barrier
5 Two-Way, Not Divided With a Continuous Left-Turn Lane
4 One-Way Trafficway
6 Entrance/Exit Ramp
8 Not Reported
9 Unknown

Definition: This element identifies the value indicated in the case materials which best describes the trafficway flow just prior to this vehicle's critical precrash event.

## Remarks:

Enter the value indicated in the case materials which best describes the trafficway flow just prior to this vehicle's critical precrash event. For vehicles departing the trafficway prior to their critical precrash events, the trafficway selected for classification is the one the vehicle departed. If this vehicle is in a junction just prior to its critical precrash event, the trafficway selected for classification is the one it is on before entering the junction.

0 (Non-Trafficway or Driveway Access) is used when this vehicle is entering a trafficway but was not on a trafficway prior to its critical precrash event or when the vehicle was in a driveway access prior to its critical precrash event.

A trafficway may include several roadways if it is a physically divided highway. Trafficways are not physically divided unless the divider is a median, barrier, or other constructed device.
Pavement markings do qualify when they meet the definition of a median. Refer to the definition of 03 (On Median) under Relation to Trafficway.

A channelized lane should be considered a turn lane of the roadway it is part of, not a separate one-way roadway. Therefore, crashes occurring in a channelized lane should not be coded as a separate trafficway.

1 (Two-Way, Not Divided) is used whenever there is no median. Generally, medians are not designed to legally carry traffic. NOTE: Although gores separate roadways, and traffic islands (associated with channels) separate travel lanes, neither is involved in the determination of trafficway division.

5 (Two-Way, Not Divided, With a Continuous Left-Turn Lane) is used whenever the trafficway has a two-way left turn lane positioned between opposing straight-through travel lanes. It is designed to allow left turns to driveways, shopping centers, businesses, etc., while at the same time providing a separation of opposing straight-through travel lanes.

2 (Two-Way, Divided, Unprotected (Painted > 4 Feet) Median) is used whenever the trafficway is physically divided, however, the division is unprotected [e.g., vegetation, gravel, paved medians, trees, water, embankments and ravines that separate a trafficway (i.e., all non-manufactured barriers)]. NOTE: Raised curbed medians DO NOT constitute a positive barrier in and by themselves. The unprotected medians can be of any width, however, painted paved flush areas, must be at least 4 feet in width to constitute a median strip.

3 (Two-Way, Divided, Positive Median Barrier) is used whenever the traffic is physically divided and the division is protected by any concrete, metal, or other type of longitudinal barrier (i.e., all manufactured barriers). For underpass support structures and bridge rails acting as a barrier, use this attribute.

Traffic Barrier refers to a physical structure such as a guardrail, a concrete safety barrier or a rock wall which has the primary function of preventing cross-median travel by deflecting and redirecting vehicles along the roadway on which they were traveling. Therefore, trees, curbing, rumble strips and drain depressions are not barriers.

All traffic barriers are constructed on a median strip; therefore, if a traffic barrier exists on a divided highway, 3 (Two-Way, Divided, Positive Median Barrier) must be used. If it is not known whether or not a barrier exists, assume one does and use 3 (Two-Way, Divided, Positive Median Barrier) (that is, if a median is known to exist).

4 (One-Way Trafficway) is used whenever the trafficway is undivided and traffic flows in but one direction (e.g., one-way streets).

6 (Entrance/Exit Ramp) is an auxiliary or connecting roadway used for entering or exiting through-traffic lanes of a limited access roadway.

## 8 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 8 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

9 (Unknown) is used when police indicate unknown.

## Consistency Checks:

## IF

(250P) RELATION TO JUNCTION (b) equals 01, 02, 04, 06, 07, 16-19, 98, 99, and RELATION TO
TRAFFICWAY equals 03,
(254P) RELATION TO TRAFFICWAY equals 01, and RELATION TO JUNCTION (b) equals 20,
(740P) RELATION TO JUNCTION (b) equals 07,
(A292) any TRAFFICWAY DESCRIPTION, TOTAL LANES IN ROADWAY, ROADWAY ALIGNMENT, ROADWAY GRADE, ROADWAY SURFACE TYPE, or ROADWAY SURFACE CONDITIONS equals 0,00 ,
(A300) ROUTE SIGNING equals 1,
(A470) WORK ZONE equals $\mathbf{0}$, and TRAFFICWAY DESCRIPTION equals 1-3, 5 ,
(A481) TRAFFICWAY DESCRIPTION equals 6,
(A482) TRAFFICWAY DESCRIPTION equals 4 or 6 ,
(A490) TRAFFICWAY DESCRIPTION equals 2, 3, 5,
(A491) TRAFFICWAY DESCRIPTION equals 1 or 5 ,
(A492) TRAFFICWAY DESCRIPTION equals 2, 3, 5, 6,
(A493) TRAFFICWAY DESCRIPTION equals 2, 3, 5,
(A494) TRAFFICWAY DESCRIPTION equals 6,
(A495) TRAFFICWAY DESCRIPTION equals 0 ,
(A610) RELATION TO TRAFFICWAY equals 01, and RELATION TO JUNCTION (b) equals 05,

## THEN

TRAFFICWAY DESCRIPTION should equal 2,3 for at least one vehicle involved in the first harmful event.

TRAFFICWAY DESCRIPTION must equal 6 for at least one vehicle involved in the first harmful event. TRAFFICWAY DESCRIPTION must equal 2,3 for at least one vehicle.
all must equal 0,00 , and SPEED LIMIT must equal 00 for this vehicle.

TRAFFICWAY DESCRIPTION should equal 2, 3,6 for at least one vehicle. TOTAL LANES IN ROADWAY should not equal 1.

TOTAL LANES IN ROADWAY should equal $1,2,8,9$.
TOTAL LANES IN ROADWAY should not equal 5-7.
ROADWAY SURFACE TYPE should not equal 4, 5,7 .
TOTAL LANES IN ROADWAY should not equal 7 .
SPEED LIMIT must not equal 00.
SPEED LIMIT should be greater than 15.

ROADWAY GRADE should not equal 3, 4.
the first event in SEQUENCE OF EVENTS for this vehicle should not equal 63, 64, 69 or 71.
TRAFFICWAY DESCRIPTION should equal 6 for at least one vehicle involved in the first harmful event.

IF
(A611) TRAFFICWAY DESCRIPTION equals 6 for at least one vehicle involved in the first harmful event,
(A620) CRASH TYPE equals 06-10, and TRAFFICWAY DESCRIPTION equals 3,
(A720) ROADWAY FUNCTION CLASS equals 01, 11, 12,
(A881) RELATION TO TRAFFICWAY equals 11,
(AM2P) any SEQUENCE OF EVENTS equals 25 or 57,

## Consistency Check (GES Only):

## IF

(A3H0) INTERSTATE HIGHWAY equals1, and RELATION TO JUNCTION (a) equals 1, and RELATION TO JUNCTION (b) is not equal to 03 or 05 or 20,

THEN
RELATION TO JUNCTION (b) should equal 02, 03, 05, 17-20.

RELATION TO TRAFFICWAY should equal 03.

TRAFFICWAY DESCRIPTION should equal 2, 3, 6 for at least one vehicle. TRAFFICWAY DESCRIPTION should equal 5 for at least one vehicle.
TRAFFICWAY DESCRIPTION should equal 3, 6.

## THEN

TRAFFICWAY DESCRIPTION should not equal 4 for at least one vehicle involved in the first harmful event.

## TOTAL LANES IN ROADWAY

FORMAT: 1 numeric
SAS NAME: Vehicle.VNUM_LAN

## ELEMENT VALUES:

0 Non-Trafficway or Driveway Access
1 One lane
2 Two lanes
3 Three lanes
4 Four lanes
5 Five lanes
6 Six lanes
7 Seven or more lanes
8 Not Reported
9 Unknown
Definition: This element identifies the value indicated in the case materials which best describes the number of travel lanes just prior to this vehicle's critical precrash event.

## Remarks:

For vehicles departing the trafficway prior to their critical precrash events, the trafficway selected for classification is the one the vehicle departed. If this vehicle is in a junction just prior to its critical precrash event, the roadway selected for classification is the one it is on before entering the junction.

0 (Non-Trafficway or Driveway Access) is used when this vehicle is entering a trafficway but was not on a trafficway prior to its critical precrash event or when the vehicle was in a driveway access prior to its critical precrash event.

A roadway (through lanes only) is one part of a divided trafficway or, if undivided, the same as the through lanes of the trafficway. A lane that can be used for through or turning traffic (dual purpose) will be considered a through lane.

Only lanes open for travel should be counted. Turn lanes are therefore excluded. This also excludes continuous left-turn lanes (which are considered "turn lanes").

If traffic flows in both directions and is undivided, code the total number of lanes in both directions. If the trafficway is divided into two or more roadways, code only the number of lanes for the roadway on which this vehicle was traveling. Be aware that the case materials may indicate the total number of lanes on the divided trafficway.

The number of lanes counted does not include any that are rendered unusable by restriction of the right-of-way (e.g., closed due to construction).

## 8 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 8 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

9 (Unknown) is used when police indicate unknown.

## Consistency Checks:

## IF

(A250) ROADWAY FUNCTION CLASS equals 01, 02, 11-13, and RELATION TO JUNCTION (a) equals 1 , and RELATION TO JUNCTION (b) does not equal 03, 05, 20,
(A292) any TRAFFICWAY DESCRIPTION, TOTAL LANES IN ROADWAY, ROADWAY ALIGNMENT, ROADWAY GRADE, ROADWAY SURFACE TYPE, or ROADWAY SURFACE CONDITIONS equals 0, 00,
(A310) ROUTE SIGNING equals 1, and RELATION TO JUNCTION (a) equals 0 ,
(A470) WORK ZONE equals 0, and TRAFFICWAY DESCRIPTION equals 1-3, 5,
(A481) TRAFFICWAY DESCRIPTION equals 6,
(A482) TRAFFICWAY DESCRIPTION equals 4 or 6,

## THEN

TOTAL LANES IN ROADWAY should not equal 1 for the vehicles involved in the first harmful event.
all must equal 0, 00, and SPEED LIMIT must equal 00 for this vehicle.

TOTAL LANES IN ROADWAY should not equal 1 for any vehicle.

TOTAL LANES IN ROADWAY should not equal 1.

TOTAL LANES IN ROADWAY should equal 1, 2, 8, 9.
TOTAL LANES IN ROADWAY should not equal 5-7.

## THEN

(A491) TRAFFICWAY DESCRIPTION equals TOTAL LANES IN ROADWAY should 1 or 5, not equal 7.
(A500) TOTAL LANES IN ROADWAY equals ROADWAY SURFACE TYPE should not 3-7, equal $4,5,7$.
(PC50) PRE-IMPACT LOCATION equals 2, TOTAL LANES IN ROADWAY should not equal 1.
(U670) UNLIKELY: TOTAL LANES IN ROADWAY equals 7. (Note If coding a divided highway, count only the through lanes on the side of the highway where this vehicle was prior to its Critical Precrash Event.)

## Consistency Check (GES Only):

## IF

(A3G0) INTERSTATE HIGHWAY equals 1, and RELATION TO JUNCTION (a) equals 1, and RELATION TO JUNCTION (b) is not equal to 03 or 05 or 20,

## THEN

TOTAL LANES IN ROADWAY should not equal 1 for at least one vehicle involved in the first harmful event.

## THIS PAGE INTENTIONALLY LEFT BLANK

## SPEED LIMIT

FORMAT: 2 numeric
SAS NAME: Vehicle.VSPD_LIM

## ELEMENT VALUES:

```
    00 No Statutory Limit/Non-Trafficway or Driveway Access
05-80 Actual Speed Limit (in 5 mph increments)
    98 Not Reported
    99 Unknown
```

Definition: This element identifies the value indicated in the case materials which best represents the speed limit just prior to this vehicle's critical precrash event.

## Remarks:

For vehicles departing the trafficway prior to their critical precrash events, the trafficway selected for classification is the one the vehicle departed. If this vehicle is in a junction just prior to its critical precrash event, the roadway selected for classification is the one it is on before entering the junction.

Note: Refer to the highway speed limit that is operational at the time and place of the crash whether physically displayed or not. Try not to confuse advisory signs on entrance/exit ramps or near intersections with the actual legal maximum speed limit. Disregard advisory or other speed signs since they do not indicate the legal speed limit. If a state has a statute that uniformly reduces the maximum allowable speed limit within or near a construction zone, then code the indicated reduced speed limit, if known.

Acceptable speed limits are in 5 mph increments.
00 (No Statutory Limit/Non-Trafficway or Driveway Access) is used when there is no posted speed limit and no law that governs the maximum speed you can drive (dirt roads, private roads open to the public). Also use this attribute in cases when this vehicle is entering a trafficway but was not on a trafficway prior to its critical precrash event or when the vehicle was in a driveway access prior to its precrash event.

When coding Speed Limit for roadways with two different speed limits (for north and southbound lanes), use the speed limit for the direction of travel where the critical precrash event begins.

When a roadway has a different speed limit for different types of vehicles, code the speed limit that is applicable to passenger cars.

## Example:

A rural Interstate highway has a speed limit of 65 MPH for passenger cars, but the same road has a 55 MPH speed limit for heavy trucks/buses.

Circumstance 1: A single-vehicle (passenger car) crash. Speed Limit $=65 \mathrm{MPH}$ Circumstance 2: A single-vehicle (heavy truck/bus) crash. Speed Limit = 65 MPH Circumstance 3: A two-vehicle crash, (passenger car and heavy truck/bus) crash. Speed Limit $=65 \mathrm{MPH}$

## Logic:

Our statisticians feel that it would be more representative to code the Speed Limit of the majority of the traffic, namely the passenger car. In addition, they feel that by identifying the car speed limit of 65 MPH , they can then determine the truck speed limit by reviewing the state's speed limit law. (The reverse is not necessarily true.)

## 98 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 98 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

99 (Unknown) is used when police indicate unknown.
Values less than 15 mph are unlikely occurrences and will raise an error flag.

## FARS SPECIAL INSTRUCTION:

Accurate coding of Speed Limit is extremely important. Do not rely solely on the PAR. Check with the State Highway Department as well.

When coding Speed Limit on On-Off Ramps (i.e., when the critical precrash event occurs on the ramp), consider the following:
A. When a ramp has a posted Speed Limit - a regulatory (black on white) sign, not an advisory (black on yellow) one - the posted speed should be coded.
B. When there is an advisory speed limit or no sign at all, you should:

1. Check with your State Highway Department to see if there is an implicit speed limit for all unmarked ramps. If there is, code speed limit.
2. If there is not; code the speed limit of the controlled access highway.

## Consistency Check:

## IF

(1TOP) SPEED LIMIT for every vehicle is greater than 55 , and not equal to 98 or 99,
(A220) ROADWAY FUNCTION CLASS equals 01, 11, and RELATION TO JUNCTION (a) equals 0 ,
(A292) any TRAFFICWAY DESCRIPTION, TOTAL LANES IN ROADWAY, ROADWAY ALIGNMENT, ROADWAY GRADE, ROADWAY SURFACE TYPE, or ROADWAY SURFACE CONDITIONS equals 0,00 ,
(A320) ROUTE SIGNING equals 1, and RELATION TO JUNCTION (a) equals 0 ,
(A492) TRAFFICWAY DESCRIPTION equals 2, 3, 5, 6,
(A493) TRAFFICWAY DESCRIPTION equals 2, 3, 5,
(A521) any SEQUENCE OF EVENTS equals 46,
(A700) SPEED LIMIT is greater than 65 for every vehicle,
(A830) FIRST HARMFUL EVENT equals 46,
(A900) SPEED LIMIT equals 60, 65 for every vehicle,
(A940) STATE NUMBER equals 11,
(A945) STATE NUMBER equals 15,
(A950) STATE NUMBER equals 02, 09, 10, $17,23,24,25,33,34,36,39,41,42$, $43,44,50,55$,

## THEN

ROADWAY FUNCTION CLASS should not equal 15,16 .

SPEED LIMIT should not equal 05-40 for any vehicle.
all must equal 0,00 , and SPEED LIMIT must equal 00 for this vehicle.

SPEED LIMIT should not equal 05-40 for any vehicle.

SPEED LIMIT must not equal 00.
SPEED LIMIT should be greater than 15.

SPEED LIMIT should equal 05-50, 98 or 99 for this vehicle.
ROUTE SIGNING should equal 1-4.
SPEED LIMIT should be less than 55 for the vehicle involved in the first harmful event.
ROADWAY FUNCTION CLASS should not equal 05, 06, 14-16.
maximum SPEED LIMIT (not including 98 or 99) should equal 55.
maximum SPEED LIMIT (not including 98 or 99) should equal 60.
maximum SPEED LIMIT (not including 98 or 99 ) should equal 65.

## IF

## THEN

(A955) STATE NUMBER equals 01, 05, 06, $12,13,18,19,20,21,22,26,27,28$, 29, 37, 45, 47, 51, 53, 54,
(A960) STATE NUMBER equals 04, 08, 16, maximum SPEED LIMIT (not including $30,31,32,35,38,40,46,48,49,56, \quad 98$ or 99 ) should equal 75.

## Consistency Check (GES Only):

## IF

(A3J0) INTERSTATE HIGHWAY equals 1, and RELATION TO JUNCTION (a) equals 1, and RELATION TO JUNCTION (b) is not equal to 03 or 05 or 20,
(A965) PSU equals $72,91,9,21,22,4,1,2$, $3,23,24,25,26,30,5,6,7,8,71$,
(A970) PSU equals $47,48,79,80,96,97,41$, 42, 61, 73, 93, 28, 10, 11, 12, 13, 29, 31, 32, 33, 92, 43, 44, 45, 46, 27, 81, 82,
(A975) PSU equals $76,77,78,75,94,74,95$, 64, 49, 50, 51, 62, 63,

## THEN

SPEED LIMIT should not equal 01-40 for at least one vehicle involved in the first harmful event.
maximum SPEED LIMIT (not including 98 or 99 ) should equal 65.
maximum SPEED LIMIT (not including 98 or 99 ) should equal 70.
maximum SPEED LIMIT (not including 98 or 99 ) should equal 70.

## ROADWAY ALIGNMENT

FORMAT: 1 numeric
SAS NAME: Vehicle.VALIGN

## ELEMENT VALUES:

0 Non-Trafficway or Driveway Access
1 Straight
2 Curve-Right
3 Curve-Left
4 Curve - Unknown Direction
8 Not Reported
9 Unknown
Definition: This element identifies the value indicated in the case materials which best represents the roadway alignment prior to this vehicle's critical precrash event.

## Remarks:

For vehicles departing the trafficway prior to their critical precrash events, the trafficway selected for classification is the one the vehicle departed.

The PAR information is prioritized as follows:

1) The Narrative.
2) If a curved roadway section is shown in the diagram, code Curve.
3) If the roadway section shown in the diagram is straight, but only a small roadway section is depicted, use check-box if it is filled out. If the check box is not filled out or does not exist, code 1 (Straight).
4) If the roadway section on the diagram is straight and a large roadway section is depicted, code 1 (Straight).
5) If the roadway is not described in the narrative or shown in the diagram, use the checkbox information.

0 (Non-Trafficway or Driveway Access) is used when this vehicle is entering a trafficway but was not on a trafficway prior to its critical precrash event or when the vehicle was in a driveway access prior to its precrash event.

1 (Straight) is selected if the case materials indicate this vehicle's roadway is straight.
2 (Curve Right) or $\mathbf{3}$ (Curve Left) is selected if the case materials indicate this vehicle's roadway is curved or there is any curvature discernable on the diagram.

4 (Curve - Unknown Direction) is selected if the case materials indicate a curve, but no curve direction (left/right) is indicated.

## 8 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 8 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

9 (Unknown) is used when police indicate unknown.

## Consistency Check:

## IF

(A292) any TRAFFICWAY DESCRIPTION, TOTAL LANES IN ROADWAY, ROADWAY ALIGNMENT, ROADWAY GRADE, ROADWAY SURFACE TYPE, or ROADWAY SURFACE CONDITIONS equals 0,00 ,
(A4D0) PRE-EVENT MOVEMENT(PRIOR TO RECOGNITION OF CRITICAL
EVENT) equals 14,
(A4D1) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 01,

## THEN

all must equal 0,00 , and SPEED LIMIT must equal 00 for this vehicle.

ROADWAY ALIGNMENT must equal 2-4.

ROADWAY ALIGNMENT should not equal 2-4.

## ROADWAY GRADE

FORMAT: 1 numeric
SAS NAME: Vehicle.VProfile

## ELEMENT VALUES:

0 Non-Trafficway or Driveway Access
1 Level
3 Hillcrest
5 Uphill
6 Downhill
2 Grade, Unknown Slope
4 Sag (Bottom)
8 Not Reported
9 Unknown
Definition: This element identifies the value indicated in the case materials which best represents the roadway grade prior to this vehicle's critical precrash event.

## Remarks:

For vehicles departing the trafficway prior to their critical precrash events, the trafficway selected for classification is the one the vehicle departed. If this vehicle is in a junction just prior to its critical precrash event, the roadway selected for classification is the one it is on before entering the junction.

0 (Non-Trafficway or Driveway Access) is used when this vehicle is entering a trafficway but was not on a trafficway prior to its critical precrash event or when the vehicle was in a driveway access prior to its critical precrash event.

3 (Hillcrest) refers to the area of transition between an uphill and a downhill grade as in the illustration on the following page.

2 (Grade, Unknown Slope) is used if the case materials indicate a grade, but uphill/downhill is not indicated.

4 (Sag [Bottom]) is a designed transition feature between a change of grade at the bottom of a hill. It is not a dip, which is a flaw.

A dip on the road is not the same as a sag. A sag is a design feature whereas a dip is a flaw. The minimum length of a sag is 100 feet.

## 8 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 8 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).


9 (Unknown) is used when police indicate unknown.
Consistency Check:

IF
(1Z1P) any SEQUENCE OF EVENTS equals 66,
(A292) any TRAFFICWAY DESCRIPTION, TOTAL LANES IN ROADWAY, ROADWAY ALIGNMENT, ROADWAY GRADE, ROADWAY SURFACE TYPE, or ROADWAY SURFACE CONDITIONS equals 0,00,
(A494) TRAFFICWAY DESCRIPTION equals 6,

THEN
ROADWAY GRADE should equal 6 for this vehicle.
all must equal 0,00 , and SPEED LIMIT must equal 00 for this vehicle.

ROADWAY GRADE should not equal 3, 4.

## ROADWAY SURFACE TYPE

(FARS Only)

FORMAT: 1 numeric
SAS NAME: Vehicle.VPAVETYP

## ELEMENT VALUES:

0 Non-Trafficway Area or Driveway Access
1 Concrete
2 Blacktop, Bituminous, or Asphalt
3 Brick or Block
4 Slag, Gravel or Stone
5 Dirt
7 Other
8 Not Reported
9 Unknown
Definition: This element identifies the value indicated in the case materials which best represents the roadway surface type prior to this vehicle's critical precrash event.

## Remarks:

For vehicles departing the trafficway prior to their critical precrash events, the trafficway selected for classification is the one the vehicle departed. If this vehicle is in a junction just prior to its critical precrash event, the roadway selected for classification is the one it is on before entering the junction.

Should be obtained from the crash report or the State Highway Department.
If the Police Accident Report (PAR) lists more than one type, choose the type with the lowest number. For example, if the PAR indicates Dirt/Gravel, then use 4 (Slag, Gravel or Stone).

0 (Non-Trafficway or Driveway Access) is used when this vehicle is entering a trafficway but was not on a trafficway prior to its critical precrash event or when the vehicle was in a driveway access prior to its critical precrash event.

## 8 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 8 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

## Consistency Checks:

IF
(A160) ROADWAY FUNCTION CLASS equals 01, 02, 04, 11, 12, 13, 15,
(A170) ROADWAY SURFACE TYPE equals 3-5 for every vehicle,
(A292) any TRAFFICWAY DESCRIPTION, TOTAL LANES IN ROADWAY, ROADWAY ALIGNMENT, ROADWAY GRADE, ROADWAY SURFACE TYPE, or ROADWAY SURFACE CONDITIONS equals 0,00 ,
(A330) ROUTE SIGNING equals 1, 2,
(A490) TRAFFICWAY DESCRIPTION equals 2, 3, 5,
(A500) TOTAL LANES IN ROADWAY equals 3-7,

THEN
ROADWAY SURFACE TYPE should equal 1, 2, 8 or 9 for at least one vehicle. ROADWAY FUNCTION CLASS should not equal 01-03, 11-15.
all must equal 0,00 , and SPEED LIMIT must equal 00 for this vehicle.

ROADWAY SURFACE TYPE should equal 1, 2, 8 for at least one vehicle. ROADWAY SURFACE TYPE should not equal $4,5,7$.
ROADWAY SURFACE TYPE should not equal $4,5,7$.

## ROADWAY SURFACE CONDITIONS

FORMAT: 2 numeric
SAS NAME: Vehicle.VSurCond

## ELEMENT VALUES:

00 Non-Trafficway or Driveway Access
01 Dry
02 Wet
03 Snow
10 Slush
04 Ice/Frost
06 Water (Standing, Moving)
05 Sand
11 Mud, Dirt, Gravel
07 Oil
08 Other
98 Not Reported
99 Unknown
Definition: This element identifies the value indicated in the case materials which best represents the roadway surface condition prior to this vehicle's critical precrash event.

## Remarks:

For vehicles departing the trafficway prior to their critical precrash events, the trafficway selected for classification is the one the vehicle departed. If this vehicle is in a junction just prior to its critical precrash event, the roadway selected for classification is the one it is on before entering the junction. These conditions may have been present but did not necessarily contribute to the crash.

If more than one surface condition is indicated for this vehicle select the condition that would have most affected the vehicle's traction.

00 (Non-Trafficway or Driveway Access) is used when this vehicle is entering a trafficway but was not on a trafficway prior to its critical precrash event or when the vehicle was in a driveway access prior to its critical precrash event.

A road made of sand or dirt would be coded 01 (Dry) under normal conditions, not 05 (Sand), 11 (Mud, Dirt, Oil).

02 (Wet) describes a roadway surface that is covered with water from rain or melted snow.

03 (Snow) describes a roadway surface that is covered with snow.
10 (Slush) describes a roadway surface that is covered with melting snow.
04 (Ice/Frost) includes a roadway covered with ice from freezing rain or water runoff that has pooled on the roadway and turned to ice.

06 (Water [Standing, Moving]) describes a roadway surface that is covered with water and typically localized.

## FARS SPECIAL INSTRUCTION:

See Related Factors-Crash Level 05 (Surface Under Water) to see if it applies.
05 (Sand) includes sand on the roadway as a result of sand blown by wind or sand discharged on the roadway by highway trucks.

11 (Mud, Dirt, Gravel) indicates these substances present on the surface of the roadway at the crash location, not the surface type of the roadway by design.

07 (Oil) includes fuel spilled on the roadway.
08 (Other) is used for roadway surface conditions not described above.

## 98 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 98 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

99 (Unknown) is used when police indicate unknown.

## Consistency Checks:

## IF

(1A1P) RELATED FACTORS-CRASH LEVEL equals 05,

THEN
ROADWAY SURFACE CONDITIONS must equal 06 for at least one vehicle.

IF
(A040) CRASH MONTH equals 05-09,
(A1A0) ROADWAY SURFACE CONDITIONS equals 01 for a vehicle involved in the first harmful event,
(A1C0) ROADWAY SURFACE CONDITIONS equals 01,
(A510) any ATMOSPHERIC CONDITIONS equals 02-04, 11, 12,
(A292) any TRAFFICWAY DESCRIPTION, TOTAL LANES IN ROADWAY, ROADWAY ALIGNMENT, ROADWAY GRADE, ROADWAY SURFACE TYPE, or ROADWAY SURFACE CONDITIONS equals 0,00 ,

## THEN

ROADWAY SURFACE CONDITIONS should not equal 03, 04, 10.
ATMOSPHERIC CONDITIONS should not equal 02-04, 11, 12.

DRIVER'S VISION OBSCURED BY should not equal 08.
ROADWAY SURFACE CONDITIONS should not equal 01, 07, 08, 99 for any vehicle.
all must equal 0,00 , and SPEED LIMIT must equal 00 for this vehicle.

## THIS PAGE INTENTIONALLY LEFT BLANK

## TRAFFIC CONTROL DEVICE

FORMAT: 2 numeric
SAS NAME: Vehicle.VTrafCon

## ELEMENT VALUES:

00 No Controls

## Traffic Signals

01 Traffic Control Signal (on colors) without Pedestrian Signal
02 Traffic Control Signal (on colors) with Pedestrian Signal
03 Traffic Control Signal (on colors) not known whether or not Pedestrian Signal
07 Lane Use Control Signal
08 Other Highway Traffic Signal
09 Unknown Highway Traffic Signal
04 Flashing Traffic Control Signal

## Regulatory Signs

20 Stop Sign
21 Yield Sign
28 Other Regulatory Sign
29 Unknown Regulatory Sign
23 School Zone Sign/Device
40 Warning Sign
65 Railway Crossing Device
50 Person
98 Other
97 Not Reported
99 Unknown
Definition: This element identifies the attribute indicated in the case materials which best describes the traffic controls in the vehicle's environment just prior to this vehicle's critical precrash event.

## Remarks:

The roadway used for coding this element is the one this vehicle departed if it is off the roadway just prior to its critical precrash event. If this vehicle is in a junction just prior to its critical precrash event, this element is coded based on the roadway this vehicle was on before entering the junction.

Code the attribute indicated in the case materials if it directly matches.

Code this element whether the device was functioning or not. If more than one device is present, code the highest device (lowest number on list) most related to the crash.

There are two exceptions:

1. One exception is $\mathbf{5 0}$ (Person) which includes a law enforcement officer, crossing guard, flagman, etc. 50 (Person) takes precedence over the entire list.
2. The other exception is a 28 (Regulatory Speed Limit Sign). You may have a 28 (Regulatory Speed Limit Sign) along with another Traffic Control Device (for example, a Warning Sign for a dangerous condition in which the Warning Sign is more relevant in the crash). In this case, the 40 (Warning Sign) is more appropriate to code.
$\mathbf{0 0}$ (No Controls) is used if, at the time of the crash, there was no intent to control (regulate or warn) vehicle traffic. Use this attribute if statutory controls apply (e.g., state law requires that when two vehicles meet at an uncontrolled intersection, the one on the right has the right-ofway).

When a traffic control is deactivated (e.g., traffic signal that emits no signals) during certain times of the day and was deactivated at the time of the crash, code $\mathbf{0 0}$ (No Controls). A traffic control that has just been installed and not yet activated is also coded 00 (No Controls).

However, a traffic control that is out (e.g., due to a power failure) and was reported as such in the case materials is coded, unless a temporary control (e.g., stop sign, police officer, etc.) has been inserted, in which case the temporary control should be coded.

01 (Traffic Control Signal [on colors] without Pedestrian Signal) refers to any highway traffic signal by which traffic is alternatively directed to stop and permitted to proceed, utilizing the colors of red, yellow and green. This traffic control signal does not have a pedestrian control signal. The source of actuation is of no concern.

02 (Traffic Control Signal [on colors] with Pedestrian Signal) refers to any highway traffic signal by which traffic is alternatively directed to stop and permitted to proceed, utilizing the colors of red, yellow and green. This traffic control signal does have a pedestrian control signal. The source of actuation is of no concern.

03 (Traffic Control Signal [on colors] not known whether or not Pedestrian Signal) any highway traffic signal by which traffic is alternatively directed to stop and permitted to proceed, utilizing the colors of red, yellow and green. It is unknown if this traffic control signal has a pedestrian control signal. The source of actuation is of no concern.

07 (Lane Use Control Signal) is for permanent lane control electronic devices (i.e., overhead lights or " $X$ " indicating lane open or closed for rush hour lanes, bridges or at tollbooths).

08 (Other Highway Traffic Signal) should be coded for traffic signals that are not covered in the preceding attributes. Use this attribute when a School Bus uses flashing lights to control traffic around the bus, regardless of any additional signs the school bus uses. For example, a school bus uses flashing lights and a stop sign on an arm to stop traffic around the school bus. This should only be used if the crash occurred during the time the sign was in effect.

09 (Unknown Highway Traffic Signal) is used with the investigating officer reported that the highway traffic signal was unknown at the time of crash.

04 (Flashing Traffic Control Signal) usually has a single colored head and flashes. Use this attribute if it is a Highway Traffic Signal that is flashing. This includes a flashing beacon. If a flashing red beacon appears with a stop sign, use this attribute.

Guide signs do not constitute traffic controls.
You may have a Regulatory Speed Limit Sign along with another Traffic Control Device (for example, a Warning Sign for a dangerous condition in which the Warning Sign is more relevant in the crash). In this case, the Warning Sign is more appropriate to code.

Another set of questions arises from the issue of proximity of the device to the crash. Judgment must be applied in these situations. Typical signs which create such problems are:

- Speed limit signs where a party to the crash may be speeding
- "Do Not Pass" signs where a no passing zone extends for miles but is only marked at the beginning of the zone
- Pedestrians Prohibited signs at entrances to freeways but a pedestrian crash occurs on the freeway between interchanges
- And other such signs which may pertain to a significant length of road.

In these instances, if the crash occurs within reasonably close proximity of the sign and the sign type is relevant to the crash then it may be appropriate to code the sign.

If there is a question as to which type a sign is, consult the Manual of Uniform Traffic Control Devices (MUTCD). Generally, the appropriate code should be used if a party to the crash failed to heed the sign, was in a position to be controlled by the sign, or the sign has some relationship to the crash. For example, for a crash at a four-legged, two-way stop intersection where a driver fails to stop at the stop sign and collides with another vehicle, use the attribute 20 (Stop Sign). Conversely, at the same intersection, a driver on an approach not controlled by a stop sign loses control and strikes a utility pole. In this case, 20 (Stop Sign) would not be appropriate.

Pavement markings are not considered as traffic control devices.
20 (Stop Sign) is a traffic sign used to control vehicular traffic, usually erected at road junctions, that instructs drivers to stop and then to proceed only if the way ahead is clear. This attribute does not include Stop Signs at Rail Grade Crossings. Stop Signs at Rail Grade Crossings are coded 65 (Railway Crossing Device).

21 (Yield Sign) indicates that a vehicle driver must slow down and prepare to stop if necessary usually while merging into traffic on another road but needn't stop if the way is clear. This attribute does not include Yield Signs at Rail Grade Crossings. Yield Signs at Rail Grade Crossings are coded 65 (Railway Crossing Device).

## 28 (Other Regulatory Sign)

Regulatory signs inform highway users of traffic laws or regulations and indicate the applicability of legal requirements that would not otherwise be apparent.

## Examples of Regulatory Signs other than 20 (Stop Sign) or 21 (Yield Sign) are:

- Speed Limit signs
- Turn Prohibition signs
- Do Not Pass
- Do Not Enter signs
- Wrong-way
- One-way signs
- Road Closed signs
- Hazardous Cargo signs.

29 (Unknown Regulatory Sign) is used with the investigating officer reported that the regulatory sign was unknown at the time of crash.

23 (School Zone Sign/Device) is used when the first harmful event occurred during the time the sign was in effect. If the sign was in effect, it does not matter whether or not children were present. Some 23 (School Zone Signs/Devices) can be flashing, if this is the case, use this attribute before using 04 (Flashing Traffic Control Signal).

40 (Warning Sign) is used when it is deemed necessary to warn traffic of existing or potentially hazardous conditions on or adjacent to a highway or street.

## Examples of Warning Signs:

- Work/Construction Zone related signs (Lane Shift, Uneven Surface, Workers Ahead, etc.)
- Changes in Horizontal Alignment signs (Hill, Curve, etc.),
- Road Narrows,
- Divided Road/Divided Road Ends,
- Low Clearance,
- Road Surface Condition signs (Bump, Slippery When Wet, etc.),
- Traffic Flow signs (Merge, Two-way Traffic, No Passing Zone etc.)
- This includes electronic warning signs such as portable signs, (i.e., attached to a vehicle), or stationary devices.
- Flashing lights on an approaching train.

65 (Railway Crossing Device) is used to control or warn vehicular traffic at a railway crossing.

## Examples:

- Flashing Lights
- Wigwags
- Bells
- Cross Bucks
- Stop Signs at Rail Grade Crossing
- Yield Signs at Rail Grade Crossings

50 (Person) is someone, (e.g., police officer, crossing guard, flagman or officially designated person), that is in the act of controlling both vehicular and pedestrian traffic.

98 (Other) includes: any other device, which (a) functions as a traffic control device which is not listed as an attribute of this data element and (b) is not excluded by the manual and (c) is related to the crash. Some examples are: barricades, cones, drums and object markers.

## 97 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 97 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

99 (Unknown) is used if the investigating officer reported that the traffic control device at the time of crash was not known.

## Consistency Checks:

## IF

(520F) FIRST HARMFUL EVENT equals 10,

TRAFFIC CONTROL DEVICE equals 00 ,
(640F) TRAFFIC CONTROL DEVICE equals 23 for any vehicle,
(641F) RELATED FACTORS-CRASH LEVEL equals 21 ,
(642F) TRAFFIC CONTROL DEVICE equals 00 for any vehicle,
(650P) TRAFFIC CONTROL DEVICE equals 65 for any vehicle,
(660P) TRAFFIC CONTROL DEVICE is not equal to 00 ,
(661P) TRAFFIC CONTROL DEVICE equals 97,

## THEN

TRAFFIC CONTROL DEVICE must not equal 01-04, 07-09, 20-50, 98 for the vehicle involved in the first harmful event.
DEVICE FUNCTIONING must equal 0 .
RELATED FACTORS-CRASH LEVEL should equal 21.
TRAFFIC CONTROL DEVICE should not equal 00 for every vehicle. RELATED FACTORS-CRASH LEVEL should not equal 21.
RAIL GRADE CROSSING IDENTIFIER must not equal 0000000.
DEVICE FUNCTIONING must not equal 0.

DEVICE FUNCTIONING must equal 8.

IF
(A1B0) TRAFFIC CONTROL DEVICE equals 20-21 for a vehicle involved in the first harmful event,
(A210) ROADWAY FUNCTION CLASS equals 01, 11, 12, and RELATION TO JUNCTION (a) equals 0 ,
(A270) any VIOLATIONS CHARGED equals 31-35, 37,
(A293) WORK ZONE equals 1-3, and RELATION TO JUNCTION (b) equals 02, 03,
(A294) WORK ZONE equals 1-3, and RELATION TO JUNCTION (b) equals 01, 04, 05, 08, 17-19,
(A440) RELATION TO JUNCTION (b) equals 06,
(A520) SEQUENCE OF EVENTS equals 10,
(A770) FIRST HARMFUL EVENT equals 46,
(A780) FIRST HARMFUL EVENT equals 46,
(A890) RELATION TO JUNCTION (b) equals 01,
(PB06) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 730,
(PB09) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 141, 143, 151-158, 217 or 218,
(PB10) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 151, 156, 157, 217 or 218,
(PB11) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 143 or 154,
(PB21) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 160,

## THEN

RELATION TO JUNCTION (b) should not equal 01, 18.

TRAFFIC CONTROL DEVICE should not equal 01-04, 07, 20, 23, 40, 50, 65.

TRAFFIC CONTROL DEVICE should equal 01-20, 98.
TRAFFIC CONTROL DEVICE should equal 01-03, 20, 40, 97 or 98 for the vehicle(s) involved in the first harmful event.
TRAFFIC CONTROL DEVICE should equal 00, 21, 28, 40, 50, 97 or 98 for the vehicle(s) involved in the first harmful event.
TRAFFIC CONTROL DEVICE should equal 65 for any vehicle involved in the first harmful event.
TRAFFIC CONTROL DEVICE should not equal 01-09, 20-29, 40-50, 98.
TRAFFIC CONTROL DEVICE should equal 01-04 for the vehicle involved in the first harmful event.
TRAFFIC CONTROL DEVICE should not equal 00 for the vehicle involved in the first harmful event.
TRAFFIC CONTROL DEVICE should not equal 01-03 for any vehicle involved in the first harmful event.
TRAFFIC CONTROL DEVICE for the striking vehicle must equal 01-03.

TRAFFIC CONTROL DEVICE for the striking vehicle must not equal 00.

TRAFFIC CONTROL DEVICE for the striking vehicle must equal 01-04.

TRAFFIC CONTROL DEVICE for the striking vehicle must equal 01-04, 20, 21, 28 or 29.
TRAFFIC CONTROL DEVICE for the striking vehicle should equal 00.

## Consistency Check (GES Only):

## IF

(A930) INTERSTATE HIGHWAY equals 1, and RELATION TO JUNCTION (a) equals 1, and RELATION TO JUNCTION (b) is not equal to 03 or 05 or 20,

## THEN

TRAFFIC CONTROL DEVICE should not equal 01-03, 20, 23 or 65 for at least one vehicle involved in the first harmful event.

## THIS PAGE INTENTIONALLY LEFT BLANK

## DEVICE FUNCTIONING

FORMAT: 1 numeric
SAS NAME: Vehicle.VTCONT_F

## ELEMENT VALUES:

0 No Controls
1 Device Not Functioning
2 Device Functioning - Functioning Improperly
3 Device Functioning Properly
8 Not Reported
9 Unknown
Definition: This element identifies the functionality of the traffic control device recorded for this vehicle in the element Traffic Control Device.

## Remarks:

This data element is coded with respect to the control selected in the element Traffic Control Device.

1 (Device Not Functioning) is used when the device is not functioning at all (e.g., signal out, sign knocked down).

2 (Device Functioning - Functioning Improperly) is used when the device was functioning to an extent but not as intended (e.g., red signal lamp burned out, sign twisted or obscured by vegetation).

## 8 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code Not Reported in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

9 (Unknown) is used if the investigating officer reported that it was unknown if the traffic control device was functioning at the time of crash.

## Consistency Checks:

|  | IF | THEN |
| :---: | :---: | :---: |
| (610P) | TRAFFIC CONTROL DEVICE equals 00, | DEVICE FUNCTIONING must equal 0. |
| (660P) | TRAFFIC CONTROL DEVICE is not equal to 00, | DEVICE FUNCTIONING must not equal 0. |
| (661P) | TRAFFIC CONTROL DEVICE equals 97. | DEVICE FUNCTIONING must equal 8. |

## DRIVER'S VISION OBSCURED BY

FORMAT: 2 numeric. Select all the apply.
SAS NAME: Vision.MVISOBSC

## ELEMENT VALUES:

00 No Obstruction Noted
01 Rain, Snow, Fog, Smoke, Sand, Dust
02 Reflected Glare, Bright Sunlight, Headlights
03 Curve, Hill or Other Roadway Design Feature
04 Building, Billboard, Other Structure
05 Trees, Crops, Vegetation
06 In-Transport Motor Vehicle (including load)
07 Not In-Transport Motor Vehicle (parked/working)
08 Splash or Spray of Passing Vehicle
09 Inadequate Defrost or Defog System
10 Inadequate Vehicle Lighting System
11 Obstruction Interior to the Vehicle
12 External Mirrors
13 Broken or Improperly Cleaned Windshield
14 Obstructing Angles on Vehicle
95 No Driver Present / Unknown if Driver Present
97 Vision Obscured - No Details
98 Other Visual Obstruction
99 Unknown

Definition: This data element records impediments to a driver's visual field that were noted in the case materials.

## Remarks:

These "visual obstructions" can appear anywhere in the case materials. Examples include a field on the PAR (e.g., "Contributing Factors"), in the narrative section, in the violations section, or in witness statements.

00 (No Obstruction Noted) is used when the case materials give no indication of a visual obstruction for this driver.

01 (Rain, Snow, Fog, Smoke, Sand, Dust) is used when one or more of these conditions exist AND are noted to have obstructed the view of the driver. Do not use this attribute when only the vehicle windshield is described as "fogged". (See 09 (Inadequate Defrost or Defog System) or $\mathbf{1 3}$ (Broken or Improperly Cleaned Windshield).)

02 (Reflected Glare, Bright Sunlight, Headlights) is used when one or more of these conditions are noted to have obstructed the view of the driver.

03 (Curve, Hill or Other Roadway Design Feature) is used when any of these roadway features or design elements is noted to have obstructed the view of the driver (including embankment, sag, etc.).

04 (Building, Billboard, Other Structure) is used when any of these man-made structures are noted to have obstructed the view of the driver (including traffic signs, poles, signals, etc.).

05 (Trees, Crops, Vegetation) is used when any of these natural features are noted to have obstructed the view of the driver.

06 (In-Transport Motor Vehicle [including load]) is used when a vehicle that is in motion or stopped on the roadway is noted to have obstructed the view of the driver. The vehicle may be but does not have to be a contact vehicle in the case.

07 (Not In-Transport Motor Vehicle [parked, working]) is used when a vehicle that is parked in a designated parking area or space, stopped in an area off the roadway or is a working motor vehicle is noted to have obstructed the view of the driver. The vehicle may be but does not have to be a contact vehicle in the case.

08 (Splash or Spray of Passing Vehicle) is used when this condition is noted to have obstructed the view of the driver. The splash or spray can come from water or mud; however the use of this attribute does not require it to be raining at the time of the crash.

09 (Inadequate Defrost or Defog System) is used when the presence of frost or fog on the windshield was noted as being due to an inadequate system. The case materials must state specifically that the system was not operating properly. If the case material states the presence of frost or fog alone on the windshield you should use 13 (Broken or Improperly Cleaned Windshield).

10 (Inadequate Vehicle Lighting System) is used when the case materials indicate this driver's vision was impaired because the exterior lighting system (including head-lights, foglights, etc., of the driver's vehicle was deficient in some way. This would include being turned off or not operating properly. This response should not be used to describe inadequate lighting systems of other vehicles (e.g., oncoming motor vehicles) or for inadequate highway lighting.

11 (Obstruction Interior to the Vehicle) is used when the case materials indicate this driver's vision was impaired because of a feature in the interior of their vehicle (including head restraint, rear-view mirror, window stickers, sun shades, ornaments, windshield tinting).

12 (External Mirrors) is used when the case materials indicate that an exterior mirror on this driver's vehicle created a visual obstruction.

13 (Broken or Improperly Cleaned Windshield) is used when this condition is noted to have obstructed the view of the driver. The presence of frost or fog on the windshield would apply.

For a "fogged" or "frosted" windshield due to an inadequate or inoperable system see 09 (Inadequate Defrost or Defog System).

14 (Obstructing Angles on Vehicle) is used when the case materials indicate that the size or shape of a driver's own vehicle created a visual obstruction (including trailer, vehicle height, blind spot). Not to be confused with visual obstructions from other vehicles or a vehicle's interior components such as head restraints, sun shades, etc.

95 (No Driver Present/Unknown if Driver Present) is used when there is no driver in this vehicle or when it is unknown if there is a driver present in this vehicle at the time of the crash.

97 (Vision Obscured - No Details) is used when the case materials indicate that a vision impediment exists but does not clearly indicate the nature of the impediment.

98 (Other Visual Obstruction) is used when the case materials indicate the nature of a vision impediment that cannot be attributed to one of the other attributes above. For example, an unattached trailer left on the road shoulder.

99 (Unknown) is used when the case materials specifically indicate unknown. Also use this response when hit and run drivers are involved, unless the case materials provide specific information about driver vision obscured.

Consistency Checks:

IF
(1HJF) DRIVER'S VISION OBSCURED BY equals 95,
(1L2P) any DRIVER'S VISION OBSCURED BY equals 00 or 95 or 99,
(1L4P) any DRIVER'S VISION OBSCURED BY equals 09,
(1L5P) any DRIVER'S VISION OBSCURED BY equals 10,
(2H1F) UNIT TYPE equals 1, and DRIVER PRESENCE equals 0 or 9 ,
(A1C0) ROADWAY SURFACE CONDITIONS equals 01,
(PB31) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 147,157 or 357 ,

## THEN

## DRIVER PRESENCE must equal 0 or

 9.only that one code and no other must be coded for this vehicle.
at least one CONTRIBUTING
CIRCUMSTANCES, MOTOR VEHICLE must equal 97.
at least one CONTRIBUTING
CIRCUMSTANCES, MOTOR VEHICLE must equal 07 or 08 or 09.
DRIVER'S VISION OBSCURED BY must equal 95.
DRIVER'S VISION OBSCURED BY should not equal 08.
at least one DRIVER'S VISION OBSCURED BY must equal 06 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.

## IF

(PB32) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 742,
(PB33) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 156,

## THEN

at least one DRIVER'S VISION OBSCURED BY must not equal 00 or 95 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST. DRIVER'S VISION OBSCURED BY for the striking vehicle must not equal 06.

## DRIVER MANEUVERED TO AVOID

FORMAT: 2 numeric. Select all that apply
SAS NAME: Maneuver.MDRMANAV

## ELEMENT VALUES:

```
0 0 ~ D r i v e r ~ D i d ~ N o t ~ M a n e u v e r ~ T o ~ A v o i d ~
01 Object
02 Poor Road Conditions (Puddle, Ice, Pothole, etc.)
03 Live Animal
04 Motor Vehicle
05 Pedestrian, Pedalcyclist or Other Non-Motorist
92 Phantom/Non-Contact Motor Vehicle
95 No Driver Present / Unknown if Driver Present
98 Not Reported
99 Unknown
```

Definition: This data element identifies the thing(s) the driver attempted to avoid while the vehicle was on the road portion of the trafficway, just prior to the first harmful event for this vehicle.

## Remarks:

The "road" by definition includes the roadway and shoulder/parking lane portions, when a shoulder/ parking lane is present. The source for this data is the crash report narrative or related crash report form fields as completed by the investigating officer. It is the officer's assessment. Consequently, do not consider items noted only in driver or witness statement documentation unless verified by being reported in the crash report narrative.

Code the thing(s) the driver tried to avoid whether the maneuver was successful or not (i.e., whether or not the driver was able to avoid the object, poor road condition, animal, vehicle or non-motorist).

00 (Driver Did Not Maneuver to Avoid) is used when:

- The crash report indicates that no avoidance maneuvers were taken by the driver.
- The avoidance maneuver(s) occurred after the first harmful event for the vehicle.
- The avoidance maneuver occurred when the vehicle was not on a roadway, shoulder or parking lane.

01 (Object) is used when the driver attempted to avoid a non-fixed object such as; an animal carcass, an unattached trailer, a bicycle without a rider, downed tree limbs or power lines, debris from a previous crash, rocks that fall from an adjacent hillside, a load that fell from another vehicle, debris left from a tire blowout, etc.

02 (Poor Road Conditions [Puddle, Ice, Pothole, etc.]) is used when the driver maneuvered to avoid the location of a road condition. Treat the condition as if it were an object. Do not use this attribute if the driver lost control while traveling on/over the road condition but made no maneuver to avoid it.

03 (Live Animal) is used when the driver attempted to avoid a live animal that is stationary or moving. A dead animal carcass is considered debris and coded as 01 (Object).

04 (Motor Vehicle) is used when the driver attempted to avoid another contact motor vehicle in the crash (receives a vehicle form). This includes in-transport, parked or working motor vehicles. A trailer not connected to a motor vehicle would be considered a 01 (Object).

05 (Pedestrian, Pedalcyclist or Other Non-Motorist) is used when the driver attempts to avoid a pedestrian, pedalcyclist or other non-motorist. Other Non-motorist would include persons riding on an animal, or in an animal drawn conveyance or on a personal conveyance. A person killed in a previous crash or an unoccupied pedalcycle or personal conveyance would be considered a 01 (Object).

92 (Phantom/Non-Contact Motor Vehicle) is used when the driver attempted to avoid another motor vehicle in the crash that was reported as a non-contact or phantom vehicle (does not receive a vehicle form). This includes in-transport, parked or working motor vehicles. A trailer not connected to a motor vehicle would be considered a 01 (Object).

95 (No Driver Present/Unknown if Driver Present) is used when there is no driver in this vehicle or when it is unknown if there is a driver present in this vehicle at the time of the crash.

## 98 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 98 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

99 (Unknown) is used when the information about a particular vehicle's circumstances are reported as "unknown". Examples include a hit-and-run driver that is not apprehended, or a fatal crash discovered weeks after the crash occurred.

## Consistency Checks:

IF
(3BCP) CRASH TYPE equals $34,36,38,40$, $54,56,58$ or 60 ,
(9C4P) UNIT TYPE equals 1, and DRIVER PRESENCE equals 0 or 9 ,
(9C5P) DRIVER MANEUVERED TO AVOID equals 95 ,
(AZ6P) any DRIVER MANEUVERED TO AVOID equals 00 ,
(AZ7P) any DRIVER MANEUVERED TO AVOID equals 00 or 95 or 98 or 99,
(AZBP) any DRIVER MANEUVERED TO AVOID equals 03,
(AZCP) any DRIVER MANEUVERED TO AVOID equals 05 ,
(AZEP) any DRIVER MANEUVERED TO AVOID equals 01,
(B10P) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) does not equal 17, ATTEMPTED AVOIDANCE MANUEVER equals 00, 01,

## THEN

DRIVER MANEUVERED TO AVOID must not equal 00 .
DRIVER MANEUVERED TO AVOID must only equal 95.
DRIVER PRESENCE must equal 0 or 9 .
PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must not equal 17.
only that one code and no other must be coded for this vehicle.
CRITICAL EVENT - PRECRASH (EVENT) should equal 87-89. CRITICAL EVENT - PRECRASH (EVENT) should equal 80-85. CRITICAL EVENT - PRECRASH (EVENT) should equal 90-92. DRIVER MANEUVERED TO AVOID should equal 00 or 95 .

## THIS PAGE INTENTIONALLY LEFT BLANK

## DRIVER DISTRACTED BY

FORMAT: 2 numeric. Select all the apply.

## SAS NAME: Distract.MDRDSTRD

## ELEMENT VALUES:

00 Not Distracted
01 Looked But Did Not See
16 No Driver Present / Unknown if Driver Present
96 Not Reported

## DISTRACTIONS:

03 By Other Occupant(s)
04 By a Moving Object in Vehicle
05 While Talking or Listening to Cellular Phone
06 While Manipulating Cellular Phone
07 Adjusting Audio or Climate Controls
09

Definition: This element identifies the attribute(s) which best describe this driver's attention to driving prior to the driver's realization of an impending critical event or just prior to impact if realization of an impending critical event does not occur. Distraction from the primary task of driving occurs when drivers divert their attention from the driving task to some other activity. Also, driving while daydreaming or lost in thought is identified as distracted driving by NHTSA. Physical conditions/impairments (fatigue, alcohol, medical condition, etc.) or psychological states (anger, emotional, depressed, etc.) are not identified as distractions by NHTSA.

Analytical Note: The attributes in this element are presented to provide selections that most unambiguously match what can be encountered in various presentations on state crash report
forms. They are not all considered "distractions" as defined by NHTSA. Data in the public output files for Driver Distracted By will not be presented exactly as displayed in this element's attribute listing.

## Remarks:

Record the attribute(s) which best describe this driver's attention to driving prior to the driver's realization of an impending critical event or just prior to impact if realization of an impending critical event does not occur. If this driver's vehicle has two critical crash envelopes, record the attribute(s) which best describe the driver's attention prior to the first Critical Precrash Event (i.e., prior to realization of the impending danger which the driver successfully avoided). Intoxication, III, Blackout, Asleep or Fatigued are not considered distractions. This information is captured under the data element Driver Condition.

Driver Distracted By is a "Select all that apply" element. If the element values $\mathbf{0 0}$ (Not Distracted), 01 (Looked But Did Not See), 16 (No Driver Present), 17 (Distraction/ Inattention), 18 (Distraction/Careless), 19 (Careless/Inattentive), 92 (Distraction [Distracted], Details Unknown), 93 (Inattention [Inattentive], Details Unknown), 96 (Not Reported), or 99 (Unknown if Distracted) are selected, then only that one element value may be used.

## Witness Statements:

When coding Driver Distracted By, witness statements, including those from vehicle passengers or pedestrians, may be used to provide information when police sources are unavailable. The officer's assessment on the PAR will take precedent over items reported in a witness statement document in all cases. The officer's assessment includes any statements from a witness included by the officer as part of the PAR narrative. In absence of indication on the PAR, information that is in direct contradiction in two witness statements will not be included.

## 00 (Not Distracted)

- When the case materials indicate that the individual was completely attentive to driving and 01 (Looked But Did Not See) does not apply.
- When the case materials do not indicate a distraction in an available field and not reporting a distraction in that field indicates 00 (Not Distracted).
- When the investigating officer is limited in selection and cannot select a distraction in addition to another factor relevant to crash and no other indication of distraction exists in the case materials.
- For omission of information see 96 (Not Reported) guidance below.

01 (Looked But Did Not See) is used when the driver is paying attention to driving (not distracted), but does not see the relevant vehicle, object, etc. This attribute should be used when a driver has an opportunity to take some action prior to impact, but the driver takes no action and no distractions apply. This situation frequently occurs when an overtaking vehicle is in the driver's "blind spot" or at intersections when a crossing vehicle is not noticed. If the
driver sees the vehicle, object, etc., but does not consider it a danger, and no distractions apply then the $\mathbf{0 0}$ (Not Distracted) would be used.

16 (No Driver Present/Unknown if Driver Present) is used when there is no driver in this vehicle or when it is unknown if there is a driver present in this vehicle at the time of the crash.

## 96 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 96 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

## DISTRACTIONS:

03 (By Other Occupant[s]) is used when the driver was distracted by another occupant in this driver's vehicle prior to realization of impending danger. Examples of other occupant distraction include conversing with or looking at another occupant e.g., baby/child in back seat, rowdy teenager, argumentative spouse, etc.

04 (By a Moving Object in Vehicle) is used when the driver was distracted by a moving object in this driver's vehicle prior to realization of impending danger. Examples include a dropped object, a moving pet, insect or cargo.

05 (While Talking or Listening to Cellular Phone) is used when the driver is talking or listening on a cellular phone. This attribute includes talking or listening on a "hands-free" or Bluetooth enabled phone.

06 (While Manipulating Cellular Phone) is used when the driver is dialing or text messaging (texting) on a cellular phone. Any manual button/control actuation on the phone qualifies. This includes dialing or text messaging on any wireless e-mail device.

07 (Adjusting Audio or Climate Controls) is used when someone is distracted from the driving task while adjusting the air conditioner, heater, radio, cassette, using the radio, using the cassette or CD that are mounted in the vehicle.

09 (While Using Other Component//Controls Integral to Vehicle) is used when the driver is distracted while manipulating a control in the vehicle including adjusting headlamps or interior
lights, controlling windows (power or manual) manipulating door locks (power or manual), adjusting side view mirrors (power or manual), adjusting rear view mirror, adjusting seat (power or manual), adjusting steering wheel and adjusting seat belt, on-board navigational devices, etc. (original equipment).

10 (While Using or Reaching For Device/Object Brought Into Vehicle) is used when the driver is distracted while using or reaching for a device in the vehicle including a radar detector, CDs, razors, music portable CD player, headphones, a navigational device, laptop or tablet PC, etc. This attribute is also used when it can not be determined if the involved device was OEM, brought into the vehicle, or a function of a cell phone (i.e. GPS).

If it is unknown if the device or object was brought into the vehicle or was original equipment on this vehicle default to brought into vehicle and use attribute $\mathbf{1 0}$ (While Using or Reaching for Device/Object Brought Into Vehicle).

12 (Distracted By Outside Person, Object or Event) is used when the driver was distracted by an outside person, object or event prior to realization of impending danger. Examples include animals on the roadside, a previous crash or non-traffic related signs e.g., advertisements, electronic billboards, etc. Do not use this attribute for a person, object or event that the driver has recognized and for which the driver has taken some action (e.g., avoiding a pedestrian on the roadway).

13 (Eating or Drinking) is used when the driver is eating or drinking or involved in an activity related to these actions (e.g., picking food from carton placed on passenger seat, reaching to throw out used food wrapper, etc.)

14 (Smoking Related) is used when the driver is smoking or involved in an activity related to smoking, such as lighting his cigarette, putting his ashes in the ash tray, etc. Any method of lighting the cigarette would be coded 14 (Smoking Related).

15 (Other Cellular Phone Related) is used when the case material indicates the driver is distracted from the driving task due to cellular phone involvement, but none of the specified codes are applicable (e.g., reaching for cellular phone, etc.). This attribute is also applied when specific details regarding cellular phone distraction / usage are not provided.

17 (Distraction/Inattention) is used exclusively when "Distraction/Inattention" or "Inattention/Distraction" are noted in the case materials as one combined attribute and it cannot be determined which Driver Distracted By attribute is intended, 92 (Distraction [Distracted], Details Unknown) or 93 (Inattention [Inattentive], Details Unknown).

18 (Distraction/Careless) is used exclusively when "Distraction/Careless" or "Careless/Distraction" are noted in the case materials as one combined attribute and it cannot be determined which Driver Distracted By attribute applies.

19 (Careless/Inattentive) is used exclusively when "Careless/Inattentive" or "Inattentive/ Careless" are noted in the case materials as one combined attribute and it cannot be determined which Driver Distracted By attribute applies.

92 (Distraction [Distracted], Details Unknown) is used when "distraction" or "distracted" are noted in the case materials, but specific distraction(s) cannot be identified. For non-specific "inattention" see attribute 93 (Inattention [Inattentive], Details Unknown).

93 (Inattention [Inattentive], Details Unknown) is used when "inattention" or "inattentive" are noted in the case materials, but it cannot be identified if this refers to a distraction(s).

97 (Lost in Thought / Day Dreaming) is used when the driver is not completely attentive to driving because he/she is thinking about items other than the driving task. For non-specific "distraction" see element value 92 (Distraction [Distracted], Details Unknown). For nonspecific "inattention" see element value 93 (Inattention [Inattentive], Details Unknown).

98 (Other Distraction) is used when details regarding this driver's distraction are known but none of the specified codes are applicable.

99 (Unknown if Distracted) is used when the case materials specifically indicates unknown. Also use this response when hit-and-run drivers are involved, unless the case material provides information about driver distraction/inattention.

## Consistency Checks:

## IF

(BJ1P) UNIT TYPE equals 1, and DRIVER PRESENCE equals 0 or 9 ,
(BJ2P) UNIT TYPE equals 1, and DRIVER PRESENCE equals 1 ,
(BJ3P) UNIT TYPE equals 1, and DRIVER DISTRACTED BY equals 16,
(BJ4P) any DRIVER DISTRACTED BY equals 03,
(BJ7P) any DRIVER DISTRACTED BY equals 00 or 01 or 16 or 17 or 18 or 19 or 92 or 93 or 96 or 99 ,

## THEN

DRIVER DISTRACTED BY must equal 16.

DRIVER DISTRACTED BY must not equal 16 or blank.
DRIVER PRESENCE must equal 0 or 9 .

NUMBER OF OCCUPANTS must be greater than 01.
only that one code and no other must be used.

## THIS PAGE INTENTIONALLY LEFT BLANK

## PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT)

FORMAT: 2 numeric
SAS NAME: Vehicle.P_Crash1

## ELEMENT VALUES:

00 No Driver Present/Unknown if Driver Present
01 Going Straight
02 Decelerating In Road
03 Accelerating In Road
04 Starting In Road
05 Stopped In Roadway
06 Passing Or Overtaking Another Vehicle
07 Disabled Or "Parked" In Travel Lane
08 Leaving A Parking Position
09 Entering A Parking Position
10 Turning Right
11 Turning Left
12 Making A U-Turn
13 Backing Up (Other Than For Parking Position)
14 Negotiating A Curve
15 Changing Lanes
16 Merging
17 Successful Avoidance Maneuver To A Previous Critical Event
98 Other (Specify:)
99 Unknown
Definition: This element identifies the attribute that best describes this vehicle's activity prior to the driver's realization of an impending critical event or just prior to impact if the driver took no action or had no time to attempt any evasive maneuvers.

## Remarks:

Record the attribute that best describes this vehicle's activity prior to the driver's realization of an impending critical event or just prior to impact if the driver took no action or had no time to attempt any evasive maneuvers.

Actions taken by the driver, of this vehicle, after realization of an impending danger are captured in Attempted Avoidance Maneuver.

00 (No Driver Present/Unknown if Driver Present) is pre-coded for in-transport motor vehicles when the element Driver Presence is coded as 0 (No Driver Present/Not Applicable).

01 (Going Straight) is used when this vehicle's path of travel was straight ahead on the roadway without any attempted or intended changes. See attribute 98 (Other) for vehicles traveling on off-roadway locations. The coding of this attribute is not always dependent on the roadway alignment.

02 (Decelerating In Road) is used when this vehicle was traveling straight ahead within the road portion of the trafficway and was decelerating.

03 (Accelerating In Road) is used when this vehicle was traveling straight ahead within the road portion of the trafficway and was accelerating. 03 (Accelerating in Road) must be explicitly stated by officer.

04 (Starting In Road) is used when this vehicle was in the process of starting forward from a stopped position within the road portion of the trafficway (e.g., start up from traffic signal).

05 (Stopped In Roadway) is used when this vehicle was stopped momentarily, with the motor running within the roadway portion of the trafficway (e.g., stopped for traffic signal).

06 (Passing Or Overtaking Another Vehicle) is used when this vehicle was traveling straight ahead and was in the process of passing or overtaking another vehicle on the left or right.
Note: This attribute is not used in rear-end collisions. (See Table under PC19Precrash Event Scenarios for Different Rear-End Situations.)

07 (Disabled Or "Parked" In Travel Lane) is used when this vehicle was "parked" in a travel lane (e.g., double parked, disabled) with a driver present in the vehicle.

08 (Leaving A Parking Position) is used when this vehicle was entering the travel lane from a parking area adjacent to the traffic lanes.

09 (Entering A Parking Position) is used when this vehicle was leaving the travel lane to a parking area adjacent to the traffic lanes (i.e., in the process of parking).

10 (Turning Right) is used when this vehicle was moving forward and turned right, changing lanes from one roadway to a different roadway (e.g., from or to a driveway, parking lot or intersection).

11 (Turning Left) is used when this vehicle was moving forward and turned left, changing lanes from one roadway to a different roadway (e.g., from or to a driveway, parking lot or intersection).

12 (Making a U-Turn) is used when this vehicle was making a U-turn on the trafficway.
13 (Backing Up [Other Than For Parking Position]) is used when this vehicle was traveling backwards within the trafficway. Do not use this attribute if the vehicle was backing into a parking space (See 09 (Entering a Parking Position).)

14 (Negotiating A Curve) is used when this vehicle was continuing along a road that curved to the right or left.

15 (Changing Lanes) is used when this vehicle was traveling straight ahead and changed travel lanes to the right or left while on the same roadway

16 (Merging) is used when this vehicle was moving forward and merging from the left or right into a traffic lane (e.g., roadway narrows, exit/entrance ramps).

17 (Successful Avoidance Maneuver To A Previous Critical Event) is used when this vehicle responded to a previous critical event and successfully avoided an impact. However, this maneuver precipitated a subsequent critical crash envelope, which resulted in this vehicle's first impact.

98 (Other [Specify:]) is used when this vehicle's pre-event movement is known but none of the specified attributes are applicable. For example, vehicles traveling on off-roadway locations would be coded as 98 (Other). The movement must be specified in the "specify box".
*Note: for attributes with a "Specify:" designation, a fill-in text box will open in MDE. This text box should be used to provide additional detail about the attribute selection.

99 (Unknown) is used when the vehicle's movement prior to the driver's realization of an impending critical event is unknown.

## Consistency Checks:

## IF

(3B4P) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 10,
(3B5P) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 11,
(3BDP) CRASH TYPE equals 46, 47, and ATTEMPTED AVOIDANCE MANEUVER equals 01 or 99,
(3BFP) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 08 or 09,
(3BGP) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 00,
(3C00) CRASH TYPE equals 68, 72, 76 or 82,

## THEN

CRASH TYPE must not equal 44-69, 71-73, 76, 77, 79, 81-83, 86-92.

CRASH TYPE must not equal 44-67, 69-71, 73, 77-81, 83, 86-92.

PRE-EVENT MOVEMENT (PRIOR TO RECONITION OF CRITICAL EVENT) must not equal 01.
CRASH TYPE must not equal 46 or 47.

DRIVER PRESENCE must equal 0 or 9.

PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 11 or 98.

IF
(3C10) CRASH TYPE equals 70,78 or 80,
(3C20) this vehicle is involved in the First Harmful Event and its CRASH TYPE equals 29-31,
(3C30) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 12,
(3C40) CRASH TYPE equals 46,
(3C50) CRASH TYPE equals 92,
(3C60) CRASH TYPE equals 25-27, 29-31,
(3C70) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 13,
(3C80) CRASH TYPE equals 47,
(3D60) CRASH TYPE equals 46 or 47,
(9BAP) MANNER OF COLLISION equals 07, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 10 or 11 for neither one of the vehicles involved in the first harmful event,
(9BCP) MANNER OF COLLISION equals 08, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 10 or 11 for neither one of the vehicles involved in the first harmful event,

THEN
PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 10 or 98. this vehicle's PRE-EVENT (MOVEMENT PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 02. CRASH TYPE should equal 98.

PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal $06,15,16$, or
ATTEMPTED AVOIDANCE MANEUVER should equal 07, 09 or 12.

PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 08, 09, 13, 98, 99.
PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should not equal 05 or 07. CRASH TYPE should equal 92 or 98.

PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT)
should equal 06, 15, 16, or
ATTEMPTED AVOIDANCE
MANEUVER should equal 06, 08 or
11.

PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should not equal 01.
CRASH TYPE should equal 44-49, 98, 99 for the vehicles involved in the first harmful event.

CRASH TYPE should equal 64-67, 98, 99 for the vehicles involved in the first harmful event.

## THEN

(A430) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 10, 11 for a vehicle involved in the first harmful event,
(A4C0) RELATION TO JUNCTION (b) equals 04,
(A4D0) PRE-EVENT MOVEMENT(PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 14,
(A4D1) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 01,
(A61F) FIRST HARMFUL EVENT equals 08, 09, 11, 15, 49, and RELATION TO TRAFFICWAY equals 01, 02, 07, 11, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) is not equal to 00, 13 for the vehicle involved in the first harmful event,
(AZ20) UNIT TYPE equals 1, and DRIVER PRESENCE equals 0 or 9,
(AZ30) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 00,
(AZ50) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 00,
(AZ60) PRE-IMPACT STABILITY equals 0,
(AZ6P) any DRIVER MANEUVERED TO AVOID equals 00,
(AZ70) PRE-IMPACT LOCATION equals 0,
(AZ80) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 00,

RELATION TO JUNCTION (b) should not equal 01, 18.
at least one PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) for the vehicles involved in the first harmful event should equal 10, 11, 13 or 98.
ROADWAY ALIGNMENT must equal 2-4.

ROADWAY ALIGNMENT should not equal 2-4.

CRASH TYPE should equal 13 for the vehicle involved in the first harmful event.

PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 00.
ATTEMPTED AVOIDANCE
MANEUVER must equal 00.
PRE-IMPACT STABILITY must equal 0.

PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 00.
PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must not equal 17.
PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 00.
PRE-IMPACT LOCATION must equal 0.
(AZAO) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 05 or 07,
(B10P) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) does not equal 17, ATTEMPTED AVOIDANCE MANUEVER equals 00, 01,
(PB17) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE for a person involved in the first harmful event equals 211-214 or 219,
(PB40) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 600,
(PB41) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 215,
(PB42) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 111, 211 or 212,
(PB43) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals $112,151,213,214,217$ or 218 ,
(PB45) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 781 or 782,

THEN
TRAVEL SPEED should equal 000 for this vehicle.

DRIVER MANEUVERED TO AVOID should equal 00 or 95.

PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 08, 09, 13 or 97 . Note: this edit is restricted to vehicles which are involved in only one event with pedestrian(s).
at least one PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 08, 09, or 13 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST. PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 08 or 09 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.
PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 11 or 17 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST. PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 10 or 17 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST. PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 11 or 17 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.

## THEN

(PB46) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 221-225,
(PB49) PERSON TYPE equals 05 or 08, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 13 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST,
(PB50) PERSON TYPE equals 05 or 08, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals $10-12$ or 16 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST,
(PB51) PERSON TYPE equals 06 or 07 and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 11 or 17 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST,
(PB52) PERSON TYPE equals 06 or 07, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 13 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST,
(PB53) PERSON TYPE equals 06 or 07, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 10 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST,

PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 01 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST.
at least one PEDESTRIAN/BIKE TYPING -PEDESTRIAN CRASH TYPE should equal 211-214 or 219.
at least one PEDESTRIAN/BIKE TYPING -PEDESTRIAN CRASH TYPE should equal $460,510,781,782,791$, $792,794,795$, or 799.
at least one PEDESTRIAN/ BIKE TYPING -BICYCLIST CRASH TYPE should equal 111, 211 or 212.
at least one PEDESTRIAN/BIKE TYPING -BICYCLIST CRASH TYPE should equal 600.
at least one PEDESTRIAN/ BIKE TYPING -BICYCLIST CRASH TYPE should equal 112, 151, 213, 214, 217 or 218.
(PB56) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 791, 792, 794, 795,
(V535) ATTEMPTED AVOIDANCE MANEUVER equals 00,
(V538) JACKKNIFE equals 2,

## THEN

PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 10 or 17 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST. PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 00.
PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must not equal $04,05,07-09$ or 13 for this vehicle.

## CRITICAL EVENT - PRECRASH (CATEGORY)

FORMAT: 1 numeric
SAS NAME: none

## ELEMENT VALUES:

1 This Vehicle Loss of Control Due To:
2 This Vehicle Traveling
3 Other Motor Vehicle in Lane
4 Other Motor Vehicle Encroaching into Lane
5 Pedestrian or Pedalcyclist or Other Non-Motorist
6 Object or Animal
7 Other
9 Unknown
Definition: This element identifies the category of the event that was critical to this vehicle being involved in the crash.

## Remarks:

When more than one condition applies and it cannot be determined which one had a greater effect, choose the higher listed attribute (e.g., 1 (This Vehicle Loss of Control Due To:) takes precedence over 2 (This Vehicle Traveling)).

1 (This Vehicle Loss of Control Due To:) is used to identify situations where the critical factor leading to the collision involved control loss of this vehicle. Control loss can be related to either mechanical failure or environmentally induced vehicle instability.

2 (This Vehicle Traveling) is used to identify situations where the critical factor leading to the collision involves the travel path of this vehicle.

3 (Other Motor Vehicle In Lane) is used to identify situations where the critical factor leading to the collision involved the travel of the other vehicle in the same lane as this vehicle.

4 (Other Motor Vehicle Encroaching Into Lane) is used to identify situations where the critical factor leading to the collision involves the other vehicle's movement into or across this vehicle's travel lane from another lane, intersection, driveway or ramp.

5 (Pedestrian or Pedalcyclist or Other Non-Motorist) is used to identify situations where the critical factor leading to the collision for this vehicle involved a pedestrian, pedalcyclist or other non-motorist. A pedalcyclist is defined as a person riding a pedal power conveyance (e.g., bicycle, tricycle, etc.). A non-motorist is defined as a person riding on or in a conveyance
which is not motorized or propelled by pedaling (e.g., baby carriage, skate board, roller blades, etc.).

6 (Object or Animal) is used to identify situations where the critical factor leading to the collision for this vehicle involved an object or animal.

7 (Other) is used when a critical factor not previously listed resulted in the collision for this vehicle. Previous impacts in the crash are not considered as other critical precrash events. For example, use this attribute if the critical event developed from this vehicle's departure from a driveway.

9 (Unknown) is used when the critical precrash event which resulted in the collision is unknown.

## Consistency Checks:


#### Abstract

IF THEN (FP6F) UNIT TYPE equals 1, and CRITICAL EVENT - PRECRASH (CATEGORY) equals blank, case status is flawed.


## CRITICAL EVENT - PRECRASH (EVENT)

FORMAT: 2 numeric
SAS NAME: Vehicle.P_Crash2

## ELEMENT VALUES:

THIS VEHICLE LOSS OF CONTROL DUE TO:
01 Blow Out/Flat Tire
02 Stalled Engine
03 Disabling Vehicle Failure (e.g., Wheel Fell Off) (Specify:)
04 Non-Disabling Vehicle Problem (e.g., Hood Flew Up) (Specify:)
05 Poor Road Conditions (Puddle, Pothole, Ice, Etc.) (Specify:)
06 Traveling Too Fast For Conditions
08 Other Cause of Control Loss (Specify:)
09 Unknown Cause of Control Loss

## THIS VEHICLE TRAVELING

10 Over the Lane Line on Left Side of Travel Lane
11 Over the Lane Line on Right Side of Travel Lane
12 Off The Edge of The Road on the Left Side
13 Off The Edge of The Road on the Right Side
14 End Departure
15 Turning Left at Junction
16 Turning Right at Junction
17 Crossing Over (Passing Through) Intersection
18 This Vehicle Decelerating
19 Unknown Travel Direction

## OTHER MOTOR VEHICLE IN LANE

50 Other Vehicle Stopped
51 Traveling in Same Direction With Lower or Steady Speed
52 Traveling in Same Direction While Decelerating
53 Traveling in Same Direction With Higher Speed
54 Traveling in Opposite Direction
55 In Crossover
56 Backing
59 Unknown Travel Direction Of The Other Motor Vehicle In Lane

## OTHER MOTOR VEHICLE ENCROACHING INTO LANE

60 From Adjacent Lane (Same Direction) Over Left Lane Line
61 From Adjacent Lane (Same Direction) Over Right Lane Line
62 From Opposite Direction Over Left Lane Line
63 From Opposite Direction Over Right Lane Line

64 From Parking Lane, Median, Shoulder, Roadside

65
66
67
68
70
71
72
73
74
78

From Crossing Street, Turning Into Same Direction
From Crossing Street, Across Path
From Crossing Street, Turning Into Opposite Direction
From Crossing Street, Intended Path Not Known
From Driveway, Turning Into Same Direction
From Driveway, Across Path
From Driveway, Turning Into Opposite Direction
From Driveway, Intended Path Not Known
From Entrance to Limited Access Highway
Encroachment By Other Vehicle - Details Unknown

## PEDESTRIAN OR PEDALCYCLIST OR OTHER NON-MOTORIST

80 Pedestrian in Road
81 Pedestrian Approaching Road
82 Pedestrian Unknown Location
83 Pedalcyclist or Other Non-Motorist in Road
84 Pedalcyclist or Other Non-Motorist Approaching Road
85 Pedalcyclist or Other Non-Motorist Unknown Location

## OBJECT OR ANIMAL

87 Animal in Road
88 Animal Approaching Road
89 Animal - Unknown Location
90 Object in Road
91 Object Approaching Road
92 Object Unknown Location

## OTHER (SPECIFY:)

98

## UNKNOWN:

99 Unknown

Definition: This element identifies the critical event which made the crash imminent (i.e., something occurred which made the collision possible).

## Remarks:

The selection of the Critical Precrash Category will determine what Critical Precrash Events are available to select.
*Note: for attributes with a "Specify:" designation, a fill-in text box will open in MDE. This text box should be used to provide additional detail about the attribute selection.

When more than one condition applies and it cannot be determined which one had a greater effect, choose the higher listed element.

Responsive actions to this situation, if any, are coded under Attempted Avoidance Maneuver.
A Critical Precrash Event is coded for each vehicle and identifies the circumstances leading to this vehicle's first impact in the crash.

Do not refer to culpability. Many crash scenarios will suggest fault, but this should be coincidental rather than by design. As an example, vehicle 1 was speeding when vehicle 2 crossed vehicle 1's path from a driveway. The situation which made the precrash event critical for vehicle 1 (since it did not lose control) was vehicle 2's movement across vehicle 1's path and not vehicle 1's speed.

When selecting events within the categories of THIS VEHICLE TRAVELING and OTHER MOTOR VEHICLE ENCROACHING INTO LANE for Critical Events occurring in intersections, a vehicle's "travel lane" extends through the intersection area even if no lane line markings are present within the intersection. For example, for a vehicle that is turning left, its original travel lane extends through the intersection to the lane into which it is turning. (See diagram below).


## This Vehicle Loss Of Control Due To:

01 (Blow Out or Flat Tire) is used when a vehicle in motion loses control as the result of an immediate tire disruption. Examples include blow out, rapid air loss, tread separation, etc.

02 (Stalled Engine) refers to a vehicle which is in motion and loses engine power. A stalled engine situation must precipitate a collision to be coded in this element. A vehicle that is stopped as the result of an engine malfunction does not take this attribute.

03 (Disabling Vehicle Failure [e.g., Wheel Fell Off] [Specify:]) is selected when a mechanical malfunction, such as a component of the vehicle suspension or steering system, leads to the critical reason for the collision. (See "Note: for attributes with "specify:" designation at the beginning of Remarks section for this element.)

04 (Non-Disabling Vehicle Problem [e.g., Hood Flew Up] [Specify:]) is selected when some mechanical abnormality occurred to this vehicle which leads to the critical reason for the collision. The abnormality must not be disabling damage. (See "Note: for attributes with "specify:" designation at the beginning of Remarks section for this element.)

05 (Poor Road Conditions [Puddle, Pot Hole, Ice, Etc.] [Specify:]) captures control loss due to environmental conditions of the roadway. These conditions must have initiated the precrash event which resulted in the collision. (See "Note: for attributes with "specify:" designation at the beginning of Remarks section for this element.)

06 (Traveling Too Fast For Conditions) identifies this vehicle's movement relative to its surroundings in which the subsequent loss of control lead to the collision. An example is a roadway departure on a curve where the driver failed to negotiate and departed the roadway resulting in an impact. If the driver merely steered straight while in a curve and departed the roadway, then the category This Vehicle Traveling may apply.

08 (Other Cause of Control Loss [Specify:]) is selected when it was determined that this vehicle's loss of control was the primary reason which made the event critical and the above attributes do not adequately identify the control loss condition. If control is loss due to driver illness such as heart attacks, diabetic comas, etc., then Critical Event - Precrash (Event) should be coded as 08 (Other cause of control loss [specify:]). (See Note: for attributes with "specify:" designation at the beginning of Remarks section for this element.)

09 (Unknown Cause of Control Loss) is selected when it is known control loss made the situation critical, but it is unknown whether the vehicle or the environment caused the control loss.

## This Vehicle Traveling

These attributes identify situations where the critical factor leading to the collision involved the travel path of this vehicle.

10 (Over the Lane Line on Left Side of Travel Lane) is selected when this vehicle departs its lane to the left and is entering or had entered the adjoining lane or shoulder. The change of travel path by this vehicle must precipitate the critical event for the collision. As an example, this vehicle attempts to pass another vehicle on the other vehicle's left and is struck by a vehicle traveling within its travel lane in the opposite direction.

However, by modifying the scenario slightly, the lane change may not always be the factor leading to the precrash event. Consider the same situation where this vehicle is passing to the left of the lead vehicle. If an animal runs into the roadway and is struck by this vehicle, then the correct choice would be 87 (Animal in Road).

11 (Over the Lane Line on Right Side of Travel Lane) is selected when this vehicle departs its lane to the right and is entering or had entered the adjoining lane or shoulder. To use this
attribute, change of travel path by this vehicle must precipitate the critical event for the collision. As an example, this vehicle attempts to pass another vehicle on the other vehicle's right and is struck in the rear by a vehicle traveling within its travel lane in the same direction. The correct choice for this vehicle would be 10 (Over the Lane Line on Right Side of Travel Lane).

However, by modifying the scenario slightly the lane change may not always be the factor leading to the precrash event. Consider the same situation where this vehicle is passing to the right of the lead vehicle. If an animal runs into the road and is struck by this vehicle, then the correct choice would be 87 (Animal in Road).

12 (Off the Edge of the Road on the Left Side) identifies a situation where the initial precrash event occurred beyond the left side shoulder area. This also includes departure into a median.

13 (Off the Edge of the Road on the Right Side) identifies a situation where the initial precrash event occurred beyond the right side shoulder area.

14 (End Departure) is used when the vehicle departs the end of the roadway (e.g. , "T" intersection).

15 (Turning Left at Junction) is used when this vehicle attempts a left turn from its roadway to another roadway or driveway. If the critical event developed from this vehicles departure from a driveway code 98 (Other critical precrash event [specify:]).

16 (Turning Right at Junction) is used when this vehicle attempts a right turn from its roadway to another roadway or driveway. If the critical event developed from this vehicles departure from a driveway code 98 (Other critical precrash event [specify:]).

17 (Crossing Over (Passing Through) Intersection) identifies this vehicle's travel as proceeding through the intersection without any planned turning.

18 (This Vehicle Decelerating) is used when the vehicle is decelerating.
19 (Unknown Travel Direction) is used for those occasions where this vehicle's travel made the situation critical, but it is unknown which travel direction this vehicle was moving.

## Other Motor Vehicle In Lane

These attributes identify situations where the critical factor leading to the collision involved the travel of the other vehicle in the same lane as this vehicle. Note: For Rear-End collision situations involving three vehicles see table below Precrash Event Scenarios for Different Rear-End Collision Situations.

50 (Other Vehicle Stopped) identifies a situation where the other vehicle is not in motion (i.e., stopped, parked, disabled) and in this vehicle's travel lane.

51 (Traveling in Same Direction with Lower Steady Speed) is used when the other vehicle was the lead vehicle in the same travel lane, traveling in the same direction, and was traveling slower than this vehicle

52 (Traveling in Same Direction While Decelerating) is used when the other vehicle was the lead vehicle in the same travel lane, traveling in the same direction, and was decelerating.

53 (Traveling in Same Direction with Higher Speed) is used when the speed of the other vehicle was higher than this vehicle or accelerating. The other vehicle must be overtaking this vehicle.

54 (Traveling in Opposite Direction) is used when the other vehicle was in this vehicle's travel lane and traveling head-on in the opposite direction of this vehicle.

55 (In Crossover) is used when the other vehicle enters a crossover already occupied by this vehicle. A crossover is defined as a designated opening within a median used primarily for "uturns".

56 (Backing) identifies a situation where the other vehicle was in the process of backing up while in this vehicle's travel lane.

59 (Unknown Travel Direction of Other Motor Vehicle in Lane) is used for situations where the other vehicle's activity (while in the same lane as this vehicle) precipitated the precrash event, but the travel direction and/or speed could not be determined.

## Other Motor Vehicle Encroaching Into Lane

These attributes identify situations where the critical factor leading to the collision involved the other vehicle's movement into or across this vehicle's travel lane from another lane, intersection, driveway or ramp.

60 (From Adjacent Lane (Same Direction) Over Left Lane Line) is used when the other vehicle was traveling in the same direction as this vehicle and crosses the left lane line with respect to this vehicle's travel lane (i.e., other vehicle crosses its right lane line).

61 (From Adjacent Lane (Same Direction) Over Right Lane Line) is used when the other vehicle was traveling in the same direction as this vehicle and crosses the right lane line with respect to this vehicle's travel lane (i.e., other vehicle crosses its left lane line).

62 (From Opposite Direction Over Left Lane Line) identifies a situation where the other vehicle crosses the left lane line while traveling in the opposite direction from this vehicle.

63 (From Opposite Direction Over Right Lane Line) identifies a situation where the other vehicle crosses the right lane line while traveling in the opposite direction from this vehicle.

64 (From Parking Lane, Median, Shoulder, Roadside) is selected when the other vehicle was departing one of these trafficway components and entering the travel lane of this vehicle.

65 (From Crossing Street, Turning Into Same Direction) is used when the other vehicle was turning from another roadway onto this vehicle's roadway and attempted to travel in the same direction as this vehicle.

66 (From Crossing Street, Across Path) is used when the other vehicle was continuing straight through the intersection and attempted to cross over this vehicle's roadway.

67 (From Crossing Street, Turning Into Opposite Direction) is used when the other vehicle was entering an intersection from another roadway and was turning or attempting to turn onto this vehicle's roadway in the opposite travel direction of this vehicle.

68 (From Crossing Street, Intended Path Not Known) is used when the other vehicle's entrance into the intersection was the critical factor which led to the collision, however, the other vehicle's travel direction could not be determined.

70 (From Driveway, Turning Into Same Direction) is used when the other vehicle was turning from a driveway onto this vehicle's roadway and attempted to travel in the same direction as this vehicle.

71 (From Driveway, Across Path) is used when the other vehicle was entering this vehicle's roadway from a driveway and was continuing straight across to another driveway or roadway.

72 (From Driveway, Turning Into Opposite Direction) is used when the other vehicle was entering this vehicle's roadway from a driveway and was attempting to turn into the opposite travel direction of this vehicle.

73 (From Driveway, Intended Path Not Known) is used to identify driveway-related precrash events where details surrounding the other vehicle's intended path are not known.

74 (From Entrance to Limited Access Highway) is used for entrance ramp situations where the other vehicle was attempting to enter (merge) onto the limited access highway that was being traveled by this vehicle.

78 (Encroachment by Other Vehicle Details Unknown) is used for situations where the other vehicle initiated the critical precrash event, but circumstances surrounding the other vehicle's encroachment are unknown.

## Pedestrian or Pedalcyclist or Other Non-Motorist

These attributes identify situations where the critical factor leading to the collision for this vehicle involved a pedestrian, pedalcyclist, or other non-motorist. These selections include situations where a vehicle was exiting a driveway. A pedalcyclist is defined as a person riding a pedal powered conveyance (e.g., bicycle, tricycle, etc.). A non-motorist is defined as a
person riding on or in a conveyance which is not motorized or propelled by pedaling (e.g., baby carriage, skate board, roller blades, etc.).

80 (Pedestrian in Road) is used when a pedestrian was present (e.g., sitting, standing, walking or running, etc.) in the road.

81 (Pedestrian Approaching Road) identifies situations where a pedestrian was within the trafficway and moving toward the road or attempting to enter the road, but was not on the road.

82 (Pedestrian Unknown Location) is used when it was determined the presence or action of a pedestrian was the critical factor which lead to this vehicle's collision, but the location or action of the pedestrian was not known.

83 (Pedalcyclist or Other Non-Motorist in Road, [Specify:]) is selected when a pedalcyclist or other non-motorist was present in the road (irrespective of relative motion). (See "Note: for attributes with "specify:" designation at the beginning of Remarks section for this element.)

84 (Pedalcyclist or Other Non-Motorist Approaching Road [Specify:]) identifies situations where the pedalcyclist or other non-motorist was within the trafficway and moving toward the road or attempting to enter the road, but was not on the road. (See "Note: for attributes with "specify:" designation at the beginning of Remarks section for this element.)

85 (Pedalcyclist or Other Non-Motorist Unknown Location [Specify:]) is used when it was determined the presence or action of a pedalcyclist or other non-motorist was the critical factor which led to this vehicle's collision, but the action of the pedalcyclist or other non-motorist was not known. (See "Note: for attributes with "specify:" designation at the beginning of Remarks section for this element.)

## Object or Animal

These attributes identify situations where the critical factor leading to the collision for this vehicle involved an object or animal.

87 (Animal in Road) is used when an animal was present (i.e., stationary or moving) in the road.

88 (Animal Approaching Road) identifies situations where an animal was within the trafficway and moving toward the road or attempting to enter the road, but not on the road.

89 (Animal - Unknown Location) is used when it was determined the presence or action of an animal was the critical factor which led to this vehicle's collision, but the action of the animal was not known.

90 (Object in Road) is used when an object was present in the road. An object is defined as being either fixed or non-fixed (only non-fixed objects are captured in this attribute).

91 (Object Approaching Road) identifies situations where an object was within the trafficway and moving toward the road, but not on the road.

92 (Object Unknown Location) is selected when it was determined the presence or movement of an object was the critical factor which led to this vehicle's collision, but details surrounding the location of the object were not known.

## Treat trains as "objects not fixed".

For example, a simple single CCE involving a train (car hits train or train hits car in crossing):

- If driver recognized impending danger of approaching train and tried to avoid -91 (Object approaching road)
- If driver recognized impending danger of train in his path or didn't and hits the train in the crossing - 90 (Object in road)
- If there is doubt/unclear circumstances - 98 (Other Critical Precrash Event [specify:])


## Other (Specify:)

These attributes identify situations where the critical factor leading to the collision for this vehicle was not previously listed.

98 (Other Critical Precrash Event [Specify:]) is used when a critical factor not previously listed resulted in the collision for this vehicle. Previous impacts in the crash are not considered as "other critical precrash events".

## Examples include:

- the critical event developed from this vehicle's departure from a driveway (used for the vehicle that exited the driveway).
- the vehicle had only a non-collision event of fire/explosion, gas inhalation or thrown or falling object.
- the vehicle is a driverless motor vehicle in-transport.
- a MVIT that becomes a contact vehicle by being struck by a "load" from another MVIT
- the vehicle was disabled in a previous crash
- an in-transport vehicle strikes or is struck by the door of a parked motor vehicle that is opened into the travel lane or some portion of the equipment of the parked motor vehicle (excluding the primary outline)e.g., extended mirrors used when hauling a camper or trailer. NOTE: This should not be used for loads of vehicles extending into the travel lane e.g., attached trailers or oversized cargo. In these cases the vehicle is in-transport and not parked.
(See "Note: for attributes with "specify:" designation at the beginning of Remarks section for this element.)


## Unknown:

99 (Unknown) is used when the critical precrash event that resulted in the collision is not known.

## Consistency Checks:

IF
(3D00) CRASH TYPE equals 20-49, and ATTEMPTED AVOIDANCE MANEUVER equals 00, 01,
(3D10) CRASH TYPE equals 50-67, and ATTEMPTED AVOIDANCE MANEUVER equals 00, 01,
(3D40) CRASH TYPE equals 00,
(3D70) CRITICAL EVENT - PRECRASH (EVENT) equals 01-04,
(3E00) CRITICAL EVENT - PRECRASH (EVENT) equals 65-68 or 70-73 for a vehicle involved in the first harmful event,
(42AP) NUMBER OF MOTOR VEHICLES FORMS SUBMITTED equals 001, and RELATION TO TRAFFICWAY equals 02, 04, 06-08, and ATTEMPTED AVOIDANCE MANEUVER equals 00 or 01,
(671F) the only harmful event in the SEQUENCE OF EVENTS for this vehicle equals 02 or 04,
(AZ2P) CRITICAL EVENT - PRECRASH (EVENT) equals 14, and ATTEMPTED AVOIDANCE MANEUVER equals 01,
(AZ5P) CRITICAL EVENT - PRECRASH (EVENT) equals 70-73 for a vehicle involved in the first harmful event,
(AZBP) any DRIVER MANEUVERED TO AVOID equals 03,
(AZCP) any DRIVER MANEUVERED TO AVOID equals 05,
(AZEP) any DRIVER MANEUVERED TO AVOID equals 01,

## THEN

CRITICAL EVENT - PRECRASH (EVENT) should not equal 12-14, 54, 66-68, 71-73 or 80-85.
CRITICAL EVENT - PRECRASH (EVENT) should not equal 12-14, 51-53, 60, 61, 65, 66, 70, 71, 80-85 or 87-92. CRITICAL EVENT - PRECRASH (EVENT) should equal 98. CONTRIBUTING CIRCUMSTANCES, MOTOR VEHICLE must not equal 00. RELATION TO JUNCTION (b) should not equal 01 or 18.

CRITICAL EVENT - PRECRASH (EVENT) should equal 01-06, 08-14 or 19.

CRITICAL EVENT - PRECRASH (EVENT) must equal 98.

CRASH TYPE must equal 14.

RELATION TO JUNCTION (b) should equal 04 or 08.

CRITICAL EVENT - PRECRASH (EVENT) should equal 87-89. CRITICAL EVENT - PRECRASH (EVENT) should equal 80-85. CRITICAL EVENT - PRECRASH (EVENT) should equal 90-92.
(B13P) CRASH TYPE equals 20-49, and ATTEMPTED AVOIDANCE MANEUVER equals 00-01,
(B15P) CRITICAL EVENT - PRECRASH (EVENT) equals 91, and ATTEMPTED AVOIDANCE MANEUVER equals 00, 01, and the vehicle is involved in the first harmful event,
(B16P) CRITICAL EVENT - PRECRASH (EVENT) equals 90, and ATTEMPTED AVOIDANCE MANEUVER equals 01 , and the vehicle is involved in the first harmful event,
(BZ10) CRITICAL EVENT - PRECRASH (EVENT) equals 53,
(BZ20) CRITICAL EVENT - PRECRASH (EVENT) equals 51, 52,
(BZ40) CRITICAL EVENT - PRECRASH (EVENT) equals 01,
(BZ50) CRITICAL EVENT - PRECRASH (EVENT) equals 12, and PREIMPACT LOCATION is not equal to 5,
(BZ60) CRITICAL EVENT - PRECRASH (EVENT) equals 13, and PREIMPACT LOCATION is not equal to 5,
(BZ70) CRITICAL EVENT - PRECRASH (EVENT) equals 14,

THEN
CRITICAL EVENT-PRECRASH
(EVENT) should not equal 12-14, 54 , 66-68, 71-73 or 80-85.
CRASH TYPE should equal 15.

CRASH TYPE should equal 12 or 15.

AREAS OF IMPACT-INITIAL CONTACT POINT should not equal 12 for this vehicle.
AREAS OF IMPACT-INITIAL CONTACT POINT should not equal 06 for this vehicle.
at least one SEQUENCE OF EVENTS must equal 61 for this vehicle. at least one SEQUENCE OF EVENTS must equal 64 for this vehicle.
at least one SEQUENCE OF EVENTS must equal 63 for this vehicle.
at least one SEQUENCE OF EVENTS must equal 71 for this vehicle.
(FP7F) UNIT TYPE equals 1, and CRITICAL EVENT - PRECRASH (EVENT) equals blank, case status is flawed.

## Precrash Event Scenarios for Different Rear-End Collision Situations

Two Vehicle Collisions

|  |  |  | Trail Vehicle | Lead Vehicle |
| :---: | :---: | :---: | :---: | :---: |
| 1) | Both vehicles in motion. Leading vehicle, traveling at steady speed, is struck from behind by trailing vehicle. | Pre-Event Movement | Going straight | Going straight |
|  |  | Critical Precrash (Category) | Other motor vehicle in lane | Other motor vehicle in lane |
|  |  | Critical Precrash (Event) | Traveling in same direction with lower or steady speed | Traveling in same direction with higher speed |
| 2) | Both vehicles traveling at same speed. Lead vehicle decelerates and trailing vehicle continues at initial speed. Trailing vehicle eventually applies brakes before striking the lead vehicle. | Pre-Event Movement | Going straight | Going straight |
|  |  | Critical Precrash (Category) | Other motor vehicle in lane | This vehicle traveling |
|  |  | Critical Precrash (Event) | Traveling in same direction while decelerating | This vehicle decelerating |
| 3) | Both vehicles traveling at same speed. Lead vehicle stops and is immediately struck by trailing vehicle. | Pre-Event Movement | Going straight | Going straight |
|  |  | Critical Precrash (Category) | Other motor vehicle in lane | Other motor vehicle in lane |
|  |  | Critical Precrash (Event) | Traveling in same direction while decelerating | Traveling in same direction with higher speed |
| 4) | Lead vehicle is stopped on roadway and is struck by a trailing vehicle. | Pre-Event Movement | Going straight | Stopped in roadway |
|  |  | Critical Precrash (Category) | Other motor vehicle in lane | Other motor vehicle in lane |
|  |  | Critical Precrash (Event) | Other vehicle stopped | Traveling in same direction with higher speed |
| 5) | Lead and trailing vehicle stopped on roadway. Lead vehicle backs into trailing vehicle. | Pre-Event Movement | Stopped in roadway | Stopped in roadway |
|  |  | Critical Precrash (Category) | Other motor vehicle in lane | Other motor vehicle in lane |
|  |  | Critical Precrash (Event) | Backing | Other vehicle stopped |

Three Vehicle Collisions

|  |  |  | Trail Vehicle | Middle Vehicle | Lead Vehicle |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6) | Two vehicles stopped in traffic, struck by decelerating trailing vehicle | Pre-Event Movement | Decelerating | Stopped in traffic | Stopped in traffic |
|  |  | Critical Precrash (Category) | Other motor vehicle in lane | Other motor vehicle in lane | Other motor vehicle in lane |
|  |  | Critical Precrash (Event) | Other vehicle stopped | Traveling in same direction while decelerating | Traveling in same direction with higher speed |
| 7) | Lead vehicle stopped in traffic, middle vehicle decelerating, trailing vehicle strikes middle vehicle which strikes lead vehicle. | Pre-Event Movement | Going straight | Decelerating | Stopped in traffic |
|  |  | Critical Precrash (Category) | Other motor vehicle in lane | Other motor vehicle in lane | Other motor vehicle in lane |
|  |  | Critical Precrash (Event) | Traveling in same direction while decelerating | Traveling in same direction with higher speed | Traveling in same direction with higher speed |

## ATTEMPTED AVOIDANCE MANEUVER

FORMAT: 2 numeric
SAS NAME: Vehicle.P_Crash3

## ELEMENT VALUES:

00 No Driver Present / Unknown if Driver Present
01 No Avoidance Maneuver
02 Braking (No Lockup)
03 Braking (Lockup)
04 Braking (Lockup Unknown)
05 Releasing Brakes
06 Steering Left
07 Steering Right
08 Braking and Steering Left
09 Braking and Steering Right
10 Accelerating
11 Accelerating and Steering Left
12 Accelerating and Steering Right
98 Other actions (specify:)
99 Unknown
Definition: This element identifies movements/actions taken by the driver, within a critical crash envelope, in response to a Critical Precrash Event.

## Remarks:

Attempted avoidance maneuvers are movements/actions taken by the driver, within a critical crash envelope, in response to a Critical Precrash Event. See Precrash Data Overview for an expanded discussion on precrash definitions. Attempted avoidance maneuvers occur after the driver has realization of an impending danger. This element assesses what the driver's action(s) was in response to his/her realization.

Most crashes have only one critical crash envelope and thus only one Critical Precrash Event; however, multiple critical crash envelopes with their respective Critical Precrash Events, can exist.

This element may be used independently: (1) of any maneuvers associated with this driver's Crash Type, and (2) this vehicle's first associated crash event.

Select the attribute which best describes the actions taken by the driver in response to the Critical Precrash Event, within the critical crash envelope that occurred just prior to this
vehicle's impact. When there was a known action (e.g., braking), but you cannot determine whether there was more than one action (e.g., braking and steering left), default to the known action (e.g., braking).

## Witness Statements:

When coding Attempted Avoidance Maneuver, witness statements, including those from vehicle passengers or pedestrians, may be used to provide information when police sources are unavailable. The officer's assessment on the PAR will take precedent over items reported in a witness statement document in all cases. The officer's assessment includes any statements from a witness included by the officer as part of the PAR narrative. In absence of indication on the PAR, information that is in direct contradiction in two witness statements will not be included.

00 (No Driver Present/Unknown if Driver Present) is pre-coded for in-transport motor vehicles when the element Driver Presence is coded as 0 (No Driver Present/Not Applicable).

01 (No Avoidance Maneuver) is selected whenever the driver did not attempt any evasive (pre-impact) maneuvers, i.e., the case materials indicate that there was no realization of danger or realization without time/ability to react or there is some indication on a field or within the narrative statements(supported by the diagram if present). Note: This attribute should not be assessed solely by the diagram.

02 (Braking [No Lockup]) is selected when there is braking but no indication of lock up. Use this attribute when there are no indications of skid marks.

03 (Braking [Lockup]) is selected when there is braking and an indication of lock up. Use this attribute when there are indications of skid marks.

04 (Braking [Lockup Unknown]) is selected when there is braking (i.e. statement in the narrative) however it cannot be determined if lock-up occurred.

98 (Other Actions, [Specify:]) is used when the Police Accident Report indicates the driver took certain avoidance actions, but none of the specified attributes apply. This value also applies when there are reported movements / actions taken by the driver with no information provided about the driver's specific actions. (e.g., "The driver of Vehicle 2 attempted to avoid the collision, but was unsuccessful").
*Note: for attributes with a "Specify:" designation, a fill-in text box will open in MDE. This text box should be used to provide additional detail about the attribute selection.

99 (Unknown) is used when:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials); or
2. a field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials); or
3. police indicate unknown.

Note: If a state's crash report manual instructs to leave data blocks blank when there is no avoidance maneuver, then a blank in those data blocks are NOT considered 99 (Unknown).

## Consistency Checks:



## IF

(AZ2P) CRITICAL EVENT-PRECRASH (EVENT) equals 14, and ATTEMPTED AVOIDANCE MANEUVER equals 01,
(AZ30) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 00,
(B10P) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) does not equal 17, ATTEMPTED AVOIDANCE MANUEVER equals 00, 01,
(B13P) CRASH TYPE equals 20-49, and ATTEMPTED AVOIDANCE MANEUVER equals 00, 01,
(B15P) CRITICAL EVENT-PRECRASH (EVENT) equals 91, and ATTEMPTED AVOIDANCE MANEUVER equals 00,01 and the vehicle is involved in the first harmful event,
(B16P) CRITICAL EVENT-PRECRASH (EVENT) equals 90, and ATTEMPTED AVOIDANCE MANEUVER equals 01 , and the vehicle is involved in the first harmful event,
(V533) CRASH TYPE equals $03,08,38,40$, 58 or 60,
(V535) ATTEMPTED AVOIDANCE MANEUVER equals 00,
(VH10) PRE-IMPACT LOCATION equals 0,
(VH2O) ATTEMPTED AVOIDANCE MANEUVER equals 00,

THEN
CRASH TYPE must equal 14.

## ATTEMPTED AVOIDANCE

 MANEUVER must equal 00.DRIVER MANEUVERED TO AVOID should equal 00 or 95 .

CRITICAL EVENT-PRECRASH (EVENT) should not equal 12-14, 54 , 66-68, 71-73 or 80-85.
CRASH TYPE should equal 15.

CRASH TYPE should equal 12 or 15 .

## ATTEMPTED AVOIDANCE

 MANEUVER must not equal 00 or 01. PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 00.ATTEMPTED AVOIDANCE MANEUVER must equal 00.
PRE-IMPACT LOCAION must equal 0 .

## PRE-IMPACT STABILITY

FORMAT: 1 numeric
SAS NAME: Vehicle.PCrash4

## ELEMENT VALUES:

0 No Driver Present / Unknown if Driver Present
1 Tracking
2 Skidding Longitudinally Rotation Less Than 30 Degrees
3 Skidding Laterally Clockwise Rotation
4 Skidding Laterally Counter-Clockwise Rotation
5 Skidding Laterally, Rotation Direction Unknown
$7 \quad$ Other Vehicle Loss-of-Control (Specify:)
$9 \quad$ Precrash Stability Unknown

Definition: This element assesses the stability of the vehicle after the critical event, but before the impact.

## Remarks:

The stability of the vehicle prior to an avoidance action is not considered except in the following situation:

A vehicle that is out of control (e.g., yawing clockwise) prior to an avoidance maneuver is coded as 7 (Other Vehicle Loss-of Control [Specify:]) only if an avoidance action was taken in response to an impending danger.

Thus, this element focuses upon this vehicle's dynamics after the critical event.
0 (No Driver Present/Unknown if Driver Present) is pre-coded for in-transport motor vehicles when the element Driver Presence is coded as 0 (No Driver Present/Not Applicable).
$\mathbf{1}$ (Tracking) is used when there is no brake lockup and the vehicle continued along its intended path without rotation. Stopped, slowing, turning or accelerating to avoid a rear-end collision are examples.

2 (Skidding Longitudinally Rotation Less Than 30 degrees) is selected when there is brake lockup or whenever tire marks are apparent without brake lockup (braking or non-braking) and rotation is less than 30 degrees clockwise or counterclockwise. If there is no information to support rotation greater than or equal to 30 degrees, then use this attribute.

3 (Skidding Laterally Clockwise Rotation) is selected when the vehicle rotates clockwise, relative to the driver's seating position. The vehicle must rotate 30 degrees or more. This
attribute also applies when the driver attempts a steering input (i.e., steers right), but the vehicle rotates clockwise.

4 (Skidding Laterally Counter-Clockwise Rotation) is selected when the vehicle rotates counterclockwise, relative to the driver's seating position. The vehicle must rotate 30 degrees or more. This attribute also applies when the driver attempts a steering input (i.e., swerves left), but the vehicle rotates counter-clockwise.

5 (Skidding Laterally, Rotation Direction Unknown) is used when the vehicle rotates 30 degrees or more but it cannot be determined from the case materials whether it was clockwise or counter-clockwise rotation.

7 (Other Vehicle Loss-of-Control [Specify:]) is selected when a driver loses control of a vehicle prior to the critical event.
*Note: for attributes with a "Specify:" designation, a fill-in text box will open in MDE. This text box should be used to provide additional detail about the attribute selection.

9 (Precrash Stability Unknown) is selected when the stability of the vehicle, after the Critical Event, cannot be determined. For example, when it is known that the vehicle rotated but the severity of the rotation cannot be determined.

## Consistency Checks:

## IF

(3BEP) CRASH TYPE equals 01 or 06, and ATTEMPTED AVOIDANCE MANEUVER equals 01,
(3D50) PRE-IMPACT STABILITY equals 1,
(AZ50) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 00,
(AZ60) PRE-IMPACT STABILITY equals 0,
(VB60) PRE-IMPACT STABILITY equals 0,
(VB70) PRE-IMPACT STABILITY is not equal to 0,
(VBAO) PRE-IMPACT LOCATION equals 1,

THEN
PRE-IMPACT STABILITY should not equal 2-5 or 7 .

CRASH TYPE should not equal 02, 07, 34, 36, 54 or 56.
PRE-IMPACT STABILITY must equal 0.

PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 00.
PRE-IMPACT LOCATION must equal 0.
PRE-IMPACT LOCATION must not equal 0.
PRE-IMPACT STABILITY should equal 1,2 or 9.

## PRE-IMPACT LOCATION

FORMAT: 1 numeric
SAS NAME: Vehicle.PCrash5

## ELEMENT VALUES:

0 No Driver Present / Unknown if Driver Present
1 Stayed in Original Travel Lane
2 Stayed on Roadway, but Left Original Travel Lane
3 Stayed on Roadway, Not Known if Left Original Travel Lane
4 Departed Roadway
5 Remained off Roadway
6 Returned to Roadway
7 Entered Roadway
9 Unknown

Definition: This element assesses the location of the vehicle after the critical event, but before the impact.

## Remarks:

When determining Pre-impact Location for crashes occurring in intersections, a vehicle's "travel lane" extends through the intersection area even if no lane line markings are present within the intersection. For example, for a vehicle that is turning left, its original travel lane extends through the intersection to lane into which it is turning.

Select the attribute which best describes the location of the vehicle (i.e., perimeter of the vehicle from the case diagram).

0 (No Driver Present/Unknown if Driver Present) is used when there is no driver in this vehicle.

1 (Stayed in Original Travel Lane) is selected when the vehicle remained within the boundaries of its initial travel lane.

2 (Stayed on Roadway But Left Original Travel Lane) is selected when the perimeter of the vehicle departed its initial travel lane; however, the vehicle remained within the boundaries of the roadway (travel lanes).

3 (Stayed on Roadway, Not Known if Left Original Travel Lane) is selected when it cannot be ascertained whether the vehicle remained within its initial travel lane. To use this attribute, the vehicle must have remained within the boundaries of the roadway.

4 (Departed Roadway) is selected when the vehicle departed the roadway as a result of a precrash motion. The roadway departure must not be related to the post-impact trajectory of a crash within the roadway. Use this attribute for vehicles crossing a median into oncoming traffic.

5 (Remained off Roadway) the precrash motion occurred outside the boundaries of the roadway. This includes traveling on the shoulders, within the median, on the roadside, or off the trafficway.

6 (Returned to Roadway) is selected when the vehicle was on the roadway, went off the roadway and then returned to the same roadway during precrash motion.

7 (Entered Roadway) is selected when the vehicle was not previously on the roadway and Then the vehicle enters the roadway during precrash motion.

9 (Unknown) the precrash motion of the vehicle cannot be determined.
Consistency Checks:

## IF

(AZ70) PRE-IMPACT LOCATION equals 0,
(AZ80) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 00,
(BZ50) CRITICAL EVENT - PRECRASH (EVENT) equals 12, and PREIMPACT LOCATION is not equal to 5,
(BZ60) CRITCAL EVENT - PRECRASH (EVENT) equals 13, and PREIMPACT LOCATION is not equal to 5,
(BZ90) CRASH TYPE equals 01-05, and PRE-IMPACT LOCATION is not equal to 5,
(BZ91) CRASH TYPE equals 06-10, and PRE-IMPACT LOCATION is not equal to 5,
(PC20) RELATION TO TRAFFICWAY equals 02-08 or 10,

## THEN

PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 00.
PRE-IMPACT LOCATION must equal 0.
at least one SEQUENCE OF EVENTS must equal 64 for this vehicle.
at least one SEQUENCE OF EVENTS must equal 63 for this vehicle.
at least one SEQUENCE OF EVENTS prior to the first harmful event must equal 63. at lest one SEQUENCE OF EVENTS prior to the first harmful event must equal 64.
PRE-IMPACT LOCATION of the vehicle(s) involved in the first harmful event should equal 0, 4, 5 or 9.

IF
(PC30) PRE-IMPACT LOCATION for a vehicle involved in the first harmful event equals 4, 5 ,
(PC40) PRE-IMPACT LOCATION for a vehicle involved in the first harmful event equals 1-3, 6 ,
(PC50) PRE-IMPACT LOCATION equals 2,
(VB60) PRE-IMPACT STABILITY equals 0,
(VB70) PRE-IMPACT STABILITY is not equal to 0 ,
(VBAO) PRE-IMPACT LOCATION equals 1,
(VH10) PRE-IMPACT LOCATION equals 0,
(VH20) ATTEMPTED AVOIDANCE MANEUVER equals 00,

THEN
RELATION TO TRAFFICWAY should not equal 01 or 11.

RELATION TO TRAFFICWAY should equal 01 or 11.

TOTAL LANES IN ROADWAY should not equal 1.
PRE-IMPACT LOCATION must equal 0.
PRE-IMPACT LOCATION must not equal 0.

PRE-IMPACT STABILITY should equal 1, 2 or 9.
ATTEMPTED AVOIDANCE MANEUVER must equal 00.
PRE-IMPACT LOCATION must equal 0.

## THIS PAGE INTENTIONALLY LEFT BLANK

## CRASH TYPE

FORMAT: 2 numeric
SAS NAME: Vehicle.Acc_Type

## ELEMENT VALUES:

As assigned by the selection on the next screens
00 No Impact
01-93
98 Other Crash Type
99 Unknown

Definition: This element describes the type of crash this in-transport vehicle was involved in based on the First Harmful Event and the precrash circumstances.

## Remarks:

The Crash Type is a numeric value assigned by selecting the Crash Category and the Crash Configuration on the next screens/pages. The number can be directly entered or edited here, however, the two-step process of selecting the Crash Category And Crash Configuration is preferred to visualize the crash scenario.

The first harmful event may include a collision between a vehicle and some object, accompanied by property damage or human injury. The object may be another vehicle, a person, an animal, a fixed object, the road surface or the ground. If the first collision is a rollover, the impact is with the ground or road surface. The collision may also involve plowing into soft ground, if severe vehicle deceleration results in damage or injury. A road departure without damage or injury is not defined as a harmful event.

|  | Configuration | CRASH TYPES (includes intent) |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | A <br> Right <br> Roadside <br> Departure |  | 04 <br> SPECIFICS OTHER | 05 <br> SPECIFICS UNKNOWN |
|  | B <br> Left <br> Roadside <br> Departure |  | 09 <br> SPECIFICS OTHER | $10$ <br> SPECIFICS UNKNOWN |
|  | C <br> Forward <br> Impact |  | 15 SPECIFICS OTHER | 16 <br> SPECIFICS <br> UNKNOWN |
|  | D Rear End |  | (EACH-32) <br> SPECIFICS OTHER | (EACH - 33) <br> SPECIFICS UNKNOWN |
|  | E <br> Forward <br> Impact |  | (EACH - 42) <br> SPECIFICS OTHER | (EACH - 43) <br> SPECIFICS UNKNOWN |
|  | F <br> Angle, <br> Sideswipe |  |  | (EACH-49) <br> SPECIFICS <br> UNKNOWN |
|  | G <br> Head-On <br> H <br> Forward <br> Impact | (EACH - 52)50SPECIFICS OTHER (EACH - 53) |  |  |
|  |  | 54CONTROLICONTROLITRACTION LOSS |  |  |
|  | I <br> Angle, <br> Sideswipe |  |  |  |
|  | J <br> Turn <br> Across <br> Path |  | (EACH-74) <br> SPECIFICS OTHER | (EACH - 75) <br> SPECIFICS UNKNOWN |
|  | K <br> Turn Into <br> Path |  | (EACH - 84) <br> SPECIFICS OTHER | (EACH - 85) <br> SPECIFICS UNKNOWN |
|  | L <br> Straight Paths |  | (EACH - 90) <br> SPECIFICS OTHER | (EACH-91) <br> SPECIFICS UNKNOWN |
|  | M <br> Backing, Etc. |  | 98 OTHER CRASH TYPE <br> 99 UNKNOWN CRASH TYPE <br> 00 NO IMPACT |  |

## Category I. Single Driver

## Configuration A. Right Roadside Departure

The vehicle departed the right side of the road with the first harmful event occurring off the road.

## 01 Right Roadside Departure: Drive Off Road



Use Right Roadside Departure: Drive Off Road when the vehicle departed the road under a controlled situation (e.g., the driver was distracted, fell asleep, intentionally departed, etc.)

## 02 Right Roadside Departure: Control/Traction Loss



Use Right Roadside Departure: Control/Traction when there is evidence that the vehicle lost traction or "got away" from the driver in some other way (e.g., the vehicle spun off the road as a result of surface conditions, oversteer phenomena or mechanical malfunctions). If doubt exists, use Right Roadside Departure, Drive Off Road.

## 03 Right Roadside Departure: Avoid Collision With Vehicle, Pedestrian, Animal



Use Right Roadside Departure: Avoid Collision With Vehicle, Pedestrian, Animal when the vehicle departed the road to avoid something on the road. Phantom vehicle situations, pedestrians, bicyclists, and other cyclists and non-motorists are included here.

## 04 Right Roadside Departure: Specifics Other



Use Right Roadside Departure: Specifics Other if the vehicle departed the road to avoid something on the road other than a vehicle, pedestrian or animal. Also use "Specifics Other" for crashes involving a driverless in-transport vehicle.

## 05 Right Roadside Departure: Specifics Unknown

## 05 <br> SPECIFICS UNKNOWN <br> Use Right Roadside Departure: Specifics Unknown if the vehicle departed the right side of the road for unknown reasons.

## Configuration B. Left Roadside Departure

## 06 Left Roadside Departure: Drive Off Road

DRIVE OFF
ROAD

## 07 Left Roadside Departure: Control/Traction Loss



Use Left Roadside Departure: Control/Traction Loss if there is evidence that the vehicle lost traction or "got away" from the driver in some other way (e.g., the vehicle spun off the road as a result of surface conditions, oversteer phenomena or mechanical malfunctions.) If doubt exists, use Left Roadside Departure, Drive Off Road.

08 Left Roadside Departure: Avoid Collision With Vehicle, Pedestrian, Animal


AVOID COLLISION
WITH VEH., PED., ANIM.

Use Left Roadside Departure: Drive Off Road when the vehicle departed the road under a controlled situation (e.g., the driver was distracted, fell asleep, intentionally departed, etc.)

Use Left Roadside Departure: Avoid Collision With Vehicle, Pedestrian, Animal when the vehicle departed the road to avoid something on the road. Phantom vehicle situations, pedestrians, bicyclists, and other cyclists and non-motorists are included here.

## 09 Left Roadside Departure: Specifics Other

## 09

SPECIFICS OTHER

Use Left Roadside Departure: Specifics Other if the vehicle departed the road to avoid something on the road other than a vehicle, pedestrian or animal. Also, use "Specifics Other" for crashes involving a driverless in-transport vehicle.

## 10 Left Roadside Departure: Specifics Unknown

Use Left Roadside Departure: Specifics Unknown if the vehicle departed the left side of the road for unknown reasons.

SPECIFICS UNKNOWN

## Configuration C. Forward Impact

The vehicle struck an object on the road or off the end of a trafficway while moving forward.

## 11 Forward Impact: Parked Vehicle



Use Forward Impact: Parked Vehicle if the crash involves impact with a parked vehicle on either side of the road.

## 12 Forward Impact: Stationary Object



Use Forward Impact: Stationary Object if the crash involves impact with a stationary object on either side of the road.

## 13 Forward Impact: Pedestrian/Animal



Use Forward Impact: Pedestrian/Animal if the first harmful event involves impact with a pedestrian or animal on either side of the road. Pedestrians, bicyclists, and other cyclists and non-motorists are included here. Vehicle plane of contact is NOT a consideration.

## 14 Forward Impact: End Departure



Use Forward Impact: End Departure when the vehicle ran off the end of the road and crashed into something.

## 15 Forward Impact: Specifics Other

| 15 | Use Forward Impact: Specifics Other for impacted (striking or struck) trains <br> and non-stationary objects on the road. Also use "Specifics Other" for crashes <br> involving a driverless in-transport vehicle. |
| :--- | :--- |
| SPECIFICS <br> OTHER |  |

## 16 Forward Impact: Specifics Unknown

Use Forward Impact: Specifics Unknown when the PAR indicates a single

16
SPECIFICS UNKNOWN driver was involved in a forward impact collision, but no further classification is possible.

## Category II. Same Trafficway, Same Direction

## Configuration D. Rear-End

The front of the overtaking vehicle impacted the rear of the other vehicle. Note, even if the rear-impacted vehicle had started to make a turn, code here (not in Category IV - Change in Trafficway, Vehicle Turning).

## 20 Rear-End: Stopped

\(\xrightarrow[\substack{STOPPED <br>

21,22,23}]{20} \longrightarrow\)| 22 |
| :---: |
| 21 |
| 20 |
| 20 |

Use Rear-End: Stopped for a vehicle that impacts another vehicle from the rear when the impacted vehicle was stopped in the trafficway.

## 21 Rear-End: Stopped, Straight



Use Rear-End: Stopped, Straight for a rear-impacted vehicle that was stopped in the trafficway, and was intending to proceed straight ahead.

## 22 Rear-End: Stopped, Left



Use Rear-End: Stopped, Left for a rear-impacted vehicle that was stopped in the trafficway, intending to make a left turn.

## 23 Rear-End: Stopped, Right



Use Rear-End: Stopped, Right for a rear-impacted vehicle that was stopped in the trafficway, intending to make a right turn.

## 24 Rear-End: Slower



Use Rear-End: Slower for a vehicle that impacts another vehicle from the rear when the impacted vehicle was going slower than the striking vehicle.

## 25 Rear-End: Slower, Going Straight



Use Rear-End: Slower, Going Straight for a rear-impacted vehicle that was going slower than the other vehicle while proceeding straight ahead.

## 26 Rear-End: Slower, Going Left



Use Rear-End: Slower, Going Left for a rear-impacted vehicle that was going slower than the other vehicle while intending to turn left.

## 27 Rear-End: Slower, Going Right



Use Rear-End: Slower, Going Right for a rear-impacted vehicle that was going slower than the other vehicle while intending to turn right.

## 28 Rear-End: Decelerating (Slowing)



Use Rear-End: Decelerating (Slowing) for a vehicle which impacts another vehicle from the rear when the impacted vehicle was slowing down.

## 29 Rear-End: Decelerating (Slowing), Going Straight



Use Rear-End: Decelerating (Slowing), Going Straight for a rear-impacted vehicle that was slowing down while proceeding straight ahead.

## 30 Rear-End: Decelerating (Slowing), Going Left



31 Rear-End: Decelerating (Slowing), Going Right

| $\xrightarrow[\substack{\text { DECELERATING } \\ \text { 29, 30,31 }}]{28} \underset{\substack{-1(\sim}}{\sim(\sim)} 30$ |
| :---: |
|  |  |
|  |  |
|  |  |
|  |  |

Use Rear-End: Decelerating (Slowing), Going Right for a rear-impacted vehicle that was slowing down while intending to turn right.

## 32 Rear-End: Specifics Other

## EACH: 32

SPECIFICS OTHER

## 33 Rear-End: Specifics Unknown

| EACH: 33 |
| :--- |
| SPECIFICS |
| UNKNOWN |

Use Rear-End: Specifics Unknown when the PAR indicates a rear-end collision occurred, but no further classification is possible.

## Configuration E. Forward Impact

The front of the overtaking vehicle impacted the rear of the other vehicle, following a steering maneuver around a noninvolved vehicle or object.

## 34 Forward Impact: Control/Traction Loss



Use Forward Impact: Control/Traction Loss for a vehicle that's frontal area impacts another vehicle due to loss of control or traction (during a maneuver to avoid a collision with a non-involved vehicle) while both are traveling on the same trafficway in the same direction.

## 35 Forward Impact: Control/Traction Loss



Use Forward Impact: Control/Traction Loss for a vehicle that is impacted by the frontal area of another vehicle due to loss of control or traction (during a maneuver to avoid a collision with a non-involved vehicle) while both are traveling on the same trafficway in the same direction.

## 36 Forward Impact: Control/Traction Loss



Use Forward Impact: Control/Traction Loss for a vehicle that's frontal area impacts another vehicle due to loss of control or traction (during a maneuver to avoid a collision with an object) while both are traveling on the same trafficway in the same direction.

## 37 Forward Impact: Control/Traction Loss



Use Forward Impact: Control/Traction Loss for a vehicle that is impacted by the frontal area of another vehicle due to loss of control or traction (during a maneuver to avoid a collision with an object) while both are traveling on the same trafficway in the same direction.

## 38 Forward Impact: Avoid Collision with Vehicle



AVOID COLLISION WITH VEHICLE

Use Forward Impact: Avoid Collision with Vehicle for a vehicle that struck the rear of another vehicle with its front plane while maneuvering to avoid collision with a non-involved vehicle, when loss of control or traction was not a factor, and both were traveling on the same trafficway, in the same direction.

## 39 Forward Impact: Avoid Collision with Vehicle



AVOID COLLISION WITH VEHICLE

Use Forward Impact: Avoid Collision with Vehicle for a vehicle that was impacted by the frontal area of another vehicle which was maneuvering to avoid a collision with a non-involved vehicle, when loss of control or traction was not a factor, and both were traveling on the same trafficway, in the same direction.

## 40 Forward Impact: Avoid Collision with Object



Use Forward Impact: Avoid Collision with Object for a vehicle that struck the rear of another vehicle with its front plane while maneuvering to avoid collision with an object, when loss of control or traction was not a factor, and both were traveling on the same trafficway, in the same direction.

## 41 Forward Impact: Avoid Collision with Object



AVOID COLLISION WITH OBJECT

Use Forward Impact: Avoid Collision with Object for a vehicle that was impacted by the frontal area of another vehicle that was maneuvering to avoid a collision with an object, when loss of control or traction was not a factor, and both were traveling on the same trafficway, in the same direction.

## 42 Forward Impact: Specifics Other

Each: 42
SPECIFICS OTHER

Use Forward Impact: Specifics Other (for both vehicles) for a forward impact collision that occurred while both vehicles were traveling on the same trafficway, in the same direction, and the striking vehicle was attempting to avoid a vehicle or an object that cannot be described by "34-40."

Also, use this code for crashes involving a driverless in-transport vehicle that would otherwise qualify for this configuration.

## 43 Forward Impact: Specifics Unknown

Use Forward Impact: Specifics Unknown when the PAR indicates that a forward impact collision occurred while both vehicles were traveling on the same trafficway and in the same direction, but no further classification was possible.

## Configuration F. Sideswipe/Angle

The two vehicles are involved in an impact involving the side of one or both vehicles.
The following four attributes, SideswipelAngle, straight ahead on left, Sideswipe/Angle, straight ahead on left/right, SideswipelAngle, changing lanes to the right and SideswipelAngle, changing lanes to the left identify relative vehicle positions (left versus right) and lane of travel intentions (straight ahead versus changing lanes). From these four codes, four combinations are permitted. They are:

1. 44 (Sideswipe/Angle, straight ahead on left) and 45 (Sideswipe/Angle, straight ahead on left/right).
2. 46 (Sideswipe/Angle, changing lanes to the right) and 45 (Sideswipe/Angle, straight ahead on left/right).
3. 45 (Sideswipe/Angle, straight ahead on left/right) and 47 (Sideswipe/Angle, changing lanes to the left).
4. 46 (Sideswipe/Angle, changing lanes to the right) and 47 (Sideswipe/Angle, changing lanes to the left).

When used in combination, these codes refer to a sideswipe or angle collision that involved a vehicle to the left of a vehicle to the right where:

1. neither vehicle (Sideswipe/Angle, straight ahead on left and Sideswipe/Angle, straight ahead on left/right) intended to change its lane;
2. the vehicle on the left (SideswipelAngle, changing lanes to the right) was changing lanes to the right, and the vehicle on the right (Sideswipe/Angle, straight ahead on left/right) was not intending to change its lane;
3. the vehicle on the left (SideswipelAngle, straight ahead on left/right) was not intending to change its lane, and the vehicle on the right (Sideswipe/Angle, changing lanes to the left) was changing lanes to the left, and
4. the vehicle on the left (SideswipelAngle, changing lanes to the right) was changing lanes to the right, and the vehicle on the right (SideswipelAngle, changing lanes to the left) was changing lanes to the left.

In addition, when:

1. the right sides of the two vehicles impact following a 180 degree rotation of the vehicle on the right, or
2. the left sides of the two vehicles impact following a 180 degree rotation of the vehicle on the left.

Select the appropriate combination depending upon:

1. their positions (i.e., left versus right) and
2. the intended lane of travel (straight ahead versus changing lanes) of their drivers.

## 44 Sideswipe/Angle: Straight Ahead on Left



See discussion under Configuration F. Sideswipe/Angle, above for an explanation of when this attribute applies.

## 45 Sideswipe/Angle: Straight Ahead on Left/Right



See discussion under Configuration F. Sideswipe/Angle, above for an explanation of when this attribute applies.

## 46 SideswipelAngle: Changing Lanes to the Right



See discussion under Configuration F. Sideswipe/Angle, above for an explanation of when this attribute applies.

## 47 Sideswipe/Angle: Changing Lanes to the Left



See discussion under Configuration F. Sideswipe/Angle, above for an explanation of when this attribute applies.

## 48 SideswipelAngle: Specifics Other

## EACH: 48 <br> SPECIFICS OTHER

Use Sideswipe/Angle: Specifics Other if one vehicle was behind the other prior to a sideswipe/angle collision occurring while both vehicles were traveling on the same trafficway and in the same direction.

For example, use this code when two vehicles are on the same trafficway and going the same direction, and one loses control and is struck in the side by the front of the
other vehicle. However, if one vehicle rotates such that the impact is front to front, then use code "98" (Other crash type).

Use SideswipeIAngle: Specifics Other for crashes involving a driverless in-transport vehicle.

## 49 Sideswipe/Angle: Specifics Unknown

EACH: 49
SPECIFICS UNKNOWN

Use Sideswipe/Angle: Specifics Unknown for sideswipe/angle collisions that occur while both vehicles are traveling on the same trafficway and in the same direction, when no further classification is possible.

## Category III. Same Trafficway, Opposite Direction

## Configuration G. Head-On

The frontal area of one vehicle impacted the frontal area of another.

## 50 Head-On: Lateral Move (Left/Right)



Use Head-On: Lateral Move (Left/Right) for a vehicle that LEAVES ITS LANE [moves laterally (sideways)] immediately before colliding head-on with another vehicle, when the vehicles are traveling on the same trafficway in opposite directions.

## 51 Head-On: Lateral Move (Going Straight)



Use Head-On: Lateral Move (Going Straight) for a vehicle that collides head-on with another vehicle which has IMMEDIATELY LEFT ITS LANE (moved laterally), when the vehicles are traveling on the same trafficway in opposite directions.

## 52 Head-On: Specifics Other

## EACH: 52 <br> SPECIFICS OTHER

Use Head-On: Specifics Other for a head-on collision that cannot be described by "50-51", when the vehicles are traveling on the same trafficway in opposite directions. Clarification: Enter " 52 " for both vehicles involved in a head-on collision when one is traveling the wrong way on a one way roadway.

Enter "Specifics Other" for crashes involving a driverless in-transport vehicle.

## 53 Head-On: Specifics Unknown

EACH: 53
SPECIFICS OTHER

Use Head-On: Specifics Unknown when the PAR indicates a head-on collision occurred between two vehicles traveling on the same trafficway in opposite directions, when no further classification is possible.

## Configuration H. Forward Impact

The frontal area of one vehicle impacted the frontal area of another following a steering maneuver around a noninvolved vehicle or an object.

## 54 Forward Impact: Control/Traction Loss



Use Forward Impact: Control/Traction Loss for a vehicle whose frontal area impacts another vehicle due to loss of control or traction (during a maneuver to avoid a collision with a third vehicle) while the vehicles are traveling on the same trafficway in opposite directions.

## 55 Forward Impact: Control/Traction Loss



Use Forward Impact: Control/Traction Loss for a vehicle that is impacted by the frontal area of another vehicle due to loss of control or traction (during a maneuver to avoid a collision with a third vehicle) while the vehicles are traveling on the same trafficway in opposite directions.

## 56 Forward Impact: Control/Traction Loss



Use Forward Impact: Control/Traction Loss for a vehicle whose frontal area impacts another vehicle due to loss of control or traction (during a maneuver to avoid a collision with an object) while the vehicles are traveling on the same trafficway in opposite directions.

## 57 Forward Impact: Control/Traction Loss



Use Forward Impact: Control/Traction Loss for a vehicle that is impacted by the frontal area of another vehicle due to loss of control or traction (during a maneuver to avoid a collision with an object) while the vehicles are traveling on the same trafficway in opposite directions.

## 58 Forward Impact: Avoid Collision with Vehicle



AVOID COLLISION WITH VEHICLE

Use Forward Impact: Avoid Collision with Vehicle for a vehicle whose frontal area impacts another vehicle while maneuvering to avoid a collision with a non-involved vehicle, when loss of control or traction was not a factor, and the vehicles were traveling on the same trafficway, in opposite directions.

## 59 Forward Impact: Avoid Collision with Vehicle



AVOID COLLISION WITH VEHICLE

Use Forward Impact: Avoid Collision with Vehicle for a vehicle that was impacted by the frontal area of another vehicle which was maneuvering to avoid collision with a non-involved vehicle, when loss of control or traction was not a factor, and the vehicles were traveling on the same trafficway, in opposite directions.

## 60 Forward Impact: Avoid Collision with Object



Use Forward Impact: Avoid Collision with Object for a vehicle that struck the front of another vehicle with the frontal plane while maneuvering to avoid collision with an object, when loss of control or traction was not a factor, and the vehicles were traveling on the same trafficway, in opposite directions.

## 61 Forward Impact: Avoid Collision with Object



AVOID COLLISION WITH OBJECT

Use Forward Impact: Avoid Collision with Object for a vehicle that was impacted by the frontal area of another vehicle that was maneuvering to avoid collision with an object, when loss of control or traction was not a factor, and the vehicles were traveling on the same trafficway, in opposite directions.

## 62 Forward Impact: Specifics Other

еасн: 62
SPECIFICS OTHER

Use Forward Impact: Specifics Other for forward impact collisions occurring while the vehicles were traveling on the same trafficway in opposite directions that cannot be described by "54-61". Enter "Specifics Other" for crashes involving a "driverless in-transport vehicle."

## 63 Forward Impact: Specifics Unknown

EACH: 63
SPECIFICS UNKNOWN

Use Forward Impact: Specifics Unknown when the PAR indicates a forward impact collision occurred while the vehicles were traveling on the same trafficway in opposite directions, but no further classification is possible.

## Configuration I. Sideswipe/Angle

The two vehicles are involved in an impact involving the side of one or both vehicles.

## 64 Sideswipe/Angle: Lateral Move (Left/Right)



Use SideswipelAngle: Lateral Move (Left/Right) identifies the vehicle which infringed upon the other vehicle (code "65") in a Category III, Configuration I collision; i.e., enter "64" for the vehicle which left its lane (moved laterally) leading to the collision.

## 65 Sideswipe/Angle: Lateral Move (Going Straight)



Use Sideswipe/Angle: Lateral Move (Going Straight) for the vehicle that was infringed upon by the other vehicle (code "64") in a Category III, Configuration I collision.

## 66 SideswipelAngle: Specifics Other

## EACH: 66 <br> SPECIFICS OTHER

Use SideswipelAngle: Specifics Other for sideswipe/angle collisions occurring while both vehicles were traveling on the same trafficway in opposite directions that cannot be described by "64-65". Enter "Specifics Other" for crashes involving a "driverless in-transport vehicle." However, if one vehicle rotates such that the impact is front to front or front to rear, and did not result from a steering maneuver around a noninvolved vehicle or an object (category H) then use code 98 (Other Crash Type).

## 67 SideswipelAngle: Specifics Unknown

Each: 67
SPECIFICS
UNKNOWN

Use SideswipelAngle: Specifics Unknown when the PAR indicates a sideswipe/angle collision occurred while both vehicles were traveling on the same trafficway in opposite directions, but no further classification is possible.

## Category IV. Changing Trafficway, Vehicle Turning

## Configuration J. Turn Across Path

The two vehicles were initially on the same trafficway when one vehicle tried to turn onto another trafficway, a driveway or parking lot and pulled in front of the other vehicle. Vehicles making a "U" turn are identified in Category VI. Miscellaneous.

68 Turn Across Path: Initial Opposite Directions (Left/Right)


Use Turn Across Path: Initial Opposite Directions (Left/Right) identifies the vehicle which turned across the path of another vehicle (Turn Across Path: Initial Opposite Directions [Going Straight]) in a Category IV, Configuration J collision, in which the vehicles were initially traveling in opposite directions.

## 69 Turn Across Path: Initial Opposite Directions (Going Straight)



InItIAL OPPOSITE DIRECTIONS

Use Turn Across Path: Initial Opposite Directions (Going Straight) for a vehicle involved in a collision in which another vehicle (Turn Across Path: Initial Opposite Directions [Left/Right]) across its Path, and in which the vehicles were initially traveling in opposite directions.

## 70 Turn Across Path: Initial Same Directions (Turning Right)



Use Turn Across Path: Initial Same Directions (Turning Right) for a vehicle that turned right, across the path of another vehicle (Turn Across Path: Initial Same Directions [Going Straight]), when both vehicles were initially traveling in the same direction.

## 71 Turn Across Path: Initial Same Directions (Going Straight)



Turn Across Path: Initial Same Directions (Going Straight) for a vehicle whose path was crossed by a vehicle turning right (Turn Across Path: Initial Same Directions (Turning Right), when both vehicles were initially traveling in the same direction.

## 72 Turn Across Path: Initial Same Directions (Turning Left)



Use Turn Across Path: Initial Same Directions (Turning Left) for a vehicle that turned left, across the path of another vehicle (Turn Across Path: Initial Same Directions [Going Straight]), when both vehicles were initially traveling in the same direction.

## 73 Turn Across Path: Initial Same Directions (Going Straight)



Use Turn Across Path: Initial Same Directions (Going
Straight)" for a vehicle whose path was crossed by a vehicle turning left (Turn Across Path: Initial Same Directions [Turning Left]), when both vehicles were initially traveling in the same direction.

## 74 Turn Across Path: Specifics Other

| EACH: 74 | Use Turn Across Path: Specifics Other for collisions in which one vehicle <br> turned across another's path, which cannot be described by "68-72". Enter <br> SPECIFICS <br> OTHER |
| :--- | :--- |
|  |  |

## 75 Turn Across Path: Specifics Unknown

EACH: 75
SPECIFICS UNKNOWN

Use Turn Across Path: Specifics Unknown when the PAR indicates one vehicle turned across another's path, causing a collision, but no further classification is possible.

## Configuration K. Turn Into Path

The two vehicles were initially on different trafficways when one attempted to turn into the same trafficway as the other vehicle. For the purposes of Crash Typing, "trafficway" as used here includes a driveway or parking lot.

Note: the focus of this configuration is on the turning maneuver from one trafficway to another and not on the vehicles' plane of contact.

## 76 Turn Into Same Direction (Turning Left)



Use Turn Into Same Direction (Turning Left) for a vehicle that turned left, into the path of another vehicle (Turn Into Same Direction [Going Straight]), so that both vehicles were traveling in the same direction at the time of the collision.

## 77 Turn Into Same Direction (Going Straight)



Use Turn Into Same Direction (Going Straight) for a vehicle involved in a collision in which another vehicle (Turn Into Same Direction [Turning Left]) turned left, into its path, so that both vehicles were traveling in the same direction at the time of the collision.

## 78 Turn Into Same Direction (Turning Right)



Use Turn Into Same Direction (Turning Right) for a vehicle that turned right, into the path of another vehicle (Turn Into Same Direction [Going Straight]), so that both vehicles were traveling in the same direction at the time of the collision.

## 79 Turn Into Same Direction (Going Straight)



Use Turn Into Same Direction (Going Straight) for a vehicle involved in a collision in which another vehicle (Turn Into Same Direction [Turning Right]) turned right, into its path, so that both vehicles were traveling in the same direction at the time of the collision.

## 80 Turn Into Opposite Directions (Turning Right)



Use Turn Into Opposite Directions (Turning Right) for a vehicle that turned right, into the path of another vehicle (Turn Into Opposite Directions [Going Straight]), so that the vehicles were traveling in opposite directions at the time of the collision.

## 81 Turn Into Opposite Directions (Going Straight)



Use Turn Into Opposite Directions (Going Straight) for a vehicle involved in a collision in which another vehicle (Turn Into Opposite Directions [Turning Right]) turned right, into its path, so that the vehicles were traveling in opposite directions at the time of the collision.

## 82 Turn Into Opposite Directions (Turning Left)



Use Turn Into Opposite Directions (Turning Left) for a vehicle that turned left, into the path of another vehicle (Turn Into Opposite Directions [Going Straight]), so that the vehicles were traveling in opposite directions at the time of the collision.

Turn Into Opposite Directions (Turning Left) is used when the driver's vehicle was in the act of making a left turn (e.g., from a driveway, parking lot or intersection). Do not confuse this situation with "Configuration L - Straight Paths." The driver's intended path is the prime concern.

## 83 Turn Into Opposite Directions (Going Straight)



Use Turn Into Opposite Directions (Going Straight) for a vehicle involved in a collision in which another vehicle (Turn Into Opposite Directions [Turning Left]) turned left, into its path, so that the vehicles were traveling in opposite directions at the time of the collision.

## 84 Turn Into Path: Specifics Other

Use Turn Into Path: Specifics Other for collisions in which one vehicle turned
еасн: 84 across another's path, which cannot be described by "76-83". Enter "Specifics Other" for crashes involving a driverless in-transport vehicle.

## 85 Turn Into Path: Specifics Unknown

EACH: 85
SPECIFICS UNKNOWN

Use Turn Into Path: Specifics Unknown when the PAR indicates one vehicle turned into another's path, causing a collision, but no further classification is possible.

## Category V. Intersecting Paths (Vehicle Damage)

## Configuration L. Straight Paths

The two vehicles were proceeding (or attempting to proceed) straight ahead.

## 86 Straight Paths: Striking from the Right



Use Straight Paths: Striking from the Right for a vehicle that strikes the right side of another vehicle (code "87") from the right when both vehicles were going straight at the time of the collision, i.e., right side damage to 87, front damage to 86 .

## 87 Straight Paths: Struck on the Right



Use Straight Paths: Struck on the Right for a vehicle that is struck on the right side by another vehicle (Straight Paths: Striking from the Right) from the right when both vehicles were going straight at the time of the collision, i.e., right side damage to 87, front damage to 86 .

## 88 Straight Paths: Striking from the Left



Use Straight Paths: Striking from the Left for a vehicle that strikes another vehicle (Straight Paths: Struck on the Left) from the left when both vehicles were going straight at the time of the collision, i.e., left side damage to 89 , front damage to 88 .

## 89 Straight Paths: Struck on the Left



Use Straight Paths: Struck on the Left for a vehicle that is struck on the left side by another vehicle (Straight Paths: Striking from the Left) from the left when both vehicles were going straight at the time of the collision, i.e., left side damage to 89 , front damage to 88.

## 90 Straight Paths: Specifics Other

```
EACH: 90
SPECIFICS
OTHER
```

Use Straight Paths: Specifics Other for collisions in which two vehicles, both going straight, collide when their paths intersect, which cannot be described by "86-89". Enter "Specifics Other" for crashes involving a driverless in-transport vehicle.

## 91 Straight Paths: Specifics Unknown

EACH: 91
SPECIFICS UNKNOWN

Use Straight Paths: Specifics Unknown when the PAR indicates two vehicles, both going straight, collided when their paths intersected, but no further classification is possible.

## Category VI. Miscellaneous

## Configuration M. Backing, Etc.

One of the two vehicles involved was a backing vehicle, regardless of its location on the trafficway or the damage location on the vehicles.

Any crash configuration that cannot be described in Category I. through V. is included here.

## 92 Backing, Etc.: Backing Vehicle



Use Backing, Etc.: Backing Vehicle for a backing vehicle which was involved with another vehicle object or non-motorist. If both vehicles were backing then code 92 for both vehicles. If the vehicle was driverless and rolling backwards use 98 (Other Crash Type).

## 93 Backing, Etc.: Other Vehicle



Use Backing, Etc.: Other Vehicle for the in-transport vehicle that was involved with the backing vehicle (code 92). Attribute 93 can only apply when there are two motor vehicles in-transport.

## 98 Other Crash Type



99 unknown CRash type

00 NO IMPACT

Other Crash Type is used for those events and collisions that do not reasonably fit any of the specified types. This code includes (but is not limited to): rollovers on the road; U-turns; crashes initiated by objects set in motion by an in-transport motor vehicle; third or subsequent vehicles involved in a crash; or the second involved vehicle, when the first harmful event involves a vehicle-to-object collision or a non-collision.

## 99 Unknown Crash Type

98 OTHER CRASH TYPE
99 UNKNOWN CRASH TYPE
00 NO IMPACT

Use Unknown Crash Type when the crash category or configuration is unknown.

## 00 No Impact



No Impact identifies the non-collision events fire, immersion, gas inhalation, jackknife, injured in vehicle, pavement surface irregularity, other non-collision, thrown or falling object, cargo equipment loss or shift, or fell/jumped from vehicle. Rollovers on the road should be coded Other Crash Type.

The following crash types require clarification:
No impact identifies non-collision events (i.e., fire, immersion, gas inhalation, jackknife, noncollision injury, other non-collision or non-collision - no details). Rollovers on the road should be coded as Other Crash Type.

Right roadside departure, drive off road and Left roadside departure, drive off road are used when the vehicle departed the road under a controlled situation (e.g., the driver was distracted, fell asleep, intentionally departed, etc.).

Right roadside departure, control/traction loss and Left roadside departure, control/traction loss are used if there is some evidence that the vehicle lost traction or in some other manner "got away" from the driver (i.e., the vehicle spun off the road as a result of surface conditions, oversteer phenomena or mechanical malfunctions). If doubt exists, use Right roadside departure, drive off road or Left roadside departure, drive off road respectively.

Right roadside departure; avoid collision with vehicle, pedestrian, animal and Left roadside departure; avoid collision with vehicle, pedestrian, animal are used when the vehicle departed the road as a result of avoiding something in the road. "Phantom" situations are included here.

Right roadside departure, specifics other and Left roadside departure, specifics other are used for any other stationary or nonstationary objects if the avoidance characteristics of codes "03" or "08" are present.

Forward impact, parked vehicle, Forward impact, stationary object, and Forward impact, pedestrian/animal involves an impact with an object that can be located on either side of the road.

Forward impact, stationary object includes a hole in the road, an overhead object (e.g., overpass) or an object projecting over the road edge (e.g., support column of elevated railway).

Forward impact, pedestrian/animal is used when a pedestrian, non-motorist or animal is involved with the first harmful event. Vehicle plane of contact is not a consideration.

Forward impact, specifics other is used for impacted (striking or struck) trains and nonstationary objects on the road.

Sideswipe/Angle, straight ahead on left, Sideswipe/Angle, straight ahead on left/right, Sideswipe/Angle, changing lanes to the right, and Sideswipe/Angle, changing lanes to the left identify relative vehicle positions (left versus right) and lane of travel intentions (straight ahead versus changing lanes).

From these four codes, four combinations are permitted. They are:

1. "44" and "45",
2. "46" and "45",
3. " 45 " and " 47 ", and
4. " 46 " and " 47 ".

When used as a combination these codes refer to a sideswipe or angle collision which involved a vehicle to the left of a vehicle to the right where:

1. neither vehicle (codes " 44 " and " 45 ") intended to change its lane;
2. the vehicle on the left (code " 46 ") was changing lanes to the right, and the vehicle on the right (code " 45 ") was not intending to change its lane;
3. the vehicle on the left (code " 45 ") was not intending to change its lane, and the vehicle on the right (code " 47 ") was changing lanes to the left; and
4. the vehicle on the left (code " 46 ") was changing lanes to the right, and the vehicle on the right (code " 47 ") was changing lanes to the left.

In addition, when:

1. the right sides of the two vehicles impact following a 180 degree rotation of the vehicle on the right, or
2. the left sides of the two vehicles impact following a 180 degree rotation of the vehicle on the left; select the appropriate combination ("44-45", "46-45", " $45-47$ " or " $46-47$ ") depending upon:
3. their positions (i.e., left versus right), and
4. the intended lane of travel (straight ahead versus changing lanes) of their drivers.

Sideswipe/Angle, specifics other is used if one vehicle was behind the other prior to their Category II, Configuration F collision. For example, use this code when two vehicles are on the same trafficway and going the same direction, and one loses control and is struck in the side
by the front of the other vehicle. However, if one vehicle rotates such that the impact is front to front, then use code "98" (Other crash type).

SideswipelAngle, lateral move-infringing vehicle identifies the vehicle that infringed upon the other (code 65) in a Category III, Configuration I collision.

Codes 68 through 85 (Turn Across Path and Turn Into Path) are used in Configurations J and K where the vehicle's action is the controlling factor, and the plane of contact is irrelevant.

Left Turn Into Opposite Direction is used when the driver's vehicle was in the act of making a left turn (e.g., from a driveway, parking lot or intersection). Do not confuse this situation with Configuration L. Straight Paths. The driver's intended path is the prime concern.

Codes 86 through 89 (Straight Paths) must not be confused with crash types in Configuration K. Turn Into Path. For these codes the vehicles are proceeding (or attempting to proceed) straight ahead, usually at a junction.

Other Crash Type is used for those events and collisions that do not reasonably fit any of the specified types. This code includes (but is not limited to): rollovers on the road; U-turns; crashes initiated by objects set in motion by an in-transport motor vehicle; third or subsequent vehicles involved in a crash; or the second involved vehicle when the first harmful event involved a vehicle-to-object collision.

## Consistency Checks:

## IF

(253P) RELATION TO TRAFFICWAY equals 03,
(3B1P) CRASH TYPE equals 21-23,
(3B2P) CRASH TYPE equals 20, 24, 28, 34, 36, 38, 40, 50-54, 56, 58 or 60,
(3B3P) CRASH TYPE equals 21-23, 25-27, 29-31, 35, 37, 39 or 41,
(3B4P) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 10,
(3B5P) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 11,
(3B6P) CRASH TYPE equals 87,

## THEN

CRASH TYPE should equal 06-10, 98 or 99 for the in-transport vehicles involved in the first harmful event.
TRAVEL SPEED must equal 000 for this vehicle.
AREA OF IMPACT-INITIAL CONTACT POINT must equal 12 for this vehicle. AREAS OF IMPACT-INITIAL CONTACT POINT must equal 6 for this vehicle. CRASH TYPE must not equal 44-69, 71-73, 76, 77, 79, 81-83, 86-92.

CRASH TYPE must not equal 44-67, 69-71, 73, 77-81, 83, 86-92.

AREAS OF IMPACT-INITIAL CONTACT POINT must equal 01-05, 81-83 for this vehicle.
(3B7P) CRASH TYPE equals 89,
(3BAP) UNIT TYPE equals 1, and DRIVER PRESENCE equals 0 ,
(3BCP) CRASH TYPE equals 34, 36, 38, 40, 54, 56, 58 or 60,
(3BDP) CRASH TYPE equals 46, 47, and ATTEMPTED AVOIDANCE MANEUVER equals 01 or 99,
(3BEP) CRASH TYPE equals 01 or 06, and ATTEMPTED AVOIDANCE MANEUVER equals 01,
(3BFP) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 08 or 09,
(3C00) CRASH TYPE equals 68, 72, 76 or 82,
(3C10) CRASH TYPE equals 70, 78 or 80,
(3C20) this vehicle is involved in the First Harmful Event and its CRASH TYPE equals 29-31,
(3C30) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 12,
(3C40) CRASH TYPE equals 46,
(3C50) CRASH TYPE equals 92,
(3C60) CRASH TYPE equals 25-27, 29-31,
(3C70) PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 13,

AREAS OF IMPACT-INTIAL CONTACT POINT must equal 07-11, 61-63 for this vehicle.
CRASH TYPE must equal 00, 04, 09, 15, 32, 42, 48, 52, 62, 66, 74, 84, 90, 93 or 98.
DRIVER MANEUVERED TO AVOID must not equal 00.
PRE-EVENT MOVEMENT (PRIOR TO RECONITION OF CRITICAL EVENT) must not equal 01.
PRE-IMPACT STABILITY should not equal 2-5 or 7 .

CRASH TYPE must not equal 46 or 47.

PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 11 or 98.
PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 10 or 98. this vehicle's PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 02. CRASH TYPE should equal 98.

PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 06, 15, 16, or
ATTEMPTED AVOIDANCE MANEUVER should equal 07, 09 or 12.

PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 08, 09, 13, 98, 99.
PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should not equal 05 or 07.
CRASH TYPE should equal 92 or 98.

THEN
PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 06, 15, 16, or ATTEMPTED AVOIDANCE MANEUVER should equal 06, 08 or 11.

CRITICAL EVENT - PRECRASH
(EVENT) should not equal 12-14, 54 , 66-68, 71-73 or 80-85.
CRITICAL EVENT - PRECRASH
(EVENT) should not equal 12-14, 51-53, 60, 61, 65, 66, 70, 71, 80-85 or 87-92.
CRITICAL EVENT - PRECRASH (EVENT) should equal 98.
CRASH TYPE should not equal 02, 07, $34,36,54$ or 56.
PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should not equal 01.
CRASH TYPE must not equal 64-67 for the vehicles involved in the first harmful event.
CRASH TYPE must not equal 20-43 or 50-53 for the vehicles involved in the first harmful event.
NUMBER OF VEHICLE FORMS
SUBMITTED must be greater than 001.
CRASH TYPE must equal 00, 01-16, 92, 98, 99.
the number of vehicles where CRASH TYPE is coded 00, 1-16, 92, 93 or 99 (excluding from the vehicles being counted, those where CRASH TYPE equals 98) must not equal 0 or be greater than 1.
RELATION TO JUNCTION (b) must not equal 02.
RELATION TO JUNCTION (b) should not equal 01.
RELATION TO JUNCTION (b) should equal 01, 03, 19.
(9BAP) MANNER OF COLLISION equals 07, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 10 or 11 for neither one of the vehicles involved in the first harmful event,
(9BCP) MANNER OF COLLISION equals 08, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 10 or 11 for neither one of the vehicles involved in the first harmful event,
(9BDP) MANNER OF COLLISION equals 01,
(A3C0) FIRST HARMFUL EVENT equals 02-07,16, 44, 51, 72,
(A3D0) FIRST HARMFUL EVENT equals 01-07, 16, 44, 51, 72,
(A3E0) CRASH TYPE equals 13,
(A480) CRASH TYPE equals 00,
(A4A0) CRASH TYPE equals 01-16,
(A4B0) CRASH TYPE equals 01-11 or 14,
(A4BP) FIRST HARMFUL EVENT equals 54 or 55,
(A4DP) CRASH TYPE equals 20-91,
(A60F) FIRST HARMFUL EVENT equals 14, and RELATED FACTORS - PERSON (MV OCCUPANT) LEVEL equals 32, 89 for all occupants of the not intransport motor vehicle involved in the first harmful event,

## THEN

CRASH TYPE should equal 44-49, 98, 99 for the vehicles involved in the first harmful event.

CRASH TYPE should equal 64-67, 98, 99 for the vehicles involved in the first harmful event.

CRASH TYPE should not equal 44-49 for the vehicles involved in the first harmful event.
CRASH TYPE must equal 00 for the vehicle involved in the first harmful event.
CRASH TYPE must not equal 20-91.
FIRST HARMFUL EVENT must equal $08,09,11,15$ or 49.
FIRST HARMFUL EVENT must equal 02-07, 16, 44, 51, 72.
FIRST HARMFUL EVENT must not equal 12.
RELATION TO TRAFFICWAY must not equal 01 or 11.
CRASH TYPE must equal 98 for the vehicles involved in the first harmful event.
FIRST HARMFUL EVENT must equal 12.

CRASH TYPE should equal 01-11, 92, 98, 99 for the in-transport vehicle involved in the first harmful event.
(A61F) FIRST HARMFUL EVENT equals 08, 09, 11, 15, 49, and RELATION TO TRAFFICWAY equals 01, 02, 07, 11, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) is not equal to 00, 13 for the vehicle involved in the first harmful event,
(A61G) the FIRST HARMFUL EVENT equals 08, and PERSON TYPE equals 05, and NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21, 22, 24, 25, 28, and the NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST is involved in the first harmful event,
(A61H) the FIRST HARMFUL EVENT equals 09, and PERSON TYPE equals 06, 07, and NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21, 22, 24, 25, 28, and the NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST is involved in the first harmful event,
(A61J) the FIRST HARMFUL EVENT equals 15, and PERSON TYPE equals 08, and NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21, 22, 24, 25, 28, and the NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST is involved in the first harmful event,
(A61K) the FIRST HARMFUL EVENT equals 49, and PERSON TYPE equals 04, and NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21, 22, 24, 25, 28, and the NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST is involved in the first harmful event,
(A620) CRASH TYPE equals 06-10, and TRAFFICWAY DESCRIPTION equals
3,

THEN
CRASH TYPE should equal 13 for the vehicle involved in the first harmful event.

CRASH TYPE should not equal 13 for this vehicle.

CRASH TYPE should not equal 13 for this vehicle.

CRASH TYPE should not equal 13 for this vehicle.

CRASH TYPE should not equal 13 for this vehicle.

RELATION TO TRAFFICWAY should equal 03.

IF
(A62F) FIRST HARMFUL EVENT equals 18 or 43, 73, and RELATION TO TRAFFICWAY equals 01 or 11,
(A63F) FIRST HARMFUL EVENT equals 01,
(A8A0) CRASH TYPE equals 12,
(AZ2P) CRITICAL EVENT-PRECRASH
(EVENT) equals 14, and ATTEMPTED AVOIDANCE MANEUVER equals 01,
(B13P) CRASH TYPE equals 20-49, and ATTEMPTED AVOIDANCE MANEUVER equals 00-01,
(B15P) CRITICAL EVENT-PRECRASH (EVENT) equals 91, and ATTEMPTED AVOIDANCE MANEUVER equals 00, 01,
(B16P) CRITICAL EVENT-PRECRASH (EVENT) equals 90, and ATTEMPTED AVOIDANCE MANEUVER equals 01, and the vehicle is involved in the first harmful event,
(BZ80) MANNER OF COLLISION equals 00,
(BZ90) CRASH TYPE equals 01-05, and PRE-IMPACT LOCATION is not equal to 5 ,
(BZ91) CRASH TYPE equals 06-10, and PRE-IMPACT LOCATION is not equal to 5 ,

THEN
CRASH TYPE should equal 12 or 15 for the vehicle involved in the first harmful event.
CRASH TYPE should equal 01-10, 98, 99 for the vehicle involved in the first harmful event.
RELATION TO TRAFFICWAY should equal 01 or 11.
CRASH TYPE must equal 14.

CRITICAL EVENT-PRECRASH (EVENT) should not equal 12-14, 54 , 66-68, 71-73 or 80-85.
CRASH TYPE should equal 15 .

CRASH TYPE should equal 12 or 15 .

CRASH TYPE must equal 00, 01-16, 92 , 98, 99 for the vehicle in the first harmful event.
at least one SEQUENCE OF EVENTS prior to the first harmful event must equal 63.
at least one SEQUENCE OF EVENTS prior to the first harmful event must equal 64.
(FA1F) CRASH TYPE for all in-transport vehicles not involved in the first harmful event must equal 98.
(FP2F) UNIT TYPE equals 1, and CRASH TYPE equals blank, case status is flawed.
(V533) CRASH TYPE equals $03,08,38,40$, ATTEMPTED AVOIDANCE 58 or 60,
(V700) ROLLOVER equals 2 ,

MANEUVER must not equal 00 or 01. CRASH TYPE should equal 01-10, 14, 98 or 99 for this vehicle.

IF

## THEN

(V79P) ROLLOVER equals 2, and FIRST HARMFUL EVENT equals 01,

CRASH TYPE must equal 01-10, 14, 15 or 98 for the vehicle involved in the first harmful event.

## THIS PAGE INTENTIONALLY LEFT BLANK

## VEHICLE NUMBER - PERSON LEVEL (MV OCCUPANT)

FORMAT: 3 numeric
SAS NAME: Vehicle.VEH_NO; Person.VEH_NO; Parkwork.VEH_NO

## ELEMENT VALUES:

001-999
Definition: This element identifies the vehicle number associated with this motor vehicle occupant.

## Remarks:

001-999 is used for motor vehicle occupants (In-Transport, Parked/Stopped Off Roadway/ Working Motor Vehicles and Motor Vehicles in Motion Outside the Trafficway).

Persons ejected or who fall from a motor vehicle in-transport are still considered occupants of that vehicle for the duration of the unstabilized situation.

Consistency Check:

## IF

THEN
(CSI5) VEHICLE NUMBER at the Person Level is greater than 000,

VEHICLE NUMBER at the Person Level must equal a VEHICLE NUMBER at the Vehicle Level.

## THIS PAGE INTENTIONALLY LEFT BLANK

## PERSON NUMBER

FORMAT: 3 numeric
SAS NAME: Person.PER_NO

## ELEMENT VALUES:

001-999 Assigned Number/ Computer Assigned
Definition: This element identifies a number for the motor vehicle occupant in consecutive order for the vehicle they occupied.

## Remarks:

## Person Number is assigned using the PAR's person number.

Person Level (Motor Vehicle Occupant) must be numbered consecutively beginning with "001" for each motor vehicle occupant. Drivers do not have to be "001." Numbers must not be skipped.

Person Level (Not a Motor Vehicle Occupant) must be numbered consecutively beginning with "001" for persons not in motor vehicles. Numbers must not be skipped.

## Consistency Check:

## IF

## THEN

(CSI6) For each VEHICLE NUMBER, PERSON NUMBERS must be consecutive, beginning with 001 and with no gaps.

THIS PAGE INTENTIONALLY LEFT BLANK

## AGE

FORMAT: 3 numeric
SAS NAME: Person.Age

## ELEMENT VALUES:

|  | Blank |
| :---: | :--- |
| 000 | Less than One Year |
| $001-120$ | Actual Age* |
| 998 | Not Reported |
| 999 | Unknown |

Definition: This element identifies the persons age, in years, with respect to the person's last birthday.

## Remarks:

If the case materials do not show the age of injured or uninjured drivers or passengers and there is no other information about age, e.g., in the narrative/diagram, then use 998 (Not Reported).

## 998 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 998 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

* Values greater than "094" are unlikely occurrences, and they will raise an error flag.
* Values greater than " 120 " are not permitted.

999 (Unknown) is used if the investigating officer indicates that this occupant's age is unknown.

## FARS SPECIAL INSTRUCTION:

For drivers, verify age with data on Licensing File. Licensing data takes precedence over crash report data.

## Consistency Checks:

## IF

(7P0F) PERSON TYPE equals 01,
(8P0P) PERSON TYPE equals 01, and AGE is less than 008,
(8P1P) PERSON TYPE equals 01, and AGE is less than 008,
(9LOF) PERSON TYPE equals 01, and RELATED FACTORS-DRIVER LEVEL equals 12,
(D060) NON-CDL LICENSE STATUS equals 1-4, 6, or COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 1-8, and PERSON TYPE equals 01,
(D620) NON-CDL LICENSE TYPE equals 7,
(D630) NON-CDL LICENSE TYPE equals 2,
(D640) AGE equals 014-017, and PERSON TYPE equals 01,
(D650) AGE equals 018-120, and PERSON TYPE equals 01, and NON-CDL LICENSE STATUS does not equal 0,
(P010) PERSON TYPE equals 01,
(P020) PERSON TYPE equals 02, 03, 09, and RESTRAINT SYSTEM/HELMET USE equals 04, 10-12,
(P180) PERSON TYPE equals 01, and AGE is less than 009,
(P1A0) AGE is less than 012, and INJURY SEVERITY equals 4,

## THEN

AGE must not be less than 002. BODY TYPE must not equal 01-12, 14-17, 19-22, 28-33, 39-42, 45, 48-52, 55, 58-67, 71, 72, 78-83, 89, 92, 93.
BODY TYPE should equal 88, 91.
SEX must equal 2, and AGE must be greater than 012.

AGE should not be less than 015.

AGE (for the driver) should equal 014-016.
AGE (for the driver) should equal 015-017.
NON-CDL LICENSE TYPE should equal 2, 7.
NON-CDL LICENSE TYPE should equal 1.

AGE should not be less than 012. AGE should be less than 010, or equal to 998 or 999.

BODY TYPE should not equal 90.
FATAL INJURY AT WORK should equal 0.
(U120) UNLIKELY: AGE should not be greater than 094, unless equal to 998, 999.
(U360) UNLIKELY: HIT-AND-RUN equals 0 or 9, and AGE equals 999.

## Consistency Checks (FARS Only):

IF
(5WOP) RELATED FACTORS-PERSON LEVEL equals 18 ,

## THEN

SEX must equal 2, and AGE must be greater than 012.

## THIS PAGE INTENTIONALLY LEFT BLANK

## SEX

FORMAT: 1 numeric
SAS NAME: Person.Sex

## ELEMENT VALUES:

1 Male
2 Female
8 Not Reported
9 Unknown

Definition: This element identifies the sex of the person involved in the crash

## Remarks:

If the case materials do not show the sex of injured or uninjured drivers or passengers and there is no other information about sex, e.g., in the narrative/diagram, then use 8 (Not Reported).

## 8 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 8 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

9 (Unknown) is used if the investigating officer indicates that this occupant's sex is unknown.

## Consistency Checks:

IF
THEN
(9LOF) PERSON TYPE equals 01, and RELATED FACTORS-DRIVER LEVEL equals 12,
(U340) UNLIKELY: HIT-AND-RUN equals 0 or 9, and SEX equals 9.

## Consistency Checks (FARS Only):

## IF

(5WOP) RELATED FACTORS-PERSON LEVEL equals 18,

## THEN

SEX must equal 2, and AGE must be greater than 012.

## PERSON TYPE

FORMAT: 2 numeric
SAS NAME: Person.PER_TYP

## ELEMENT VALUES:

01 Driver of a Motor Vehicle In-Transport
02 Passenger of a Motor Vehicle In-Transport
03 Occupant of a Motor Vehicle Not In-Transport
09 Unknown Occupant Type in a Motor Vehicle In-Transport
Definition: This element describes the role of this person involved in the crash.

## Remarks:

An involved person in a crash must maintain Person Type during the crash. Once the unstabilized situation begins, a driver, passenger or non-motorist/non-occupant cannot change Person Type until the accident stabilizes.

If a person is entering or exiting a vehicle before the unstabilized situation begins, try to determine if the person has successfully changed type before control is lost. (e.g., a pedestrian getting into an automobile that begins to move, a passenger stepping off of a bus as it begins to pull away, etc.).

Attributes 01, 02 and 09 are used for occupants of a motor vehicle in-transport. This includes occupants of motor vehicles that are in motion outside the trafficway.

09 (Unknown Occupant Type in a Motor Vehicle In-Transport) is used when it cannot be determined if the person was the driver or passenger, but it is known that the person was an occupant of a motor vehicle in-transport.

## Consistency Checks:

## IF

(1Q0F) PERSON TYPE equals 01, and BODY TYPE equals 80-83, 88, 89,
(2MOF) PERSON TYPE equals 01,
(2Q0F) PERSON TYPE equals 02, 03, 09, and BODY TYPE equals 01, 02, 04, 08, 10, 17, 31-33, 39-41, 45, 48, 90, 91,

## THEN

SEATING POSITION must not equal 1255, 99.
SEATING POSITION must not equal 21-55.
SEATING POSITION must not equal 31-50.
(3H0F) DRIVER PRESENCE equals 1,
(3MOF) PERSON TYPE equals 01,
(3POF) PERSON TYPE equals 03-08, 10, 19
(3QOF) PERSON TYPE equals 02, 03, 09, and BODY TYPE equals 01-16, 17, 19, 20, 22, 28-33, 39, 41, 42, 50-52, $55,58,59,65,80-83,88-92,94,95$, 97,
(4HOF) DRIVER PRESENCE equals 0,9 ,
(4QOF) PERSON TYPE equals 02, 03, 09, and BODY TYPE equals $80-83$, 88, 89,
(4Q1F) PERSON TYPE equals 02, 03, and BODY TYPE equals 21,
(570F) FIRST HARMFUL EVENT equals 05, 06,
(5MOF) PERSON TYPE equals 01,
(5MOG) SPECIAL USE equals 06, and PERSON TYPE equals 02 or 09,
(5NOF) PERSON TYPE equals 02,
(5QOF) PERSON TYPE equals 02, and BODY TYPE equals $50-52,55,58$, 59,
(5ZOF) SEQUENCE OF EVENTS equals 08,
(6QOF) PERSON TYPE equals 02, 03, 09, and BODY TYPE equals 60-67, 71, 72, 78, 79,

## THEN

there must be one and only one Person Level form for that vehicle with PERSON TYPE equal to 01, or there must be no Person Level form for that vehicle with PERSON TYPE equal to 01 and at least two Person Level forms for that vehicle with PERSON TYPE equal to 09 . RESTRAINT SYSTEM/HELMET USE must not equal 04, 10-12.
INJURY SEVERITY should not equal 6. SEATING POSITION must not equal 50 .
there must not be a Person Level form for that vehicle with PERSON TYPE equal to 01 .
SEATING POSITION must not equal 12, 14-19, 22-50.

SEATING POSITION must not equal 50 , 52.
at least one PERSON TYPE equal to 01-03, 09 must have INJURY SEVERITY equal to $1-5$ or blank. all RELATED FACTORS-PERSON LEVEL must equal 00.
RELATED FACTORS - PERSON (MV OCCUPANT) LEVEL should equal 86 or 92.
RELATED FACTORS-PERSON LEVEL (MV Occupant) must not equal 21, 26, 28, 29, 33, 37, 40-42, 44, 45, 47, 51-53, 57-70, 72-78, 80-83, 91.
SEATING POSITION must not equal 11, 21-50, 99.
at least one person must have PERSON TYPE equal to 05, 10.
SEATING POSITION must not equal 31-49.

IF
(7MOF) PERSON TYPE equals 03, and SEATING POSITION does not equal 11,
(7M1F) PERSON TYPE equals 03, and SEATING POSITION is not equal to 11 or 13, and INJURY SEVERITY does not equal 4,
(7P0F) PERSON TYPE equals 01,
(7Q0F) PERSON TYPE equals 09, and BODY TYPE equals $50-52,55,58$, 59,
(7ZOF) any SEQUENCE OF EVENTS equals 05, 06,
(8P0P) PERSON TYPE equals 01, and AGE is less than 008,
(8P1P) PERSON TYPE equals 01, and AGE is less than 008,
(9A5P) PERSON TYPE equals 03,
(9B7P) UNIT TYPE equals 2-4,
(CLOP) PERSON TYPE equals 09,
(D060) NON-CDL LICENSE STATUS equals 1-4, 6, or COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 1-8, and PERSON TYPE equals 01,
(D090) VIOLATIONS CHARGED equals 11-19, and PERSON TYPE equals 01, 03,
(D640) AGE equals 014-017, and PERSON TYPE equals 01,
(D650) AGE equals 018-120, and PERSON TYPE equals 01, and NON-CDL LICENSE STATUS does not equal 0 ,
(FPOF) PERSON TYPE is blank, case status is flawed.
(P010) PERSON TYPE equals 01,

THEN
RELATED FACTORS-PERSON LEVEL (MV Occupant) must not equal 21, 26, 28, 29, 33, 37, 40-42, 44, 45, 47, 51-53, 57-70, 72-78, 80-83, 91.
DRUG TEST STATUS must not equal 8.

AGE must not be less than 002.
SEATING POSITION must not equal 12-50, 52-54.
at least one occupant of this vehicle (PERSON TYPES 01, 02, 09) must have INJURY SEVERITY equal to 1-5, or blank.
BODY TYPE must not equal 01-12, 14-17, 19-22, 28-33, 39-42, 45, 48-52, 55, 58-67, 71, 72, 78-83, 89, 92, 93.
BODY TYPE should equal 88, 91.
UNIT TYPE must equal 2-4.
PERSON TYPE of all occupants of this vehicle must equal 03.
RELATED FACTORS-PERSON LEVEL (MV Occupant) must not equal 21, 26, 28, 29, 33, 37, 40-42, 44, 45, 47, 51, 52, 56-70, 72-78, 80-83, 91.
AGE should not be less than 015 .

POLICE REPORTED ALCOHOL INVOLVEMENT should equal 1, or POLICE REPORTED DRUG INVOLVEMENT should equal 1. NON-CDL LICENSE TYPE should equal 2, 7.
NON-CDL LICENSE TYPE should equal
1.

AGE should not be less than 012.
(P01F) PERSON TYPE equals 01-03, 09, and RESTRAINT SYSTEM/HELMET USE equals 01-04, 08, 10-12, and BODY TYPE does not equal 80-89,
(P020) PERSON TYPE equals 02, 03, 09, and RESTRAINT SYSTEM/HELMET USE equals 04, 10-12,
(P030) PERSON TYPE equals 01,
(P040) PERSON TYPE equals 02, 09,
(P071) PERSON TYPE equals 02, 04-08, 10, and INJURY SEVERITY does not equal 4,
(P072) PERSON TYPE equals 02, 03, and INJURY SEVERITY equals 0, and ALCOHOL TEST RESULT equals 96,
(P073) PERSON TYPE equals 02, 04-08, 10, and INJURY SEVERITY does not equal 4,
(P130) BODY TYPE equals 60-67, 71, 72, 78, 79, and PERSON TYPE equals 01, 03, and INJURY SEVERITY equals 4 ,
(P180) PERSON TYPE equals 01, and AGE is less than 009,

AGE should be less than 010, or equal to 998 or 999.

SEATING POSITION should not equal 12-19.
SEATING POSITION should not equal 11.

ALCOHOL TEST STATUS should not equal 9, ALCOHOL TEST TYPE should not equal 99, and ALCOHOL TEST RESULT should not equal 99. POLICE REPORTED ALCOHOL INVOLVEMENT should equal $0,8$.

DRUG TEST STATUS should not equal 9, and any DRUG TEST TYPE should not equal 9, and any DRUG TEST RESULTS should not equal 999. FATAL INJURY AT WORK should equal 1.

BODY TYPE should not equal 90.

## INJURY SEVERITY

FORMAT: 1 numeric
SAS NAME: Person.Inj_Sev

## ELEMENT VALUES:

0 No Apparent Injury (O)
1 Possible Injury (C)
$2 \quad$ Suspected Minor Injury (B)
3 Suspected Serious Injury (A)
4 Fatal Injury (K)
5 Injured, Severity Unknown
6 Died Prior to Crash*
9 Unknown
Definition: This element describes the severity of the injury to this person in the crash.

## Remarks:

Enter the police reported injury severity for this person (i.e., occupant, pedestrian or nonmotorist). Most jurisdictions use the KABCO injury coding scheme.

K = Killed
A = Incapacitating Injury
$B=$ Non-incapacitating Injury
C = Possible Injury
$\mathrm{O}=$ No Injury
If the police report contains a detailed description of the injuries but does not translate the injuries into the KABCO codes, use the police method for doing so. For example, injuries that are considered to be of an incapacitating nature are classified as "A", Non-incapacitatingevident injuries are classified as "B", and possible injuries are "C". Property damage only (i.e., no injury) is classified as "O".

As a general rule, if the PAR is "blank" where the injury severity is assessed and the person was at the scene during the police investigation, enter 0 (No Injury [O]). If the PAR is "blank" and the person was not present during the police investigation, enter 9 (Unknown).

0 (No Apparent Injury) is a situation where there is no reason to believe that the person received any bodily harm from the motor vehicle crash. There is no physical evidence of injury and the person does not report any change in normal function. Prior to 2013, this attribute was known as "0-No Injury".

1 (Possible Injury) is any injury reported or claimed that is not a fatal injury, suspected serious injury or suspected minor injury. Examples include: momentary loss of consciousness, claim of injury limping, complaint of pain or nausea. Possible injuries are those which are reported by the person or are indicated by his/her behavior, but no wounds or injuries are readily evident.

2 (Suspected Minor Injury) is any injury that is evident at the scene of the crash, other than fatal or serious injuries. Examples include lump on the head, abrasions, bruises, minor lacerations (cuts on the skin surface with minimal bleeding and no exposure of deeper tissue/muscle). This does not include momentary unconsciousness. (See 1 (Possible Injury)). Prior to 2013, this attribute was known as "2-Non-Incapacitating Evident Injury".

3 (Suspected Serious Injury) is any injury other than fatal which results in one or more of the following:

- Severe laceration resulting in exposure of underlying tissues/muscle/organs or resulting in significant loss of blood
- Broken or distorted extremity (arm or leg)
- Crush injuries
- Suspected skull, chest or abdominal injury other than bruises or minor lacerations
- Significant burns (second and third degree burns over 10\% or more of the body)
- Unconsciousness when taken from the crash scene
- Paralysis

This does not include limping (the injury cannot be seen). (See 1 (Possible Injury)). Prior to 2013, this attribute was known as "3-Incapacitating Injury".

4 (Fatal Injury) A fatal injury is any injury that results in death within 30 days after the motor vehicle crash in which the injury occurred. If the person did not die at the scene but died within 30 days of the motor vehicle crash in which the injury occurred, the injury classification should be changed from the attribute previously assigned to the attribute 4 (Fatal Injury).

6 (Died Prior To Crash) refers to non-motor vehicle fatalities that are involved in a motor vehicle crash; e.g., a heart attack victim, a homicide victim, a suicide or person involved in a legal intervention that is involved in a motor vehicle traffic crash.

This attribute is used only if the police explicitly states the person died prior to the crash and the police report indicates the person died as a result of natural causes (e.g., heart attack), disease, drug overdose or alcohol poisoning, suicide, homicide and legal intervention.

This attribute also applies if the police report indicates that the person died as a result of natural causes (e.g., heart attack) or disease but is silent about the time of on-set or if on-set is the result of injuries sustained in the crash.

In suicide incidents, use the following criteria:

1. If the only fatality is the suicide victim and it can be ascertained that the crash was a suicide, do not code the case.
2. If other fatalities occur, code the case as appropriate. The suicide victim's Injury Severity should be coded 6 (Died Prior to Crash) if the death occurred at the time of the crash (or prior) or $\mathbf{0}$ (No Apparent Injury) if the death occurred after the crash.

This attribute does not apply if the police report specifically states that the cause of death is a result of crash-related injury or that on-set occurred after the crash.

* This value is an unlikely occurrence and will raise an edit flag


## FARS SPECIAL INSTRUCTION:

Each case must have at least one Person Level form with Injury Severity attribute 4 (Fatal injury). See Definition: ANSI D16.1; 2.3.1 and 2.3.2

## Consistency Checks:

## IF

(1ROP) SEATING POSITION equals 51, and BODY TYPE equals 50-52, 55, 58, 59,
(1R1P) If DIED AT SCENE/EN ROUTE equals 7,8 ,
(1U1F) INJURY SEVERITY equals 4,
(1U2F) INJURY SEVERITY equals 4,
(2U1F) INJURY SEVERITY is not equal to 4,
(2U2F) INJURY SEVERITY is not equal to 4,
(2U3F) INJURY SEVERITY equals 3,
(3POF) PERSON TYPE equals 03-08, 10, 19,
(4V1F) INJURY SEVERITY equals 4,
(570F) FIRST HARMFUL EVENT equals 05, 06,
(7EOP) INJURY SEVERITY equals 4,
(7E1P) INJURY SEVERITY equals 4,
(7E2P) INJURY SEVERITY equals 4,

## THEN

INJURY SEVERITY must not equal 0, 9.

INJURY SEVERITY must equal 4.
DEATH DATE must not equal 88888888.

DEATH TIME must not equal 8888.
DEATH DATE must equal 88888888.
DEATH TIME must equal 8888.
TRANSPORTED TO FIRST MEDICAL FACILITY BY should not equal 0.
INJURY SEVERITY should not equal 6. DEATH DATE and DEATH TIME for this person must be within 720 hours of the CRASH DATE and CRASH TIME. at least one PERSON TYPE equal to 01-03, 09 must have INJURY SEVERITY equal to $1-5$, or blank. DEATH CERTIFICATE NUMBER must NOT equal 0000-00-000000.
RACE must not equal 00.
HISPANIC ORIGIN must not equal 00.
(7E3P) INJURY SEVERITY does not equal 4,
(7E3P) INJURY SEVERITY does not equal 4,
(7F0P) DEATH CERTIFICATE NUMBER is not blank or 0000-00-000000,
(7F1P) RACE equals 00,
(7F2P) HISPANIC ORIGIN equals 00,
(7F3P) RACE is not equal to 00, and HISPANIC ORIGIN is not equal to 00,
(7M1F) PERSON TYPE equals 03, and SEATING POSITION is not equal to 11 or 13, and INJURY SEVERITY does not equal 4,
(7ROP) FATAL INJURY AT WORK equals 0, 1, 9,
(7WOP) FATAL INJURY AT WORK equals 8,
(7ZOF) any SEQUENCE OF EVENTS equals 05, 06,

RACE AND HISPANIC ORIGIN must equal 00.
RACE AND HISPANIC ORIGIN must equal 00.
INJURY SEVERITY must equal 4.
INJURY SEVERITY must not equal 4. INJURY SEVERITY must not equal 4. INJURY SEVERITY must equal 4.

DRUG TEST STATUS must not equal 8.

INJURY SEVERITY must equal 4.
INJURY SEVERITY must not equal 4. at least one occupant of this vehicle (PERSON TYPES 01, 02, 09) must have INJURY SEVERITY equal to $1-5$, or blank.
(FP8F) INJURY SEVERITY is blank, case status is flawed.
(P071) PERSON TYPE equals 02, 04-08, 10, and INJURY SEVERITY does not equal 4 ,
(P072) PERSON TYPE equals 02, 03, and INJURY SEVERITY equals 0, and ALCOHOL TEST RESULT equals 96,
(P073) PERSON TYPE equals 02, 04-08, 10, and INJURY SEVERITY does not equal 4,
(P090) INJURY SEVERITY equals 0,
(P130) BODY TYPE equals 60-67, 71, 72, 78, 79, and PERSON TYPE equals 01, 03, and INJURY SEVERITY equals 4 ,
(P1A0) AGE is less than 012, and INJURY SEVERITY equals 4,

ALCOHOL TEST STATUS should not equal 9, ALCOHOL TEST TYPE should not equal 99, and ALCOHOL TEST RESULT should not equal 99.
POLICE REPORTED ALCOHOL INVOLVEMENT should equal 0, 8.

DRUG TEST STATUS should not equal 9, and any DRUG TEST TYPE should not equal 9, and any DRUG TEST RESULTS should not equal 999.
TRANSPORTED TO FIRST MEDICAL FACILITY BY must equal 0.
FATAL INJURY AT WORK should equal 1.

FATAL INJURY AT WORK should equal 0 .

IF
(P300) POLICE REPORTED ALCOHOL INVOLVEMENT equals 1, and INJURY SEVERITY equals 4 , (P53P) INJURY SEVERITY equals 0-3, 5, 6,

THEN
ALCOHOL TEST STATUS should not equal $0,1$.

DIED AT SCENE/EN ROUTE must equal 0.
(U160) UNLIKELY: INJURY SEVERITY equals 6.
(U350) UNLIKELY: INJURY SEVERITY equals 1-6, and SEATING POSITION equals 98.

Consistency Check (GES Only):

IF
(5A4P) FINAL STRATUM equals 1,
(5A5P) FINAL STRATUM equals 5,

## THEN

there should exist:

1) at least one vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and INJURY SEVERITY equals 4 for at least one occupant of that vehicle; or
2) one and only one vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and INJURY SEVERITY equals 3 for at least one occupant of that vehicle; or
3) 2 or more vehicles where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and at least 2 vehicles where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and INJURY
SEVERITY equals 3 for at least one occupant of a vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2.
there should exist at least one vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and INJURY
SEVERITY equals 1, 2, 3 or 5 for at least one occupant of that vehicle.

IF
(5A6P) FINAL STRATUM equals 2,
(5A7P) FINAL STRATUM equals 3,
(5A8P) FINAL STRATUM equals 4,
(5A9P) FINAL STRATUM equals 4, and INJURY SEVERITY equals 1,

THEN
there 1) should exist at least one vehicle where UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2; or 2) INJURY SEVERITY should equal 1-5 for at least one person in the crash.
INJURY SEVERITY must equal 2-4 for at least one person in the crash. INJURY SEVERITY must not equal 2-4 for any person in the crash. there should exist no vehicles where BODY TYPE equals 60-79, and UNIT TYPE equals 1.

Consistency Check (FARS Only):

## IF

(4U0F) Each original submission must have at least one Person Level form with INJURY SEVERITY coded 4.

## SEATING POSITION

FORMAT: 2 numeric
SAS NAME: Person.Seat_Pos

## ELEMENT VALUES:

11 Front Seat, Left Side
12 Front Seat, Middle
13 Front Seat, Right Side
18 Front Seat, Other
19 Front Seat, Unknown
21 Second Seat, Left Side
22 Second Seat, Middle
23 Second Seat, Right Side
28 Second Seat, Other
29 Second Seat, Unknown
31 Third Seat, Left Side
32 Third Seat, Middle
33 Third Seat, Right Side
38 Third Seat, Other
39 Third Seat, Unknown
41 Fourth Seat, Left Side
42 Fourth Seat, Middle
43 Fourth Seat, Right Side
48 Fourth Seat, Other
49 Fourth Seat, Unknown
50 Sleeper Section of Cab (Truck)
51 Other Passenger in enclosed passenger or cargo area
52 Other Passenger in unenclosed passenger or cargo area
53 Other Passenger in passenger or cargo area, unknown whether or not enclosed
54 Trailing Unit
55 Riding on Exterior of Vehicle
98 Not Reported
99 Unknown
Definition: This element identifies the location of this person in or on the vehicle.

## Remarks:

Seating Position is determined by the location of the occupant in relation to the seat row and the forward longitudinal axis of the vehicle.

More than one person may be assigned the same seating position; however, this is allowed only when a person is sitting on someone's lap (e.g., child on mother's lap).
If the PAR does not specifically state that one person was on the lap of another, then see the discussion below under 18 (Front Seat, Other), 28 (Second Seat, Other), 38 (Third Seat, Other) and 48 (Fourth Seat, Other).

In seating rows designated for only two passengers, use 11 (Front Seat, Left Side), 13 (Front Seat, Right Side), 21 (Second Seat, Left Side), 23 (Second Seat, Right Side), 31 (Third Seat, Left Side), 33 (Third Seat, Right Side), 41 (Fourth Seat, Left Side), 43 (Fourth Seat, Right Side) or 51 (Other Passenger in enclosed passenger or cargo area).

11 (Front Seat, Left Side) is used if there is an assumed driver of a hit-and-run vehicle unless evidence indicates a different position for the person or persons.

18 (Front Seat, Other), 28 (Second Seat, Other), 38 (Third Seat, Other) and 48 (Fourth Seat, Other) are used to record the position of someone sitting on the floor or lying across the seat. In addition, enter these attributes when two or more persons are sitting abreast of one another in the same seating location (as opposed to on or in someone's lap), since only one occupant can be assigned the seat's position. If the PAR provides enough specific information, and only one person was using a restraint, then assign the seat position to the person using the restraint, If no restraint was used, or both people were sharing a restraint, then assign the seat position to the older person.

18 (Front Seat, Other) is used if the only seat in the front seating area is a driver's seat (e.g., bucket, pedestal, etc.), and the occupant was in the area but not in the seat. This situation could occur because of vehicle design or seat removal. The same logic applies to other seat areas.

50 (Sleeper Section of Cab [Truck]) is used if the occupant's vehicle is a medium or heavy truck and has a cab sleeper, and this occupant is in the sleeper section at the time of the crash.

51 (Other Passenger in Enclosed Passenger or Cargo Area) is used when an occupant is in the fifth or higher numbered seat row, in an enclosed area where no defined seating exists or using a fold-down type seat in its folded-down position. This attribute is also used for bus passengers in undetermined seating (not driver) and for bus occupants that fall from an open door

Note: Persons in treatment compartment of an ambulance, code as 51 (Other Passenger in Enclosed Passenger or Cargo Area). (See examples under Related Factors - Person (MV Occupant) Level attribute 92 (Person in Ambulance Treatment Compartment).)

Enter 52 (Other Passenger in Unenclosed Passenger or Cargo area) when an occupant is in the fifth or higher numbered seat area, in an unenclosed area where no defined seating
exists or using a fold-down type seat in its folded-down position. Examples include passenger riding in an open pickup bed, top of open double-decker bus, etc.

If seating in the vehicle is longitudinal rather than lateral, use the basic idea of a vehicle interior being divided laterally into roughly equal thirds and visualize lateral rows of seats to determine what seat position is the best descriptor.

For rearward facing seats, use the basic idea described in the previous paragraph to describe the occupant's seat position.

If a seat row has more than three designated seat positions, the occupants should have their positions assigned as usual for the left and right positions, while the two center positions would be entered as Other (i.e., 18 (Front Seat, Other), 28 (Second Seat, Other), 38 (Third Seat, Other); 48 (Fourth Seat, Other) or 51 (Other Passenger in Enclosed Passenger or Cargo Area)) depending upon the seat row.

For motorcycles, enter the driver 11 (Front Seat, Left Side); sidecar passenger 13 (Front Seat, Right Side); passenger behind the driver 21 (Second Seat, Left Side) and passenger on the lap of the driver (in front of) 11 (Front Seat, Left Side).

54 (Trailing Unit) is used when an occupant is in or on a trailing unit (i.e., Vehicle Trailing, for this occupant's vehicle must be coded $\geq 1$, one or more trailing units).

55 (Riding on Exterior of Vehicle) is used when an occupant is riding on a fender, the boot of a convertible, etc.

If the case materials do not show the seating row of a passenger and there is no other information about seating position, e.g., in the narrative/diagram, then use 98 (Not Reported).

## 98 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 98 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

99 (Unknown) is used if the investigating officer indicates that this occupant's seating position is unknown.

## Consistency Checks:

## IF

## THEN

(1Q0F) PERSON TYPE equals 01, and BODY TYPE equals 80-83, 88, 89,
(1ROP) SEATING POSITION equals 51, and BODY TYPE equals $50-52$, $55,58,59$,
(2MOF) PERSON TYPE equals 01,
(2QOF) PERSON TYPE equals 02, 03, 09, and BODY TYPE equals 01, 02, 04, 08, 10, 17, 31-33, 39-41, 45, 48, 90, 91,
(3QOF) PERSON TYPE equals 02, 03, 09, and BODY TYPE equals 01-17,19, 20 , 22, 28-33, 39, 41, 42, 50-52, 55, 58, 59, 65, 80-83, 88-92, 94, 95, 97,
(3ROP) AIR BAG DEPLOYED does not equal 00, 98 or 99,
(3SOP) SEATING POSITION equals 55 ,
(4QOF) PERSON TYPE equals 02, 03, 09, and BODY TYPE equals $80-83,88$, 89,
(4Q1F) PERSON TYPE equals 02, 03, and BODY TYPE equals 21,
(4ROP) SEATING POSITION equals 54,
(5Q0F) PERSON TYPE equals 02, and BODY TYPE equals 50-52, 55, 58, 59,
(6QOF) PERSON TYPE equals 02, 03, 09, and BODY TYPE equals 60-67, 71, 72, 78, 79,
(7MOF) PERSON TYPE equals 03, and SEATING POSITION does not equal 11,
(7M1F) PERSON TYPE equals 03, and SEATING POSITION is not equal to 11 or 13, and INJURY SEVERITY does not equal 4 ,
(7QOF) PERSON TYPE equals 09, and BODY TYPE equals $50-52,55,58,59$,

SEATING POSITION must not equal 12-55, 99.
INJURY SEVERITY must not equal 0, 9 .
SEATING POSITION must not equal 21-55.
SEATING POSITION must not equal 31-50.

SEATING POSITION must not equal 50.

SEATING POSITION should not equal 12, 22, 32, 41-55.
EJECTION must equal 8.
SEATING POSITION must not equal 12 , 14-19, 22-50.

SEATING POSITION must not equal 50, 52.

VEHICLE TRAILING must not equal 0 .
SEATING POSITION must not equal 11, 21-50, 99.
SEATING POSITION must not equal 31-49.

RELATED FACTORS-PERSON LEVEL (MV Occupant) must not equal 21, 26, $28,29,33,37,40-42,44,45,47,51-53$, 57-70, 72-78, 80-83, 91.
DRUG TEST STATUS must not equal 8.

SEATING POSITION must not equal 12-50, 52-54.

## THEN

(BPOP) MODEL YEAR is greater than 1999, and BODY TYPE does not equal 50-52, 58-66, 71-79, 80-83, 88-93, 95, 97, and SEATING POSITION equals 11, 13, 18, 19,
(P030) PERSON TYPE equals 01,
(P040) PERSON TYPE equals 02, 09,
(P060) SEATING POSITION equals 18, 28, 38, 48, 50-55,
(P094) EJECTION equals 8,
(P210) AIR BAG DEPLOYED equals 28,
(P230) SEATING POSITION equals 21, 23, $28,29,31,33,38$ or 39 , and BODY TYPE equals 50-97,
(P260) SEATING POSITION equals 18-19,
(P290) AIR BAG DEPLOYED equals 01-03, 07-09, 20, 28, and BODY TYPE equals 01-49, and MODEL YEAR equals 1998 or newer,
(P320) SEATING POSITION equals 22, 23, 31-53,
(P330) RESTRAINT SYSTEM/HELMET USE equals 00,
(P340) SEATING POSITION equals 50, 52-55,

AIR BAG DEPLOYED should not equal 00.

SEATING POSITION should not equal 12-19.
SEATING POSITION should not equal 11.

RESTRAINT SYSTEM/HELMET USE should not equal 01, 03.
SEATING POSITION must equal 55, or
BODY TYPE must equal 80-83, 88, 89.
SEATING POSITION should equal 13. AIR BAG DEPLOYED should equal 00.

AIR BAG DEPLOYED should equal 00, 99.

SEATING POSITION should equal 11, 13, 21, 23, 31 or 33.

RESTRAINT SYSTEM/HELMET USE must not equal 05, 16, 17, 19, 29.
SEATING POSITION should equal 50-55.
RESTRAINT SYSTEM/HELMET USE should equal 00.
(U130) UNLIKELY: SEATING POSITION equals 41-43, 48.
(U350) UNLIKELY: INJURY SEVERITY equals 1-6, and SEATING POSITION equals 98.
(V320) BODY TYPE equals 50-52, 55, 58-66, 71-79, and SEATING POSITION does not equal 11, 13, 98,
(V950) VEHICLE MODEL YEAR is less than 1994, and SEATING POSITION equals 31, 33, 39,

AIR BAG DEPLOYED should equal 00.

RESTRAINT SYSTEM/HELMET USE should not equal 01, 03, and BODY TYPE should equal 12, 15, 16, 19-21.


* For van-based buses, use the actual seating position if known, or use code "51" for the $2^{\text {nd }}, 3^{\text {rd }} \& 4^{\text {th }}$ rows, if actual seating position is not known.


## RESTRAINT SYSTEM/HELMET USE

FORMAT: 2 numeric
SAS NAME: Person.REST_USE

## ELEMENT VALUES:

00 Not Applicable
07 None Used
03 Shoulder and Lap Belt Used
01 Shoulder Belt Only Used
02 Lap Belt Only Used
08 Restraint Used - Type Unknown
10 Child Restraint System - Forward Facing
11 Child Restraint System - Rear Facing
12 Booster Seat
04 Child Restraint Type Unknown
05 DOT-Compliant Motorcycle Helmet
16 Helmet, Other than DOT-Compliant Motorcycle Helmet
19 Helmet, Unknown if DOT-Compliant
17 No Helmet
29 Unknown if Helmet Worn
97 Other
98 Not Reported
99 Unknown
Definition: This element records the restraint equipment in use by the occupant, or the helmet in use by a motorcyclist, at the time of the crash.

## Remarks:

Code this element regardless of whether the vehicle is equipped with manual systems, automatic belts or harnesses, air bags, or any combination of these. Whether the restraint was manual or automatic will be determined via the VIN. Even if the VIN is unknown, use this rule.

The child restraints/booster seats take precedence over the belt use. For a child in a child restraint system not using the 5-point harness or in a booster not using the belt restraint code the child restraint system or booster and indicate mis-use.

00 (Not Applicable) is used when the case material indicates that no restraint was available in the seat position of this occupant. Use this attribute for persons who are riding in the sleeper section of the cab of a truck, for persons who are riding on the exterior of the vehicle, and for persons in unenclosed cargo areas, such as a bed of a pickup truck.

07 (None Used) is used when the case materials indicate that the occupant did not use a restraint. In order to code this value, the case materials first have to indicate that there was a restraint available and that the occupant of that seat position did not use the available restraint. In the case of a motorcycle occupant without a helmet, use 17 (No Helmet).

03 (Shoulder and Lap Belt Used) is used when the occupant restraint system consists of both the shoulder belt and lap belt portions and is connected to a buckle.

01 (Shoulder Belt Only Used) is used for a two-part occupant restraint system and only the shoulder belt portion is connected to a buckle.

Example:
You are coding a driver in the vehicle that is indicated by the PAR to have an automatic shoulder harness and a manual belt. The police state that the shoulder harness was used at the time of the crash, but the lap belt was not. Code as 01 (Shoulder Belt Only Used).

02 (Lap Belt Only Used) is used when the occupant is using a lap safety belt either because the motor vehicle is equipped only with a lap belt or because the shoulder belt is not in use.

Note: The presence of an air bag system does not mean that there are no active belts present. In fact, most air bag equipped vehicles also have some belt restraint system installed in the seat positions protected by the air bags.

08 (Restraint Used - Type Unknown) is used when the investigating officer indicates that some type of restraint was in use but the type of restraint is not clear.

The attribute scheme on some PARs may offer a choice, such as "seatbelt/harness" or "lap/shoulder" but does not distinguish between "lap belt only," "shoulder belt only," or "combination lap and shoulder belt." If your PAR has such a coding scheme and the officer checks. e.g.; "seat belt/harness," then the attribute should be 08 (Restraint Used - Type Unknown) unless the narrative clarifies which type of restraint was used.

10 (Child Restraint System - Forward Facing) is used when a child passenger is seated in a forward facing child safety seat. This does not imply correct use or placement of the seat.

11 (Child Restraint System - Rear Facing) is used when a child passenger is seated in a rearward facing child safety seat. This does not imply correct use or placement of the seat.

12 (Booster Seat) is used when a child passenger is seated in a "belt-positioning seat" that positions a child on a vehicle seat to improve the fit of the child in a lap and shoulder seat belt system.

Motorcycle helmets that are compliant with Federal Motor Vehicle Safety Standards typically weigh approximately 3 pounds, have an inner liner at least one-inch thick of firm polystyrene foam, have an inside label that states the manufacturer, model and date of manufacture, and have a DOT sticker on the back of the helmet.

05 (DOT-Compliant Motorcycle Helmet) is a motorcycle helmet that is compliant with Federal Motor Vehicle Safety Standards. It must be specifically indicated to be "DOTCompliant" in the case materials to code this attribute, otherwise use 19 (Helmet, Unknown if DOT-Compliant).

16 (Helmet, Other than DOT-Compliant Motorcycle Helmet) is a motorcycle helmet that is not a DOT-compliant helmet. This also would include bicycle helmets, skateboard helmets and novelty helmets.

19 (Helmet, Unknown if DOT-Compliant). A motorcycle helmet was indicated to be worn by the motorcycle rider, but the investigating officer did not identify if it is a DOTcompliant motorcycle helmet.

17 (No Helmet) is used when the investigating officer indicates that the occupant of a motorcycle was not wearing a helmet.

29 (Unknown if Helmet Worn) is used when the case materials specifically indicate unknown

97 (Other) is used when the case materials indicated that some other type of restraint not listed was being used at the time of the crash.

If the case materials do not show the restraint system or helmet use of injured or uninjured driver or passengers and there is no other information about restraint system or helmet use, e.g., in the narrative/diagram, then use 98 (Not Reported).

## 98 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 98 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

99 (Unknown) is used when the investigating officer indicates that the restraint system or helmet use was unknown at the time of the crash.

## FARS SPECIAL INSTRUCTION:

Prior to 2007, this data element was called "Restraint" System Use before being changed to "Protection System Use." In 2010, this element was changed to Restraint System/Helmet Use to align with MMUCC.

## Guidelines When Police and EMS/M.E. Differ:

Occasionally, information from EMS personnel or medical examiners (M.E.) includes statements about protection/restraint use or presence. If these people were in a position to have information when the investigating officer(s) could not (e.g., EMS arrived and removed victims from vehicles before police arrived or the medical examiner reports definite indications of belt usage), then the EMS/M.E. assessment may override the PAR assessment of Restraint System/Helmet Use. Make sure to note the arrival times of Police and EMS before making a decision.

Rules of thumb are as follows, unless you have information to the contrary:
If the M.E./EMS report that a restraint was used but the PAR/Police report "NOT USED" or "UNKNOWN," then accept the EMS/M.E. assessment. On the other hand, if the M.E./EMS report "NOT USED" but the PAR/Police report that a restraint was used, then try to verify the police assessment that a restraint was used. If the PAR/Police report that a restraint was used or was not used but the M.E./EMS report "UNKNOWN," then accept the Police assessment.

Note: Beginning in 2013, this element's attributes for collecting data on motorcycle helmets were modified to conform to the $4^{\text {th }}$ edition of the MMUCC guideline.

## Consistency Checks:

## IF

(2ROP) RESTRAINT SYSTEM/HELMET USE equals 00-04, 07-12,
(2R1P) ANY INDICATION OF MIS-USE OF RESTRAINT SYSTEM /HELMET USE equals 1,
(2SOP) RESTRAINT SYSTEM/HELMET USE equals 05, 16, 17, 19 or 29,
(2S1P) RESTRAINT SYSTEM/HELMET USE equals 07, 16 or 17,
(3MOF) PERSON TYPE equals 01,
(981P) BODY TYPE equals $80-83,88,89$, 90, 91,

## THEN

BODY TYPE must not equal 80-83, 88, 89, 90, 91.
RESTRAINT SYSTEM/HELMET USE must equal 01-05, 08-12, 19, 97.

AIR BAG DEPLOYED should equal 00.
ANY INDICATION OF MIS-USE OF RESTRAINT SYSTEM/HELMET USE must equal 0.
RESTRAINT SYSTEM/HELMET USE must not equal 04, 10-12.
RESTRAINT SYSTEM/HELMET USE must equal $05,16,17,19,29,97,98$, 99.

## THEN

(982P) BODY TYPE does not equal 80-83, 88, 89, 90, 91,
(D570) any VIOLATIONS CHARGED equals 83,
(P01F) PERSON TYPE equals 01-03, 09, and RESTRAINT SYSTEM/HELMET USE equals 01-04, 08, 10-12, and BODY TYPE does not equal 80-89,
(P020) PERSON TYPE equals 02, 03, 09, and RESTRAINT SYSTEM/HELMET USE equals 04, 10-12,
(P050) EJECTION equals 1,
(P060) SEATING POSITION equals 18, 28, 38, 48, 50-55,
(P310) EJECTION equals 1-3, and BODY TYPE does not equal 90, 91, 97,
(P320) SEATING POSITION equals 22, 23, 31-53, 55,
(P330) RESTRAINT SYSTEM/HELMET USE equals 00,
(P340) SEATING POSITION equals 50, 52-55,

RESTRAINT SYSTEM/HELMET USE must not equal 05, 16, 17, 19, 29.
not all occupants of this vehicle should have RESTRAINT SYSTEM/HELMET USE equal to 01-05, 08, 10-12, 16, 19. EJECTION should equal 0 or 7 .

AGE should be less than 010, or equal to 998 or 999.

RESTRAINT SYSTEM/HELMET USE should not equal 01-04, 08, 10-12.
RESTRAINT SYSTEM/HELMET USE should not equal 01, 03.
RESTRAINT SYSTEM/HELMET USE must not equal 05, 16, 17, 19, 29.
RESTRAINT SYSTEM/HELMET USE must not equal 05, 16, 17, 19, 29.
SEATING POSITION should equal 50-55.
RESTRAINT SYSTEM/HELMET USE should equal 00.
(U170) UNLIKELY: RESTRAINT SYSTEM/HELMET USE equals 01.
(V050) RESTRAINT SYSTEM/HELMET USE BODY TYPE must equal 80-83, 88-91. equals 05, 16, 17, 19, 29,
(V950) VEHICLE MODEL YEAR is less than 1994, and SEATING POSITION equals 31, 33, 39,

RESTRAINT SYSTEM/HELMET USE should not equal 01, 03, and BODY TYPE should equal 12, 15, 16, 19-21.

## Consistency Checks (FARS Only):

IF

## THEN

(U520) UNLIKELY: RESTRAINT SYSTEM/HELMET USE equals 98.

## THIS PAGE INTENTIONALLY LEFT BLANK

# ANY INDICATION OF MIS-USE OF RESTRAINT SYSTEM/HELMET USE 

FORMAT: 1 numeric
SAS NAME: Person.REST_MIS

## ELEMENT VALUES:

$0 \quad$ No
1 Yes
Definition: This element indicates any mis-use of the restraint system or helmet used by this person.

## Remarks:

$\mathbf{0}$ (No) is used when the case materials indicate that the restraints or helmet use were not misused. Also, included in $\mathbf{0}$ (No) is Unknown. If the investigating officer states that the restraints were being used but it couldn't be determined if they were mis-used use this attribute
$\mathbf{1}$ (Yes) is used when the case materials indicate that the restraints or helmet use were misused at the time of the crash.

## Examples:

- The investigating officer states in the crash report that the driver of Vehicle 1 had the shoulder belt portion of the seatbelt behind his back.
- The investigating officer states the operator of the motorcycle had the helmet on backwards.
- The investigating officer states in the crash report that two persons were secured in one restraint.
- The investigating officer states the child was in a booster seat but not using the vehicles restraint system.
- The investigating officer states the child restraint system was properly secured however the child was not using the 5-point harness system.
- The investigating officer states the child restraint system was not properly secured in the vehicle.

An indication of $\mathbf{1}$ (Yes) requires a positive response in the case materials, if not default to $\mathbf{0}$ (No).

## Consistency Checks:

IF
(2R1P) ANY INDICATION OF MIS-USE OF RESTRAINT SYSTEM /HELMET USE equals 1,
(2S1P) RESTRAINT SYSTEM/HELMET USE equals 07,16 or 17,

THEN
RESTRAINT SYSTEM/HELMET USE must equal 01-05, 08-12, 19, 97.

ANY INDICATION OF MIS-USE OF RESTRAINT SYSTEM/HELMET USE must equal 0 .

## AIR BAG DEPLOYED

FORMAT: 2 numeric
SAS NAME: Person.AIR_BAG

## ELEMENT VALUES:

00 Not Applicable
01 Deployed-Front
02 Deployed-Side (door, seatback)
03 Deployed-Curtain (roof)
07 Deployed-Other (knee, air belt, etc.)
08 Deployed-Combination
09 Deployment-Unknown Location
20 Not Deployed
28 Switched Off
98 Not Reported
99 Deployment Unknown
Definition: This element is used to record air bag availability and deployment for this person as reported in the case materials.

## Remarks:

Code this element regardless of the motor vehicle's Body Type or the age of the motor vehicle.
00 (Not Applicable) is used when the case materials indicate there was no air bag available for this person. Examples include any of the following terms.

- Not Applicable, No Air bag, Not Equipped, Not Present, None, Not available/Unavailable, Not Installed

20 (Not Deployed) is used only if the available information indicates the vehicle is equipped with an air bag (air bags) for this occupant's position, but it (they) did not deploy in this crash.

01 (Deployed-Front), 02 (Deployed-Side), 03 (Deployed-Curtain), 07 (Deployed-Other), 08 (Deployed-Combination), and 09 (Deployment-Unknown Location) are used only if you have indication in the available information that an air bag deployed for this occupant's seat position (not for others in the vehicle.) There may be multiple air bags available for this occupant's seat position. 01 (Deployed-Front), 02 (Deployed-Side) and 03 (DeployedCurtain) are used if case materials indicate that at least one air bag deployed for this person from only one of these directions. 08 (Deployed-Combination) is used if case materials indicate that air bags deployed from more than one direction (e.g., SIDE and FRONT) for this
seat position. 09 (Deployment-Unknown Location) is used if an air bag did deploy for this person, but the origin of the air bag is not known.

28 (Switched Off) is used when the case materials indicate that any air bag for this occupant's position was manually switched off and did not deploy. This attribute takes precedence over all other codes for this seating position.

## 98 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 98 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

99 (Deployment Unknown) is used if the investigating officer indicates that deployment of an air bag was unknown. This attribute includes both situations where it is unknown if an air bag was available and situations where it is identified that it is unknown if an available air bag deployed. This attribute would be applicable to hit and run vehicles that are not identified.

## Consistency Checks:

IF
THEN
AIR BAG DEPLOYED should equal 00.
AIR BAG DEPLOYED should equal 00.
SEATING POSITION should not equal
12, 22, 32, 41-55.
AIR BAG DEPLOYED should not equal 00. 97, and SEATING POSITION equals 11, 13, 18, 19,
(P210) AIR BAG DEPLOYED equals 28,
(P230) SEATING POSITION equals 21, 23, $28,29,31,33,38$ or 39 , and BODY TYPE equals 50-97,

SEATING POSITION should equal 13. AIR BAG DEPLOYED should equal 00.

## IF

## THEN

(P260) SEATING POSITION equals 18, 19,
(P290) AIR BAG DEPLOYED equals 01-03, 07-09, 20, 28, and BODY TYPE equals 01-49, and MODEL YEAR equals 1998 or newer,
(V320) BODY TYPE equals 50-52, 55, 58-66, 71-79, and SEATING POSITION does not equal 11, 13, 98,

## THIS PAGE INTENTIONALLY LEFT BLANK

## EJECTION

FORMAT: 1 numeric
SAS NAME: Person.Ejection

## ELEMENT VALUES:

$0 \quad$ Not Ejected
1 Totally Ejected
2 Partially Ejected
3 Ejected - Unknown Degree
7 Not Reported
8 Not Applicable
9 Unknown if Ejected
Definition: This element describes the ejection status and degree of ejection for this person, excluding motorcycle occupants.

## Remarks:

Ejection refers to occupants being totally or partially thrown from the vehicle (including the bed of pickup trucks) during the course of the crash. This includes occupants of jeeps, go carts, snowmobiles, three- or four-wheel ATVs. Note: This variable excludes occupants of motorcycles.

Partial ejection refers to those instances where some part but not all of an occupant's body is, at some time during the crash sequence, outside the occupant compartment.
$\mathbf{0}$ (Not Ejected) is used if the case materials specifically so state for a given occupant. Use this attribute for occupants of a hit-and-run vehicle, unless the case materials specifically indicate that an ejection occurred.

If the case materials do not show the ejection status of uninjured drivers or passengers and there is no other information about ejection, e.g., in the narrative/diagram, then use 7 (Not Reported).

1 (Totally Ejected) is used when the occupant's body is entirely outside the vehicle but may be in contact with the vehicle. This includes occupants who are not initially in the seating compartment of the vehicle (e.g., pickup beds, boot of a convertible and persons riding on open tailgates).

2 (Partially Ejected) refers to those instances where some part but not all of an occupant's body is, at some time during the crash sequence, outside the occupant compartment. This does not apply to occupants who are not initially in the seating compartment of the vehicle
(e.g., pickup beds, boot of a convertible and persons riding on open tailgates), since any ejection for them is coded as 1 (Totally Ejected).

3 (Ejected - Unknown Degree) is used when the case materials indicate that an occupant is ejected but fails to discriminate between total and partial ejection.

## 7 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 7 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

8 (Not Applicable) is used for persons who are riding on the exterior of a vehicle or for motorcycle occupants. Exterior of the vehicle includes running boards, roof, fenders and bumpers, but not the bed of pickup trucks, open tail gate or boot of a convertible.

Enter 9 (Unknown if Ejected) when the case materials specifically indicate unknown.

## Consistency Checks:

## IF

(3SOP) SEATING POSITION equals 55,
(4SOP) BODY TYPE equals $80-82,83,88,89$,
(6SOP) EJECTION equals 1,
(BAOP) EJECTION equals 0,8 ,
(BBOP) EJECTION equals 1-3, 9,
(BCOP) EJECTION PATH equals 1-9,
(P01F) PERSON TYPE equals 01-03, 09, and RESTRAINT SYSTEM/HELMET USE equals 01-04, 08, 10-12, and BODY TYPE does not equal 80-89,
(P050) EJECTION equals 1,

## THEN

EJECTION must equal 8.
EJECTION must equal 8.
EXTRICATION must not equal 1, 9.
EJECTION PATH must equal 0.
EJECTION PATH must equal 1-9, or blanks.
EJECTION must equal $1-3,7$ or 9 .
EJECTION should equal 0 or 7 .

RESTRAINT SYSTEM/HELMET USE should not equal 01-04, 08, 10-12.

IF
(P094) EJECTION equals 8,
(P310) EJECTION equals 1-3, and BODY TYPE does not equal 90, 91, 97,

## THEN

SEATING POSITION must equal 55, or BODY TYPE must equal 80-83, 88, 89. RESTRAINT SYSTEM/HELMET USE must not equal 05, 16, 17, 19, 29.

## THIS PAGE INTENTIONALLY LEFT BLANK

## EJECTION PATH <br> (FARS Only)

FORMAT: 1 numeric
SAS Name: Person.EJ_PATH

## ELEMENT VALUES:

0 Not Ejected/Not Applicable
1 Through Side Door Opening
2 Through Side Window
3 Through Windshield
4 Through Back Window
5 Through Back Door/Tailgate Opening
6 Through Roof Opening (sun-roof, convertible top down)
$7 \quad$ Through Roof (convertible top up)
8 Other Path (e.g., back of pick-up truck)
9 Unknown/Unknown Path
Definition: This element identifies the path by which this person was ejected from the vehicle.

## Remarks:

If no information is provided in the crash reports, assume that EJECTION is not applicable. Use the following table as a guideline:

|  | Ejection Path Guidelines |  |
| :--- | :--- | :--- |
| Path | Guideline |  |
|  |  |  |
| 1. | Through side door opening | all side doors |
| 2. | Through side window | all side windows, bus side windows |
| 3. | Through windshield | front windshield only |
| 4. | Through back window | standard rear window, back window of bronco, van |
| 5. | Through back door/tailgate | station wagon tailgate, back door of truck, back door of <br> bronco, van |
| opening | Through roof opening | (sun-roof, convertible top down) t-top, targa top |
| 7. | Through roof | (convertible top up) |
| 8. | Other path | (back of pick-up truck) torn-off roof, car cut in half |
| 9. | Unknown/Unknown Path | driver's side, unspecified; passenger's side <br> unspecified. |

## Consistency Checks:

|  | IF | THEN |
| :--- | :--- | :--- |
| (BAOP) | EJECTION equals 0, 8, | EJECTION PATH must equal 0. |
| (BBOP) | EJECTION equals 1-3, 9, | EJECTION PATH must equal 1-9, or |
| (BCOP) | EJECTION PATH equals 1-9, | blanks. |
| (BEOP) | BODY TYPE equals 80-83, 88, 89, | EJECTION must equal 1-3, 7 or 9. |
| (BFOF) | PERSON TYPE equals 04-08, 10, 19, | EJECTION PATH must equal 0. |
|  |  |  |

# EXTRICATION <br> (FARS Only) 

Format: 1 numeric

## SAS Name: Person.EXTRICAT

## ELEMENT VALUES:

0 Not Extricated or Not Applicable
1 Extricated
9 Unknown

Definition: This element identifies if equipment or other force was used to remove this person from the vehicle.

## Remarks:

Extrication refers to the use of equipment or other force to remove persons from the vehicles; i.e., more than just lifting or carrying person out of wreckage.
$\mathbf{0}$ (Not Extricated or Not Applicable) is used when no information is provided in the crash report regarding extrication for this occupant. (i.e., assume that EXTRICATION is not applicable.) This field is not applicable to motorcycle and ATVIATC riders.

1 (Extricated) is used when the police officer uses the word "extricated" to indicate occupant removal. Use of the term "extricated" is sufficient information to use 1 (Extricated) even if no mention of equipment is made. The only exception to this is if the analyst knows the officer used the term "extrication" not as intended for the purpose of this element. If the officer uses the term "pinned" or "wedged" or something similar, then the officer must indicate that equipment was used to remove the occupant in order to attribute 1 (Extricated).

9 (Unknown) is to be used when the officer states that the occupant is "pinned" or "wedged," etc., and suggests that the occupant may have been removed with force, but does not make it clear whether equipment was used or not.

## Consistency Checks:

## IF

(5SOP) BODY TYPE equals 80-83, 88, 89 or 90,
(6SOP) EJECTION equals 1, EXTRICATION must not equal 1, 9.

## THEN

EXTRICATION must equal 0.

## THIS PAGE INTENTIONALLY LEFT BLANK

## POLICE REPORTED ALCOHOL INVOLVEMENT

FORMAT: 1 numeric

SAS NAME: Person.DRINKING

## ELEMENT VALUES:

$0 \quad$ No (Alcohol Not Involved)
1 Yes (Alcohol Involved)
8 Not Reported
9 Unknown (Police Reported)
Definition: This data element reflects only the judgment of law enforcement as to whether alcohol was involved or not for this person.

## Remarks:

The phrase "alcohol involved" means that alcohol is present in the person or presumed to be present by the police. Consequently, this data element may not agree with the alcohol test results for this person. Involvement is not an indication that alcohol was in any way a cause of the crash.

If the case materials indicate that open or unopened alcoholic beverages were found in the vehicle, then this information does not by itself constitute involvement unless the police indicate that this was the basis for a determination of involvement. If the case materials indicate that a preliminary breath test (PBT) was given and the officer's judgment contradicts the preliminary test, the officer's judgment will be the determining factor.

## 0 (No [Alcohol Not Involved]) applies if the judgment of law enforcement is that alcohol is not present.

In some circumstances it is possible for the police to give sufficient information in the report fields (such as contributing circumstances, driver/pedestrian condition, alcohol presence or use, alcohol test, etc.) or narrative to indicate that they believe alcohol is not involved without specifically mentioning "no" alcohol. In such cases, use $\mathbf{0}$ (No [Alcohol Not Involved]). However, if there is any question that the officer's position on alcohol involvement is "no alcohol" because of lack of information, then use 8 (Not Reported).

1 (Yes [Alcohol Involved]) applies only if the judgment of the law enforcement is that alcohol was present. For example, the police indicate alcohol involvement via:

- a specific data element on the police report form such as Driver Condition,
- the police charge the driver with an alcohol-related offense,
- the police mention in the narrative section of the report that the person had been drinking,
- the police report has a positive BAC test result (BAC>.00).

Some PARs have a block labeled "Alcohol/Drugs." If use is indicated, and it cannot be determined which was used (e.g., narrative, arrest/charged section, etc.), then assume alcohol is present. If the police report indicates that a driver was charged with DWI/DUI (driving while intoxicated, driving while impaired or driving under the influence), and no clarification is offered to indicate if the DWI/DUI was alcohol related or other drug related (e.g., a specific data element; mentioned in the narrative section; BAC results), then assume alcohol presence.

8 (Not Reported) applies when law enforcement makes no mention of alcohol involvement in either narrative or data fields. For example, there is a specific location on the police report for assessment of alcohol but the investigating officer fails to make either a positive or negative assessment by leaving the field blank. Also use 8 (Not Reported) if no block exists on the PAR for reporting alcohol presence and no other information is available.

There are instances when the police do not indicate in the PAR whether alcohol was involved or not, but they do mention that a test was given or ordered. For example, the police may only say that an evidential test was ordered for a driver without indicating that they suspected alcohol or providing a result. The use of passive alcohol sensors (PAS) may also be mentioned as used by the police, without mention of the result. Use 8 (Not Reported) for these instances.

9 (Unknown [Police Reported]) applies when law enforcement indicates in either narrative or data fields that alcohol involvement is "unknown" for this person. In general, crash reports have blocks to indicate either positive or negative alcohol involvement. However if a crash report has a provision for the investigating officer to respond "unknown involvement," then enter this attribute. Also enter this attribute for hit-and-run drivers or passengers unless clear evidence to the contrary exists.

## FARS SPECIAL INSTRUCTION:

Important Guidelines:

- Do not change the coding of this element because a positive alcohol test is obtained form the coroner, medical examiner or state toxicology lab. A positive or negative BAC test submitted from the toxicology lab or coroner directly to the FARS analyst is not evidence of the officer's judgment.
- The police accident report, including any supplemental reports or direct contact with the police are the only valid sources.

When Police-Reported Alcohol Involvement is 8 (Not Reported) or 9 (Unknown [Police
Reported]), Method of Alcohol by Police Determination attributes " $1-8$ " are allowed. However, this should only happen when the method is stated by the police, but the involvement is not mentioned at all or stated as unknown.

## Consistency Checks:

IF
(4X4F) any CONDITION (IMPAIRMENT) AT TIME OF CRASH (D23) equals 09,
(D090) VIOLATIONS CHARGED equals 11-19, and PERSON TYPE equals 01, 03,
(P072) PERSON TYPE equals 02, 03, and INJURY SEVERITY equals 0 , and ALCOHOL TEST RESULT equals 96,
(P110) METHOD OF ALCOHOL
DETERMINATION BY POLICE equals 1-5, 8,
(P200) POLICE REPORTED ALCOHOL INVOLVEMENT equals 8, 9,
(P300) POLICE REPORTED ALCOHOL INVOLVEMENT equals 1, and INJURY SEVERITY equals 4,

## THEN

POLICE REPORTED ALCOHOL INVOLVEMENT (P16), or POLICE REPORTED DRUG INVOLVEMENT (P19) should equal 1 for this person. POLICE REPORTED ALCOHOL INVOLVEMENT should equal 1, or POLICE REPORTED DRUG INVOLVEMENT should equal 1. POLICE REPORTED ALCOHOL INVOLVEMENT should equal $0,8$.

POLICE REPORTED ALCOHOL INVOLVEMENT should equal 0, 1.

METHOD OF ALCOHOL DETERMINATION BY POLICE should equal 9. ALCOHOL TEST STATUS should not equal 0, 1.

## THIS PAGE INTENTIONALLY LEFT BLANK

# METHOD OF ALCOHOL DETERMINATION BY POLICE 

(FARS Only)

FORMAT: 1 numeric
SAS NAME: Person.ALC_DET

## ELEMENT VALUES:

1 Evidential Test (breath, blood, urine)
2 Preliminary Breath Test (PBT)
3 Behavioral
4 Passive Alcohol Sensor (PAS)
5 Observed
8 Other (e.g., Saliva test)
9 Not Reported
Definition: This element describes the method by which the police made the determination as to whether alcohol was involved or not for this person.

## Remarks:

This variable is coded for each person involved in the crash. The Police Accident Report (PAR) and supplements are the source of information.

The purpose of this variable is to record the method by which the police made the determination as to whether alcohol was involved or not.

It is used primarily when the Police-Reported Alcohol Involvement variable is coded as $\mathbf{0}$ (No [Alcohol Not Involved]) or $\mathbf{1}$ (Yes [Alcohol Involved]).

Whenever Police-Reported Alcohol Involvement is $\mathbf{0}$ (No [Alcohol Not Involved]), try to find out how the police knew this. When Police-Reported Alcohol Involvement is $\mathbf{1}$ (Yes [Alcohol Involved]), try to determine how the police knew this.

If Police-Reported Alcohol Involvement is $\mathbf{8}$ (Not Reported) or 9 (Unknown [Police Reported]), then Method of Alcohol Determination by Police is $\mathbf{8}$ (Not Reported). If more than one method is used by the police to determine alcohol involvement choose the method the police refer to when they record their assessment. If more than one method is used and they do not state which method was the basis for their alcohol determination, code the highestranking method used from the hierarchy (the highest ranking is " 1 "; the lowest is " 5 ").

1 (Evidential Test [breath, blood, urine]) is used if Police-Reported Alcohol Involvement is $\mathbf{0}$ (No [Alcohol Not Involved]) or 1 (Yes [Alcohol Involved]) and the police indicate that they
ordered an evidential test and their determination of alcohol involvement was based on the results of that test.

An evidential test can be a breath test on a state-approved breath test device, a blood test, or a urine test. No other tests are considered evidential.
The key in coding evidential test as the basis for the police alcohol assessment is the ordering of the test by the police. A routine test performed by a coroner or medical examiner that was not ordered by the police is not considered as evidential for the purposes of the variable.

2 (Preliminary Breath Test [PBT]) is used if Police-Reported Alcohol Involvement is $\mathbf{0}$ (No [Alcohol Not Involved]) or 1 (Yes [Alcohol Involved]) and the police indicate that alcohol involvement was based upon the results of a preliminary breath test, or PBT. Preliminary breath testing devices are not yet considered evidential tests, but merely as tools for the police to help them determine whether alcohol is present or not. Many PBTs only indicate whether alcohol is present in the breath by pass (green) or fail (red) lights. Other PBTs indicate the approximate BAC in numbers. Some PBTs are of evidential quality in some States. But if the device was used only as a preliminary test and not the evidential test, then this value should be coded.

The key to coding this is the definite indication by the police that a PBT was used and was the basis (or the clinching evidence) that a driver had been drinking or not.

3 (Behavioral) is used if Police-Reported Alcohol Involvement is $\mathbf{0}$ (No [Alcohol Not Involved]) or $\mathbf{1}$ (Yes [Alcohol Involved]) and the police indicate that the basis for that alcohol assessment was the behavior by the driver during a field sobriety test.

Examples of field sobriety tests include the gaze nystagmus test, walking in a straight line, one leg stand, etc.

## Do not confuse 3 (Behavioral) with 5 (Observed).

4 (Passive Alcohol Sensor [PAS]) is used if Police-Reported Alcohol Involvement is $\mathbf{0}$ (No [Alcohol Not Involved]) or 1 (Yes [Alcohol Involved]) and the police indicate that alcohol involvement was based upon the results of a passive alcohol sensor, or "sniffer."

The PAS devices available and in use by police are devices that look like flashlights and when held within 6 inches of the driver's mouth will detect alcohol in the breath while the driver is talking. The PAS is not considered an evidential test nor a PBT. It is not really a test, but a detector or an extension of the police officer's senses. The PAS devices are usually PASS/FAIL indicators with a red light indicating alcohol on the breath.

The key to coding this attribute is the indication by the police that a PAS was used and was the basis for coding $\mathbf{0}$ (No) or $\mathbf{1}$ (Yes) for Police-Reported Alcohol Involvement.

5 (Observed) is used if Police-Reported Alcohol Involvement is $\mathbf{0}$ (No [Alcohol Not
Involved]) or $\mathbf{1}$ (Yes [Alcohol Involved]) and the police indicate that the basis for their alcohol
assessment was some observation of the driver. Do Not Confuse 5 (Observed) with $\mathbf{3}$ (Behavioral).

## Examples of observations would be:

- smelling alcohol on the driver's breath
- staggering, slurring of speech
- the driver admitting he had been drinking
- other observations described by the police that would not be considered field sobriety tests

Be careful not to simply assume that this is the appropriate code when some other method may have been used (e.g., breath test, PBT, PAS).

8 (Other [e.g., Saliva test]) is used if Police-Reported Alcohol Involvement is $\mathbf{0}$ (No [Alcohol Not Involved]) or $\mathbf{1}$ (Yes [Alcohol Involved]) and the police indicate that the basis for alcohol determination was something other than the codes "1, 2, 3, 4 and 5" described above.

## Examples of Other methods include:

1. results of a saliva test
2. results of other tissue tests

The key to coding this data element is the description by the police of some other method of alcohol determination that does not fall into codes "1-5."

## See the paragraph below on Witness Statements.

9 (Not Reported) is coded if Police-Reported Alcohol Involvement is 8 (Not Reported) or 9 (Unknown [Police Reported]). It is also coded if Police-Reported Alcohol Involvement is $\mathbf{0}$ (No [Alcohol Not Involved]) or $\mathbf{1}$ (Yes [Alcohol Involved]) and there is no indication in the police report or any documents as to how the police made the alcohol assessment.
See the paragraph below on Witness Statements.

## Witness Statements:

Witness Statements may or may not be used by the police to make a determination of alcohol involvement. If the police did use witness statements alone to make a determination of alcohol involvement, use 8 (Other).

If the police mention, but did not use witness statements and there is no other indication of how a determination was made, use 9 (Not Reported).

There are instances when the police do not indicate in the PAR whether alcohol was involved or not, but they do mention that a test was given or ordered.

FOR EXAMPLE: The police may only say that an evidential test was ordered for a driver without indicating that they suspected alcohol or what the result was. The use of passive alcohol sensors (PAS) may also be mentioned as used by the police, without mention of the result.

Code 1-8 may be used for Method Of Alcohol Determination by Police when Police-Reported Alcohol Involvement is coded as 8 (Not Reported) or 9 (Unknown [Police Reported]), if this fits the case.

This should only happen when the method is stated by the police, but the involvement is not mentioned at all or stated as unknown.

## Consistency Checks:

IF
(P110) METHOD OF ALCOHOL DETERMINATION BY POLICE equals 1-5, 8,
(P200) POLICE REPORTED ALCOHOL INVOLVEMENT equals 8, 9,

THEN
POLICE REPORTED ALCOHOL INVOLVEMENT should equal 0, 1.

METHOD OF ALCOHOL DETERMINATION BY POLICE should equal 9.
(U681) UNLIKELY: METHOD OF ALCOHOL DETERMINATION BY POLICE equals 8.

## ALCOHOL TEST

FORMAT: 3 sets, 1 set, 1 numeric, 2 sets, 2 numeric
SAS NAME: Person.ALC_STATUS, Person.ATST_TYP, Person.ALC_RES

## ELEMENT VALUES:

| GES | FARS |  |  |
| :---: | :---: | :--- | :--- |
| 0 |  | 0 |  |
| 1 | Subfield 1 - Test Status |  |  |
| 2 | 1 | Test Not Given |  |
| 2 | 2 | Test Given |  |
| 8 | 8 | Not Reported |  |
| 9 | 9 | Unknown if Tested |  |
|  |  |  |  |
|  |  | Subfield 2 - Test Type |  |
| 00 | 00 | Test Not Given |  |
| 01 | 01 | Blood |  |
| 02 | 02 | Breathalyzer (BAC) |  |
| 10 | 10 | Preliminary Breath Test (PBT) |  |
| 03 | 03 | Urine |  |
| XX | 04 | Vitreous |  |
| XX | 05 | Blood Plasma/Serum |  |
| XX | 06 | Blood Clot |  |
| XX | 07 | Liver |  |
| 08 | 08 | Other Test Type |  |
| 98 | 98 | Unknown Test Type |  |
| 95 | 95 | Not Reported |  |
| 99 | 99 | Unknown if Tested |  |
|  |  |  |  |
|  |  | Subfield 3 - Test Result |  |
| $00-93$ | $00-93$ | Actual Value |  |
| 94 | 94 | .94 or Greater |  |
| 96 | 96 | Test Not Given |  |
| 97 | 97 | AC Test Performed, Results Unknown |  |
| 98 | 98 | Positive Reading with No Actual Value |  |
| 95 | 95 | Not Reported |  |
| 99 | 99 | Unknown if Tested |  |

Definition for Alcohol Test Status: This element identifies if an alcohol test was given to this person.

Definition for Alcohol Test Type: This element identifies the type of the alcohol test that was used for this person.

Definition for Alcohol Test Result: This element identifies the alcohol test result for this person.

## Remarks:

When completing this element, you must have the data to fill $\underline{\text { ALL }}$ three subfields. Otherwise, leave all three subfields blank until all the data has been acquired to complete all three subfields.

For alcohol tests that were initiated but not completed because of a contaminated or insufficient sample, code:

- Test Status as 2 (Test Given)
- the applicable Test Type,
- and code Test Results as 97(Test Performed, Results Unknown).

Subfield 1 - Test Status indicates whether or not a test was performed on this person to detect the presence of alcohol.
$\mathbf{0}$ (Test Not Given) is used when the case materials indicate an alcohol test was not given.
Most states' practice is that "live" non-drivers are not routinely tested for alcohol. Consequently, for live non-drivers MDE will auto-fill Test Status, Test Type, and Test Result as Test Not Given. If you happen to obtain an alcohol test result for a "live" nondriver, enter Test Status as Test Given and the appropriate test type and results.
$\mathbf{1}$ (Test Refused) is used when the case materials indicate an alcohol test was refused.
2 (Test Given) is used when the case materials indicate an alcohol test was given.

## 8 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 8 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

9 (Unknown if Tested) is used when the case materials specifically indicated "Unknown if Tested."

## Subfield 2.

If more than one type of test is performed on the same person, a Blood Test is preferred over other tests. The exception is if you have information that casts clear doubt on the validity or reliability of the Blood Test when you have results from a test of another type. For example, the blood test was spoiled or contaminated. In such a case, record the Test Type for the test with the valid result. Other situations where this may occur include information that:

- the test was performed on a live victim unreasonably long after the crash; or
- the lab, coroner, or medical examiner expresses doubt in their result from a blood test.
*Note: The attributes Vitreous, Blood Plasma/Serum, Blood Clot, and Liver are not included in GES as the source document (e.g. Coroner Report, Toxicology Screening) where these Test Types would be used are not available in a GES sampled PAR.

CODING HIERARCHY: When more than one alcohol test exists, use the following hierarchy: 01 (Blood), 05 (Blood Plasma/Serum), 02 (Breathalyzer [BAC]), 04 (Vitreous), 03 (Urine), 06 (Blood Clot), 07(Liver), 10 (Preliminary Breath Test [PBT]), 08 (Other Test Type). (Attributes 04-07 do not apply for GES coding purposes.)

01 (Blood) is used when the case materials indicate this was the type of test used to obtain a BAC.

Note that there are test types for 01 (Blood), 05 (Blood Plasma/Serum) and 06 (Blood Clot). If the Coroner, Medical Examiner, or State Lab reports that the test was a "blood" test (whole blood), this most likely does not refer to Blood Plasma or Blood Clot, but you should try to verify this. If the test was performed on blood, or if you know the results are already converted to a BLOOD ALCOHOL CONCENTRATION (BAC), then code TEST TYPE as 01 (Blood).

Breath is used when the case materials indicate this was the type of test used to obtain a BAC.

Breath is used if you have a result from an evidential breath test (a breath test performed on a State-approved breath test device). Usually, results from a Preliminary Breath Test (PBT) device are not considered evidential. Some PBTs are of evidential quality in some States; but if the device was used only as a preliminary test and not an evidential test, then do not use code "02."

03 (Urine) is used when the case materials indicate this was the type of test used to obtain a BAC.

08 (Other Test Type) is used when the case materials indicate a type of test used to obtain a BAC was recorded as "Other" or is indicated to be of a type other than the available attributes.

10 (Preliminary Breath Test [PBT]) is used when the case materials indicate this was the type of test used to obtain a BAC and no other test is available. Update Test Type and corresponding Result if a PBT is followed by an evidential test, other than a PBT. A breath,
blood or urine test will take precedence over a PBT result unless you have information that casts clear doubt on the validity or reliability of the Evidential Test AND you have a valid PBT result to record.

- Example 1: You only receive a PBT with an actual value
- Code Test Type "10 - PBT" and Test Result "the actual value received"
- Example 2 -: You only receive a PBT with a "negative" result returned
- Code Test Type "10 - PBT" and Test Result "00"
- Example 3: You only receive a PBT with "positive" result, but no actual value
- Code Test Type "10 - PBT" and Test Result code " 98 - Positive Reading With No Actual Value"
- Example 4: You receive a PBT with an actual value of .10\% and a blood test (whole blood) from the lab of .08\%
- Code Test Type "01 - Blood" and Test Result . 08
- Example 5: You receive a PBT with an actual value of . $10 \%$ and a breathalyzer test both from the police of .08\%
- Code Test Type "02 - Breathalyzer (BAC)" and Test Result . 08
- Example 6: You receive a PBT with an actual value of . $10 \%$ from the police and a blood test (whole blood) from the state lab indicating a "contaminated" sample.
- Code Test Type " 10 - PBT" and Test Result . 01

98 (Unknown Test Type) is used when the case materials indicate a test was given but do not specify the type of test.

## 95 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 95 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

99 (Unknown if Tested) is used when the case materials specifically indicated "Unknown if Tested."

## Subfield 3

A TEST RESULT of . 01 is a low probability and will raise an error flag. Any BAC test result reported in 3 decimal places should be truncated, not rounded. For example, a reported BAC of .099 becomes .09. The reason for truncating is that the accuracy of most testing devices is only reliable to two decimal places, so the third decimal place is meaningless.

97 (AC Test Performed, Results Unknown) refers to alcohol content tests that were performed but the results are reported as unknown or pending and are unobtainable (includes a "Contaminated Sample" or "Insufficient Sample"). AC Test Performed, Results Unknown can be used for any Test Type.

## FARS SPECIAL INSTRUCTION:

As a general coding guideline, do not prematurely use Test Result "AC Test Performed, Results Unknown." It is recommended that you leave the information blank for drivers and non-motorists until the test results are received from the state lab, coroner or police. You need to be reasonably certain that you will never receive the test results to use attribute " 97 " at the time of the initial coding and case entry.

## 95 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 95 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

## FARS SPECIAL INSTRUCTION:

Prior to 2009, the Alcohol Test Result code " 95 " represented an alcohol test result that was not provided because the test was refused. This situation was identified using the element value " 95 - Test Refused". This element value was dropped in 2009 and the code " 95 " was reintroduced in 2010 as the element value " 95 - Not Reported".

99 (Unknown if Tested) is used when the case materials specifically indicated "Unknown if Tested."

98 (Positive Reading with No Actual Value) can be used for any Test Type code where the result is indicated to be positive without a numeric value to record. This should only be used when a final test result is returned as "positive" with no actual result to record. This can occur when a screening test is used and it is the only test result available. Some PBTs only indicate whether alcohol is present in the breath by positive (green) or negative (red) lights. Other PBTs indicate the approximate BAC in numbers. 98 (Positive Reading with No Actual Value) should be used when a PBT result only indicates "positive" for alcohol, with no actual BAC value. A negative PBT result should be interpreted as .00 .

Before recording this value make sure that this is the final test result and no actual value was available from a follow-up confirmatory test.

## FARS SPECIAL INSTRUCTION:

Prior to 2006, this attribute read "PBT Positive Reading with No Actual Value" and was used strictly for recording test results for Preliminary Breath Test devices.

State Law versus Practice: You may be aware that your State laws require testing of certain classes of crash victims. However, you may also know that the practice in your State is that the law is not observed. In such cases, you are not bound only by what the law says. You may consider State practices in your coding decisions.

Example 1: Your state law may require all fatalities to be tested for BAC, but you know that this does not happen in your State and you are unable to locate alcohol test information for this person:

- In such a case, you cannot rely on the law for your coding decisions. Therefore, you should use 99 (Unknown If Tested) rather than 97 (AC Test Performed, Results Unknown), or 96 (Test Not Given). (Test Status equals 9 (Unknown if Tested) and Test Type equals 99 (Unknown if Tested)).

Example 2: Most states' practice is that "live" non-drivers are not routinely tested for alcohol. Consequently, for live non-drivers when there is no mention of a test ordered by the police in the Police Accident Report (PAR):

- Code Test Status as $\mathbf{0}$ (Test Not Given) and MDE will auto-fill Test Type as $\mathbf{0 0}$ (Test Not Given) and Test Result as 96 (Test Not Given). However, if you happen to obtain an alcohol test result later, you may enter the appropriate test type and results.


## Computed Estimates of BACs:

An expert may calculate an estimate of what the BAC would have been at the time of the crash (i.e., toxicologist uses the lapse time from crash and the victim's weight to calculate the BAC). You may accept these results if the following are all true:

- Results were reported by someone with the authority in your state to make this determination; and
- the result is considered official in your state; and
- you can support the result with official documentation or it is reported on the PAR (may vary from state-to-state).


## Consistency Checks:

## IF

## THEN

(5T6P) If ALCOHOL TEST STATUS equals 2, and ALCOHOL TEST TYPE equals

ALCOHOL TEST RESULTS must equal 98,
(5T7P) ALCOHOL TEST STATUS equals 0, ALCOHOL TEST TYPE must equal 00, 1, and ALCOHOL TEST RESULT must equal 96.
(5T8P) ALCOHOL TEST STATUS equals 9,
ALCOHOL TEST TYPE must equal 99, and ALCOHOL TEST RESULT must equal 99.
(5T9P) ALCOHOL TEST STATUS equals 2,
ALCOHOL TEST TYPE must equal 01-10, 98, and ALCOHOL TEST RESULT must equal 00-94, 97, 98.
(5TCP) ALCOHOL TEST STATUS equals 8, ALCOHOL TEST TYPE must equal 95, and ALCOHOL TEST RESULT must equal 95.
(P071) PERSON TYPE equals 02, 04-08, 10, ALCOHOL TEST STATUS should not and INJURY SEVERITY does not equal 4, equal 9, ALCOHOL TEST TYPE should not equal 99, and ALCOHOL TEST RESULT should not equal 99.
(P074) PERSON TYPE equals 02, 04-08, 10, and INJURY SEVERITY does not equal 4,

ALCOHOL TEST STATUS must not equal 8, ALCOHOL TEST TYPE must not equal 95, and ALCOHOL TEST RESULT must not equal 95.
(P080) ALCOHOL TEST RESULTS should not equal 34-94.
(P300) POLICE REPORTED ALCOHOL INVOLVEMENT equals 1, and INJURY SEVERITY equals 4,

ALCOHOL TEST STATUS should not equal 0,1 .

THIS PAGE INTENTIONALLY LEFT BLANK

## POLICE REPORTED DRUG INVOLVEMENT

FORMAT: 1 numeric

## SAS NAME: Person.DRUGS

## ELEMENT VALUES:

$0 \quad$ No (Drugs Not Involved)
1 Yes (Drugs Involved)
8 Not Reported
9 Unknown (Police Reported)
Definition: This data element reflects only the judgment of law enforcement as to whether drugs were involved or not for this person.

## Remarks:

This data element reflects only the judgment of law enforcement as to whether drugs were involved or not for this person.

The phrase "drug involvement" means that drugs are present in the person or presumed to be present by the police. This includes prescription and over-the-counter medications, as well as illicit substances (e.g., marijuana, cocaine, heroin, etc.). It is not an indication that the drug usage was in any way a cause of the crash.

If case materials indicate that drugs were found in the vehicle, then this information does not by itself constitute involvement unless the police indicate that this was the basis for a determination of involvement.

Some PARs have a block labeled "Alcohol/Drugs." If use is indicated, and it cannot be determined which was used (e.g., narrative, arrest/charged section, etc.), then assume alcohol, not drugs. If the police report indicates that a driver was charged with DWI (driving while intoxicated or driving while impaired) and no clarification is offered to indicate if the DWI was alcohol related or drug related (e.g., a specific data element, mentioned in the narrative section, BAC results), then interpret as alcohol presence .
$\mathbf{0}$ (No [Drugs Not Involved]) applies if the judgment of law enforcement is that drugs are not present.

In some circumstances it is possible for the police to give sufficient information in the report fields (such as contributing circumstances, driver/pedestrian condition, substance use, drug test, etc.) or narrative to indicate that they believe drugs are not involved without specifically mentioning no drugs. In such cases, you may use $\mathbf{0}$ (No [Drugs Not Involved]). However, if
there is any question that the officer's position on drug involvement is No because of a lack of information, then it is best to use $\mathbf{8}$ (Not Reported).

1 (Yes [Drugs Involved]) applies only if the police assessment is that drugs were present. For example the police indicate drug involvement via:

- a specific data element on the police report form such as Driver Condition,
- the police charge the driver with an drug related offense,
- the police mention in the narrative section of the report that the person had been under the influence of a drug
- the police report has a positive test result reported for drugs

8 (Not Reported) applies when law enforcement makes no mention of drug involvement in either narrative or data fields. For example, there is a specific location on the police report for assessment of drugs but the investigating officer fails to make either a positive or negative assessment by leaving the field blank. Also use 8 (Not Reported) if no block exists on the PAR for reporting drug presence and no other information is available.

There are instances when law enforcement do not indicate in the PAR whether drugs were involved or not, but they do mention that a test was given or ordered. For example, the police may only say that an evidential test was ordered for a driver without indicating that they suspected drugs or providing a result. Use 8 (Not Reported) for these instances.

9 (Unknown [Police Reported]) applies when law enforcement indicate in either narrative or data fields that drug involvement is "unknown" for this person. In general, police reports have blocks to indicate either positive or negative drug involvement. However, if a crash report has a provision for the investigating officer to respond "unknown involvement," then enter this attribute. Also enter this attribute for hit-and-run drivers unless clear evidence to the contrary exists.

## FARS SPECIAL INSTRUCTION:

Important Guidelines:

- Do not change the coding of this element because a positive drug test is obtained from the coroner, medical examiner or state toxicology lab. A positive or negative test result submitted from the toxicology lab or coroner directly to the FARS analyst is not evidence of the officer's judgment.
- The crash report, including any supplemental reports or direct contact with law enforcement, are the only valid sources.

When Police Reported Drug Involvement is 8 (Not Reported) or 9 (Unknown [Police
Reported]), all Method of Drug Determination attributes are allowed. However, this should only happen when the method is stated by the police, but the involvement is not mentioned at all or stated as unknown.

## Consistency Checks:

|  | F | EN |
| :---: | :---: | :---: |
| (4X4F) | any CONDITION (IMPAIRMENT) AT TIME OF CRASH (D23) equals 09, | POLICE REPORTED ALCOHOL INVOLVEMENT (P16), or POLICE REPORTED DRUG INVOLVEMENT (P19) should equal 1 for this person. |
| (BQ0P) | METHOD OF DRUG DETERMINATION BY POLICE equals 8, | POLICE REPORTED DRUG <br> INVOLVEMENT must equal $0,1,8,9$. |
| (BROP) | METHOD OF DRUG DETERMINATION BY POLICE equals 1-7, | POLICE REPORTED DRUG INVOLVEMENT must equal $0,1,8$. |
| (D090) | VIOLATIONS CHARGED equals 11-19, and PERSON TYPE equals 01, 03 , | POLICE REPORTED ALCOHOL INVOLVEMENT should equal 1, or POLICE REPORTED DRUG INVOLVEMENT should equal 1. |
| (P140) | POLICE REPORTED DRUG INVOLVEMENT equals 8, 9 , | METHOD OF DRUG DETERMINATION BY POLICE should equal 8. |
| (P150) | POLICE REPORTED DRUG INVOLVEMENT equals 1, | DRUG TEST STATUS should not equal 0. |
| (P160) | POLICE REPORTED DRUG INVOLVEMENT equals 1, and METHOD OF DRUG DETERMINATION BY POLICE equals 2 , | not all DRUG TEST RESULTS should equal 001. |
| (P170) | METHOD OF DRUG DETERMINATION BY POLICE equals 1-7, | POLICE REPORTED DRUG INVOLVEMENT should equal 0, 1. |

## THIS PAGE INTENTIONALLY LEFT BLANK

## METHOD OF DRUG DETERMINATION BY POLICE

(FARS Only)

FORMAT: 1 numeric
SAS NAME: Person.DRUG_DET

## ELEMENT VALUES:

1 Evidential Test (Blood, Urine)
2 Drug Recognition Technician (DRT) determination
3 Behavioral
7 Other
8 Not Reported
Definition: This element identifies the method by which the police made the determination as to whether drugs were involved or not for this person.

## Remarks:

This element is coded for each person involved in the crash. The Police Accident Report (PAR) and supplements are the source of information.

The purpose of this element is to record the method by which the police made the determination as to whether drugs were involved or not.

It is used primarily when the Police Reported Drug Involvement element is coded as $\mathbf{0}$ (No [Drugs Not Involved]) or 1 (Yes [Drugs Involved]).

Whenever Police Reported Drug Involvement is $\mathbf{0}$ (No [Drugs Not Involved]), try to find out how the police knew this. When Police Reported Drug Involvement is 1 (Yes [Drugs Involved]), try to determine how the police knew this.

If Police Reported Drug Involvement is $\mathbf{8}$ (Not Reported) or 9 (Unknown [Police Reported]), then Method of Drug Determination by Police is $\mathbf{8}$ (Not Reported). If more than one method is used by the police to determine drug involvement choose the method the police refer to when they record their assessment. If more than one method is used and they do not state which method was the basis for their determination, code the highest-ranking method used from the hierarchy (the highest ranking is " 1 "; the lowest is " 7 ").

1 (Evidential Test [Blood, Urine]) is used if Police Reported Drug Involvement is $\mathbf{0}$ (No [Drugs Not Involved]) or 1 (Yes [Drugs Involved]) and the police indicate that they ordered an evidential test and their determination of drug involvement was based on the results of that test.

The key in coding evidential test as the basis for the police drug assessment is the ordering of the test by the police. A routine test performed by a coroner or medical examiner that was not ordered by the police is not considered as evidential for the purposes of the element.

2 (Drug Recognition Technician [DRT] determination) is used if Police Reported Drug Involvement is $\mathbf{0}$ (No [Drugs Not Involved]) or 1 (Yes [Drugs Involved]) and the police indicate that drug involvement was based upon the results of expert opinion of a person trained to evaluate a person for drug use.

The key to coding this is the definite indication by the police that a DRT was used and was the basis (or the clinching evidence) that a driver had been using drugs or not.

3 (Behavioral) is used if Police Reported Drug Involvement is $\mathbf{0}$ (No [Drugs Not Involved]) or 1 (Yes [Drugs Involved]) and the police indicate that the basis for that drug assessment was the behavior by the driver during their contact with the person such as a field sobriety test.

7 (Other) is used if Police Reported Drug Involvement is $\mathbf{0}$ (No [Drugs Not Involved]) or $\mathbf{1}$ (Yes [Drugs Involved]) and the police indicate that the basis for Drug determination was something other than the codes " 1,2 , or 3 " described above.

## Examples of 7 (Other) include:

1. Observations of drugs or drug use paraphernalia
2. Detecting the odor of marijuana
3. Admission by the person that they used drugs

8 (Not Reported) is coded if Police-Reported Drug Involvement is 8 (Not Reported) or 9 (Unknown [Police Reported]). It is also coded if Police-Reported Drug Involvement is $\mathbf{0}$ (No [Drugs Not Involved]) or $\mathbf{1}$ (Yes [Drugs Involved]) and there is no indication in the police report or any documents as to how the police made the drug assessment.

## Witness Statements:

Witness Statements may or may not be used by the police to make a determination of drug involvement. If the police did use witness statements alone to make a determination of drug involvement, use 7 (Other).

If the police mention, but did not use witness statements and there is no other indication of how a determination was made, use 8 (Not Reported).

There are instances when the police do not indicate in the PAR whether drugs were involved or not, but they do mention that a test was given or ordered.

FOR EXAMPLE: The police may only say that an evidential test was ordered for a driver without indicating that they suspected drugs or what the result was.

Code 1-7 may be used for Method Of Drug Determination by Police when Police Reported Drug Involvement is coded as 8 (Not Reported) or 9 (Unknown [Police Reported]), if this fits the case.

This should only happen when the method is stated by the police, but the Involvement is not mentioned at all or stated as unknown.

## Consistency Checks:

## IF

(BQOP) METHOD OF DRUG DETERMINATION BY POLICE equals 8,
(BROP) METHOD OF DRUG DETERMINATION BY POLICE equals 1-7,
(P140) POLICE REPORTED DRUG INVOLVEMENT equals 8, 9 ,
(P160) POLICE REPORTED DRUG INVOLVEMENT equals 1, and METHOD OF DRUG DETERMINATION BY POLICE equals 2,
(P170) METHOD OF DRUG DETERMINATION BY POLICE equals 1-7,

## THEN

POLICE REPORTED DRUG INVOLVEMENT must equal 0, 1, 8, 9 . POLICE REPORTED DRUG INVOLVEMENT must equal 0, 1, 8 . METHOD OF DRUG DETERMINATION BY POLICE should equal 8. not all DRUG TEST RESULTS should equal 001.

POLICE REPORTED DRUG
INVOLVEMENT should equal 0, 1 .

## THIS PAGE INTENTIONALLY LEFT BLANK

## DRUG TEST

FORMAT: 1 set 1 numeric; 3 sets, 1 numeric, 3 numeric
SAS NAME: Person.DSTATUS, Person.DRUGTST1, Person.DRUGTST2, Person.DRUGTST3, Person.DRUGRES1, Person.DRUGRES2, Person.DRUGRES3

## ELEMENT VALUES:

| GES | FARS |  |
| :---: | :---: | :---: |
|  |  | Subfield 1 - Test Status |
| 0 | 0 | Test Not Given |
| 1 | 1 | Test Refused |
| 2 | 2 | Test Given |
| 8 | 8 | Not Reported |
| 9 | 9 | Unknown if Tested |
|  |  | Subfield 2 - Test Type |
| 0 | 0 | Test Not Given |
| 1 | 1 | Blood |
| 2 | 2 | Urine |
| 3 | 3 | Both: Blood and Urine Tests |
| 7 | 7 | Unknown Test Type |
| 8 | 8 | Other Test Type |
| 6 | 6 | Not Reported |
| 9 | 9 | Unknown if Tested |
|  |  | Subfield 3 - Test Result** |
| 000 | 000 | Test Not Given |
| 001 | 001 | Tested, No Drugs Found/Negative |
| XXX | 100-295 | Narcotic* |
| XXX | 300-395 | Depressant* |
| XXX | 400-495 | Stimulant* |
| XXX | 500-595 | Hallucinogen* |
| XXX | 600-695 | Cannabinoid* |
| XXX | 700-795 | Phencyclidine (PCP)* |
| XXX | 800-895 | Anabolic Steroid* |
| XXX | 900-995 | Inhalant* |
| XXX | 996 | Other Drug |
| 997 | 997 | Tested for Drugs, Results Unknown |
| 998 | 998 | Tested for Drugs, Drugs Found, Type Unknown/Positive |
| 095 | 095 | Not Reported |
| 999 | 999 | Unknown If Tested <br> * See Specific Drug Listings <br> ** Test Result does not include Aspirin, Nicotine or Alcohol. See Remarks below. |

## Remarks:

## When completing this element, you must have the data to fill ALL three subfields. Otherwise, leave all three subfields blank until all the data has been acquired to complete all three subfields.

For drug tests that were initiated but not completed because of a contaminated or insufficient sample, code:

- Test Status as 2 (Test Given)
- the applicable Test Type,
- and code Test Results as 997(Tested for Drugs, Results Unknown).


## Subfield 1 - Drug Test Status

Definition for Drug Test Status: This element identifies if a drug test was given to this person.

0 (Test Not Given) is used when the case materials indicate a drug test was not given. If Test Status is $\mathbf{0}$ (Test Not Given) then Test Type and Test Result will also be $\mathbf{0}$ (Test Not Given) and 000 (Test Not Given).

Most states' practice is that "live" non-drivers are not routinely tested for drugs. Consequently, for live non-drivers MDE will auto-fill Test Status, Test Type, and Test Result as Test Not Given. If you happen to obtain an drug test result for a "live" nondriver, enter Test Status as Test Given and the appropriate test type and results.

1 (Test Refused) is used when the case materials indicate a drug test was refused. If Test Status is $\mathbf{1}$ (Test Refused) then Test Type and Test Result will be $\mathbf{0}$ (Test Not Given) and 000 (Test Not Given).

2 (Test Given) is used when the case materials indicate a drug test was given.

## 8 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 8 (Not Reported) in these situations:

- A coded data block exists and it is left blank, and
- No other information is available (e.g., narrative, diagram or case materials)

OR

- A coded data block DOES NOT exist, and
- No other information is available (e.g., narrative, diagram or case materials)

9 (Unknown if Tested) is used when the case materials specifically indicated "Unknown if Tested."

Subfield 2 Drug Test Type: You may record up to 3 separate drug test types and their corresponding result.

Definition for Drug Test Type: This element identifies the type of drug test that was used for this person.

1 (Blood) is used when the case materials indicate this was the type of test used to detect the presence of drugs.

2 (Urine) is used when the case materials indicate this was the type of test used to detect the presence of drugs.

3 (Both: Blood and Urine Tests) is used when the case materials indicate this testing combination was used to detect the presence of drugs. Typically this would be found on a toxicology report.

7 (Unknown Test Type) is used when the case materials indicate a test was given but do not specify the type of test.

8 (Other Test Type) is used when the case materials indicate a type of test used to detect the presence of drugs was recorded as "Other" or is indicated to be of a type other than the available attributes.

6 (Not Reported)
If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 6 (Not Reported) in these situations:

- A coded data block exists and it is left blank, and
- No other information is available (e.g., narrative, diagram or case materials)

OR

- A coded data block DOES NOT exist, and
- No other information is available (e.g., narrative, diagram or case materials)

9 (Unknown if Tested) is used when the case materials specifically indicated "Unknown if Tested."

## Subfield 3 - Drug Test Result

Definition for Drug Test Result: This element identifies the drug test result for this person.
**NOTE: This element excludes Nicotine, Aspirin and Alcohol. In addition, exclude drugs explicitly indicated to have been administered after the crash.

## FARS SPECIAL INSTRUCTION:

You may record up to 3 separate drug test results and their corresponding test type. Use the translation table to assign the three-digit code. If the drug is not on the list, use 996 (Other Drug), except for confirmed as "post crash" administered. Caffeine and mild analgesics are coded 996 (Other Drug). When four or more drugs are present, use the categories as a hierarchy (ex. narcotics (100-295) over depressants (300-395) over stimulants (400-495), etc.)

000 (Test Not Given) is used when the case materials indicate a drug test was not given. If Test Status is $\mathbf{0}$ (Test Not Given) then Test Type and Test Result will also be $\mathbf{0}$ (Test Not Given) and 000 (Test Not Given).

001 (Tested, No Drugs Found/Negative) is used when the case materials indicate that a test for the presence of drugs was "negative" or that no drugs were found.

997 (Tested for Drugs, Results Unknown) refers to drug tests that were performed but the results are reported as unknown or pending and are unobtainable. 997 (Tested for Drugs, Results Unknown) can be used for any Test Type.

## FARS SPECIAL INSTRUCTION:

As a general coding guideline, do not prematurely use Test Result 997 (Tested for Drugs, Results Unknown). It is recommended that you leave the information blank until the test results are received from the state lab, coroner or police. You need to be reasonably certain that you will never receive the test results to use attribute "997" at the time of the initial coding and case entry. Examples of this situation would be if the test results are returned indicating a "Contaminated Sample" or "Insufficient Sample."

998 (Tested for Drugs, Drugs Found, Type Unknown/Positive) can be used for any Test Type code where the result is indicated to be positive without an actual drug identified to record.

This should only be used when a final test result is returned as "positive" with no actual result to record. This can occur when a screening test is used and it is the only test result available. Before recording this value make sure that this is the final test result and no actual value was available from a follow-up confirmatory test.

## 095 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 095 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

999 (Unknown if Tested) is used when the case materials specifically indicated "Unknown if Tested."

## Consistency Checks:

|  | IF | THEN |
| :---: | :---: | :---: |
| (7M1F) | PERSON TYPE equals 03, and SEATING POSITION is not equal to 11 or 13, and INJURY SEVERITY does not equal 4 , | DRUG TEST STATUS must not equal 8. |
| (BT1P) | DRUG TEST STATUS equals 0,1 , | all DRUG TEST TYPE must equal 0, and all DRUG TEST RESULT should equal 000 for this person. |
| (BT2P) | DRUG TEST STATUS equals 8, | DRUG TEST TYPE 1 must equal 6 , and DRUG TEST RESULT 1 must equal 095, and remaining DRUG TEST TYPES and DRUG TEST RESULTS must be 0 filled. |
| (BT3P) | DRUG TEST STATUS equals 2 , | at least one DRUG TEST TYPE must equal 1-8, and one corresponding DRUG TEST RESULT must equal 001, 100-295, 300-395, 400-495, 500-595, 600-695, 700-795, 800-895, 900-995, 996-998. |
| (BT6P) | DRUG TEST STATUS equals 9, | DRUG TEST TYPE 1 must equal 9 , and DRUG TEST RESULT 1 must equal 999, and remaining DRUG TEST TYPES and DRUG TEST RESULTS must be 0 filled. |
| (BT7P) | DRUG TEST STATUS equals 2 , and DRUG TEST RESULT one equals 001, 100-295, 300-395, 400-495, 500-595, 600-695, 700-795, 800-895, 900-995, 996, 997, 998, | DRUG TEST RESULT two and three must not equal 999. |
| (BT8P) | More than one of the same DRUG TES the same person except for 000, 996. | RESULT values must not be coded for |
| (BT9P) | DRUG TEST RESULT 1 equals 000, $001,997,998,095$, or 999 , | DRUG TEST RESULT 2 and DRUG TEST RESULT 3 must equal 000. |

IF
(P073) PERSON TYPE equals 02, 04-08, 10, and INJURY SEVERITY does not equal 4 ,
(P075) PERSON TYPE equals 02, 04-08, 10, and INJURY SEVERITY does not equal 4,
(P150) POLICE REPORTED DRUG INVOLVEMENT equals 1,
(P160) POLICE REPORTED DRUG INVOLVEMENT equals 1 , and METHOD OF DRUG DETERMINATION BY POLICE equals 2,

THEN
DRUG TEST STATUS should not equal 9, and any DRUG TEST TYPE should not equal 9, and any DRUG TEST RESULTS should not equal 999. DRUG TEST STATUS must not equal 8, any DRUG TEST TYPE must not equal 6, and any DRUG TEST RESULTS must not equal 095.
DRUG TEST STATUS should not equal 0.
not all DRUG TEST RESULTS should equal 001.

## EXAMPLES FOR INTERPRETING DRUG TESTS

## IF YOU HAVE:

A. Both Blood and Urine tests and the results are the same for both. Example: Blood - Fentanyl Urine - Fentanyl
B. Both Blood and Urine tests and the results are different for both. Example: Blood - Hexobarbital Urine - Cocaine
C. Both Blood and Urine tests and the results are given but not linked to either tests.
Example: Results - Codeine and Ibogaine
D. Blood or Urine tests and other test, such as vitreous.
Example: Blood - Diazepam Vitreous - Cocaine
E. Urine test only and the results:

Example: Urine Benzodiazepines
F. Vitreous and other tests only.

Example: Vitreous -
Amphetamine and Verapamil
G. Not tested for drugs.
H. Not Reported for drugs
I. Unknown if tested for drugs.
J. Tested for Drugs, Results Unknown.
Example: Blood test - Yes
Results - Unavailable
K. Tested for Drugs, Drugs

Found, Type of Drug Unknown.
Example: Urine test - Yes
Drugs found - Yes

GUIDELINES:
$\begin{array}{lllllll}\text { Status } & \text { Type 1 } & \frac{\text { Result 1 }}{3} & \frac{\text { Type 2 }}{151} & \frac{\text { Result 2 }}{0} & \frac{\text { Type 3 }}{0} & \frac{\text { Result 3 }}{000}\end{array}$

| Status | $\frac{\text { Type 1 }}{1}$ | $\frac{\text { Result 1 }}{333}$ | $\frac{\text { Type 2 }}{2}$ | $\frac{\text { Result 2 }}{407} \quad \frac{\text { Type 3 }}{0} \quad \frac{\text { Result 3 }}{000}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |


| Status | $\frac{\text { Type 1 }}{2}$ | $\frac{\text { Result 1 }}{128}$ | $\frac{\text { Type 2 }}{7}$ | $\frac{\text { Result 2 }}{509}$ | $\frac{\text { Type 3 }}{0}$ | $\frac{\text { Result 3 }}{000}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |


| Status | $\frac{\text { Type 1 }}{1}$ | $\frac{\text { Result 1 }}{321}$ | $\frac{\text { Type 2 }}{8}$ | $\frac{\text { Result 2 }}{407}$ | $\frac{\text { Type 3 }}{0}$ | $\frac{\text { Result 3 }}{000}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| Status | $\frac{\text { Type 1 }}{2}$ | $\frac{\text { Result 1 }}{304}$ | $\frac{\text { Type 2 }}{0}$ | $\frac{\text { Result 2 }}{000}$ | $\frac{\text { Type 3 }}{0}$ | $\frac{\text { Result 3 }}{000}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| Status | $\frac{\text { Type 1 }}{8}$ | $\frac{\text { Result 1 }}{401}$ | $\frac{\text { Type 2 }}{8}$ | $\frac{\text { Result 2 }}{996}$ | $\frac{\text { Type 3 }}{0}$ | $\frac{\text { Result 3 }}{000}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| Status | $\frac{\text { Type 1 }}{0}$ | $\frac{\text { Result 1 }}{000} \quad \frac{\text { Type 2 }}{0} \quad \frac{\text { Result 2 }}{000} \quad \frac{\text { Type 3 }}{0} \quad \frac{\text { Result 3 }}{000}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |


| $\frac{\text { Status }}{\mathbf{8}}$ | $\frac{\text { Type 1 }}{\mathbf{6}}$ | $\frac{\text { Result 1 }}{\mathbf{0 9 5}}$ | $\frac{\text { Type 2 }}{\mathbf{0}}$ | $\frac{\text { Result 2 }}{\mathbf{0 0 0}}$ | $\frac{\text { Type 3 }}{\mathbf{0}}$ | $\frac{\text { Result 3 }}{\mathbf{0 0 0}}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\frac{\text { Status }}{9}$ | $\frac{\text { Type 1 }}{9}$ | $\frac{\text { Result 1 }}{999}$ | $\frac{\text { Type 2 }}{0}$ | $\frac{\text { Result 2 }}{000}$ | $\frac{\text { Type 3 }}{0}$ | $\frac{\text { Result 3 }}{000}$ |
| $\frac{\text { Status }}{2}$ | $\frac{\text { Type 1 }}{1}$ | $\frac{\text { Result 1 }}{997}$ | $\frac{\text { Type 2 }}{0}$ | $\frac{\text { Result 2 }}{000}$ | $\frac{\text { Type 3 }}{0}$ | $\frac{\text { Result 3 }}{000}$ |


| Status | $\frac{\text { Type 1 }}{2}$ | $\frac{\text { Result 1 }}{9}$ | $\frac{\text { Type 2 }}{0}$ | $\frac{\text { Result 2 }}{000}$ | $\frac{\text { Type 3 }}{0}$ | $\frac{\text { Result 3 }}{000}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## THIS PAGE INTENTIONALLY LEFT BLANK

| Alphabetical Drug Index |  |  |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
| Acetaminophen + Codeine | 100 | APC + Codeine | 113 |
| Acetorphine | 101 | Aprobarbital | 379 |
| Acetyl-alpha-methylfentanyl | 102 | Aspirin + Codeine | 114 |
| Acetyldihydrocodeine | 103 |  |  |
| Acetylmethadol | 104 | Barbital | 302 |
| Aerosols (hydrocarbon) | 940 | Barbiturates <br> Alfentanil | 105 |
| Allylprodine | 106 | Barbituric Acid Derivative | 303 |
| Alpha, Beta-dihydroxy-alpha- |  | Benzethidine | 380 |
| androstane | 828 | Benzoylecgonine <br> Alphacetylmethadol | 220 |
| Alpha-Ethyltryptamine | 523 | Benzphetamine <br> Alpha-meprodine | 109 |

Alphabetical Drug Index
Chlorhexadol ..... 314
Chloroform ..... 926
Chlorotestosterone ..... 801
Chlorphentermine ..... 405
Clobazam ..... 315
Clonazepam ..... 316
Clonitazene ..... 126
Clorazepate Dipotassium ..... 317
Clortermine ..... 406
Clostebol ..... 827
Clotiazepam ..... 318
Cloxazolam ..... 319
Coca Leaves ..... 430
Cocaine ..... 407
Codeine ..... 128
Codeine combiniation product $90 \mathrm{mg} / \mathrm{du}$ ..... 240
Codeine preparations - 200 mg/ 100 ml or 100 gm ..... 241
Codeine \& Isoquinoline ..... 222
Codeine methylbromide ..... 127
Codeine-N-oxide ..... 223
Cyprenorphine ..... 129
Dehydrochloromethyltestosterone ..... 803
Delorazepam ..... 320
Delta 1-dihydrotestosterone ..... 840
Delta 9 ..... 600
"Depressants, Type Unknown" ..... 395
Desomorphine ..... 130
Dexfenfluramine ..... 383
Dextroamphetamine ..... 408
Dextromoramide ..... 131
Dextropropoxyphene (dosage forms) ..... 224
Diampromide ..... 133
Diazepam ..... 321
Dichloralphenazone ..... 431
Diethylpropion ..... 409
Diethylthiambutene ..... 134
Diethyltryptamine (DET) ..... 503
Difenoxin ..... 135
Difenoxin 1 mg/25ug AtSO4/du ..... 242
Difenoxion preparations - $0.5 \mathrm{mg} / 25 \mathrm{ug} \mathrm{AtSO} 4 / \mathrm{du}$ ..... 243
Dihydrocodeine ..... 136
Dihydrocodeine combination product $90 \mathrm{mg} / \mathrm{du}$ ..... 244
Dihydrocodeine preparations $10 \mathrm{mg} / 100 \mathrm{ml}$ or 100 gm ..... 245
Dihydroetrophine ..... 226
Dihydromorphine ..... 137
Dihydrotestosterone ..... 804
Dimenoxadol ..... 138
Dimepheptanol (Racemethadol) ..... 139
Dimethoxyamphetamine (DMA) ..... 504
Dimethoxyethylamphetamine ..... 535
Dimethoxy-(n)-propyl- thiophenethylamine ..... 536
Dimethylthiambutene ..... 140
Dimethyltryptamine (DMT) ..... 505
Dioxaphetyl Butyrate ..... 141
Diphenoxylate ..... 142
Diphenoxylate preparations $2.5 \mathrm{mg} / 25 \mathrm{ug}$ AtSO4 ..... 246
Dipipanone ..... 143
Diprenorphine ..... 227
Diprenorphine Hydrochloride ..... 144
Dronabinol ..... 507
Drostanolone ..... 805
Drotebanol ..... 145
Ecgonine ..... 410
Embutramide ..... 390
Estazolam ..... 322
Ethchlorvynol ..... 323
Ether ..... 925
Ethinamate ..... 324
Ethyl Ioflazepate ..... 325
Ethylmorphine combination product $15 \mathrm{mg} / \mathrm{du}$ ..... 247
Ethylmorphine preparations ..... 100
$\mathrm{mg} / 100 \mathrm{ml}$ or 100 gm ..... 248
Ethylamine ..... 700
Ethylestrenol ..... 806
Ethylmethylthiambutene ..... 146
Ethylmorphine ..... 147
Etonitazene ..... 148
Etorphine ..... 149
Etoxeridine ..... 150
Fencamfamin ..... 411
Alphabetical Drug Index

| Fenethylline | 412 |  |  |
| :--- | :--- | :---: | :---: |
| Fenfluramine | 413 |  |  |
| Fenproporex | 414 |  |  |
| Fentanyl | 151 |  |  |
| Fiorinal + Codeine | 152 |  |  |
| Fiorinal | 326 |  |  |
| Fludiazepam | 327 |  |  |
| Flunitrazepam | 328 |  |  |
| Fluoxymesterone | 807 |  |  |
| Flurazepam | 384 |  |  |
| Formebulone (Formebolone) | 808 |  |  |
| Frying Pan Lubricants | 944 |  |  |
| Furazabol |  |  |  |
| Furethidine | 841 |  |  |
| Gamma Hydroxybutyric (GHB) |  |  | 377 |
| Gamma Hydroxybutyric Acid |  |  |  |
| preparations |  |  |  |
| Gass | 391 |  |  |

Glass Chillers 943

Glutethimide 330

Hair spray 941
Halazepam 331
"Hallucinogens, Type Unknown" 595
Haloxazolam 332
Hashish 602
Hashish Oil 601
Heroin (Diacetylmorphine) 154333
Hexobarbital
Hydrocodone 155
Hydrocodone \& isoquinoline
alkaloid< $15 \mathrm{mg} / \mathrm{du}$
Hydrocodone combination
product $<15 \mathrm{mg} / \mathrm{du}$
Hydromorphinol 156
Hydromorphone 157
Hydroxy-Nortestosterone 842
Hydroxypethidine 158
Hydroxytestosterone 843
Hydroxyzine 334
Ibogaine 509
"Inhalants, Type Unknown" 995
Insecticides 942
Isomethadone 159
Ketamine 522

| Alphabetical Drug Index |  |  |  |
| :---: | :---: | :---: | :---: |
| Methcathinone | 432 | N-Benzylpiperazine | 439 |
| Methenolone | 814 | N -Ethyl-1-phenylcyclohexy- |  |
| Methohexital | 346 | lamine | 533 |
| Methoxyamphetamine (PMA) | 514 | N -Ethyl-3piperdyl benzilate | 508 |
| Methoxy-Methylenedioxyamphetamine | 437 | N -Ethylamphetamine N -Hydroxymethylenedioxy- | 419 |
| Methoxy-NN-disopropyltryptamine | 537 | amphetamine Nicocodeine | 538 180 |
| Methylaminorex | 442 | Nicomorphine | 181 |
| Methyldesorphine | 168 | Nimetazepam | 349 |
| Methyldienolone | 845 | Nitrazepam | 350 |
| Methyldihydromorphine | 169 | Nitrous Oxide | 924 |
| Methyl-dimethoxyamphetamine | 530 | N-Methylpiperidyl benzilate | 539 |
| Methylenedioxy-Nethylamphetamine | 531 | $\mathrm{N}, \mathrm{N}$-Dimethylamphetamine (Dimethylamphetamine) | 438 |
| Methylenedioxyamphetamine |  | Noracymethadol | 182 |
| (MDA) | 515 | Norandrostenediol | 847 |
| Methylenedioxymethamphetamine (MDMA) | 513 | Norandrostenedione Norbolethone | 848 849 |
| Methylfentanyl | 170 | Norclostebol | 850 |
| Methylone | 435 | Nordiazepam | 351 |
| Methlphenidate | 418 | Norethandrolone | 818 |
| Methyl-phenyl- |  | Norlevorphanol | 183 |
| propionoxypiperidine (MPPP) | 171 | Normethadone | 184 |
| Methyltestosterone | 815 | Normethandrolone | 851 |
| Methylthiofentanyl | 230 | Normorphine | 185 |
| Methyltrienolone | 846 | Norpipanone | 186 |
| Methyprylon | 347 |  |  |
| Metopon | 172 | Opium | 187 |
| Mibolerone | 816 | Opium combination product |  |
| Midazolam | 348 | $25 \mathrm{mg} / \mathrm{du}$ | 256 |
| Modafinil | 433 | Opium extract | 232 |
| Moramide - intermediate | 173 | Opium fluid extract | 233 |
| Morpheridine | 174 | Opium, granulated | 258 |
| Morphine | 177 | Opium Poppy | 234 |
| Morphine combination product/ |  | Opium, powdered | 259 |
| $50 \mathrm{mg} / 100 \mathrm{ml}$ or gm | 255 | Opium preparations - $100 \mathrm{mg} /$ |  |
| Morphine methylbromide | 176 | 100 ml or 100 gm | 257 |
| Morphine methylsulfonate | 175 | Opium Tincture | 235 |
| Morphine- N -oxide | 231 | Oripavine | 260 |
| Myrophine | 178 | "Other" | 996 |
|  |  | Oxandrolone | 819 |
| Nabilone | 516 | Oxazepam | 352 |
| Nalorphine | 179 | Oxazolam | 353 |
| Nandrolone | 817 | Oxycodone | 189 |
| "Narcotics, Type Unknown" | 295 | Oxymesterone | 820 |

Alphabetical Drug Index

| Oxymetholone | 821 |
| :--- | :--- |
| Oxymorphone | 188 |

Paint and Paint Removers 902
Para-fluorofentanyl ..... 190
Parahexyl (Synhexyl) ..... 701
Paraldehyde ..... 354
Paregoric ..... 191
Parepectolin ..... 192
"PCP, Type Unknown" ..... 795
Pemoline ..... 420
Pentazocine ..... 193
Pentobarbital ..... 355
Pentobarbital \& noncontrolled active ingred. ..... 393
Pentobarbital suppository dosage form ..... 394
Petrichloral ..... 356
"Petroleum Products (gasoline, kerosene)" ..... 903
Peyote ..... 517
Phenadoxone ..... 195
Phenampromide ..... 196
Phenanthrine ..... 197
Phenazocine ..... 198
Phencyclidine ..... 702
Phencyclidine Analogs ..... 703
Phenylcyclohexyl-Pyrrolidine ..... 709
Phenylethyl-phenyl-
acetoxypiperidine (PEPAP) ..... 236
Phencyclohexylamine ..... 357
Phendimetrazine ..... 421
Phenmetrazine ..... 422
Phenobarbital ..... 358
Phenomorphan ..... 199
Phenoperidine ..... 200
Phentermine ..... 423
Phenylacetone (P2P) ..... 518
Phenylcyclohexylamine ..... 704
Pholcodine ..... 202
Piminodine ..... 203
Pinazepam ..... 359
Piperidinocyclohexane- carbonitrile (PCC) ..... 705
Pipradrol ..... 424
Piritramide ..... 204
Plastic Cement (airplane glue) ..... 901
Poppy Straw ..... 237
Poppy Straw Concentrate ..... 238
Prazepam ..... 360
Pregabalin ..... 396
Proheptazine ..... 205
Properidine ..... 206
Propiram ..... 207
Propoxyphene (Dextropropoxy- phene, bulk (non-dosage forms)) ..... 208
Propylhexedrine ..... 425
Psilocybin ..... 519
Psilocyn ..... 520
Pyrovalerone ..... 426
"Pyrrolidine (PCPy, PHP, TCPy)" ..... 706
Quazepam ..... 361
Racemethorphan ..... 209
Racemoramide ..... 210
Racemorphan ..... 211
Remifentanil ..... 239
Secobarbital ..... 362
Secobarbital \& noncontrolled active ingred. ..... 397
Secobarbital suppository dosage form ..... 398
Sibutramine ..... 385
SPA ..... 427
Stanolone ..... 822
Stanozolol ..... 823
Stenbolone ..... 852
Stimulant compounds previously excepted ..... 440
"Stimulants, Type Unknown" ..... 495
Sufentanil ..... 212
Sulfondiethylmethane ..... 363
Sulfonethylmethane ..... 364
Sulfonmethane ..... 365
Talbutal ..... 366
Temazepam ..... 367
Tested; Drugs Found; type ..... 998
Tested; Results unknown ..... 997

Alphabetical Drug Index

| Thebacon | 213 | Trimeperidine | 217 |
| :--- | :--- | :--- | :--- |
| Thebaine | 214 | Trimethoxy amphetamine | 521 |
| Thenylfentanyl | 369 | Tybamate | 374 |
| Thiamylal | 370 |  |  |
| Thienylcyclohexyl]piperidine | 708 | Unknown If Tested For Drugs | 999 |
| Thienyl Cyclohexyl Pyrrolidine | 710 |  |  |
| Thiofentanyl | 215 | Vinbarbital | 434 |
| Thiopental(Pentothal) | 371 | Volatile Solvents (toluene) | 900 |
| Thiophene | 707 |  |  |
| TiletaminelZolazepam (Telazol) | 372 | Zaleplon | 386 |
| Tilidine | 216 | Zolpidem | 387 |
| Traizolam | 373 | Zopiclone | 399 |
| Trenbolone | 826 |  |  |

## 100-295 NARCOTICS

100 Acetaminophen + Codeine
101 Acetorphine
102 Acetyl-alpha-methylfentanyl
103 Acetyldihydrocodeine
104 Acetylmethadol
105 Alfentanil
106 Allylprodine
107 Alpha-Methylfentanyl
108 Alphamethythiofentanyl
109 Alpha-meprodine
110 Alphamethadol
111 Alphaprodine
112 Anileridine
113 APC + Codeine
114 Aspirin + Codeine
117 Benzylmorphine
118 Beta-hydroxyfentanyl
119 Betacetylmethadol
120 Beta-meprodine
121 Betamethadol
122 Betaprodine
123 Bezitramide
124 Buprenorphine
125 Carfentanil
126 Clonitazene
127 Codeine methylbromide
128 Codeine
129 Cyprenorphine
130 Desomorphine
131 Dextromoramide
133 Diampromide
134 Diethylthiambutene
135 Difenoxin
136 Dihydrocodeine
137 Dihydromorphine
138 Dimenoxadol
139 Dimepheptanol (Racemethadol)
140 Dimethylthiambutene
141 Dioxaphetyl Butyrate
142 Diphenoxylate
143 Dipipanone
144 Diprenorphine Hydrochloride
145 Drotebanol

## 146

147
148
149
150
151
152

## 153

## 154

155
156
157
158
159
160
161
162
163
164
165
166
167
168
169

## 170

171 Methyl-phenyl-propionoxypiperidine
(MPPP)
Metopon
Moramide - intermediate
Morpheridine
Morphine methylsulfonate
Morphine methylbromide
Morphine
Myrophine
Nalorphine
Nicocodeine
Nicomorphine
Noracymethadol
Norlevorphanol
Normethadone
Normorphine
Norpipanone
Opium
Oxymorphone
Oxycodone
211 Racemorphan
212 Sufentanil
213
214
215216
217 Trimeperidine
218 Butorphanol
220 Alphacetylmethadol
221 Beta-Hydroxy-3-methylfentanyl
222 Codeine \& Isoquinoline
223 Codeine- N -oxide
224 Dextropropoxyphene (dosage forms)
226 Dihydroetrophine
227 Diprenorphine
228 Levo-alphacetylmethadol
229 Levorphanol
230 Methylthiofentanyl
231 Morphine-N-oxide
232 Opium extract
233 Opium Fluid Extract
234 Opium Poppy
235 Opium Tincture
236 Phenylethyl-phenyl-acetoxypiperidine (PEPAP)
237 Poppy Straw
238
239 Remifentanil
240 Codeine combination product
$90 \mathrm{mg} / \mathrm{du}$
241 Codeine preparations -$200 \mathrm{mg} / 100 \mathrm{ml}$ or 100 gm
242 Difenoxin $1 \mathrm{mg} / 25 \mathrm{ug}$ AtSO4/du
243 Difenoxin preparations -244 Dihydrocodeine combination product
$90 \mathrm{mg} / \mathrm{du}$
245 Dihydrocodeine preparations$10 \mathrm{mg} / 100 \mathrm{ml}$ or 100 gm
246 Diphenoxylate preparations
$2.5 \mathrm{mg} / 25 \mathrm{ug}$ AtSO4
247 Ethylmorphine combination product
$15 \mathrm{mg} / \mathrm{du}$
248 Ethylmorphine preparations
$100 \mathrm{mg} / 100 \mathrm{ml}$ or 100 gm
Hydrocodone \& isoquinoline
alkaloid $<15 \mathrm{mg} / \mathrm{du}$
Hydrocodone combination
product $<15 \mathrm{mg} / \mathrm{du}$
251252253254
255256
257258259260
295 "Narcotics, Type Unknown"
300-399 DEPRESSANTS
300 Alprazolam301 Amobarbital
302 Barbital

| 304 | Benzodiazepines | 349 | Nimetazepam |
| :--- | :--- | :--- | :--- |
| 305 | Benzylfentanyl | 350 | Nitrazepam |
| 306 | Bromazepam | 351 | Nordiazepam |
| 307 | Butabarbital (secbutabarbital) | 352 | Oxazepam |
| 308 | Butalbital | 353 | Oxazolam |
| 309 | Camazepam | 354 | Paraldehyde |
| 310 | Carbamate | 355 | Pentobarbital |
| 311 | Chloral betaine | 356 | Petrichloral |
| 312 | Chloral Hydrate | 357 | Phencyclohexylamine |
| 313 | Chlordiazepoxide | 358 | Phenobarbital |
| 314 | Chlorhexadol | 359 | Pinazepam |
| 315 | Clobazam | 360 | Prazepam |
| 316 | Clonazepam | 361 | Quazepam |
| 317 | Clorazepate Dipotassium | 362 | Secobarbital |
| 318 | Clotiazepam | 363 | Sulfondiethylmethane |
| 319 | Cloxazolam | 364 | Sulfonethylmethane |
| 320 | Delorazepam | 365 | Sulfonmethane |
| 321 | Diazepam | 366 | Talbutal |
| 322 | Estazolam | 367 | Temazepam |
| 323 | Ethchlorvynol | 368 | Tetrazepam |
| 324 | Ethinamate | 369 | Thenylfentanyl |
| 325 | Ethyl loflazepate | 370 | Thiamylal |
| 326 | Fiorinal | 371 | Thiopental (Pentothal) |
| 327 | Fludiazepam | 372 | Tiletamine/ Zolazepam (Telazol) |
| 328 | Flunitrazepam | 373 | Traizolam |
| 330 | Glutethimide | 374 | Tybamate |
| 331 | Halazepam | 376 | Carisoprodol |
| 332 | Haloxazolam | 377 | Gamma-Hydroxybutyric Acid (GHB) |
| 333 | Hexobarbital | 378 | Amobarbital \& non-controlled active |
| 334 | Hydroxyzine | 393 | Pentobarbital \& noncontrolled active |
| 335 | Ketazolam | 379 | Apred. |
| 336 | Loprazolam | 380 | Barbituric Acid Derivative |
| 337 | Lorazepam | 383 | Dexfenfluramine |
| 338 | Lormetazepam | 384 | Flurazepam |
| 339 | Mebutamate | 385 | Sibutramin |
| 340 | Mecloqualone | 386 | Zaleplon |
| 341 | Medazepam | 387 | Zolpidem |
| 342 | Mephobarbital | 388 | Amobarbital suppository dosage |
| 343 | (Methylphenobarbital) | Meprobamate | form |
| 344 | Methaqualone | 389 | Butobarbital (butethal) |
| 345 | Metharbital | Embutramide |  |
| 346 | Methohexital | 391 | Gamma Hydroxybutyric Acid |
| 347 | Methyprylon | preparations |  |
| 348 | Midazolam |  |  |
|  |  |  |  |

## 400-495 STIMULANTS

400 Amphetamine Sulfate
401 Amphetamine
402 Benzoylecgonine
403 Benzphetamine
404 Cathine (Norpseudoephedrine)
405 Chlorphentermine
406 Clortermine
407 Cocaine
408 Dextroamphetamine
409 Diethylpropion
410 Ecgonine
411 Fencamfamin
412 Fenethylline
413 Fenfluramine
414 Fenproporex
415 Mazindol
416 Mefenorex
417 Methamphetamine
418 Methylphenidate
419 N-Ethylamphetamine
420 Pemoline
421 Phendimetrazine
422 Phenmetrazine
423 Phentermine
424 Pipradrol
425 Propylhexedrine
426 Pyrovalerone
427 SPA
428 Aminorex
429 Cathinone
430 Coca Leaves
431 Dichloralphenazone
432 Methcathinone

433 Modafinil
434 Vinbarbital
435 Methylone
436 Lisdexamfetamine
437 Methoxy-Methylenedioxyamphetamine
438 N, N-Dimethylamphetamine
(Dimethylamphetamine)
439 N-Benzylpiperazine
440 Stimulant compounds previously excepted
495 "Stimulants, Type Unknown"

## 500-595 HALLUCINOGENS

## 500 Amphetamine Variants

501 Bufotenine
503 Diethyltryptamine (DET)
504 Dimethoxyamphetamine (DMA)
505 Dimethyltryptamine (DMT)
506 DMA
507 Dronabinol
508 N-Ethyl-3piperdyl benzilate
509 Ibogaine
511 Lysergic Acid
512 Mescaline
513 Methylenedioxymethamphetamine (MDMA)
514 Methoxyamphetamine (PMA)
515 Methylenedioxyamphetamine (MDA)
516 Nabilone
517 Peyote
518 Phenylacetone (P2P)
519 Psilocybin
520 Psilocyn
521 Trimethoxy amphetamine
522 Ketamine
523 Alpha-Ethyltryptamine
524 Bromo-dimethoxyamphetamine
525 Bromo-dimethoxyphenethylamine
527 Lysergic Acid Amide
528 Lysergic Acid Diethylamide (LSD)
529 Methylaminorex
530 Meth-dimethoxyamphetamine
531 Methylenedioxy-N-
ethylamphetamine

| 533 | N-Ethyl-1-phenylcyclohexylamine | 807 | Fluoxymesterone |
| :---: | :---: | :---: | :---: |
| 534 | Alpha-methyltryptamine | 808 | Formebulone (Formebolone) |
| 535 | Dimethoxyethylamphetamine | 809 | Mesterolone |
| 536 | Dimethoxy-(n)- | 810 | Methandienone |
|  | propylthiophenethylamine | 811 | Methandranone |
| 537 | Methoxy-NN-diisopropyltryptamine | 812 | Methandriol |
| 538 | N -Hydroxymethylenedioxy-amphetamine | 813 | Methandrostenolone |
| 539 | N -Methylpiperidyl benzilate | 814 | Methenolone |
| 595 | "Hallucinogens, Type Unknown" | 815 | Methyltestosterone |
|  |  | 816 | Mibolerone |
| 600-695 CANNABINOID |  | 817 | Nandrolone |
|  |  | 818 | Norethandrolone |
| 600 | Delta 9 | 819 | Oxandrolone |
| 601 | Hashish Oil | 820 | Oxymesterone |
| 602 | Hashish | 821 | Oxymetholone |
| 603 | Marijuana/Marihuana | 822 | Stanolone |
| 604 | Marinol | 823 | Stanozolol |
| 605 | Tetrahydrocannabinols (THC) | 824 | Testolactone |
| 695 | "Cannabinoid, Type Unknown" | 825 | Testosterone |
|  |  | 826 | Trenbolone |
| 700-795 PCP |  | 827 | Clostebol |
|  |  | 828 | Alpha, Beta-dihydroxy-alphaandrostane |
| 700 | Ethylamine | 829 |  |
| 701 | Parahexyl (Synhexyl) |  | dihydroxy-alpha-androstane |
| 702 | Phencyclidine Phencyclidine Analogs | 830 | Alpha-methyl-beta-beta- |
| 704 | Phenylcyclohexylamine | 831 | dihydroxy-alpha-androstane |
| 705 | Piperidinocyclohexane-carbonitrile (PCC) |  | Alpha-methyl-beta-beta-dihydroxy-androstene |
| 706 | "Pyrrolidine (PCPy, PHP, TCPy) " | 832 | Alpha-methyl-delta 1dihydrotestosterone |
| 707 | Thiophene | 833 |  |
| 708 | Thienyl Cyclohexyl/piperidine | 834 | Androstanedione |
| 709 | Phenylcyclohexyl-Pyrrolidine | 835 | Androstenediol |
| 795 | "PCP, Type Unknown" | 836 | Androstenedione |
|  |  | 837 | Beta, beta-dihydroxy-alphaandrostane |
| 800-895 ANABOLIC STEROIDS |  | 838 | Bolasterone |
|  |  | 839 | Calusterone |
| 800 | Boldenone | 840 | Delta 1-dihydrotestosterone |
| 801 | Chlorotestosterone | 841 | Furazabol |
| 803 | Dehydrochloromethyltestosterone | 842 | Hydroxy-Nortestosterone |
| 804 | Dihydrotestosterone | 843 | Hydroxytestosterone |
| 805 | Drostanolone | 844 | Mestanolone |
| 806 | Ethylestrenol | 845 | Methyldienolone |

846
Methyltrienolone
847 Norandrostenediol
848 Norandrostenedione
849 Norbolethone
850 Norclostebol
851 Normethandrolone
852 Stenbolone
853 Tetrahydrogestrinone
854 Boldione
855 Desoxymethyltestosterone
856 Dienedione
895 "Anabolic Steroid, Type
Unknown"
900-995 INHALANT
900 Volatile Solvents (toluene)
901 Plastic Cement (airplane glue)
902 Paint and Paint Removers
903 "Petroleum Products (gasoline,
kerosene)"
904 Lacquer Thinners
920 Anesthetic Gases
921 Amyl Nitrite
923 Butly Nitrite
924 Nitrous Oxide
925 Ether
926 Chloroform
940 Aerosols (hydrocarbon gases)
941 Hair spray
942 Insecticides
943 Glass Chillers
944 Frying Pan Lubricants
945 Cyclohexl Nitrite
946 Enflurane
947 Halothane
995 "Inhalants, Type Unknown"
996 OTHER,
997 TESTED; RESULTS UNKNOWN
998 TESTED; DRUGS FOUND; TYPE UNKNOWN
UNKNOWN IF TESTED FOR DRUG

## TRANSPORTED TO FIRST MEDICAL FACILITY BY

FORMAT: 1 numeric
SAS NAME: Person.Hospital

## ELEMENT VALUES:

0 Not Transported
1 EMS Air
5 EMS Ground
3 EMS Unknown Mode
2 Law Enforcement
4 Transported Unknown Source
6 Other
8 Not Reported
9 Unknown

Definition: This element identifies the method of transportation this person was provided to receive treatment at the first hospital or medical facility.

## Remarks:

Medical Facility refers to an injury treatment facility. The treatment facility is the first medical facility to which the person is taken. Use appropriate attribute, even if the person dies en route to the treatment facility. A morgue is not an injury treatment facility.

Use 1 (EMS Air), 5 (EMS Ground), 2 (Law Enforcement), 3 (EMS Unknown Mode) or 6 (Other) if the person did not go to a treatment facility directly from the scene, but was transported at a later time for injuries sustained in this crash.
$\mathbf{0}$ (Not Transported) is used for victims who are dead on the scene and for those who are not taken (or do not go) to a treatment facility or hospital for treatment. For example, an uninjured occupant rides along with an injured person to a treatment facility.

1 (EMS Air) includes any air transport device. This code would be used any time air transport was used for this person. For example, If there is an indication that both air and ground transportation were used, code 1 (EMS Air).

5 (EMS Ground) includes transport by private and county/city-owned ambulance or rescue squad vehicles. This code should be used as the default for a person indicated to have been transported by EMS when there is no reason to suspect air or another source of transport was involved.

3 (EMS Unknown Mode) is used when a person is transported to a treatment facility by EMS, but the mode of transportation is not known. This code should be used when no specific indication of transport was made but some transport other than or in addition to ground was utilized. For example, there is indication that the person was taken to a Level 1 trauma center in a different city from where the crash occurred but there is not specific indication of air transport.

2 (Law Enforcement) includes transport by state, county or local law enforcement agency vehicles.

4 (Transported Unknown Source) is used if you know the person was transported to a treatment facility, but you do not know the source.

6 (Other) includes transport by private citizens or individuals who drive themselves to the hospital or treatment facility. May be indicated on your crash report as "POV" (Privately/Personally Owned Vehicle).

## 8 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 8 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

9 (Unknown) is used when it is reported as "unknown" whether or not this victim was taken (or went) to a hospital/treatment facility for treatment.

## FARS SPECIAL INSTRUCTION:

Prior to 2007, this element was called "Taken to Hospital or Treatment Facility" and only recorded whether or not the person was transported for treatment. After 2007, this element's name was changed to "Transported for Treatment By". Beginning in 2010, this element's name is changed to "Transported to Medical Facility By" and indicates if the person was transported for treatment, and if transported, the source of transport. Beginning in 2013, this element's name was changed to "Transported to First Medical Facility By" to match the revised 4th Edition of MMUCC. It indicates the source of transport to the first medical facility receiving the patient injured in the crash.

## GES SPECIAL INSTRUCTION:

This data element is not related to GES sampling.

## Consistency Checks:

## IF

(2U3F) INJURY SEVERITY equals 3,
(A551) EMS TIME AT HOSPITAL equals 8888, 9997, 9998,
(P090) INJURY SEVERITY equals 0,
(P091) TRANSPORTED TO FIRST MEDICAL FACILITY BY equals 1, 3, 5,
(P093) all persons TRANSPORTED TO FIRST MEDICAL FACILITY BY equals 2, 4,
(P50P) DIED AT SCENE/EN ROUTE equals 7,
(P51P) DIED AT SCENE/EN ROUTE equals 8,

## THEN

TRANSPORTED TO FIRST MEDICAL FACILITY BY should not equal 0.
TRANSPORTED TO FIRST MEDICAL FACILITY BY should not equal 1, 3, 5 for any PERSON.
TRANSPORTED TO FIRST MEDICAL FACILITY BY must equal 0.
EMS TIME AT HOSPITAL should not equal 8888, 9997, 9998.

NOTIFICATION TIME EMS, ARRIVAL TIME EMS, EMS TIME AT HOSPITAL must equal 8888.
TRANSPORTED TO FIRST MEDICAL FACILITY BY must equal 0.
TRANSPORTED TO FIRST MEDICAL FACILITY BY must equal 1-6.

## Consistency Checks (FARS Only):

## IF

(P520) CRASH DATE and DEATH DATE are the same, and CRASH TIME and DEATH TIME are the same,
(P52P) DIED AT SCENE/EN ROUTE equals 9,
(P55P) TRANSPORTED TO FIRST MEDICAL FACILITY BY equals 9,

## THEN

TRANSPORTED TO FIRST MEDICAL FACILITY BY should equal 0, and DIED AT SCENE/EN ROUTE should equal 7. TRANSPORTED TO FIRST MEDICAL FACILITY BY must equal 8 or 9.
DIED AT SCENE/EN ROUTE must equal 0, 9.

## THIS PAGE INTENTIONALLY LEFT BLANK

## DIED AT SCENE/EN ROUTE

FORMAT: 1 numeric
SAS NAME: Person.DOA

## ELEMENT VALUES:

0 Not Applicable
7 Died at Scene
8 Died En Route
9 Unknown
Definition: This element identifies if this person died at the scene of the crash or en route to a hospital or treatment facility.

## Remarks:

$\mathbf{0}$ (Not Applicable) is used for non-fatalities and victims dying at locations other than the scene or en route (e.g., hospital, at home, etc.).

7 (Died at Scene) is used for victims who are dead on the scene of the crash.
8 (Died En Route) is used for victims who die en route to a hospital or treatment facility by EMS or other transport.

9 (Unknown) is used when you know the victim is a fatality, but you don't know if they died at the scene, en route, or at another location (e.g., home).

## Consistency Checks:

## IF

(1R1P) If DIED AT SCENE/EN ROUTE equals 7, 8,
(P50P) DIED AT SCENE/EN ROUTE equals 7,
(P510) EMS TIME AT HOSPITAL equals 8888, 9997, 9998,
(P51P) DIED AT SCENE/EN ROUTE equals 8,
(P56P) DIED AT SCENE/EN ROUTE equals 7 ,

THEN
INJURY SEVERITY must equal 4.
TRANSPORTED TO FIRST MEDICAL FACILITY BY must equal 0.
DIED AT SCENE/EN ROUTE should not equal 8 for any PERSON.
TRANSPORTED TO FIRST MEDICAL FACILITY BY must equal 1-6.
DEATH TIME should be within 30 minutes of the CRASH TIME.

## IF

(P530) EMS TIME AT HOSPITAL equals 9996,
(P53P) INJURY SEVERITY equals 0-3, 5, 6,
(P54P) DIED AT SCENE/EN ROUTE equals 8 ,

## Consistency Checks (FARS Only):

## IF

(P520) CRASH DATE and DEATH DATE are the same, and CRASH TIME and DEATH TIME are the same,
(P52P) DIED AT SCENE/EN ROUTE equals 9,
(P55P) TRANSPORTED TO FIRST MEDICAL FACILITY BY equals 9 ,

## THEN

DIED AT SCENE/EN ROUTE must equal 8 for at least one person.
DIED AT SCENE/EN ROUTE must equal 0 .
EMS TIME AT HOSPITAL should not equal 8888, 9997, 9998.

THEN
TRANSPORTED TO FIRST MEDICAL FACILITY BY should equal 0 , and DIED AT SCENE/EN ROUTE should equal 7. TRANSPORTED TO FIRST MEDICAL FACILITY BY must equal 8 or 9 . DIED AT SCENE/EN ROUTE must equal 0,9 .

## DEATH DATE

FORMAT: 2 sets of 2 numeric, 1 set of 4 numeric
SAS NAME: Person.DEATH_DA; Person.DEATH_MO; Person.DEATH_YR

## ELEMENT VALUES:

| 88 | Month: |
| :---: | :--- |
| 01-12 <br> 99 | Unknown Applicable (Non-fatal) |
|  | Day: |
| 88 | Not Applicable (Non-fatal) |
| $01-31$ | Unknown |
| 99 | Year: |
| 8888 | Not Applicable (Non-fatal) <br> 9999 |
| Actual Year of Death |  |
| Unknown |  |

Definition: This element records the month, day and year of this person's death.

## Remarks:

The death must occur within thirty 24-hour time periods from time of the crash in order to be an applicable FARS death.

This element, although it contains three (3) pieces of information should, be treated as one element. Therefore, never leave any one portion blank when another is not.

Normally, the medical examiner or coroner is source of data for death date. If there are no data inconsistencies or errors, use the official death date as recorded on the Death Certificate. Do not change the official death date without good cause.

## Consistency Checks:

## IF

(1U1F) INJURY SEVERITY equals 4,
(1VOP) DEATH MONTH or DAY equals 88, or DEATH YEAR equals 8888,

## THEN

DEATH DATE must not equal 88888888.
all must equal 8's.
-
(2U1F) INJURY SEVERITY is not equal to 4,
(2VOP) DEATH DAY is 01-31, and DEATH MONTH is 01-12,
(3UOP) DEATH DATE equals CRASH DATE, and CRASH TIME is not equal to 9999,
(4V1F) INJURY SEVERITY equals 4,
(4V2F) CRASH MONTH equals 12, and DEATH MONTH equals 01,
(4V3F) CRASH MONTH equals 12,
(4V4F) CRASH MONTH equals 02-11, and DEATH MONTH is not equal to 88 or 99,
(4V5F) CRASH MONTH equals 01, and DEATH MONTH is not equal to 88 or 99,
(4V6P) DEATH MONTH is not equal to blanks,
(4V7P) DEATH DAY is not equal to blanks,
(4V8P) DEATH YEAR is not equal to blanks,

DEATH DATE must equal 88888888. DEATH DAY must be a valid day for DEATH MONTH.
DEATH TIME must not be less than CRASH TIME.

DEATH DATE and DEATH TIME for this person must be within 720 hours of the CRASH DATE and CRASH TIME. DEATH YEAR must equal CRASH YEAR plus 1.
DEATH MONTH must equal 01, 12, 88,
99.

DEATH MONTH must equal CRASH MONTH or CRASH MONTH plus 1.

DEATH MONTH must equal CRASH MONTH or CRASH MONTH plus 1 or CRASH MONTH plus 2.
DEATH DAY and DEATH YEAR must not equal blanks.
DEATH MONTH and DEATH YEAR must not equal blanks.
DEATH MONTH and DEATH DAY must not equal blanks.
(6VOP) DEATH DATE must not be less than CRASH DATE.
(7VOF) DEATH YEAR equals 9999,
(8VOP) DEATH YEAR equals 9999,
(9VOP) DEATH MONTH equals 99,

## Consistency Checks (FARS Only):

## IF

(P520) CRASH DATE and DEATH DATE are the same, and CRASH TIME AND DEATH TIME are the same,

CRASH MONTH must not be 01-11. DEATH MONTH and DEATH DAY must equal 99.
DEATH DAY must equal 99.

## THEN

TRANSPORTED TO FIRST MEDICAL FACILITY BY should equal 0 , and DIED AT SCENE/EN ROUTE should equal 7 .

## DEATH TIME

FORMAT: 4 numeric
SAS NAME: Person.DEATH_HR; Person.DEATH_MN; Person.DEATH_TM

## ELEMENT VALUES:

| 8888 | Not Applicable (Non-fatal) |
| :---: | :--- |
| 0000-2359 | Valid Military Time |
| $0099-2399$ | Known Hour but Unknown Minutes |
| 9999 | Unknown |

Definition: This element identifies the hour and minute of this person's death utilizing the 24hour clock format.

## Remarks:

If minutes are unknown, code the actual hour and " 99 " for the minutes. One minute after midnight is coded 0001."

Normally, the medical examiner or coroner is source of data for death time. If there are no data inconsistencies or errors, use the official death time as recorded on the Death Certificate. Do not change the official death time without good cause.

If it is known that the person died at the scene and the official death time or "pronounced death time" (on the Death Certificate) is known to be in error, or is greater than 30 minutes after the crash time then CRASH TIME is the appropriate DEATH TIME to be used.

## How to Code Midnight:

In general, code midnight as 0000. However, there may be confusion over which day midnight falls into. Crash Time is recorded between 00:00-23:59. Midnight is coded as 00:00 to represent the beginning of a new day. This may not be the practice followed in your sources. Therefore, you have to determine which part of the day is being considered in your sources.

## End of Day

If your data sources give you a Crash Date and are consistent in talking about the end of that day, when they give the time of the crash as "midnight," "12:00-midnight," "24:00" or "00:00," then you should code Crash Time as 2359.

## Beginning of Day

If your sources give a Crash Date and are consistent in referring to the beginning or early moments of that day when they give a crash time, code midnight as 0000.

## Consistency Checks:

|  | IF | THEN |
| :---: | :---: | :---: |
| (1U2F) | INJURY SEVERITY equals 4, | DEATH TIME must not equal 8888. |
| (2U2F) | INJURY SEVERITY is not equal to 4, | DEATH TIME must equal 8888. |
| (3U0P) | DEATH DATE equals CRASH DATE, and CRASH TIME is not equal to | DEATH TIME must not be less than CRASH TIME. |
|  | 9999, |  |
| (4V1F) | INJURY SEVERITY equals 4, | DEATH DATE and DEATH TIME for this person must be within 720 hours of the |
|  |  | CRASH DATE and CRASH TIME. |
| (P56P) | DIED AT SCENE/EN ROUTE equals 7, | DEATH TIME should be within 30 minutes of the CRASH TIME. |
| Consistency Checks (FARS Only): |  |  |
|  | IF | THEN |
| (P520) | CRASH DATE and DEATH DATE are the same, and CRASH TIME AND DEATH TIME are the same, | TRANSPORTED TO FIRST MEDICAL FACILITY BY should equal 0, and DIED |
|  |  |  |

## RELATED FACTORS - PERSON (MV OCCUPANT) LEVEL

FORMAT: 2 numeric occurring 3 times
SAS NAME: Person.P_SF1, Person.P_SF2, Person.P_SF3

## ELEMENT VALUES:

*41 Failure to Observe Warnings or Instructions on Vehicles Displaying Them
*42 Failure to Signal Intentions
*44 Driving Too Fast for Conditions or in Excess of Posted Maximum
*45 Driving Less Than Posted Minimum
*47 Making Right Turn From Left-Turn Lane, Left Turn From Right-Turn Lane
*51 Operator Inexperience
*52 Unfamiliar with Roadway
56 Non-Driver Flees Scene
*57 Improper Tire Pressure
*58 Locked Wheel
*59 Overcorrecting

## Vision Obscured By:

*60 Rain, Snow, Fog, Smoke, Sand, Dust
*61 Reflected Glare, Bright Sunlight, Headlights
*62 Curve, Hill, or Other Design Features (including traffic signs, embankment)
*63 Building, Billboard, Other Structures
*64 Trees, Crops, Vegetation
*65 Motor Vehicle (including load)
*66 Parked Vehicle
*67 Splash or Spray of Passing Vehicle
*68 Inadequate Lighting System
*69 Obstructing Angles on Vehicle
*70 Mirrors
*72 Other Visual Obstruction

## Skidding, Swerving Sliding, Due To:

*73 Severe Crosswind
*74 Wind From Passing Truck
*75 Slippery or Loose Surface
*76 Tire Blowout or Flat
*77 Debris or Objects in Road
*78 Ruts, Holes, Bumps in Road
*80 Vehicle in Road
*81 Phantom Vehicle
*82 Pedestrian, Pedal Cyclists, or Persons on Personal Conveyances.
*83 Ice, Snow, Slush, Water, Sand, Dirt, Oil, Wet Leaves on Road

## Other Factors:

86 Emergency Services Personnel
87 Police or Law Enforcement Officer
*88 Seat Back Not in Normal Upright Position, Seat Back Reclined
91 Portable Electronic Devices
92 Person in Ambulance Treatment Compartment
99 Unknown

## *FARS ONLY ATTRIBUTES

Definition: This element identifies factors related to motor vehicle occupants other than drivers expressed by the investigating officer.

## Remarks:

| Related Factors |  | Examples/Notes |
| :---: | :--- | :--- |
| $\mathbf{0 0}$ | Not Applicable - Driver/None - All Other Persons |  |
| $\mathbf{0 5}$ | Interfering With Driver | Obstructing driver's view. <br> Striking driver with body or object. <br> Rambunctious individuals who make driver <br> inattentive, even without touching driver or <br> controls. |
| $\mathbf{0 0 8}$ | Mentally Challenged | Motorcycle passenger (or other cyclist) shifting <br> weight or affecting driver control. |
| $\mathbf{0 9}$ | Construction/Maintenance/Utility <br> Worker | Mental illness/retardation may be included. <br> Highway department, contractor, utility company <br> personnel, etc. <br> Occupant of a working motor vehicle. |


| Related Factors |  | Examples/Notes |
| :--- | :--- | :--- |
| *18 | Mother of Dead Fetus/Mother of <br> Infant Born Post Crash | Fetus dies in or as a result of this crash. |
| $\mathbf{2 1}$ | Overloading or Improper Loading <br> of Vehicle With Passengers or <br> Cargo | For vehicle occupants: Two or more people <br> located in one seating position. |
| *26 | Following Improperly | Bicyclist following too closely or attempting to grab <br> on to vehicle. <br> Also applies to skateboard riders, roller bladders, <br> etc. |
| $\mathbf{8 9}$ | Parked Motor Vehicle With <br> Equipment Extending into the <br> Travel Lane | Example: <br> Extended mirrors used when hauling a <br> camper or trailer. |
| *28 | Failure to Keep in Proper Lane | Nicyclist fails to keep in bicycle lane. <br> vehicles extending into the travel lane e.g., <br> attached trailers or oversized cargo. In these <br> Cases the vehicle is in-transport and not parked. |
| Persons not in motor vehicles in-transport and |  |  |
| working motor vehicles fail to stay in proper |  |  |
| lane. |  |  |
| Going straight in a turn lane. |  |  |


| Related Factors |  | Examples/Notes |
| :---: | :---: | :---: |
| *37 | Traveling on Prohibited Trafficways | Persons not in motor vehicles in-transport on areas prohibited by law, such as interstates. <br> Persons not in motor vehicles in-transport on prohibited trafficways, e.g., bicyclist on interstate. |
| *40 | Passing Through or Around Barrier | Denotes "demarcated" area. |
| *41 | Failure to Observe Warnings or Instructions on Vehicles Displaying Them | Failure to follow construction instructions (e.g., arrows directing traffic mounted on vehicle), instructions on emergency vehicles (ambulances, fire trucks, police cars). <br> Failure to observe right-turn warning on trucks, buses. <br> Failure to heed hazard lights on disabled vehicle, school bus arm. |
| *42 | Failure to Signal Intentions | Failure to signal by either lamp turn signal or hand. |
| *44 | Driving Too Fast for Conditions or in Excess of Posted Maximum | Conditions denote: weather, sharp curves, bridges, tunnels, school zone, traffic, person or road. <br> Speed greater than reasonable or prudent. |
| *45 | Driving Less Than Posted Minimum | Driving too slowly, so as to impede traffic. |
| *47 | Making Right Turn From Left-Turn Lane, Left Turn From Right-Turn Lane | To distinguish from Improper Lane Change; police officer must have knowledge of driver's intention. |
| *51 | Operator Inexperience | Persons not in motor vehicles in-transport unfamiliar with transport device. |
| *52 | Unfamiliar with Roadway | Persons not in motor vehicles in-transport unfamiliar with roadway, based on the judgment of the police officer. |


| Related Factors |  | Examples/Notes |
| :--- | :--- | :--- |
| 56 | Non-Driver Flees Scene | Flags the non-driver who left the scene of a Hit- <br> and-Run crash. <br> Examples: passenger of motor vehicle in- <br> transport fled scene on foot. Occupant of an <br> involved parked vehicle leaves by driving their <br> vehicle from the scene. A bicyclist clipped by a <br> vehicle that runs off the road and overturns, <br> leaves the scene on their bike. An involved <br> motor vehicle in-transport is driven away by a <br> passenger in that vehicle. |
| $* 57$ | Improper Tire Pressure | Signifies that improper tire pressure is not a defect, <br> but rather the irresponsibility of the persons not <br> in motor vehicles in-transport. |
| $* 58$ | Locked Wheel | Occurs when braking too suddenly as noted by <br> police officer. <br> Can't be inferred just from skid marks. |
| $* 59$ | Overcorrecting | Based on the judgment of the police officer, with <br> knowledge of the intention of the person not in a <br> motor vehicle in-transport. |
| Over steering. |  |  |$|$| Vision Obscured by: | Rain, Snow, Fog, Smoke, Sand, <br> Dust |
| :--- | :--- |
| $* 61$ | Reflected Glare, Bright Sunlight, <br> Headlights |
| $* 62$ | Curve, Hill, or Other Design <br> Features (including traffic signs, <br> embankment) |
| $* 63$ | Building, Billboard, Other <br> Structures |
| $* 64$ | Trees, Crops, Vegetation |


| Related Factors |  | Examples/Notes |
| :---: | :---: | :---: |
| *65 | Motor Vehicle (including load) | Vision Obscured by: <br> - Car stopped on roadway. <br> - Tractor-trailer moving on road. <br> - School bus stopped, loading or unloading children. |
| *66 | Parked Vehicle | Vision obscured by: <br> - Vehicle stopped on shoulder, in parking lane. |
| *67 | Splash or Spray of Passing Vehicle |  |
| *68 | Inadequate Lighting System |  |
| *69 | Obstructing Angles on Vehicle | Vision Obscured by: <br> - Obstructing angles on this person's vehicle. Not to be confused with visual obstructions from other vehicles. (See 65 (Motor Vehicle [including load]) and 66 (Parked Vehicle).) |
| *70 | Mirrors | Vision Obscured by: <br> - Rear view <br> - Side mirrors <br> - Others |
| *72 | Other Visual Obstruction | Trailer (only) left parked. |
| Skidding Swerving, Sliding Due To: |  |  |
| *74 | Wind From Passing Truck |  |
| *75 | Slippery or Loose Surface | Refers to actual condition of roadway surface, i.e., loose gravel roadway. <br> Slippery or old worn blacktop. <br> Newly paved surface. |
| *76 | Tire Blowout or Flat |  |
| *77 | Debris or Objects in Road | Nails, glass, trash cans, tire retread, trash, dead animals, pile of sand, etc. |


| Related Factors |  | Examples/Notes |
| :---: | :---: | :---: |
| *78 | Ruts, Holes, Bumps in Road |  |
| *80 | Vehicle in Road | Includes both contact and non-contact vehicles that remain at the scene. |
| *81 | Phantom Vehicle | Non-contact vehicle that leaves the scene as described by the police officer. |
| *82 | Pedestrian, Pedal Cyclists, or Persons on Personal Conveyances |  |
| *83 | Ice, Snow, Slush, Water, Sand, Dirt, Oil, Wet Leaves on Road | This is for the substances on roadway that causes roadway to be slick, which may interfere with traction. <br> These are not part of the roadway design (see 75 (Slippery or Loose Surface)). |
| Other Factors |  |  |
| 86 | Emergency Services Personnel | Includes fire, wrecker service personnel and EMS (includes personnel located in the cab or the treatment compartment of an ambulance. |
| 87 | Police or Law Enforcement Officer | Federal, State or local law enforcement officer working at the time of the crash. Includes: Military and Park Police, Border Patrol and all other sworn law enforcement officers. |
| *88 | Seat Back Not in Normal Upright Position, Seat Back Reclined |  |
| 91 | Portable Electronic Devices | Cell phone, MP3 Player, PDA, etc. |
| 92 | Person in Ambulance Treatment Compartment | Example: Patients, EMS Personnel and other persons accompanying patients. <br> Note: for persons identifiable as EMS personnel also use RELATED FACTORS - PERSON (MV OCCUPANT) attribute 86 (Emergency Services Personnel). |
| 99 | Unknown |  |

## *FARS ONLY ATTRIBUTES

## CODING HIERARCY: When more than three attributes apply, select the attributes that have not been previously captured under other related elements.

For forms with Person Type 01 (Driver of a Motor Vehicle In-Transport), zero-fill all three fields. The related factors for drivers are captured in the Related Factors-Driver Level.

Code information provided in the narrative by the investigating officer.

## Use of 00 (None)

Use when no factors are noted; zero-fill all fields. None implies that the investigating officer indicated "no factors." Also, use $\mathbf{0 0}$ (None) to complete remaining fields when you will be recording less than three related factors. DO NOT leave any remaining fields blank.

## Use of 99 (Unknown)

Use when the circumstances surrounding the crash are unknown and reported as "unknown" by the investigating officer. In these circumstances, nine-fill all fields. If 99 (Unknown) is used for any field, ALL fields must be 99 (Unknown). DO NOT leave any remaining fields blank.

The following lists those related factors that may be used for each person type (P7):

| Person <br> Type | Valid Related Factors |
| :---: | :--- |
| 01 | 00 |
| 02 | $00,05,08,09,18,32,56,86-89,92,99$ |
| 03 | $00,05,08,09,18,21,26,28,29,32,33,37,40-42,44,45,47,51,52,56-70$, |
|  | $72-78,80-83,86-89,91,92,99$ |
| 09 | $00,05,08,09,18,32,86-89,92,99$ |

## Consistency Checks:

## IF

## THEN

(1W0P) any RELATED FACTORS-PERSON LEVEL equals 99,
(2WOP) any RELATED FACTORS-PERSON LEVEL equals blanks,
(3WOP) any RELATED FACTORS-PERSON LEVEL equals 00,
(4WOP) A RELATED FACTORS-PERSON LEVEL (MV Occupant) between 05 and 92 can be used only once per person form.
(5NOF) PERSON TYPE equals 02,

RELATED FACTORS-PERSON LEVEL (MV Occupant) must not equal 21, 26, 28, 29, 33, 37, 40-42, 44, 45, 47, 51-53, 57-70, 72-78, 80-83, 91.

## IF

(580F) FIRST HARMFUL EVENT equals 14, and RELATED FACTORS- PERSON (MV OCCUPANT) LEVEL does not equal 32, 89 for at least one occupant in the not in-transport motor vehicle involved in the first harmful event,
(5MOG) SPECIAL USE equals 06, and PERSON TYPE equals 02 or 09,
(7MOF) PERSON TYPE equals 03, and SEATING POSITION does not equal 11,
(A60F) FIRST HARMFUL EVENT equals 14, and RELATED FACTORS-PERSON (MV OCCUPANT) LEVEL equals 32, 89 for all occupants of the not intransport motor vehicle involved in the first harmful event,
(CLOP) PERSON TYPE equals 09,

THEN
RELATION TO TRAFFICWAY should not equal 01.

RELATED FACTORS-PERSON (MV OCCUPANT) LEVEL should equal 86 or 92.
RELATED FACTORS-PERSON LEVEL (MV Occupant) must not equal 21, 26, 28, 29, 33, 37, 40-42, 44, 45, 47, 51-53, 57-70, 72-78, 80-83, 91.
CRASH TYPE should equal 01-11, 92, 98, 99 for the in-transport vehicle involved in the first harmful event.

RELATED FACTORS-PERSON LEVEL (MV Occupant) must not equal 21, 26, 28, 29, 33, 37, 40-42, 44, 45, 47, 51, 52, 56-70, 72-78, 80-83, 91.

## THEN

SEX must equal 2, and AGE must be greater than 012.

## THIS PAGE INTENTIONALLY LEFT BLANK

## PERSON NUMBER

FORMAT: 3 numeric
SAS NAME: Person.PER_NO

## ELEMENT VALUES:

001-999 Assigned Number
Definition: This element identifies a number for persons that are not in a motor vehicle in consecutive order.

## Remarks:

This elements values and remarks are identical to Person Level (MV Occupant) Level element P4. Please see page $\mathbf{6 7 3}$ for remarks.

## Consistency Checks:

(CSI6) For each VEHICLE NUMBER, PERSON NUMBERS must be consecutive, beginning with 001 and with no gaps.
(CSI7) PERSON NUMBERS for persons not in motor vehicles must be consecutive, beginning with 001 and with no gaps.

## THIS PAGE INTENTIONALLY LEFT BLANK

# NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST 

FORMAT: 3 numeric
SAS NAME: Person.STR_VEH

## ELEMENT VALUES:

001-998 Assigned Vehicle Number
999 Unknown
Definition: This data element captures the in-transport vehicle that made contact with this non-motorist.

## Remarks:

This only applies to those non-motorists who are not occupants of a motor vehicle. If a nonmotorist is contacted by a parked or working motor vehicle that was propelled by an intransport vehicle, record the vehicle number of the in-transport vehicle.

In cases where more than one vehicle makes contact with a non-occupant, code the number of the vehicle that caused the most significant injury. If uncertain, code the number of the vehicle that made contact first.

999 (Unknown) is used when the investigating officer indicates that it is unknown which vehicle struck the non-motorist.

## Consistency Checks:

## IF

(050P) PERSON TYPE equals 04-08, 19, and NUMBER OF VEHICLE FORMS SUBMITTED equals 001,
(060P) NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST is not equal to 000, 999,

## THEN

NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST must equal 001.
the NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST must equal some VEHICLE NUMBER in the case.
(A61G) the FIRST HARMFUL EVENT equals 08, and PERSON TYPE equals 05, and NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21, 22, 24, 25, 28, and the NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST is involved in the FIRST HARMFUL EVENT,
(A61H) the FIRST HARMFUL EVENT equals 09, and PERSON TYPE equals 06, 07, and NON-MOTORIST LOCATION
AT THE TIME OF CRASH equals 21, 22, 24, 25, 28, and the NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST is involved in the FIRST HARMFUL EVENT,
(A61J) the FIRST HARMFUL EVENT equals 15, and PERSON TYPE equals 08, and NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21, 22, 24, 25, 28 and the NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST is involved in the FIRST HARMFUL EVENT,
(A61K) the FIRST HARMFUL EVENT equals 49, and PERSON TYPE equals 04, and NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21, 22, 24, 25, 28, and the NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST is involved in the first harmful event,
(PB30) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 220,
(PB31) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 147,157 or 357 ,

THEN
CRASH TYPE should not equal 13 for this vehicle.

CRASH TYPE should not equal 13 for this vehicle.

CRASH TYPE should not equal 13 for this vehicle.

CRASH TYPE should not equal 13 for this vehicle.
at least one DRIVER PRESENCE must equal 0 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST. at least one DRIVER'S VISION OBSCURED BY must equal 06 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.
(PB32) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 742,
(PB40) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 600,
(PB41) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 215,
(PB42) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 111, 211 or 212,
(PB43) If PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals $112,151,213,214,217$ or 218 ,
(PB45) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 781 or 782,
(PB46) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 221-225,

## THEN

at least one DRIVER'S VISION OBSCURED BY must not equal 00 or 95 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST. at least one PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 08, 09, or 13 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST. PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 08 or 09 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST. at least one PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 11 or 17 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST. PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 10 or 17 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST. PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 11 or 17 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST. PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 01 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST.
(PB49) PERSON TYPE equals 05 or 08, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 13 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST,
(PB50) PERSON TYPE equals 05 or 08, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 10-12 or 16 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST,
(PB51) PERSON TYPE equals 06 or 07 and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 11 or 17 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST,
(PB52) PERSON TYPE equals 06 or 07, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 13 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST,
(PB53) PERSON TYPE equals 06 or 07, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 10 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST,
(PB56) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 791, 792, 794, 795,
at least one PEDESTRIAN/BIKE TYPING -PEDESTRIAN CRASH TYPE should equal 211-214 or 219.
at least one PEDESTRIAN/BIKE TYPING -PEDESTRIAN CRASH TYPE should equal 460, 465, 510, 781, 782, 791, 792, 794, 795 or 799.
at least one PEDESTRIAN/ BIKE TYPING -BICYCLIST CRASH TYPE should equal 111, 211 or 212.
at least one PEDESTRIAN/BIKE TYPING -BICYCLIST CRASH TYPE should equal 600.
at least one PEDESTRIAN/ BIKE TYPING -BICYCLIST CRASH TYPE should equal 112, 151, 213, 214, 217 or 218.

PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 10 or 17 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.

## AGE

FORMAT: 3 numeric
SAS NAME: Person.Age

## ELEMENT VALUES:

|  | Blank |
| :---: | :--- |
| 000 | Less than One Year |
| $001-120$ | Actual Age* |
| 998 | Not Reported |
| 999 | Unknown |

Definition: This element identifies the persons age, in years, with respect to the person's last birthday.

## Remarks:

This elements values and remarks are identical to Person Level (MV Occupant) Level element P5. Please see page $\mathbf{6 7 5}$ for remarks.

## Consistency Checks:

## IF

(5W0P) RELATED FACTORS-PERSON
LEVEL equals 18,
(7P0F) PERSON TYPE equals 01,
(8P1P) PERSON TYPE equals 01, and AGE is less than 008,
(9LOF) PERSON TYPE equals 01, and RELATED FACTORS-DRIVER LEVEL equals 12,
(D060) NON-CDL LICENSE STATUS equals 1-4, 6, or COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 1-8, and PERSON TYPE equals 01,
(D620) NON-CDL LICENSE TYPE equals 7,
(D630) NON-CDL LICENSE TYPE equals 2,
(D640) AGE equals 014-017, and PERSON TYPE equals 01,

## THEN

SEX must equal 2, and AGE must be greater than 012.
AGE must not be less than 002.
BODY TYPE should equal 88, 91.
SEX must equal 2, and AGE must be greater than 012.

AGE should not be less than 015.

AGE (for the driver) should equal 014-016.
AGE (for the driver) should equal 015-017.
NON-CDL LICENSE TYPE should equal 2, 7.

IF
(D650) AGE equals 018-120, and PERSON TYPE equals 01, and NON-CDL LICENSE STATUS does not equal 0 , (P010) PERSON TYPE equals 01
(P020) PERSON TYPE equals 02, 03, 09, and PROTECTION SYSTEM USE equals 04, 10-12,
(P180) PERSON TYPE equals 01, and AGE is less than 009,
(P1A0) AGE is less than 012, and INJURY SEVERITY equals 4, EVVER 0.
(U120) UNLIKELY: AGE should not be greater than 094, unless equal to 998, 999. (U360) UNLIKELY: HIT-AND-RUN equals 0 or 9, and AGE equals 999.

## SEX

FORMAT: 1 numeric
SAS NAME: Person.Sex

## ELEMENT VALUES:

1 Male
2 Female
8 Not Reported
9 Unknown

Definition: This element identifies the sex of the person involved in the crash.

## Remarks:

This elements values and remarks are identical to Person Level (MV Occupant) Level element P6. Please see page $\mathbf{6 7 9}$ for remarks.

## Consistency Checks:

[^1]
## THIS PAGE INTENTIONALLY LEFT BLANK

## PERSON TYPE

FORMAT: 2 numeric
SAS NAME: Person.PER_TYP

## ELEMENT VALUES:

04 Occupant of a Non-Motor Vehicle Transport Device
05 Pedestrian
06 Bicyclist
07 Other Cyclist
08 Person on Personal Conveyances
10 Persons In/On Buildings
19 Unknown Type of Non-Motorist
Definition: This element describes the role of this person involved in the crash.

## Remarks:

04 (Occupant of a Non-Motor Vehicle Transport Device) refers to persons riding in an animal-drawn conveyance, on an animal, or injured occupants of railway trains, etc.

05 (Pedestrian) is used for all pedestrians except for those in/on personal conveyances (See 08 (Persons on Personal Conveyances) below) and in buildings. A pedestrian pushing a vehicle should be coded Pedestrian.

06 (Bicyclist) is used for a two-wheel, non-motorized cycle. Includes all persons (operator and passengers) on a bicycle.

07 (Other Cyclist) is used for unicycles and tricycles.
08 (Person on Personal Conveyances): This attribute should be used for pedestrians using personal conveyances. A personal conveyance is a device, other than a transport device, used by a pedestrian for personal mobility assistance or recreation. These devices can be motorized or human powered, but not propelled by pedaling.
Inclusions:

1) Rideable toys

- Roller Skates, In-Line skates
- Skateboards
- Skates
- Baby carriage
- Scooters
- Toy Wagons

2) Motorized rideable toys

- Motorized skateboard
- Motorized toy car

3) Devices for personal mobility assistance

- Segway-style devices
- Motorized and non-motorized wheelchairs
- Handicapped scooters - Minibike

Exclusions:

- Golf cart
— "Pocket" motorcycles
- Low Speed Vehicles (LSVs)
- Go-carts

Wheelchair: use the term, "wheelchair" as follows:
"Wheelchair - A mobility aid, usable indoors, and designed for and used by individuals with mobility impairments, whether operated manually or powered." Therefore all wheelchair users, motorized or not, are 08 (Persons on Personal Conveyances).

## RATIONALE:

Some states have passed legislation to classify operators of motorized wheelchairs as "pedestrians" and others as "motor vehicles." Also, there seems to be an increase in the variety of forms these devices take (if not in the actual number in use). Some resemble 3wheeled scooters; others small four-wheel carts; still others look like the typical humanpowered wheelchair. They are in use by individuals who are unable to walk, who have limited walking ability, or who need to avoid walking for reasons of health or stamina. Since these devices simply supply a form of assisted "walking" for such persons, their legitimate users may be seen as "other persons on personal conveyances" just as other non-motorists moving along a sidewalk, walking with or against traffic on the edge of a road, crossing the roadway, or turning into a driveway.

10 (Persons In/On Buildings) is used for a person inside of or on a building who is struck by a motor vehicle. 10 (Persons In/On Buildings) takes precedence over attributes "05-08."

19 (Unknown Type of Non-Motorist) is used only when it cannot be determined which attribute is applicable for persons not in motor vehicles.

## Consistency Checks:

IF
(050P) PERSON TYPE equals 04-08, 19, and NUMBER OF VEHICLE FORMS SUBMITTED equals 001,
(1M1F) RELATED FACTORS-PERSON LEVEL equals 13,
(1NOF) PERSON TYPE equals 06,
(1N1F) PERSON TYPE equals 10,

## THEN

## NUMBER OF MOTOR VEHICLE

 STRIKING NON-MOTORIST must equal 001.PERSON TYPE should equal 08.
RELATED FACTORS-PERSON LEVEL (Not a MV Occupant) must not equal 09, 13, 69, 70, 86, 90.
RELATED FACTORS-PERSON LEVEL (Not a MV Occupant) must not equal 09, 21, 37, 40-42, 51, 52, 56-57, 60-70, 72-78, 80-83, 90, 91.

IF
(1N2F) PERSON TYPE equals 10,
(1P2F) PERSON TYPE equals 10,
(1P3F) PERSON TYPE equals 10,
(1P4F) PERSON TYPE equals 04,
(1P5F) PERSON TYPE equals 06-08, 19,
(1P7F) PERSON TYPE equals 04,
(1P8F) PERSON TYPE equals 06, 07,
(1P9F) PERSON TYPE equals 08,
(1P0G) PERSON TYPE equals 05,
(1P1G) PERSON TYPE equals 19,
(1P3G) PERSON TYPE equals 04, 06, 07,
(1P4G) PERSON TYPE equals 04, 06-08, 19,
(1P5G) PERSON TYPE equals 08,
(1P6G) PERSON TYPE equals 04, 06-08, 19,
(1P7G) PERSON TYPE equals 05-07, 19,
(1P8G) PERSON TYPE equals 10,

THEN
at least one NON-MOTORIST SAFETY EQUIPMENT should equal 1.
NON-MOTORIST LOCATION AT TIME OF CRASH must equal 25.
NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH must not equal 01-12, 16, and NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH must not equal 01-20.
NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH must not equal 04, 12.
NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH must not equal 04.
NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH should not equal 07, 10, 11.
NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH should not equal 10-12.
NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH should not equal 11.
NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH must not equal 07, 08, 10, 13-18, 20.
NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH should not equal 11, 12.
NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH should not equal 04.
NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH should not equal 05.
NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH should not equal 20.
CONDITION (IMPAIRMENT) AT TIME OF CRASH must not equal 03.
CONDITION (IMPAIRMENT) AT TIME OF CRASH should not equal 04. CONDITION (IMPAIRMENT) AT TIME
OF CRASH should not equal 01-10, 96.
(3POF) PERSON TYPE equals 03-08, 10, 19, (550F) FIRST HARMFUL EVENT equals 08,
(560F) FIRST HARMFUL EVENT equals 09,
(590F) FIRST HARMFUL EVENT equals 15,
(5ZOF) SEQUENCE OF EVENTS equals 08,
(6ZOF) SEQUENCE OF EVENTS equals 09,
(880F) RELATED FACTORS-CRASH LEVEL equals 16 ,
(890F) RELATED FACTORS-CRASH LEVEL equals 15 ,
(8MOF) PERSON TYPE equals 04,
(8QOF) PERSON TYPE equals 08,
(8TOF) any NON-MOTORIST SAFETY EQUIPMENT equals 2,
(8ZOF) any SEQUENCE OF EVENTS equals 15,
(9MOF) PERSON TYPE equals 05,
(9POF) PERSON TYPE equals 04-08, 10, 19,
(A61G) the FIRST HARMFUL EVENT equals 08, and PERSON TYPE equals 05, and NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21, 22, $24,25,28$, and the NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST is involved in the first harmful event,

INJURY SEVERITY should not equal 6. at least one person must have PERSON TYPE equal 05, 10 .
at least one person must have PERSON TYPE equal to 06, 07 .
at least one Person Level form must have a PERSON TYPE of 08.
at least one person must have PERSON TYPE equal to 05, 10.
at least one person must have PERSON TYPE equal to 06, 07 .
there must be a Person Level (Not a MV Occupant) form with PERSON TYPE equal to 04-08, 19.
there must be a Person Level (Not a MV Occupant) form with PERSON TYPE equal to 04-08, 10, 19.
RELATED FACTORS-PERSON LEVEL (Not a MV Occupant) must not equal 13, 86, 90.
RELATED FACTORS-PERSON LEVEL must not equal 09, 86, 90 .
PERSON TYPE should equal 06-08.
at least one Person Level (Not a MV
Occupant) form must have a PERSON
TYPE code of 08.
RELATED FACTORS-PERSON LEVEL
(Not a MV Occupant) must not equal 13, 21, 26, 40, 42, 51, 52, 57, 68-70, 73-83, 88.

EXTRICATION must not equal $1,9$.
CRASH TYPE should not equal 13 for this vehicle.

IF
(A61H) the FIRST HARMFUL EVENT equals 09, and PERSON TYPE equals 06, 07, and NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21, 22, 24, 25, 28, and the NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST is involved in the first harmful event,
(A61J) the FIRST HARMFUL EVENT equals 15, and PERSON TYPE equals 08, and NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21, 22, 24, 25, 28 and the NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST is involved in the first harmful event,
(A61K) the FIRST HARMFUL EVENT equals 49, and PERSON TYPE equals 04, and NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21, 22, 24, 25, 28, and the NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST is involved in the first harmful event,
(BFOF) PERSON TYPE equals 04-08, 10, 19, (CKOP) PERSON TYPE equals 07,
(CMOP) PERSON TYPE equals 19,

THEN
CRASH TYPE should not equal 13 for this vehicle.

CRASH TYPE should not equal 13 for this vehicle.

CRASH TYPE should not equal 13 for this vehicle.

EJECTION PATH must equal 0 .
RELATED FACTORS-PERSON LEVEL (Not a MV Occupant) must not equal 09, 13, 69, 70, 86, 87, 90.
RELATED FACTORS-PERSON LEVEL (Not a MV Occupant) must not equal 13, 69, 70, 90.
(FPOF) PERSON TYPE is blank, case status is flawed.
(FP9F) PERSON TYPE equals 05, 06, 07, 08 and the PEDESTRIAN/BIKE - CRASH TYPE equals blank, case status is flawed.
(P071) PERSON TYPE equals 02, 04-08, 10, ALCOHOL TEST STATUS should not and INJURY SEVERITY does not equal 4 ,
(P073) PERSON TYPE equals 02, 04-08, 10, and INJURY SEVERITY does not equal 4 ,
equal 9, ALCOHOL TEST TYPE should not equal 99, and ALCOHOL TEST RESULT should not equal 99 .
DRUG TEST STATUS should not equal 9 and any DRUG TEST TYPE should not equal 9 , and any DRUG TEST RESULTS should not equal 999.
(P074) PERSON TYPE equals 02, 04-08, 10, and INJURY SEVERITY does not equal 4,
(P075) PERSON TYPE equals 02, 04-08, 10, and INJURY SEVERITY does not equal 4,
(PB22) SCHOOL BUS RELATED equals 1, and PERSON TYPE equals 05 or 08,
(PB23) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 342, and PERSON TYPE equals 05 or 08,
(PB24) PERSON TYPE equals 05 or 08, and NON-MOTORIST LOCATION AT TIME OF CRASH equals $14,16,20$, 21, 22, 24 or 25,
(PB25) PERSON TYPE equals 05 or 08, and NON-MOTORIST LOCATION AT TIME OF CRASH equals 01-03 or 09,
(PB26) NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH equals 02, and PERSON TYPE equals 06 or 07,
(PB27) NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH equals 05, and PERSON TYPE equals 05 or 08,
(PB28) NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH equals 06, and PERSON TYPE equals 05 or 08,
(PB29) NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH equals 04, and PERSON TYPE equals 05 or 08,
(PB36) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 250,

ALCOHOL TEST STATUS must not equal 8, ALCOHOL TEST TYPE must not equal 95, and ALCOHOL TEST RESULT must not equal 95.
DRUG TEST STATUS must not equal 8, any DRUG TEST TYPE must not equal 6 , and any DRUG TEST RESULTS must not equal 095.
PEDESTRIAN/BIKE TYPING -
PEDESTRIAN CRASH TYPE should equal 342.
SCHOOL BUS RELATED should equal 1.

PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE should equal 230, 320, 410, 420, 430, 440, 459, $510,520,590,830$ or 890.
PEDESTRIAN/BIKE TYPING -
PEDESTRIAN CRASH TYPE should
equal 690, 710, 730, 741, 742, 760, 770, 781, 782, 791, 792, 794, 795 or 799.
PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE should equal 142, 144, 147, 153, 155, 156, 157, 159, 311, 312, 318, 319 or 357.
PEDESTRIAN/BIKE TYPING -
PEDESTRIAN CRASH TYPE should equal 410 or 420.

PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE should equal 430 or 440 .

PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE should equal 410, 420, 430, 440 or 459.

PERSON TYPE must equal 08.

IF
(PB49) PERSON TYPE equals 05 or 08, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 13 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST,
(PB50) PERSON TYPE equals 05 or 08, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 10-12 or 16 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST,
(PB51) PERSON TYPE equals 06 or 07 and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 11 or 17 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST,
(PB52) PERSON TYPE equals 06 or 07, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 13 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST,
(PB53) PERSON TYPE equals 06 or 07, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 10 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST,
(PB59) NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH equals 16, and PERSON TYPE equals 05 or 08,
(PB60) PERSON TYPE equals 05 or 08, and DRIVER PRESENCE equals 0 for the motor vehicle which strikes the non-motorist,

THEN
at least one PEDESTRIAN/BIKE TYPING -PEDESTRIAN CRASH TYPE should equal 211-214 or 219.
at least one PEDESTRIAN/BIKE TYPING -PEDESTRIAN CRASH TYPE should equal $460,465,510,781,782$, $791,792,794,795$ or 799.
at least one PEDESTRIAN/ BIKE TYPING -BICYCLIST CRASH TYPE should equal 111, 211 or 212.
at least one PEDESTRIAN/BIKE TYPING -BICYCLIST CRASH TYPE should equal 600.
at least one PEDESTRIAN/ BIKE TYPING -BICYCLIST CRASH TYPE should equal 112, 151, 213, 214, 217 or 218.

PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE should equal 459.

PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE should equal 220.

## THIS PAGE INTENTIONALLY LEFT BLANK

## INJURY SEVERITY

FORMAT: 1 numeric
SAS NAME: Person.Inj_Sev

## ELEMENT VALUES:

0 No Apparent Injury (O)
1 Possible Injury (C)
$2 \quad$ Suspected Minor Injury (B)
3 Suspected Serious Injury (A)
4 Fatal Injury (K)
5 Injured, Severity Unknown
6 Died Prior to Crash*
9 Unknown
Definition: This element describes the severity of the injury to this person in the crash.

## Remarks:

This elements values and remarks are identical to Person Level (MV Occupant) Level element P8. Please see page $\underline{685}$ for remarks.

## Consistency Checks:

## IF

(1R0P) SEATING POSITION equals 51, and BODY TYPE equals 50-52, 55, 58, 59,
(1R1P) If DIED AT SCENE/EN ROUTE equals 7, 8,
(1U1F) INJURY SEVERITY equals 4,
(1U2F) INJURY SEVERITY equals 4,
(2U1F) INJURY SEVERITY is not equal to 4, (2U2F) INJURY SEVERITY is not equal to 4, (2U3F) INJURY SEVERITY equals 3,

## THEN

INJURY SEVERITY must not equal 0, 9.

INJURY SEVERITY must equal 4.
DEATH DATE must not equal 88888888.

DEATH TIME must not equal 8888.
DEATH DATE must equal 88888888 .
DEATH TIME must equal 8888.
TRANSPORTED TO FIRST MEDICAL FACILITY BY should not equal 0.
(3POF) PERSON TYPE equals 03-08, 10, 19, INJURY SEVERITY should not equal 6.
(4U0F) Each original submission must have at least one Person Level form with INJURY SEVERITY coded 4.

IF
(4V1F) INJURY SEVERITY equals 4,
(7EOP) INJURY SEVERITY equals 4,
(7E1P) INJURY SEVERITY equals 4,
(7E2P) INJURY SEVERITY equals 4,
(7E3P) INJURY SEVERITY does not equal 4,
(7F0P) DEATH CERTIFICATE NUMBER is not blank or 0000-00-000000,
(7F1P) RACE equals 00,
(7F2P) HISPANIC ORIGIN equals 00,
(7F3P) RACE is not equal to 00, and HISPANIC ORIGIN is not equal to 00,
(7ROP) FATAL INJURY AT WORK equals 0, 1, 9,
(7WOP) FATAL INJURY AT WORK equals 8 INJURY SEVERITY must not equal 4.
(FP8F) INJURY SEVERITY is blank, case status is flawed.
(P071) PERSON TYPE equals 02, 04-08, 10, and INJURY SEVERITY does not equal 4 ,
(P072) PERSON TYPE equals 02, 03, and INJURY SEVERITY equals 0, and ALCOHOL TEST RESULT equals 96,
(P073) PERSON TYPE equals 02, 04-08, 10, and INJURY SEVERITY does not equal 4 ,
(P1A0) AGE is less than 012, and INJURY SEVERITY equals 4,
(P090) INJURY SEVERITY equals 0,
(P130) BODY TYPE equals 60-67, 71, 72, 78, 79, and PERSON TYPE equals 01, 03, and INJURY SEVERITY equals 4,
(P300) POLICE REPORTED ALCOHOL INVOLVEMENT equals 1, and INJURY SEVERITY equals 4,
(P53P) INJURY SEVERITY equals 0-3, 5, 6,

THEN

DEATH DATE and DEATH TIME for this person must be within 720 hours of the CRASH DATE and CRASH TIME. DEATH CERTIFICATE NUMBER must NOT equal 0000-00-000000.
RACE must not equal 00.
HISPANIC ORIGIN must not equal 00.
RACE AND HISPANIC ORIGIN must equal 00.
INJURY SEVERITY must equal 4.
INJURY SEVERITY must not equal 4. INJURY SEVERITY must not equal 4. INJURY SEVERITY must equal 4.

INJURY SEVERITY must equal 4.

ALCOHOL TEST STATUS should not equal 9, ALCOHOL TEST TYPE should not equal 99, and ALCOHOL TEST RESULT should not equal 99. POLICE REPORTED ALCOHOL INVOLVEMENT should equal $0,8$.

DRUG TEST STATUS should not equal 9 and any DRUG TEST TYPE should not equal 9, and any DRUG TEST RESULTS should not equal 999. FATAL INJURY AT WORK should equal 0 .
TRANSPORTED TO FIRST MEDICAL FACILITY BY must equal 0.
FATAL INJURY AT WORK should equal 1.

ALCOHOL TEST STATUS should not equal $0,1$.

DIED AT SCENE/EN ROUTE must equal 0.
(U160) UNLIKELY: INJURY SEVERITY equals 6.
(U350) UNLIKELY: INJURY SEVERITY equals 1-6, and SEATING POSITION equals 98.

Consistency Check (GES Only):

IF
(5A4P) FINAL STRATUM equals 1,
(5A5P) FINAL STRATUM equals 5,
(5A6P) FINAL STRATUM equals 2,

## THEN

there should exist:

1) at least one vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and INJURY SEVERITY equals 4 for at least one occupant of that vehicle; or
2) one and only one vehicle where BODY TYPE equals 01-49, and UNIT
TYPE equals 1, and VEHICLE REMOVAL equals 2, and INJURY SEVERITY equals 3 for at least one occupant of that vehicle; or
3) 2 or more vehicles where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and at least 2 vehicles where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and INJURY SEVERITY equals 3 for at least one occupant of a vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2.
there should exist at least one vehicle where BODY TYPE equals 01-49, and UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and INJURY SEVERITY equals 1, 2, 3 or 5 for at least one occupant of that vehicle. there 1) should exist at least one vehicle where UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2; or 2) INJURY SEVERITY should equal 1-5 for at least one person in the crash.


#### Abstract

IF (5A7P) FINAL STRATUM equals 3, (5A8P) FINAL STRATUM equals 4, (5A9P) FINAL STRATUM equals 4, and INJURY SEVERITY equals 1,

THEN INJURY SEVERITY must equal 2-4 for at least one person in the crash. INJURY SEVERITY must not equal 2-4 for any person in the crash. there should exist no vehicles where BODY TYPE equals 60-79, and UNIT TYPE equals 1.

\section*{Consistency Check (FARS Only):}

\section*{IF}

THEN (4U0F) Each original submission must have at least one Person Level form with INJURY SEVERITY coded 4.


## PEDESTRIAN/BIKE TYPING

FORMAT: Elements Completed in MDE
SAS NAME: Various

Definition: This element describes, through a series of on-screen prompts, the sequence of events and precipitating actions leading to crashes between motor vehicles and pedestrians or bicyclists.

## Remarks:

Pedestrian and Bicycle Crash Type describes the pre-crash actions of the involved parties to better define the sequence of events and precipitating actions leading to crashes between motor vehicles and pedestrians or bicyclists.

During the 1970s, the National Highway Traffic Safety Administration developed methodologies for typing pedestrian and bicycle crashes. In the 1990s, the methodologies were applied to more than 8,000 pedestrian and bicycle crashes in six States. The results provided a representative summary of the distribution of crash types experienced by pedestrians and bicyclists and, over time, this method has evolved and was refined. Pedestrian/Bike typing is offered as a tool to help overcome hindrances to the development of effective countermeasures to prevent bicyclist and pedestrian crashes

In FARS and GES, Pedestrian and Bicycle Crash Typing is accomplished through a software application so that by simply following on-screen prompts and clicking on choices, the analyst/coder successfully enters data into the file without actually doing any coding.

Since data input is software driven, elements, attributes and remarks are not presented here in the printed manual. The data entry system automatically presents the application at the appropriate time when a non-motorist with an appropriate person type is entered.

The Pedestrian/Bike Typing application is presented for the following person types:

- Pedestrian,
- Persons on Personal Conveyances,
- Bicyclist,
- Other Cyclist.

The Pedestrian/Bike Typing elements and attributes definitions are available in Appendix 3 of the electronic version of the 2011 FARS/NASS GES Coding and Validation Manual.

## Consistency Checks:

IF

## THEN

(FP9F) PERSON TYPE equals 05, 06, 07, 08 and the PEDESTRIAN/BIKE - CRASH TYPE equals blank, case status is flawed.
(PB00) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 110-910,
(PB02) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 111-980,
(PB04) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE for a person involved in the first harmful event equals 211, 212, 460, 465, 680, 830, 890, 900 or 910,
(PB05) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE for a person involved in the first harmful event equals 311, 312 or 313,
(PB06) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 730,
(PB07) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE for a person involved in the first harmful event equals 311, 312, 321 or 322,
(PB08) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE for a person involved in the first harmful event equals 141-144, 147, 151-157 or 159,
(PB09) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 141, 143, 151-158, 217 or 218,
(PB10) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 151, 156, 157, 217 or 218,
(PB11) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 143 or 154,
(PB12) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE for a person involved in the first harmful event equals 510,520 or 590 ,
at least one SEQUENCE OF EVENTS for the striking vehicle must equal 08 or 15.
at least one SEQUENCE OF EVENTS for the striking vehicle must equal 09.

RELATION TO JUNCTION (b) must not equal 02. Note: this edit is restricted to vehicles which are involved in only one event with pedestrian(s).

RELATION TO TRAFFICWAY must equal 01 or 11. Note: this edit is restricted to vehicles which are involved in only one event with pedestrian(s). TRAFFIC CONTROL DEVICE for the striking vehicle must equal 01-03.

RELATION TO JUNCTION (b) must equal 04 or 08. Note: this edit is restricted to vehicles which are involved in only one event with bicyclist(s) RELATION TO JUNCTION (b) must equal 02 or 03 . Note: this edit is restricted to vehicles which are involved in only one event with bicyclist(s).

TRAFFIC CONTROL DEVICE for the striking vehicle must not equal 00.

TRAFFIC CONTROL DEVICE for the striking vehicle must equal 01-04.

TRAFFIC CONTROL DEVICE for the striking vehicle must equal 01-04, 20, 21, 28 or 29.
RELATION TO TRAFFICWAY must not equal 01 or 11. Note: this edit is restricted to vehicles which are involved in only one event with pedestrian(s).

## THEN

(PB15) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 910,
(PB16) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 142, 144, 147, 153, 155, 156, 157, $159,311,312,318,319$ or 357 ,
(PB17) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE for a person involved in the first harmful event equals 211-214 or 219,
(PB18) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 741 or 742,
(PB19) NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH equals 08,
(PB20) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 510, 520 or 590,
(PB21) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 160,
(PB22) SCHOOL BUS RELATED equals 1, and PERSON TYPE equals 05 or 08,
(PB23) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 342, and PERSON TYPE equals 05 or 08,
(PB24) PERSON TYPE equals 05 or 08, and NON-MOTORIST LOCATION AT TIME OF CRASH equals $14,16,20$, 21, 22, 24 or 25,
(PB25) PERSON TYPE equals 05 or 08, and NON-MOTORIST LOCATION AT TIME OF CRASH equals 01-03 or 09,
(PB26) NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH equals 02, and PERSON TYPE equals 06 or 07 ,

NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH must equal 03.
at least one NON-MOTORIST ACTION/ CIRCUMSTANCES AT TIME OF CRASH must equal 02.

PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 08, 09, 13 or 97. Note: this edit is restricted to vehicles which are involved in only one event with pedestrian(s).
at least one NON-MOTORIST
ACTION/CIRCUMSTANCES AT TIME OF CRASH must equal 01.
PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE must not equal 510, 520, 590, 830 or 890.
at least one NON-MOTORIST
ACTION/CIRCUMSTANCES PRIOR TO CRASH must equal 02.
TRAFFIC CONTROL DEVICE for the striking vehicle should equal 00.

PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE should equal 342.
SCHOOL BUS RELATED should equal 1.

PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE should equal 230, 320, 410, 420, 430, 440, 459, 510, 520, 590, 830 or 890.
PEDESTRIAN/BIKE TYPING -
PEDESTRIAN CRASH TYPE should equal 690, 710, 730, 741, 742, 760, 770, $781,782,791,792,794,795$ or 799.
PEDESTRIAN/BIKE TYPING -
BICYCLIST CRASH TYPE should equal 142, 144, 147, 153, 155, 156, 157, 159, 311, 312, 318, 319 or 357.
(PB27) NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH equals 05, and PERSON TYPE equals 05 or 08,
(PB28) NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH equals 06 , and PERSON TYPE equals 05 or 08,
(PB29) NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH equals 04, and PERSON TYPE equals 05 or 08,
(PB30) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 220,
(PB31) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 147,157 or 357 ,
(PB32) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 742,
(PB33) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 156,
(PB34) NUMBER OF FORMS SUBMITTED FOR PERSONS NOT IN MOTOR VEHICLES equals 01, and FIRST HARMFUL EVENT equals 08, and RELATION TO JUNCTION (b) equals 02,
(PB35) NUMBER OF FORMS SUBMITTED FOR PERSONS NOT IN MOTOR VEHICLES equals 01, and FIRST HARMFUL EVENT equals 08 and RELATION TO JUNCTION (b) equals 02,
(PB36) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 250,

## THEN

PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE should equal 410 or 420 .

PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE should equal 430 or 440 .

PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE should equal 410, 420, 430, 440 or 459.
at least one DRIVER PRESENCE must equal 0 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST. at least one DRIVER'S VISION OBSCURED BY must equal 06 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST. at least one DRIVER'S VISION OBSCURED BY must not equal 00 or 95 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST. DRIVER'S VISION OBSCURED BY for the striking vehicle must not equal 06.

PEDESTRIAN/ BIKE TYPING PEDESTRIAN CRASH TYPE must not equal 320, 330, 360, 680, 830, 890, 900, or 910 .

PEDESTRIAN/ BIKE TYPING PEDESTRIAN CRASH LOCATION must equal 001.

PERSON TYPE must equal 08.
(PB37) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 311, 312 or 313,
(PB38) PEDESTRIAN/BIKE TYPING -
PEDESTRIAN CRASH TYPE equals 410 or 420, and PEDESTRIAN/BIKE TYPING - PEDESTRIAN POSITION does not equal 5,
(PB39) PEDESTRIAN/BIKE TYPING -
PEDESTRIAN CRASH TYPE equals 430 or 440, and PEDESTRIAN/BIKE TYPING - PEDESTRIAN POSITION does not equal 5,
(PB40) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 600,
(PB41) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 215,
(PB42) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 111, 211 or 212,
(PB43) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 112, 151, 213, 214, 217 or 218,
(PB44) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 240,

## THEN

at least one NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH must equal 08 or 10. at least one NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH must equal 05.
at least one NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH must equal 06.
at least one PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 08, 09, or 13 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST. PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 08 or 09 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST. at least one PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 11 or 17 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST. PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 10 or 17 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST. EMERGENCYMOTOR VEHICLE USE should equal 2-5 at least one.
(PB45) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 781 or 782,
(PB46) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 221-225,

## THEN

PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 11 or 17 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST. PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 01 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST.
(PB47) PEDESTRIAN/BIKE TYPING -BICYCLIST CRASH TYPE must not equal 400.
(PB49) PERSON TYPE equals 05 or 08, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 13 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST,
(PB50) PERSON TYPE equals 05 or 08, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 10-12 or 16 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST,
(PB51) PERSON TYPE equals 06 or 07 and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 11 or 17 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST,
(PB52) PERSON TYPE equals 06 or 07, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 13 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST,
at least one PEDESTRIAN/BIKE TYPING -PEDESTRIAN CRASH TYPE should equal 460, 465, 510, 781, 782, $791,792,794,795$ or 799.
at least one PEDESTRIAN/ BIKE TYPING -BICYCLIST CRASH TYPE should equal 111, 211 or 212.
at least one PEDESTRIAN/BIKE TYPING -BICYCLIST CRASH TYPE should equal 600.
(PB53) PERSON TYPE equals 06 or 07, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 10 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST,
(PB56) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 791, 792, 794, 795,
(PB59) NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH equals 16, and PERSON TYPE equals 05 or 08,
(PB60) PERSON TYPE equals 05 or 08, and DRIVER PRESENCE equals 0 for the motor vehicle which strikes the non-motorist,
(PB61) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 220,
(PB62) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 220,
(PB63) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 230,
at least one PEDESTRIAN/ BIKE TYPING -BICYCLIST CRASH TYPE should equal 112, 151, 213, 214, 217 or 218.

PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 10 or 17 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.
PEDESTRIAN/BIKE TYPING -
PEDESTRIAN CRASH TYPE should equal 459.

PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE should equal 220.

DRIVER PRESENCE should equal 0 for the motor vehicle striking the nonmotorist.
at least one NON-MOTORIST ACTION/ CIRCUMSTANCES PRIOR TO CRASH must equal 12.
at least one RELATED FACTORS CRASH LEVEL should equal 19 or 23.

## THIS PAGE INTENTIONALLY LEFT BLANK

## NON-MOTORIST LOCATION AT TIME OF CRASH

FORMAT: 2 numeric
SAS NAME: Person.LOCATION

## ELEMENT VALUES:

01 Intersection-In Marked Crosswalk
02 Intersection-Unmarked Crosswalk
03 Intersection-Not In Crosswalk
09 Intersection-Unknown Location
10 Non-Intersection-In Marked Crosswalk
11 Non-Intersection-On Roadway, Not in Marked Crosswalk
13 Non-Intersection-On Roadway, Crosswalk Availability Unknown
14 Parking Lane/Zone
16 Bicycle Lane
20 Shoulder/Roadside
21 Sidewalk
22 Median/Crossing Island
23 Driveway Access
24 Shared-Use Path/Trail
25 Non-Trafficway Area
28 Other
98 Not Reported
99 Unknown Location

Definition: This element identifies the location of the non-motorist with respect to the roadway at the time of the crash.

## Remarks:

Crosswalk is (1) that part of a roadway at an intersection included within the connections of the lateral lines of the sidewalks on opposite sides of the highway measured from the curbs or, in the absence of curbs, from the edges of the traversable roadway, and in the absence of a sidewalk on one side of the highway, that part of the highway included within the extension of the lateral line of the existing sidewalk to the side of the highway without the sidewalk, with such extension forming a right angle to the centerline of the highway; or (2) Any portion of a roadway at an intersection or elsewhere distinctly indicated for pedestrian crossing by lines or other markings on the surface of the roadway placed in accordance with the provisions in the Manual of Uniform Traffic Control Devices.

Intersection is an area that (1) contains a crossing or connection of two or more roadways not classified as driveway access (2) is embraced within the prolongation of the lateral curb lines, or, if none, the lateral boundary lines of the roadways

01 (Intersection-In Marked Crosswalk) is that portion of a roadway at an intersection that is distinctly indicated for pedestrian crossing by lines or other markings on the surface of the roadway. This does not include crosswalks located in mid-blocks.

02 (Intersection-In Unmarked Crosswalk) is that portion of the roadway at an intersection outside of the lateral lines that connect the curbs.

03 (Intersection-Not In Crosswalk) refers to a person in a travel lane that is not using an available crosswalk or there is not a crosswalk at this location.

09 (Intersection-Unknown Location) is used when a person is known to be at an intersection, but the case materials do not give sufficient details to establish the location.

10 (Non-Intersection-In Marked Crosswalk) is used when a person is in the portion of the roadway, not at an intersection, that is distinctly indicated for pedestrian crossing by lines or other markings on the surface of the roadway. (i.e. the case identifies a mid-block crosswalk exists and the person is using it.)

11 (Non-Intersection-On Roadway, Not in Marked Crosswalk) is used when a person is in the portion of the roadway, not at an intersection, and not in an area that is distinctly indicated for pedestrian crossing by lines or other markings on the surface of the roadway, (i.e., the case identifies a mid-block crosswalk exists and the person is not using it.) or there is not a crosswalk at this location. (e.g. The person is jaywalking when a mid-block crosswalk is available OR is crossing a rural roadway or interstate where there would be no crosswalk)

13 (Non-Intersection - On Roadway, Crosswalk Availability Unknown) is used when it cannot be determined if a crosswalk was available. (e.g. there is some information (possibly conflicting) that leads you to believe that there may be a mid-block crosswalk at this location, there is not sufficient information about the location to be able to make a determination.)

14 (Parking LanelZone) refers to a person in an area on the roadway, or next to the roadway, on which parking is permitted in marked or unmarked spaces. This includes curbside and edge of roadway parking (for example, legal residential parking, city-street parking, etc.). Sometimes a strip of roadway can be designated for parking at certain hours of the day (parking lane) and for regular travel at other hours (travel lane). This code should NOT be used during hours when parking is NOT permitted (see 11 (Non-Intersection-On Roadway, Not in Marked Crosswalk)).

16 (Bicycle Lane) is any road, path or way that is specifically designated as being open to bicycle travel regardless of whether such facilities are designated for the exclusive use of bicycles (Dedicated Bike Lane).

20 (Shoulder/Roadside) - Shoulder is that part of a trafficway contiguous with the roadway for emergency use, for accommodation of stopped motor vehicles, and lateral support of the roadway structure. Roadside is the outermost part of the trafficway from the property line or other boundary in to the edge of the first road. For persons on a sidewalk on the roadside select 21 (Sidewalk).

21 (Sidewalk) is any improved surface primarily constructed for use by pedestrians. Do not select this attribute for sidewalks within a 23 (Driveway Access), 22 (Median/Crossing Island), 25 (Non-Trafficway Area).

22 (Median/Crossing Island) - Median is an area of trafficway between parallel roads separating travel in opposite directions. A median should be four or more feet wide. Crossing Island is a cement or grassy area in the middle of a trafficway.

23 (Driveway Access) is a portion of the trafficway at the end of a driveway providing access to property adjacent to a trafficway.

24 (Shared-Use Path/Trail) is a bikeway physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right-of-way or an independent right-of-way. Shared-Use Paths will also be used by pedestrians, skaters, wheelchairs, joggers and other non-motorized users.

25 (Non-Trafficway Area) is not physically located on any land way open to the public as a matter of right or custom for moving persons or property from one place to another. For example: a person in a parking lot, a yard, a person in a closed portion of a work zone, or in a house

28 (Other) is used when the location stated in the case materials does not reflect the listed attributes for this data element.

## 98 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 98 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

99 (Unknown Location) is used when the case materials state that the location of the nonmotorist was unknown at the time of the crash.
*Note: In 2011 GES adopted the FARS element format. Prior to 2011 the GES Non-Motorist Location at Time of Crash data element contained one additional attributes 0 (Motor Vehicle Occupant).

## Consistency Checks:

|  | IF |  |
| :--- | :--- | :--- |
|  |  | THEN |
| (1P2F) | PERSON TYPE equals 10, | NON-MOTORIST LOCATION AT TIME |
|  |  | OF CRASH must equal 25. |
| (1P9G) | NON-MOTORIST LOCATION AT THE | NON-MOTORIST ACTION/CIRCUM- |
|  |  |  |
|  |  | SIME OF CRASH equals 20, |

(450F) FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 07,
(460F) FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 02,
(470F) FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 03, 08, 10,
(480F) FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 04, 06,
(490F) FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 05,
(530F) FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 99,
(531F) FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 11,
(A61G) the FIRST HARMFUL EVENT equals 08, and PERSON TYPE equals 05, and NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21, 22, 24, 25, 28, and the NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST is involved in the first harmful event,

## THEN

there must be at least one Person Level (Not a MV Occupant) form with NONMOTORIST LOCATION AT TIME OF CRASH equal to 14. there must be at least one Person Level (Not a MV Occupant) form with NONMOTORIST LOCATION AT TIME OF CRASH equal to 02, 20.
there must be at least one Person Level (Not a MV Occupant) form with NONMOTORIST LOCATION AT TIME OF CRASH equal to 20, 22, 98, 99.
there must be at least one Person Level (Not a MV Occupant) form with NONMOTORIST LOCATION AT TIME OF CRASH equal to $09,16,20,21,24,25$, 28, 98, 99.
there must be at least one Person Level (Not a MV Occupant) form with NONMOTORIST LOCATION AT TIME OF CRASH equal to $24,25$.
there must be at least one Person Level (Not a MV Occupant) form with NONMOTORIST LOCATION AT TIME OF CRASH equal to 09, 98, 99.
there must be at least one Person
Level (Not a MV Occupant) form with NON-MOTORIST LOCATION AT TIME OF CRASH equal to 11.
CRASH TYPE should not equal 13 for this vehicle.
(A61H) the FIRST HARMFUL EVENT equals 09, and PERSON TYPE equals 06, 07, and NON-MOTORIST LOCATION
AT THE TIME OF CRASH equals 21, 22, 24, 25, 28, and the NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST is involved in the first harmful event,
(A61J) the FIRST HARMFUL EVENT equals 15, and PERSON TYPE equals 08, and NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21, 22, 24, 25, 28, and the NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST is involved in the first harmful event,
(A61K) the FIRST HARMFUL EVENT equals 49, and PERSON TYPE equals 04, and NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21, 22, 24, 25, 28, and the NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST is involved in the first harmful event,
(PB24) PERSON TYPE equals 05 or 08, and NON-MOTORIST LOCATION AT
TIME OF CRASH equals $14,16,20$, 21, 22, 24 or 25 ,
(PB25) PERSON TYPE equals 05 or 08, and NON-MOTORIST LOCATION AT TIME OF CRASH equals 01-03 or 09,

THEN
CRASH TYPE should not equal 13 for this vehicle.

CRASH TYPE should not equal 13 for this vehicle.

CRASH TYPE should not equal 13 for this vehicle.

PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE should equal 230, 320, 410, 420, 430, 440, 459, 510, 520, 590, 830 or 890.
PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE should equal $690,710,730,741,742,760,770$, 781, 782, 791, 792, 794, 795 or 799.
(U150) UNLIKELY: NON-MOTORIST LOCATION AT TIME OF CRASH equals 16, 25.

## NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH

FORMAT: 2 numeric. Select all that apply.
SAS NAME: nmprior.MPR_ACT

## ELEMENT VALUES:

01 Going To or From School (K-12)
02 Waiting to Cross Roadway
03 Crossing Roadway
04 Jogging/Running
05 Movement Along Roadway with Traffic (In or Adjacent to Travel Lane)
06 Movement Along Roadway Against Traffic (In or Adjacent to Travel Lane)
07 Movement on Sidewalk
16 Movement Along Roadway - Direction Unknown
08 In Roadway - Other (Working, Playing, etc.)
09 Adjacent to Roadway (e.g., Shoulder, Median)
10 Working in Trafficway (Incident Response)
11 Entering/Exiting a Vehicle
12 Disabled Vehicle Related (Working on, Pushing, Leaving/Approaching)
14 Other
15 None
98 Not Reported
99 Unknown
Definition: This element describes the action(s) of the non-motorist immediately prior to their involvement in the crash.

## Remarks:

Select all that apply.
01 (Going To or From School [K-12]) includes person age 5-18 or an adult supervising persons age 5-18 going to or from a school for any reason. Examples are going to a school dance, sports practice or extracurricular activities.

02 (Waiting to Cross Roadway) is used when the non-motorist is near the curb or the roadway edge waiting to cross a roadway anywhere along the roadway.

03 (Crossing Roadway) is used when the non-motorist was moving across the travel lanes with the goal of crossing the roadway.

04 (Jogging/Running) is used when the pedestrian was running or jogging.
05 (Movement Along Roadway with Traffic [In or Adjacent to Travel Lane]) is used when the non-motorist was not on a sidewalk and was moving in the same direction of traffic, either in the travel lane or adjacent to it (e.g. jogging or walking on shoulder or roadside).

06 (Movement Along Roadway Against Traffic [In or Adjacent to Travel Lane]) is used when the non-motorist was not on a sidewalk and was moving in the opposite direction of traffic (facing oncoming vehicles), either in the travel lane or adjacent to it. (e.g. jogging or walking on shoulder or roadside.)

07 (Movement on Sidewalk) is used when the non-motorist was moving (not standing) on the sidewalk.

16 (Movement Along Roadway - Direction Unknown) is used when the non-motorist was not on a sidewalk and was moving in or adjacent to a travel lane but their direction with respect to the flow of traffic is unknown. (e.g. jogging or walking on shoulder or roadside.)

08 (In Roadway - Other [Working, Playing, Etc.]) is used when the non-motorist was in the roadway but not crossing it. Examples include conducting maintenance, playing in the roadway, operating a snow blower or lawn care equipment, or lying in the roadway. For cases involving a non-motorist working within a closed portion of a work zone area, use attribute 14 (Other).

09 (Adjacent to Roadway [e.g., Shoulder, Median]) is used when the non-motorist was not in the roadway but in an area immediately adjacent to the roadway, such as a median or a shoulder, but not a sidewalk.

10 (Working in Trafficway [Incident Response]) is used when the non-motorist was in the roadway as part of an official response to an incident, such as a firefighter moving between an emergency vehicle and a crash involved vehicle.

11 (Entering/Exiting a Vehicle) is used when a pedestrian was in the act of entering or had just exited a motor vehicle.

12 (Disabled Vehicle Related [Working on, Pushing, Leaving/Approaching]) is used when the pedestrian was outside of a disabled vehicle for any of a number of reasons, including working on it, pushing it, leaving it, or approaching it.

14 (Other) is used when the actions or circumstances stated in the case materials do not reflect the listed attributes for this data element. This includes non-motorists working within a closed portion of a work zone area.

15 (None) is used when the case materials specifically states that the non-motorist did not have any actions or circumstances prior to the crash.

## 98 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 98 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

99 (Unknown) is used when the case materials state that the action or circumstances of the non-motorist prior to the crash was unknown.

## Consistency Checks:

## IF

(1P3F) PERSON TYPE equals 10,
(1P4F) PERSON TYPE equals 04,
(1P5F) PERSON TYPE equals 06-08, 19,
(1P7F) PERSON TYPE equals 04,
(1P8F) PERSON TYPE equals 06, 07,
(1P9F) PERSON TYPE equals 08,
(1P1G) PERSON TYPE equals 19,

## THEN

NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH must not equal 01-12, 16, and NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH must not equal 01-20. NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH must not equal 04, 12.
NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH must not equal 04.
NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH should not equal 07, 10, 11.
NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH should not equal 10-12.
NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH should not equal 11.
NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH should not equal 11, 12.
(4X5F) NON-MOTORIST ACTION/ CIRCUMSTANCES PRIOR TO CRASH is selected 04,
(4X7F) any NON MOTORIST ACTION/ CIRCUMSTANCES PRIOR TO CRASH equals 15 or 98 or 99 ,
(PB15) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 910,
(PB19) NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH equals 08,
(PB20) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 510, 520 or 590,
(PB27) NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH equals 05, and PERSON TYPE equals 05 or 08,
(PB28) NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH equals 06, and PERSON TYPE equals 05 or 08,
(PB29) NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH equals 04, and PERSON TYPE equals 05 or 08,
(PB37) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 311, 312 or 313,
(PB38) PEDESTRIAN/BIKE TYPING -
PEDESTRIAN CRASH TYPE equals 410 or 420, and PEDESTRIAN/BIKE TYPING - PEDESTRIAN POSITION does not equal 5 ,
(PB39) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 430 or 440, and PEDESTRIAN/BIKE TYPING - PEDESTRIAN POSITION does not equal 5 ,

THEN
NON-MOTORIST ACTION/ CIRCUMSTANCES PRIOR TO CRASH attributes 05,06 or 16 should also be selected. only that one code and no other must be coded for this person.

NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH must equal 03.
PEDESTRIAN/BIKE TYPING -
PEDESTRIAN CRASH TYPE must not equal 510, 520, 590, 830 or 890.
at least one NON-MOTORIST
ACTION/CIRCUMSTANCES PRIOR TO CRASH must equal 02.
PEDESTRIAN/BIKE TYPING -
PEDESTRIAN CRASH TYPE should equal 410 or 420.

PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE should equal 430 or 440.

PEDESTRIAN/BIKE TYPING -
PEDESTRIAN CRASH TYPE should equal $410,420,430,440$ or 459.
at least one NON-MOTORIST
ACTION/CIRCUMSTANCES PRIOR TO CRASH must equal 08 or 10 .
at least one NON-MOTORIST
ACTION/CIRCUMSTANCES PRIOR TO CRASH must equal 05.
at least one NON-MOTORIST
ACTION/CIRCUMSTANCES PRIOR TO CRASH must equal 06.
(PB58) NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH must not equal 05,06 or 16 in combination.

IF

## THEN

STANCES PRIOR TO CRASH equals 16, and PERSON TYPE equals 05 or 08,
(PB62) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 220,
(PB64) any NON-MOTORIST ACTION/ CIRCUMSTANCES PRIOR TO CRASH equals 03,
(PB65) any NON-MOTORIST ACTION/ CIRCUMSTANCES PRIOR TO CRASH equals 07,

PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE should equal 459.
at least one NON-MOTORIST ACTION/ CIRCUMSTANCES PRIOR TO CRASH must equal 12.
the NON-MOTORIST ACTION/ CIRCUMSTANCES PRIOR TO CRASH must not also equal 05, 06 or 16 for this person.
the NON-MOTORIST ACTION/ CIRCUMSTANCES PRIOR TO CRASH must not also equal 03, 05, 06, 08 or 16 for this person.

## THIS PAGE INTENTIONALLY LEFT BLANK

## NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH

FORMAT: 2 numeric. Select all that apply.
SAS NAME: nmcrash.MTM_CRSH

## ELEMENT VALUES:

00 No Improper Action
01 Dart/Dash
02 Failure to Yield Right-Of-Way
03 Failure to Obey Traffic Signs, Signals or Officer
04 In Roadway Improperly (Standing, Lying, Working, Playing, etc.)
05 Entering/Exiting Vehicle
06 Inattentive (Talking, Eating, etc.)
07 Improper Turn/Merge
08 Improper Passing
09 Wrong-Way Riding or Walking
10 Driving on Wrong Side of Road
12 Improper Crossing of Roadway or Intersection (Jaywalking)
13 Failing to Have Lights on When Required
14 Operating Without Required Equipment
15 Improper or Erratic Lane Changing
16 Failure to Keep in Proper Lane or Running Off Road
17 Making Improper Entry to or Exit from Trafficway
18 Operating the Vehicle in Other Erratic, Reckless, Careless or Negligent Manner
19 Not Visible (Dark Clothing, No Lighting, etc.)
20 Passing with Insufficient Distance or Inadequate Visibility or Failing to Yield to Overtaking Vehicle
Other
Not Reported
Unknown
Definition: This element describes the action(s) and/or circumstances of the non-motorist that law enforcement indicated may have contributed to the crash.

## Remarks:

$\mathbf{0 0}$ (No Improper Action) is used when the investigating officer states that no improper action was taken by the non-motorist.

01 (Dart/Dash) is used when a non-motorist either ran, rode, etc., into the roadway in front of a motorist whose view of the non-motorist was not obstructed or the non-motorist walked, ran,
rode, etc., into the road and was struck by a motorist whose view of the pedestrian was blocked until an instant before impact.

## For example:

1. A pedestrian runs into the roadway in front a motorist whose view of the pedestrian was blocked until an instant before impact.
2. A bicyclist enters the roadway in front of a motorist whose view of the bicyclist was not obstructed.

04 (In Roadway Improperly [Standing, Lying, Working, Playing, etc.]) is used when the person was indicated to have been in the roadway improperly other than making an improper crossing as in code 12 (Improper Crossing of Roadway or Intersection (Jaywalking).

19 (Not Visible [Dark Clothing, No Lighting, etc.]) is used when the non-motorist was not visible to the motorist because of blocked views, insufficient lighting or other reasons.

21 (Other) is used when the case materials state that an action(s)/circumstances(s) by the non-motorist may have contributed to the crash, but are not listed in these attributes.

## 98 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 98 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

99 (Unknown) is used when the case materials state that the action(s)/circumstance(s) of the non-motorist was unknown at the time of the crash.

## Consistency Checks:

## IF

(1N4F) any NON-MOTORIST SAFETY EQUIPMENT equals 5,

## THEN

NON-MOTORIST ACTION/ CIRCUMSTANCES AT TIME OF CRASH should not equal 13.

## THEN

(1P3F) PERSON TYPE equals 10,
(1P0G) PERSON TYPE equals 05,
(1P3G) PERSON TYPE equals 04, 06, 07,
(1P4G) PERSON TYPE equals 04, 06-08, 19,
(1P5G) PERSON TYPE equals 08,
(1P9G) NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 20,
(1P0H) NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21,
(1P1H) NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 22,
(1P2H) NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 23,
(1P3H) NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 24 ,
(1P4H) NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 25 ,
(1P5H) NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 28, 98, 99,
(1P6H) NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 16,
(1P7H) NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21,

NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH must not equal 01-12, 16, and NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH must not equal 01-20. NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH must not equal 07, 08, 10, 13-18, 20.
NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH should not equal 04.
NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH should not equal 05.
NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH should not equal 20.
NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH must not equal 02-04, 15.
NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH must not equal 02-04, 07-10, 15, 16, 20.
NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH must not equal 01, 02, 04, 07, 08, 15, 20.
NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH must not equal 12, 15.
NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH must not equal 01, 03, 04, 10.
NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH must not equal 01-04, 10, 12, 15-17, 20.
NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH should not equal 01, 03, 04, 10, 12, 15, 16, 20. NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH should not equal 04, 16.
NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH should not equal 01, 05, 12, 17.
(1P8H) NON-MOTORIST LOCATION AT THE NON-MOTORIST ACTION/CIRCUMTIME OF CRASH equals 23, STANCES AT TIME OF CRASH should not equal 02.
(1P9H) NON-MOTORIST LOCATION AT THE NON-MOTORIST ACTION/CIRCUMSTIME OF CRASH equals 24 ,

TANCES AT TIME OF CRASH should not equal 02, 05, 12, 15, 16.
(1PH0) NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 25 ,
(4X8F) any NON MOTORIST ACTION/ CIRCUMSTANCES AT TIME OF CRASH equals 00 or 98 or 99,
(PB16) PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE equals 142, 144, 147, 153, 155, 156, 157, 159, 311, 312, 318, 319 or 357,
(PB18) PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE equals 741 or 742,
(PB26) NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH equals 02, and PERSON TYPE equals 06 or 07 ,

NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH should not equal 07-09.
only that one code and no other must be coded for this person.
at least one NON-MOTORIST ACTION/ CIRCUMSTANCES AT TIME OF CRASH must equal 02.
at least one NON-MOTORIST ACTION/ CIRCUMSTANCES AT TIME OF CRASH must equal 01. PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE should equal 142, 144, 147, 153, 155, 156, 157, 159, 311, 312, 318, 319 or 357.

## NON-MOTORIST SAFETY EQUIPMENT

FORMAT: 1 numeric. Select all that apply.
SAS NAME: Safety.MSAFEQMT

## ELEMENT VALUES:

1 None Used
2 Helmet
3 Reflective Equipment/Clothing (jacket, backpack, etc.)
4 Protective Pads Used (elbows, knees, shins, etc.)
5 Lighting
7 Other Safety Equipment
8 Not Reported
9 Unknown if Used
Definition: This element indicates the safety equipment that was used by the non-motorist involved in the crash.

## Remarks:

Select all that apply.
1 (None Used) is used when the case materials specifically states that the non-motorist was not wearing or carrying any type of safety equipment.

2 (Helmet) is used when the case materials indicate that the non-motorist was wearing a safety helmet. The non-motorist does not have to be riding a bicycle at the time of the crash to use this attribute. For a non-motorist wearing a motorcycle helmet, use the attribute 7 (Other Safety Equipment).

3 (Reflective Equipment/Clothing) is used when the case materials indicate that the nonmotorist was wearing or carrying some type of reflective equipment. The emphasis is on the reflective property of the equipment and does not include devices which give off light under their own power (e.g. flashlights). The equipment can be reflective tape affixed to regular clothing, special reflective clothing, a reflective device that is worn or a reflective device that is carried. It can be made by the non-motorist and does not have to be specially designed as a safety device.

4 (Protective Pads Used) is used when the case materials indicate the non-motorist was wearing padded, shaped attachments to protect specific areas of the body (elbows, knees, shins, etc.) from injury.

5 (Lighting) is used when a non-motorist uses a light on his/her person or on a pedalcycle or personal conveyance for safety purposes, to include flashlights.

7 (Other Safety Equipment) is used when the case materials indicate that the non-motorist was using safety equipment but it does not fit into the listed attributes. Any clothing that is non-reflective but considered to be safety equipment (hi-glo orange clothing) should be coded using this attribute. Also use this attribute for a non-motorist wearing motorcycle safety equipment (e.g. motorcycle helmet).

## 8 (Not Reported)

If a state's crash report manual instructs to leave blank data blocks that are not applicable, then a blank in those data blocks are NOT considered "Not Reported".

Code 8 (Not Reported) in these two situations:

1. No field or coding block exists on the state's crash report to provide the information to code this element AND no other information is available to code the element (e.g., narrative, diagram, case materials)
2. A field or coding block exists on the state's crash report that would provide the information needed to code this element, but it has been left blank, AND no other information is available to code the element (e.g., narrative, diagram, case materials).

9 (Unknown If Used) if the investigating officer indicates that it is unknown if safety equipment was used.

## Consistency Checks:

## IF

(1N2F) PERSON TYPE equals 10,
(1N4F) any NON-MOTORIST SAFETY EQUIPMENT equals 5,
(4X9F) any NON-MOTORIST SAFETY EQUIPMENT equals 1 or 8 or 9,
(8TOF) any NON-MOTORIST SAFETY EQUIPMENT equals 2,

## THEN

at least one NON-MOTORIST SAFETY EQUIPMENT should equal 1. NON-MOTORIST ACTION/ CIRCUMSTANCES AT TIME OF CRASH should not equal 13. only that one code and no other must be coded for this person.
PERSON TYPE should equal 06-08.

## CONDITION (IMPAIRMENT) AT TIME OF CRASH

FORMAT: 2 numeric. Select all that apply.
SAS NAME: Nmimpair.NMIMPAIR

## ELEMENT VALUES:

00 None/Apparently Normal
01 III, Blackout
02 Asleep or Fatigued
03 Walking with a Cane or Crutches
04 Paraplegic Or Restricted To Wheelchair
05 Impaired Due To Previous Injury
06 Deaf
07 Blind
08 Emotional (depressed, angry, disturbed, etc)
09 Under the Influence of Alcohol, Drugs or Medication
10 Physical Impairment - No Details
96 Other Physical Impairment
98 Not Reported
99 Unknown If Impaired
Definition: This element attempts to identify any physical impairment to this non-motorist which may have contributed to the cause of the crash.

## Remarks:

Select all that apply.
This elements values and remarks are identical to Driver Level element D23. Please see page $\underline{515}$ for remarks.

## Consistency Checks:

## IF

THEN
(1P6G) PERSON TYPE equals 04, 06-08, 19, CONDITION (IMPAIRMENT) AT TIME OF CRASH must not equal 03. CONDITION (IMPAIRMENT) AT TIME OF CRASH should not equal 04. CONDITION (IMPAIRMENT) AT TIME OF CRASH should not equal 01-10, 96.
(4X3F) any CONDITION (IMPAIRMENT) AT TIME OF CRASH (NM14) equals 00 or 98 or 99,
(4X6F) any CONDITION (IMPAIRMENT) AT TIME OF CRASH (NM14) equals 09,
only that one code and no other must be coded for this person.

POLICE REPORTED ALCOHOL INVOLVEMENT (NM15) or POLICE REPORTED DRUG INVOLVEMENT (NM18) must equal 1 for this person.
(U590) UNLIKELY: any CONDITION (IMPAIRMENT) AT TIME OF CRASH (NM14) equals 05 or 07.

## POLICE REPORTED ALCOHOL INVOLVEMENT

FORMAT: 1 numeric
SAS NAME: Person.DRINKING

## ELEMENT VALUES:

$0 \quad$ No (Alcohol Not Involved)
1 Yes (Alcohol Involved)
8 Not Reported
9 Unknown (Police Reported)
Definition: This data element reflects only the judgment of law enforcement as to whether alcohol was involved or not for this person.

## Remarks:

This elements values and remarks are identical to Person Level (MV Occupant) Level element P16. Please see page $\mathbf{7 1 7}$ for remarks.

## Consistency Checks:

|  | IF |
| :--- | :--- |
| (4X6F) | any CONDITION (IMPAIRMENT) AT |
|  | TIME OF CRASH (NM14) equals 09, |
|  |  |
| (D090) | VIOLATIONS CHARGED equals |
|  | 11-19, and PERSON TYPE equals 01, |
|  | 03, |
| (P072) | PERSON TYPE equals 02, 03, and |
|  | INJURY SEVERITY equals 0, and |
|  | ALCOHOL TEST RESULT equals 96, |
| (P110) | METHOD OF ALCOHOL DETERMIN- |
|  | ATION BY POLICE equals 1-5, 8, |
| (P200) | POLICE REPORTED ALCOHOL |
|  | INVOLVEMENT equals 8, 9, |
| (P300) | POLICE REPORTED ALCOHOL |
|  | INVOLVEMENT equals 1, and |
|  | INJURY SEVERITY equals 4, |

THIS PAGE INTENTIONALLY LEFT BLANK

# METHOD OF ALCOHOL DETERMINATION BY POLICE (FARS Only) 

FORMAT: 1 numeric
SAS NAME: Person.ALC_DET

## ELEMENT VALUES:

1 Evidential Test (breath, blood, urine)
2 Preliminary Breath Test (PBT)
3 Behavioral
4 Passive Alcohol Sensor (PAS)
5 Observed
8 Other (e.g., Saliva test)
9 Not Reported
Definition: This element describes the method by which the police made the determination as to whether alcohol was involved or not for this person.

## Remarks:

This elements values and remarks are identical to Person Level (MV Occupant) Level element P17. Please see page $\underline{\mathbf{7 2 1}}$ for remarks.

## Consistency Checks:

## IF

(P110) METHOD OF ALCOHOL DETERMINATION BY POLICE equals 1-5, 8,
(P200) POLICE REPORTED ALCOHOL INVOLVEMENT equals 8, 9,

## THEN

POLICE REPORTED ALCOHOL INVOLVEMENT should equal 0, 1.

METHOD OF ALCOHOL DETERMINATION BY POLICE should equal 9.
(U681) UNLIKELY: METHOD OF ALCOHOL DETERMINATION BY POLICE equals 8.

## THIS PAGE INTENTIONALLY LEFT BLANK

## ALCOHOL TEST

FORMAT: 3 sets, 1 set, 1 numeric, 2 sets, 2 numeric
SAS NAME: Person.ALC_STATUS, Person.ATST_TYP, Person.ALC_RES

## ELEMENT VALUES:

## SAS

GES FARS
Subfield 1 - Test Status
$0 \quad 0 \quad$ Test Not Given
11 Test Refused
$2 \quad 2$ Test Given
$8 \quad 8 \quad$ Not Reported
$9 \quad 9 \quad$ Unknown if Tested
Subfield 2 - Test Type
$00 \quad 00$ Test Not Given
0101 Blood
0202 Breathalyzer "BAC"
1010 Preliminary Breath Test (PBT)
0303 Urine
XX 04 Vitreous
XX 05 Blood Plasma/Serum
XX 06 Blood Clot
XX 07 Liver
$08 \quad 08$ Other Test Type
9898 Unknown Test Type
$95 \quad 95$ Not Reported
$99 \quad 99$ Unknown if Tested

Subfield 3 - Test Result
00-93 00-93 Actual Value
$94 \quad 94 \quad .94$ or Greater
$96 \quad 96$ Test Not Given
$97 \quad 97$ AC Test Performed, Results Unknown
9898 Positive Reading With No Actual Value
$95 \quad 95$ Not Reported
$99 \quad 99$ Unknown if Tested
Definition for Alcohol Test Status: This element identifies if an alcohol test was given to this person.

Definition for Alcohol Test Type: This element identifies the type of the alcohol test that was used for this person.

Definition for Alcohol Test Result: This element identifies the alcohol test result for this person.

## Remarks:

This elements values and remarks are identical to Person Level (MV Occupant) Level element P18. Please see page $\underline{\mathbf{7 2 5}}$ for remarks.

## Consistency Checks:

## IF

(5T6P) ALCOHOL TEST STATUS equals 2, and ALCOHOL TEST TYPE equals 98,
(5T7P) ALCOHOL TEST STATUS equals 0, 1,
(5T8P) ALCOHOL TEST STATUS equals 9,
(5T9P) ALCOHOL TEST STATUS equals 2,
(5TCP) ALCOHOL TEST STATUS equals 8,
(P071) PERSON TYPE equals 02, 04-08, 10, and INJURY SEVERITY does not equal 4 ,
(P072) PERSON TYPE equals 02, 03, and INJURY SEVERITY equals 0, and ALCOHOL TEST RESULT equals 96,
(P074) PERSON TYPE equals 02, 04-08, 10, and INJURY SEVERITY does not equal 4 ,

## THEN

ALCOHOL TEST RESULTS must equal 00-94, 97, 98.

ALCOHOL TEST TYPE must equal 00, and ALCOHOL TEST RESULT must equal 96.
ALCOHOL TEST TYPE must equal 99, and ALCOHOL TEST RESULT must equal 99.
ALCOHOL TEST TYPE must equal 01-10, 98, and ALCOHOL TEST RESULT must equal 00-94, 97, 98. ALCOHOL TEST TYPE must equal 95, and ALCOHOL TEST RESULT must equal 95.
ALCOHOL TEST STATUS should not equal 9, ALCOHOL TEST TYPE should not equal 99, and ALCOHOL TEST RESULT should not equal 99. POLICE REPORTED ALCOHOL INVOLVEMENT should equal $0,8$.

ALCOHOL TEST STATUS must not equal 8, ALCOHOL TEST TYPE must not equal 95, and ALCOHOL TEST RESULT must not equal 95.
(P080) ALCOHOL TEST RESULTS should not equal 34-94.
(P300) POLICE REPORTED ALCOHOL INVOLVEMENT equals 1, and INJURY SEVERITY equals 4,

ALCOHOL TEST STATUS should not equal $0,1$.

## POLICE REPORTED DRUG INVOLVEMENT

FORMAT: 1 numeric
SAS NAME: Person.DRUGS

## ELEMENT VALUES:

$0 \quad$ No (Drugs Not Involved)
1 Yes (Drugs Involved)
8 Not Reported
9 Unknown (Police Reported)
Definition: This data element reflects only the judgment of law enforcement as to whether drugs were involved or not for this person.

## Remarks:

This elements values and remarks are identical to Person Level (MV Occupant) Level element P19. Please see page $\mathbf{7 3 3}$ for remarks.

## Consistency Checks:

## IF

(4X6F) any CONDITION (IMPAIRMENT) AT TIME OF CRASH (NM14) equals 09,
(BQOP) METHOD OF DRUG DETERMINATION BY POLICE equals 8,
(BROP) METHOD OF DRUG DETERMINATION BY POLICE equals 1-7,
(D090) VIOLATIONS CHARGED equals 11-19, and PERSON TYPE equals 01, 03,
(P140) POLICE REPORTED DRUG INVOLVEMENT equals 8, 9,
(P150) POLICE REPORTED DRUG INVOLVEMENT equals 1,
(P160) POLICE REPORTED DRUG INVOLVEMENT equals 1, and METHOD OF DRUG DETERMINATION BY POLICE equals 2,

## THEN

POLICE REPORTED ALCOHOL INVOLVEMENT (NM15), or POLICE REPORTED DRUG INVOLVEMENT (NM18) must equal 1 for this person. POLICE REPORTED DRUG INVOLVEMENT must equal 0, 1, 8, 9. POLICE REPORTED DRUG INVOLVEMENT must equal 0, 1, 8. POLICE REPORTED ALCOHOL INVOLVEMENT should equal 1, or POLICE REPORTED DRUG INVOLVEMENT should equal 1. METHOD OF DRUG DETERMINATION BY POLICE should equal 8.
DRUG TEST STATUS should not equal 0.
not all DRUG TEST RESULTS should equal 001.

## IF

## THEN

(P170) METHOD OF DRUG DETERMINATION BY POLICE equals 1-7,

POLICE REPORTED DRUG
INVOLVEMENT should equal 0,1 .

## METHOD OF DRUG DETERMINATION BY POLICE

 (FARS Only)FORMAT: 1 numeric
SAS NAME: Person.DRUG_DET

## ELEMENT VALUES

1 Evidential Test (Blood, Urine)
2 Drug Recognition Technician (DRT) determination
3 Behavioral
7 Other
8 Not Reported
Definition: This element identifies the method by which the police made the determination as to whether drugs were involved or not for this person.

## Remarks:

This elements values and remarks are identical to Person Level (MV Occupant) Level element P20. Please see page $\underline{\mathbf{7 3 7}}$ for remarks.

## Consistency Checks:

|  | IF | THEN |
| :--- | :--- | :--- |
| (BQOP) | METHOD OF DRUG DETERMIN- | POLICE REPORTED DRUG |
|  | ATION BY POLICE equals 8, | INVOLVEMENT must equal 0, 1, 8, 9. |
| (BROP) | METHOD OF DRUG DETERMIN- | POLICE REPORTED DRUG |
|  | ATION BY POLICE equals 1-7, | INVOLVEMENT must equal 0, 1, 8. |
| (P140) | POLICE REPORTED DRUG | METHOD OF DRUG DETERMINATION |
|  | INVOLVEMENT equals 8, 9, | BY POLICE should equal 8. |
| (P160) | POLICE REPORTED DRUG | not all DRUG TEST RESULTS should |
|  | INVOLVEMENT equals 1, and | equal 001. |
|  | METHOD OF DRUG DETERMIN- |  |
|  | ATION BY POLICE equals 2, |  |
| (P170) | METHOD OF DRUG DETERMIN- | POLICE REPORTED DRUG |
|  | ATION BY POLICE equals 1-7, | INVOLVEMENT should equal 0, 1. |

## THIS PAGE INTENTIONALLY LEFT BLANK

## DRUG TEST

FORMAT: 3 sets: 2 sets, 1 numeric; 1 set, 3 numeric
SAS NAME: Person.DSTATUS, Person.DRUGTST1, Person.DRUGTST2, Person.DRUGTST3, Person.DRUGRES1, Person.DRUGRES2, Person.DRUGRES3

## ELEMENT VALUES:

| GES | FARS |  |
| :---: | :---: | :---: |
|  |  | Subfield 1 - Test Status |
| 0 | 0 | Test Not Given |
| 1 | 1 | Test Refused |
| 2 | 2 | Test Given |
| 8 | 8 | Not Reported |
| 9 | 9 | Unknown if Tested |
|  |  | Subfield 2 - Test Type |
| 0 | 0 | Test Not Given |
| 1 | 1 | Blood |
| 2 | 2 | Urine |
| 3 | 3 | Both: Blood and Urine Tests |
| 7 | 7 | Unknown Test Type |
| 8 | 8 | Other Test Type |
| 6 | 6 | Not Reported |
| 9 | 9 | Unknown if Tested |
|  |  | Subfield 3 - Test Result |
| 000 | 000 | Test Not Given |
| 001 | 001 | Tested, No Drugs Found/Negative |
| XXX | 100-295 | Narcotic* |
| XXX | 300-395 | Depressant* |
| XXX | 400-495 | Stimulant* |
| XXX | 500-595 | Hallucinogen* |
| XXX | 600-695 | Cannabinoid* |
| XXX | 700-795 | Phencyclidine (PCP)* |
| XXX | 800-895 | Anabolic Steroid* |
| XXX | 900-995 | Inhalant* |
| XXX | 996 | Other Drug |
| 997 | 997 | Test for Drug, Results Unknown |
| 998 | 998 | Tested for Drugs, Drugs Found, Type Unknown/Positive |
| 095 | 095 | Not Reported |
| 999 | 999 | Unknown If Tested |
|  |  | * See Specific Drug Listings |
|  |  | ** Test Result does not include Aspirin, Nicotine or Alcohol. See Remarks below. |

Definition for Drug Test Status: This element identifies if a drug test was given to this person.

Definition for Drug Test Type: This element identifies the type of drug test that was used for this person.

Definition for Drug Test Result: This element identifies the drug test result for this person.

## Remarks:

This elements values and remarks are identical to Person Level (MV Occupant) Level element P21. Please see page $\mathbf{7 4 1}$ for remarks.

See Alphabetical and Numerical List of Drugs under element P21. Also reference "Examples for Interpreting Drug Tests" under element P21.

Consistency Checks:

IF
(BT1P) DRUG TEST STATUS equals 0, 1,
(BT2P) DRUG TEST STATUS equals 8,
(BT3P) DRUG TEST STATUS equals 2,
(BT6P) DRUG TEST STATUS equals 9,
(BT7P) DRUG TEST STATUS equals 2, and DRUG TEST RESULT one equals 001, 100-295, 300-395, 400-495, 500-595, 600-695, 700-795, 800-895, 900-995, 996, 997, 998,
(BT8P) More than one of the same DRUG TEST RESULT values must not be coded for the same person except for 000, 996.
(BT9P) DRUG TEST RESULT 1 equals 000,
001, 997, 998, 095, or 999,

## THEN

all DRUG TEST TYPE must equal 0 , and all DRUG TEST RESULT must equal 000.
DRUG TEST TYPE 1 must equal 6 , and DRUG TEST RESULT 1 must equal 095 and remaining DRUG TEST TYPES and DRUG TEST RESULTS must be 0 filled. at least one DRUG TEST TYPE must equal 1-8, and one corresponding DRUG TEST RESULT must equal 001, 100-295, 300-395, 400-495, 500-595, 600-695, 700-795, 800-895, 900-995, 996-998.
DRUG TEST TYPE 1 must equal 9, and DRUG TEST RESULT 1 must equal 999 and remaining DRUG TEST TYPES and DRUG TEST RESULTS must be 0 filled. DRUG TEST RESULT two and three must not equal 999.

DRUG TEST RESULT 2 and DRUG TEST RESULT 3 must equal 000.

## IF

(P073) PERSON TYPE equals 02, 04-08, 10, and INJURY SEVERITY does not equal 4 ,
(P075) PERSON TYPE equals 02, 04-08, 10, and INJURY SEVERITY does not equal 4 ,
(P150) POLICE REPORTED DRUG INVOLVEMENT equals 1,
(P160) POLICE REPORTED DRUG INVOLVEMENT equals 1, and METHOD OF DRUG DETERMINATION BY POLICE equals 2,

## THEN

DRUG TEST STATUS should not equal 9, and any DRUG TEST TYPE should not equal 9, and any DRUG TEST RESULTS should not equal 999. DRUG TEST STATUS must not equal 8, any DRUG TEST TYPE must not equal 6, and any DRUG TEST RESULTS must not equal 095.
DRUG TEST STATUS should not equal 0.
not all DRUG TEST RESULTS should equal 001.

## THIS PAGE INTENTIONALLY LEFT BLANK

## TRANSPORTED TO FIRST MEDICAL FACILITY BY

FORMAT: 1 numeric
SAS NAME: Person.Hospital

## ELEMENT VALUES:

0 Not Transported
1 EMS Air
5 EMS Ground
3 EMS Unknown Mode
2 Law Enforcement
4 Transported Unknown Source
6 Other
8 Not Reported
9 Unknown

Definition: This element identifies the method of transportation this person was provided to receive treatment at the first hospital or medical facility.

## Remarks:

This elements values and remarks are identical to Person Level (MV Occupant) Level element P22. Please see page $\mathbf{7 6 1}$ for remarks.

## Consistency Checks:

## IF

(2U3F) INJURY SEVERITY equals 3,
(A551) EMS TIME AT HOSPITAL equals 8888, 9997, 9998,
(P090) INJURY SEVERITY equals 0,
(P091) TRANSPORTED TO FIRST MEDICAL FACILITY BY equals 1, 3, 5,
(P093) all persons TRANSPORTED TO FIRST MEDICAL FACILITY BY equals 2, 4,
(P50P) DIED AT SCENE/EN ROUTE equals 7,

## THEN

TRANSPORTED TO FIRST MEDICAL FACILITY BY should not equal 0.
TRANSPORTED TO FIRST MEDICAL FACILITY BY should not equal 1, 3, 5 for any PERSON.
TRANSPORTED TO FIRST MEDICAL FACILITY BY must equal 0.
EMS TIME AT HOSPITAL should not equal 8888, 9997, 9998.

NOTIFICATION TIME EMS, ARRIVAL TIME EMS, EMS TIME AT HOSPITAL must equal 8888.
TRANSPORTED TO FIRST MEDICAL FACILITY BY must equal 0.

IF
(P51P) DIED AT SCENE/EN ROUTE equals 8 ,

THEN
TRANSPORTED TO FIRST MEDICAL FACILITY BY must equal 1-6.

## Consistency Checks (FARS Only):

## IF

(P520) CRASH DATE and DEATH DATE are the same, and CRASH TIME AND DEATH TIME are the same,
(P52P) DIED AT SCENE/EN ROUTE equals 9,
(P55P) TRANSPORTED TO FIRST MEDICAL FACILITY BY equals 9,

## THEN

TRANSPORTED TO FIRST MEDICAL FACILITY BY should equal 0, and DIED AT SCENE/EN ROUTE should equal 7. TRANSPORTED TO FIRST MEDICAL FACILITY BY must equal 8 or 9 . DIED AT SCENE/EN ROUTE must equal 0, 9.

# DIED AT SCENE/EN ROUTE <br> (FARS Only) 

FORMAT: 1 numeric
SAS NAME: Person.DOA

## ELEMENT VALUES:

0 Not Applicable
7 Died at Scene
8 Died En Route
9 Unknown
Definition: This element identifies if this person died at the scene of the crash or en route to a hospital or treatment facility.

## Remarks:

This elements values and remarks are identical to Person Level (MV Occupant) Level element P23. Please see page $\mathbf{7 6 5}$ for remarks.

## Consistency Checks:

## IF

(1R1P) If DIED AT SCENE/EN ROUTE equals 7,8 ,
(P50P) DIED AT SCENE/EN ROUTE equals 7,
(P510) EMS TIME AT HOSPITAL equals 8888, 9997, 9998,
(P51P) DIED AT SCENE/EN ROUTE equals 8 ,
(P530) EMS TIME AT HOSPITAL equals 9996,
(P53P) INJURY SEVERITY equals 0-3, 5, 6,
(P54P) DIED AT SCENE/EN ROUTE equals 8 ,
(P56P) DIED AT SCENE/EN ROUTE equals 7,

## THEN

INJURY SEVERITY must equal 4.
TRANSPORTED TO FIRST MEDICAL FACILITY BY must equal 0 .
DIED AT SCENE/EN ROUTE should not equal 8 for any PERSON.
TRANSPORTED TO FIRST MEDICAL FACILITY BY must equal 1-6.
DIED AT SCENE/EN ROUTE must equal 8 for at least one person.
DIED AT SCENE/EN ROUTE must equal 0 .
EMS TIME AT HOSPITAL should not equal 8888, 9997, 9998.
DEATH TIME should be within 30 minutes of the CRASH TIME.

## Consistency Checks (FARS Only):

IF
(P520) CRASH DATE and DEATH DATE are the same, and CRASH TIME AND DEATH TIME are the same,
(P52P) DIED AT SCENE/EN ROUTE equals 9,
(P55P) TRANSPORTED TO FIRST MEDICAL FACILITY BY equals 9,

## THEN

TRANSPORTED TO FIRST MEDICAL FACILITY BY should equal 0, and DIED AT SCENE/EN ROUTE should equal 7. TRANSPORTED TO FIRST MEDICAL FACILITY BY must equal 8 or 9. DIED AT SCENE/EN ROUTE must equal $0,9$.

## DEATH DATE <br> (FARS Only)

FORMAT: 2 sets of 2 numeric, 1 set of 4 numeric
SAS NAME: Person.DEATH_DA; Person.DEATH_MO; Person.DEATH_YR

## ELEMENT VALUES:

```
    Month:
    88 Not Applicable (Non-fatal)
01-12
    99 Unknown
    Day:
    88 Not Applicable (Non-fatal)
01-31
    99 Unknown
    Year:
8888 Not Applicable (Non-fatal)
    Actual Year of Death
9999 Unknown
```

Definition: This element records the month, day and year of this person's death.

## Remarks:

This elements values and remarks are identical to Person Level (MV Occupant) Level element P24. Please see page $\underline{\mathbf{7 6 7}}$ for remarks.

## Consistency Check:

## IF

(1U1F) INJURY SEVERITY equals 4,
(1VOP) DEATH MONTH or DAY equals 88, or all must equal 8's. DEATH YEAR equals 8888,
(2U1F) INJURY SEVERITY is not equal to 4, DEATH DATE must equal 88888888.
(2VOP) DEATH DAY is 01-31, and DEATH MONTH is 01-12,
(3UOP) DEATH DATE equals CRASH DATE, and CRASH TIME is not equal to 9999,

## THEN

DEATH DATE must not equal 88888888. DEATH DAY must be a valid day for DEATH MONTH.
DEATH TIME must not be less than CRASH TIME.

IF
(4V1F) INJURY SEVERITY equals 4,
(4V2F) CRASH MONTH equals 12, and DEATH MONTH equals 01,
(4V3F) CRASH MONTH equals 12,

## THEN

DEATH DATE and DEATH TIME for this person must be within 720 hours of the CRASH DATE and CRASH TIME. DEATH YEAR must equal CRASH YEAR plus 1.
DEATH MONTH must equal 01, 12, 88, 99.

DEATH MONTH must equal CRASH MONTH or CRASH MONTH plus 1.

DEATH MONTH must equal CRASH MONTH or CRASH MONTH plus 1 or CRASH MONTH plus 2.
DEATH DAY and DEATH YEAR must not equal blanks.
DEATH MONTH and DEATH YEAR must not equal blanks. DEATH MONTH and DEATH DAY must not equal blanks.
(6VOP) DEATH DATE must not be less than CRASH DATE.
(7VOF) DEATH YEAR equals 9999,
(8VOP) DEATH YEAR equals 9999,
(9VOP) DEATH MONTH equals 99,
(P56P) DIED AT SCENE/EN ROUTE equals 7,

Consistency Check (FARS Only):
IF
(P520) CRASH DATE and DEATH DATE are the same, and CRASH TIME and DEATH TIME are the same,

## THEN

TRANSPORTED TO FIRST MEDICAL FACILITY BY should equal 0, and DIED AT SCENE/EN ROUTE should equal 7.

## DEATH TIME <br> (FARS Only)

FORMAT: 4 numeric
SAS NAME: Person.DEATH_HR; Person.DEATH_MN; Person.DEATH_TM

## ELEMENT VALUES:

| 8888 | Not Applicable (Non-fatal) |
| :---: | :--- |
| $0000-2359$ | Valid Military Time |
| $0099-2399$ | Known Hour but Unknown Minutes |
| 9999 | Unknown |

Definition: This element identifies the hour and minute of this person's death utilizing the 24hour clock format.

## Remarks:

This elements values and remarks are identical to Person Level (MV Occupant) Level element P25. Please see page $\underline{\mathbf{7 6 9}}$ for remarks.

## Consistency Checks:

## IF

(1U2F) INJURY SEVERITY equals 4,
(2U2F) INJURY SEVERITY is not equal to 4,
(3UOP) DEATH DATE equals CRASH DATE, and CRASH TIME is not equal to 9999,
(4V1F) INJURY SEVERITY equals 4,
(P56P) DIED AT SCENE/EN ROUTE equals 7,

## THEN

DEATH TIME must not equal 8888. DEATH TIME must equal 8888.
DEATH TIME must not be less than CRASH TIME.

DEATH DATE and DEATH TIME for this person must be within 720 hours of the CRASH DATE and CRASH TIME. DEATH TIME should be within 30 minutes of the CRASH TIME.

## Consistency Check (FARS Only):

## IF

(P520) CRASH DATE and DEATH DATE are the same, and CRASH TIME AND DEATH TIME are the same,

## THEN

TRANSPORTED TO FIRST MEDICAL FACILITY BY should equal 0, and DIED AT SCENE/EN ROUTE should equal 7 .

THIS PAGE INTENTIONALLY LEFT BLANK

## RELATED FACTORS - PERSON (NOT A MOTOR VEHICLE OCCUPANT) LEVEL

FORMAT: 2 numeric occurring 3 times
SAS NAME: Person.P_SF1, Person.P_SF2, Person.P_SF3

## ELEMENT VALUES:

00 None
*08 Mentally Challenged
09 Construction/Maintenance/Utility Worker
13 Motorized Wheelchair Rider
*18 Mother of Dead Fetus/ Mother of Infant Born Post Crash
*21 Overloading or Improper Loading of Vehicle With Passengers or Cargo
*26 Following Improperly
*37 Traveling on Prohibited Trafficways
*40 Passing Through or Around Barrier
*41 Failure to Observe Warnings or Instructions on Vehicles Displaying Them
*42 Failure to Signal Intentions
*51 Operator Inexperience
*52 Unfamiliar with Roadway
56 Non-Driver Flees Scene
*57 Improper Tire Pressure

## Vision Obscured By:

*60 Rain, Snow, Fog, Smoke, Sand, Dust
*61 Reflected Glare, Bright Sunlight, Headlights
*62 Curve, Hill, or Other Design Features (including traffic signs, embankment)
*63 Building, Billboard, Other Structures
*64 Trees, Crops, Vegetation
*65 Motor Vehicle (including load)
*66 Parked Vehicle
*67 Splash or Spray of Passing Vehicle
*68 Inadequate Lighting System
*69 Obstructing Angles on Vehicle
*70 Mirrors
*72 Other Visual Obstruction

## Skidding, Swerving, Sliding Due To:

*73 Severe Crosswind
*74 Wind From Passing Truck
*75 Slippery or Loose Surface
*76 Tire Blowout or Flat
*77 Debris or Objects in Road
*78 Ruts, Holes, Bumps in Road
*80 Vehicle in Road
*81 Phantom Vehicle
*82 Pedestrian, Pedal Cyclists, or Persons on Personal Conveyances
*83 Ice, Snow, Slush, Water, Sand, Dirt, Oil, Wet Leaves on Road

## Other Non-Motorist Factors:

86 Emergency Services Personnel
87 Police or Law Enforcement Officer
90 Non-Motorist Pushing a Vehicle
91 Portable Electronic Devices
99 Unknown

## *FARS ONLY ATTRIBUTES

Definition: This element identifies factors related to persons not in a motor vehicle expressed by the investigating officer.

## Remarks:

## Element Values:

| Related Factors |  | Examples/Notes |
| :--- | :--- | :--- |
|  | Blanks |  |
| $\mathbf{0 0}$ | None | Mental illness/retardation may be included. |
| *08 | Mentally Challenged | Construction/Maintenance/Utility <br> Worker |
| $\mathbf{0 9}$ Highway department, contractor, utility company |  |  |
| personnel, etc. |  |  |$|$| $\mathbf{1 3}$ | Motorized Wheelchair Rider | Pedestrian riding in a motorized wheelchair. |
| :--- | :--- | :--- |
| *18 | Mother of Dead Fetus/ Mother of <br> Infant Born Post Crash | Fetus dies in or as a result of this crash. |
| *21 | Overloading or Improper Loading <br> of Vehicle With Passengers or <br> Cargo | Overloading bicycle, passenger or handlebars. <br> *26 |
| Following Improperly | Bicyclist following too closely or attempting to grab <br> on to vehicle. <br> Also applies to skateboard riders, roller bladders, <br> etc. |  |

$\left.\left.\left.\begin{array}{|l|l|l|}\hline \text { Related Factors } & \begin{array}{l}\text { Examples/Notes } \\ \hline \text { *37 } \\ \text { Traveling on Prohibited } \\ \text { Trafficways }\end{array} & \begin{array}{l}\text { Persons not in motor vehicles in-transport on areas } \\ \text { prohibited by law, such as interstates. } \\ \text { Persons not in motor vehicles in-transport on } \\ \text { prohibited trafficways, e.g., bicyclist on } \\ \text { interstate. }\end{array} \\ \hline \text { *40 } & \text { Passing Through or Around Barrier } & \text { Denotes "demarcated" area. }\end{array}\right\} \begin{array}{l}\text { Failure to Observe Warnings or } \\ \text { Instructions on Vehicles Displaying } \\ \text { Them }\end{array} \begin{array}{l}\text { Failure to follow construction instructions (i.e., } \\ \text { arrows directing traffic mounted on vehicle), } \\ \text { instructions on emergency vehicles } \\ \text { (ambulances, fire trucks, police cars). }\end{array}\right\} \begin{array}{l}\text { Failure to observe right-turn warning on trucks, } \\ \text { buses. } \\ \text { Failure to heed hazard lights on disabled vehicle, } \\ \text { school bus arm. }\end{array}\right\}$

| Related Factors |  | Examples/Notes |
| :---: | :---: | :---: |
| Vision Obscured by: |  |  |
| *60 | Rain, Snow, Fog, Smoke, Sand, Dust |  |
| *61 | Reflected Glare, Bright Sunlight, Headlights |  |
| *62 | Curve, Hill, or Other Design Features (including traffic signs, embankment) |  |
| *63 | Building, Billboard, Other Structures |  |
| *64 | Trees, Crops, Vegetation |  |
| *65 | Motor Vehicle (including load) | Vision Obscured by: <br> - Car stopped on roadway. <br> - Tractor-trailer moving on road. <br> - School bus stopped, loading or unloading children. |
| *66 | Parked Vehicle | Vision obscured by: <br> Vehicle stopped on shoulder, in parking lane. |
| *67 | Splash or Spray of Passing Vehicle |  |
| *68 | Inadequate Lighting System |  |
| *69 | Obstructing Angles on Vehicle | Vision Obscured by: <br> - Obstructing angles on this person's vehicle. Not to be confused with visual obstructions from other vehicles. (See Motor Vehicle (including load) and Parked Vehicle.) |
| *70 | Mirrors | Vision Obscured by: <br> - Rear view <br> - Side mirrors <br> - Others |


| Related Factors |  | Examples/Notes |
| :---: | :---: | :---: |
| *72 | Other Visual Obstruction | Trailer (only) left parked. |
| Skidding Swerving, Sliding Due To: |  |  |
| *73 | Severe Crosswind |  |
| *74 | Wind From Passing Truck |  |
| *75 | Slippery or Loose Surface | Refers to actual condition of roadway surface, e.g., loose gravel roadway. <br> Slippery or old worn blacktop. <br> Newly paved surface. |
| *76 | Tire Blowout or Flat |  |
| *77 | Debris or Objects in Road | Nails, glass, trash cans, tire retread, trash, dead animals, pile of sand, etc. |
| *78 | Ruts, Holes, Bumps in Road |  |
| *80 | Vehicle in Road | Includes both contact and non-contact vehicles that remain at the scene. |
| *81 | Phantom Vehicle | Non-contact vehicle that leaves the scene as described by the police officer. |
| *82 | Pedestrian, Pedal Cyclists, or Persons on Personal Conveyances. |  |
| *83 | Ice, Snow, Slush, Water, Sand, Dirt, Oil, Wet Leaves on Road | This is for the substances on roadway that causes roadway to be slick, which may interfere with traction. <br> These are not part of the roadway design (see Slippery or Loose Surface). |
| Other Non-Motorist Factors: |  |  |
| 86 | Emergency Services Personnel | Includes fire, EMS, wrecker service personnel. |


| Related Factors |  | Examples/Notes |
| :--- | :--- | :--- |
| $\mathbf{8 7}$ | Police or Law Enforcement Officer | Federal, State or local law enforcement officer <br> working at the time of the crash. <br> Includes: Military and Park Police, Border Patrol and <br> all other sworn law enforcement officers. |
| $\mathbf{9 0}$ | Non-Motorist Pushing a Vehicle |  |
| $\mathbf{9 1}$ | Portable Electronic Devices | Cell phone, MP3 Player, PDA, etc. |
| $\mathbf{9 9}$ | Unknown |  |

## Remarks:

Code information provided in the narrative by the investigating officer.

## Use of 00 (None)

Use when no factors are noted; zero-fill all fields. None implies that the investigating officer indicated "no factors." Also, use $\mathbf{0 0}$ (None) to complete remaining fields when you will be recording less than three related factors. DO NOT leave any remaining fields blank.

## Use of 99 (Unknown)

Use when the circumstances surrounding the crash are unknown and reported as "unknown" by the investigating officer. In these circumstances, nine-fill all fields. If 99 (Unknown) is used for any field, ALL fields must be 99 (Unknown). DO NOT leave any remaining fields blank.

The following lists those related factors that may be used for each person type (NM7):

Person
Type
04
05
06

Valid Related Factors
$00,08,09,18,21,26,37,40-42,51,52,56,57,60-70,72-78,80-83,87,91$, 99
00, 08, 09, 18, 37, 41, 56, 60-67, 72, 86-87, 90, 91, 99
00, 08, 18, 21, 26, 37, 40-42, 51, 52, 56, 57, 60-68, 72-78, 80-83, 87, 91, 99
$00,08,18,21,26,37,40-42,51,52,56,57,60-68,72-78,80-83,91,99$
$00,08,13,18,21,26,37,40-42,51,52,56,57,60-70,72-78,80-83,87,91$, 99
$00,08,13,18,26,86,87,99$
$00,08,09,18,21,26,37,40-42,51,52,56,57,60-68,72-78,80-83,86,87$, 91, 99

## Consistency Checks:

|  | IF | THEN |
| :---: | :---: | :---: |
| (1M1F) | RELATED FACTORS-PERSON LEVEL equals 13 , | PERSON TYPE should equal 08. |
| (1NOF) | PERSON TYPE equals 06, | RELATED FACTORS-PERSON LEVEL (Not a MV Occupant) must not equal 09, 13, 69, 70, 86, 90. |
| (1N1F) | PERSON TYPE equals 10, | RELATED FACTORS-PERSON LEVEL (Not a MV Occupant) must not equal 09, 21, 37, 40-42, 51, 52, 56, 57, 60-70, 72-78, 80-83, 90, 91. |
| (1WOP) | any RELATED FACTORS-PERSON LEVEL equals 99, | all factors must equal 99. |
| (2WOP) |  | all factors must equal blanks. |
| (3WOP) | any RELATED FACTORS-PERSON LEVEL equals 00 , | all subsequent factors must equal 00. |
| (4W1P) | A RELATED FACTORS-PERSON LEV 91 can be used only once per person | EL (Not a MV Occupant) between 08 and rm. |
| (8MOF) | PERSON TYPE equals 04, | RELATED FACTORS-PERSON LEVEL (Not a MV Occupant) must not equal 13, 86, 90. |
| (8Q0F) | PERSON TYPE equals 08, | RELATED FACTORS-PERSON LEVEL must not equal 09, 86,90 . |
| (9MOF) | PERSON TYPE equals 05, | RELATED FACTORS-PERSON LEVEL (Not a MV Occupant) must not equal 13, 21, 26, 40, 42, 51, 52, 57, 68-70, 73-83, 88. |
| (CKOP) | PERSON TYPE equals 07, | RELATED FACTORS-PERSON LEVEL (Not a MV Occupant) must not equal 09, 13, 69, 70, 86, 87, 90. |
| (CMOP) | PERSON TYPE equals 19, | RELATED FACTORS-PERSON LEVEL (Not a MV Occupant) must not equal 13, 69, 70, 90. |

## Consistency Checks (FARS Only):

## IF

(5WOP) RELATED FACTORS-PERSON LEVEL equals 18,

## THIS PAGE INTENTIONALLY LEFT BLANK

## SUPPLEMENTAL

THESE ELEMENTS DO NOT APPEAR ON THE CODING FORMS They are presented on-screen by the M.D.E. System.

# PERSON LEVEL ELEMENTS <br> Including Coding Instructions 

SP1 - Death Certificate Number<br>SP2 - Fatal Injury At Work<br>SP3 - Race/Hispanic Origin

## THIS PAGE INTENTIONALLY LEFT BLANK

## DEATH CERTIFICATE NUMBER <br> (FARS Only)

FORMAT: Element Completed in MDE
SAS NAME: Person.CERT_NO

## ELEMENT VALUES:

Os Not Applicable (not a fatality)
Any Numeric Characters
9s Unknown
Definition: This element identifies the four digit GSA code for the City where the death occurred, the two digit state number and the six digit sequence number from the death certificate as assigned by the State Vital Statistics or Vital Records Department.

## Remarks:

Code the sequence number from the death certificate as assigned by your State Vital Statistics Department. The sequence number is six digits in length and is part of the State File Number.

The format for coding the numbers is as follows:

| First four digits | City (where death occurred) |
| :--- | :--- |
| Next two digits --- | State (where death occurred) |
| Last six digits | ------ |
|  | Sequence Number (as assigned by State Vital Statistics <br> Department) |

If this person is not a fatality, zero-fill this element.
Use GSA codes for the City and State where the death occurred according to the death certificate. These are the same GSA codes you use for the City variables in the Crash Level Form:
$0000 \quad$ Not a fatality or death not within city limits and no location code is available
0001-9996 GSA Geographical Location Codes
$9997 \quad$ Other (Death within city limits, but no GSA code available for this city)
9999 Unknown (City where death occurred cannot be found on death certificate).
The State codes are the same those you use for variables C1, V1, D1, PC1, P1 and NM1:

| 00 | Not a fatality | 30 | Montana |
| :--- | :--- | :---: | :---: |
| 01 | Alabama |  | - |
| 02 | Alaska |  | - |

- 
- 
- 
- 

Missouri

56


If the fatal crash occurred in your State, but the death occurred in a hospital of another State, please attempt to obtain the death certificate from that State and code the City and State where the death occurred.

If a person dies at the crash scene, code the appropriate city code or location code for the crash location. Code "0000" if the location is not within a city, and no geographical location code is available.

If the location is not within a city, but a geographical location code is available, use the location code.

If a person is transported by EMS and dies en-route or at the hospital, use the city code for the hospital's location.

Code the exact sequence number as indicated on the death certificate. If the sequence number is less than six-digits long (e.g., it is 12345 (five digits)) right-justify your coded number


Note that if you receive a copy of the death certificate from the Medical Examiner or Coroner, it may not contain the sequence number. The sequence number needed is the one assigned by your State Vital Statistics or Vital Records Department, which is subsequently sent to the National Center for Health Statistics. In those instances, leave the sequence number blank until you are able to obtain it in a follow-up effort with your Vital Statistics Department.

If the sequence number contains a letter in it (e.g., N12345), simply ignore the letter and code the numbers only (right-justified), (e.g., _0_ _1_ _2_ _3_ _4_ _5_).

If the death certificate number cannot be obtained, " 9 -fill" this element.
If the death certificate number can be obtained, but is not yet received, leave this element blank until the number is available.

## Consistency Checks:

## IF

(7EOP) INJURY SEVERITY equals 4,
(7F0P) DEATH CERTIFICATE NUMBER is not blank or 0000-00-000000,

## THEN

DEATH CERTIFICATE NUMBER must NOT equal 0000-00-000000.
INJURY SEVERITY must equal 4.

## FATAL INJURY AT WORK

## (FARS Only)

FORMAT: 1 numeric
SAS NAME: Person.WORK_INJ

## ELEMENT VALUES:

0 No
1 Yes
8 Not Applicable (not a fatality)
9 Unknown
Definition: This element indicates if the death certificate identified this person as being "at work" at the time of the crash.

## Remarks:

THIS ELEMENT DOES NOT APPEAR ON THE CODING FORMS. It is presented on-screen by the M.D.E. System.

THE DEATH CERTIFICATE ALSO INDICATES WHETHER THE VICTIM WAS ON-THE-JOB AT THE TIME OF FATAL INJURY.
$\mathbf{O}(\mathbf{N o})$ is used if the injury was not at work.
1 (Yes) is used if the injury was on the job.
8 (Not Applicable (not a fatality)) is used if the victim was not a fatality use.
9 (Unknown) is used if the death certificate does not indicate whether the injury was at work or if you do not have access to death certificate information

FATAL INJURY AT WORK SHOULD ONLY BE DETERMINED FROM THE DEATH CERTIFICATE, NOT FROM ANY OTHER SOURCE. HOWEVER, IT IS NOT NECESSARY TO HAVE A COPY OF THE DEATH CERTIFICATE.

## Consistency Checks:

IF
(7ROP) FATAL INJURY AT WORK equals 0, 1, 9,
(7WOP) FATAL INJURY AT WORK equals 8,

THEN
INJURY SEVERITY must equal 4.

INJURY SEVERITY must not equal 4.

## IF

(P1A0) AGE is less than 012, and INJURY SEVERITY equals 4,
(P130) BODY TYPE equals 60-67, 71, 72, 78, 79, and PERSON TYPE equals 01, 03, and INJURY SEVERITY equals 4 ,

## THEN

FATAL INJURY AT WORK should equal 0.

FATAL INJURY AT WORK should equal 1.

## RACE/HISPANIC ORIGIN <br> (FARS Only)

FORMAT: 2 numeric
SAS NAME: Person.RACE, Person.HISPANIC

## ELEMENT VALUES:

## Detail Race:

00 Not a Fatality (not applicable)
01 White
02 Black
03 American Indian (includes Aleuts and Eskimos)
04 Chinese
05 Japanese
06 Hawaiian (includes part-Hawaiian)
07 Filipino
18 Asian Indian
19 Other Indian (includes South and Central America, any others, except American or Asian Indians)
28 Korean
38 Samoan
48 Vietnamese
58 Guamanian
68 Other Asian or Pacific Islander
78 Asian or Pacific Islander, No Specific (individual) Race
97 Multiple Races (Individual races not specified; ex. "mixed" )
98 All Other Races
99 Unknown

## Hispanic Origin:

Not a Fatality (not applicable)
Mexican
Puerto Rican
Cuban
Central or South American
European Spanish
Hispanic, Origin not Specified or Other Origin
Non-Hispanic
Unknown
Definition: This element indicates the race and Hispanic origin of this person from the death certificate.

## Remarks:

Race and Hispanic Origin should be obtained from the death certificate only.
THIS ELEMENT DOES NOT APPEAR ON THE CODING FORMS: It is presented on-screen by the M.D.E. System.

Both RACE and HISPANIC ORIGIN are coded for fatal victims only (INJURY SEVERITY on this person must be Fatal Injury). If INJURY SEVERITY is coded other than Fatal Injury on the Person Level, the M.D.E. System will automatically enter "00's" in both the RACE and HISPANIC ORIGIN fields.

In general, the actual race will be written literally (i.e., white, black, Chinese, etc.) on the death certificate. Hispanic Origin comes directly from a check box. Within that box, if Hispanic Origin is "yes" a specific location (i.e., Cuba, Puerto Rico or Mexico) is indicated.

For translating the entries on the death certificate, refer to the table, "Detail Race and Hispanic Origin for FARS." This table is based on the guidelines provided by the Center for Disease Control (CDC). The only exception is Hawaiian. Any race with Hawaiian is coded Hawaiian (See Hawaiian).

## DETAIL RACE

01 (White) should be coded for persons listed as White, Mexican, Puerto Rican, Cuban and Caucasian for race.

06 (Hawaiian [includes part Hawaiian]) should be coded for any person listed as Hawaiian, even if another race is listed as well.

19 (Other Indian) includes South and Central America and any other Indians, except American or Asian Indians.

68 (Other Asian or Pacific Islander) is used when an "Other Asian" or "Pacific Island" race is specified, and it is other than 04 (Chinese), 05 (Japanese), 06 (Hawaiian), 07 (Filipino), 18 (Asian Indian), 28 (Korean), 38 (Samoan), 48 (Vietnamese), or 58 (Guamanian).

78 (Asian or Pacific Islander, No Specific [individual] Race) is used when the death certificate or report lists "Asian" for race.

97 (Multiple Races) is used when the death certificate indicates more than one race without specifying the individual races (e.g., "mixed," "multiple races," "multi-racial," etc.)

98 (All Other Races) is used if an individual race listed on the death certificate or report is not found on the translation table

If more than one race is listed on the death certificate or report, code the race entry listed first. An example is "American Indian/White," which should be coded 03 (American Indian). Again, 06 (Hawaiian) is the exception. (See 06 (Hawaiian).)

## HISPANIC ORIGIN

06 (Hispanic Origin Not Specified, or Other Origin). This includes when you know they are Hispanic, but the specific origin is not specified (e.g., Hispanic, Latino, Latin American, South American).

99 (Unknown). This person could be Hispanic, or not. You don't have enough information to determine whether or not they are Hispanic. (E.g., all you know is that Race is "White," "Black," "European," or "Indian," and no other information is provided.)

If you receive a listing from the Vital Statistics Department, be sure you request a translation table for the code structure. For FARS, we tried to match the coding structure to the National Center for Health Statistics (NCHS) coding structure for these elements; however, it was necessary to modify NCHS's structure slightly in order to be consistent with other FARS codes. (Reference: National Center for Health Statistics. Documentation for the Mortality Public Use Data Set, 1999. Available at URL:
http://www.cdc.gov/nchs/data/dvs/Mort99doc.pdf.

## Consistency Checks:

## IF

(7E1P) INJURY SEVERITY equals 4,
(7E2P) INJURY SEVERITY equals 4,
(7E3P) INJURY SEVERITY does not equal 4,
(7F1P) RACE equals 00,
(7F2P) HISPANIC ORIGIN equals 00,
(7F3P) RACE is not equal to 00, and HISPANIC ORIGIN is not equal to 00,

## THEN

RACE must not equal 00.
HISPANIC ORIGIN must not equal 00.
RACE AND HISPANIC ORIGIN must equal 00.
INJURY SEVERITY must not equal 4. INJURY SEVERITY must not equal 4. INJURY SEVERITY must equal 4.

DETAIL RACE AND HISPANIC ORIGIN FOR FARS

| Race (CDC) | Ancestryl Ethnicity (CDC) | Country | Region | CDC Race* | CDC Ethnic* | FARS Detail Race | FARS Hispanic Origin |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aryan |  |  |  | 1 | -- | 01 | 99 |
| Asian | Asian |  |  | 9 | 22 | 78 | 07 |
| Asian Indian | Asian Indian |  |  | 9 | 21 | 18 | 07 |
| Asiatic |  |  |  | 9 | -- | 78 | 07 |
| Assyrian | Assyrian |  |  | 1 | 22 | 01 | 07 |
| Athapaskan |  |  |  | 3 | -- | 03 | 07 |
| Australian | Australian | Australia | Australasia \& Pacific | 1 | 20 | 01 | 07 |
| Austrian | Austrian | Austria | Europe | 1 | 16 | 01 | 07 |
|  |  | Azerbiajan | Europe | -- | -- | 01 | 07 |
| Azores | Azorean | Azores | Europe | 1 | 19 | 01 | 07 |
| Bahamian | Bahamian | Bahamas |  | 6 | 99 | 98 | 07 |
|  | Bahrain | Bahrain | Middle East | -- | 22 | 01 | 07 |
|  | Baleanc Islands |  |  | -- | 05 | 01 | 05 |
| Bangladeshi | Bangladesh | Bangladesh | Asia | 9 | 21 | 68 | 07 |
|  |  | Barbados |  | -- | -- | 02 | 07 |
| Basque | Basque |  |  | 1 | 05 | 01 | 05 |
| Bavarian | Bavarian |  |  | 1 | 16 | 01 | 07 |
|  | Belgian | Belgium | Europe | -- | 16 | 01 | 07 |
| Belizian | Belizian | Belize | Central America | 6 | 04 | 98 | 04 |
|  | Belorussian, Byelorussian | Belarus | Europe | -- | 18 | 01 | 07 |
| Bengali | Bengali |  |  | 6 | 21 | 98 | 07 |
|  | Benin | Benin | Africa | -- | 24 | 99 | 07 |
|  | Bermudan | Bermuda |  | -- | 15 | 99 | 07 |
|  | Bhutanese | Bhutan | Asia | -- | 21 | 68 | 07 |
| Bilatian | Bilatian |  | Africa | 2 | 24 | 02 | 07 |
| Black | Black |  |  | 2 | 24 | 02 | 07 |
| Blanc |  |  |  | 1 | -- | 01 | 99 |

* SEE NATIONAL CENTER FOR HEALTH STATISTICS (NCHS) CODES

DETAIL RACE AND HISPANIC ORIGIN FOR FARS

| $\begin{aligned} & \mathrm{N} \\ & \stackrel{\rightharpoonup}{\omega} \end{aligned}$ | Race (CDC) | Ancestryl Ethnicity (CDC) | Country | Region | CDC Race* | CDC Ethnic* | FARS Detail Race | FARS Hispanic Origin |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Bohemian | Bohemian |  |  | 1 | 18 | 01 | 07 |
|  | Bolivian | Bolivia (Boliviano) | Bolivia | South America | 1 | 04 | 01 | 04 |
|  |  | Boricua (Borinquano) |  |  | -- | 05 | 99 | 05 |
|  |  |  | Bosnia-Herzegovna | Europe | -- | -- | 01 | 07 |
|  |  | Botswana | Botswana | Africa | -- | 24 | 99 | 07 |
|  | Brava (Bravo) |  |  |  | 1 | -- | 01 | 99 |
|  | Brazilian | Brazilian | Brazil | South America | 1 | 15 | 01 | 04 |
|  |  | British |  |  | -- | 08 | 99 | 07 |
|  | British Honduran |  | (See Belize) |  | 0 | -- | 98 | 04 |
|  | Brown |  |  |  | 2 | -- | 02 | 99 |
|  |  |  | Brunei | Asia | -- | -- | 68 | 07 |
|  |  | Bulgarian | Bulgaria | Europe | -- | 18 | 01 | 07 |
|  |  |  | Burkina Faso | Africa | -- | -- | 99 | 07 |
|  | Burmese | Burmese | Burma (Also Myanmar) | Asia | 9 | 20 | 68 | 07 |
|  |  | Burundi | Burundi | Africa | -- | 24 | 99 | 07 |
|  | Cajun | Cajun |  |  | 1 | 15 | 01 | 07 |
|  |  | California |  |  | -- | 05 | 99 | 05 |
|  | Cambodian | Cambodian | Cambodia | Asia | 9 | 20 | 68 | 07 |
|  |  | Cameroon | Cameroon | Africa | -- | 24 | 99 | 07 |
|  | Canadian | Canadian | Canada | North America | 1 | 15 | 01 | 07 |
|  | Canadian Indian |  |  |  | 3 | -- | 03 | 07 |
|  | Canadian Mexican |  |  |  | 3 | -- | 03 | 01 |
|  |  | Canary Islands |  |  | -- | 05 | 99 | 05 |
|  |  | Cantonese |  |  | -- | 20 | 78 | 07 |
|  | Cape Verde | Cape Verdean | Cape Verde | Africa | 2 | 24 | 02 | 07 |
|  | Carib |  |  |  | 6 | -- | 98 | 99 |
| $\underset{\sim}{\infty}$ |  | Castillan |  |  | -- | 05 | 01 | 05 |

[^2]DETAIL RACE AND HISPANIC ORIGIN FOR FARS

| $\stackrel{\infty}{N}$ | Race (CDC) | Ancestryl Ethnicity (CDC) | Country | Region | $\begin{aligned} & \text { CDC } \\ & \text { Race* } \end{aligned}$ | CDC <br> Ethnic* | FARS <br> Detail <br> Race | FARS Hispanic Origin |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Catalonia |  |  | -- | 05 | 01 | 05 |
|  | Caucasian | Caucasian |  |  | 1 | 99 | 01 | 07 |
|  |  |  | Cayman Islands |  | -- | -- | 99 | 99 |
|  |  | Celltic |  |  | -- | 08 | 01 | 07 |
|  |  | Central African Republic | Central African Republic | Africa | -- | 24 | 02 | 07 |
|  |  | Central European |  |  | -- | 99 | 99 | 99 |
|  |  | Centroamericano |  |  | -- | 04 | 99 | 04 |
|  | Ceylonese | Ceylonese |  |  | 9 | 21 | 68 | 07 |
|  |  | Chad | Chad | Africa | -- | 24 | 99 | 07 |
|  | Chamorro | Chamorro |  |  | 9 | 20 | 68 | 07 |
|  | Chicano | Chicano |  |  | 1 | 01 | 01 | 01 |
|  | Chicano/Mex/American |  |  |  | 1 | -- | 01 | 01 |
|  |  | Chile (Chilano) | Chile | South American | -- | 04 | 01 | 04 |
|  | Chinese | Chinese | China | Asia | 4 | 20 | 04 | 07 |
|  | Chinese/White |  |  |  | 4 | -- | 04 | 99 |
|  | Colombian | Colombia (Colombiano) | Colombia | South America | 1 | 04 | 01 | 04 |
|  | Colored |  |  |  | 2 | -- | 02 | 99 |
|  |  |  | Comoros | Africa | -- | -- | 99 | 07 |
|  |  | Congolese | Congo (Republic of) | Africa | -- | 24 | 99 | 07 |
|  | Costa Rican | Costa Rica (Constarricense) | Costa Rica | Central America | 1 | 04 | 01 | 04 |
|  | Creole | Creole |  |  | 1 | 16 | 01 | 99 |
|  |  | Croatian | Croatia | Europe | -- | 19 | 01 | 07 |
|  | Crucian |  |  |  | 1 | -- | 01 | 99 |
|  | Cuban | Cuban | Cuba |  | 1 | 03 | 01 | 03 |
|  |  | Cypriot | Cyprus | Europe | -- | 22 | 01 | 07 |
| $\begin{aligned} & \mathrm{N} \\ & \stackrel{\rightharpoonup}{\omega} \end{aligned}$ | Czechoslovakian | Czechoslovakian | Czech Republic | Europe | 1 | 18 | 01 | 07 |
|  |  | Dahomey |  | Africa | -- | 24 | 02 | 07 |

* SEE NATIONAL CENTER FOR HEALTH STATISTICS (NCHS) CODES

DETAIL RACE AND HISPANIC ORIGIN FOR FARS

| Race (CDC) | Ancestryl Ethnicity (CDC) | Country | Region | CDC Race* | CDC Ethnic* | FARS Detail Race | FARS Hispanic Origin |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Danish | Danish | Denmark | Europe | 1 | 12 | 01 | 07 |
|  |  | Djibouti | Africa | -- | -- | 99 | 07 |
|  |  | Dominica |  | -- | -- | 99 | 99 |
| Dominican | Dominican Republic | Dominican Republic |  | 2 | 04 | 02 | 04 |
|  | Dutch | Netherlands | Europe | -- | 16 | 01 | 07 |
| Dutch East Indian |  |  |  | 9 | -- | 68 | 99 |
| East Indian | East Indian |  |  | 9 | 20 | 68 | 07 |
|  | Eastern European |  |  | -- | 18 | 99 | 07 |
| Ebian |  |  |  | 1 | -- | 01 | 99 |
| Ecuadorian | Ecuador (Ecuatoriano) | Ecuador | South America | 1 | 04 | 01 | 04 |
| Egyptian | Egyptian | Egypt | North Africa | 1 | 23 | 01 | 07 |
|  | El Salvador | El Salvador | Central America | -- | 04 | 98 | 04 |
| English | English |  |  | 1 | 08 | 01 | 07 |
|  |  | England | Europe | -- | -- | 99 | 99 |
| English-French |  |  | Europe | 1 | -- | 01 | 07 |
| English-Irish |  |  | Europe | 1 | -- | 01 | 07 |
|  | Equatorial Guinea | Equatorial Guinea | Africa | -- | 24 | 99 | 07 |
| Eritrean |  | Eritrea | Africa | 2 | -- | 02 | 07 |
| Eskimo, Eskimoan | Eskimo, Eskimoan |  |  | 3 | 07 | 03 | 07 |
|  | Espana, (Espanol) |  |  | -- | 05 | 01 | 05 |
|  | Estonian | Estonia | Europe | -- | 18 | 01 | 07 |
| Ethiopia(n) | Ethiopian | Ethiopia | Africa | 2 | 24 | 02 | 07 |
| Eurasian | Eurasian |  |  | 9 | 22 | 78 | 99 |
| European | European |  |  | 1 | 99 | 01 | 99 |
|  | Falkland Islands | Falkland Islands | South America | -- | 04 | 01 | 07 |
|  | Fernando PO |  |  | -- | 05 | 99 | 05 |
| Fijan | Fijan | Fiji | Australasia \& Pacific | 9 | 20 | 68 | 07 |

* SEE NATIONAL CENTER FOR HEALTH STATISTICS (NCHS) CODES

DETAIL RACE AND HISPANIC ORIGIN FOR FARS


* SEE NATIONAL CENTER FOR HEALTH STATISTICS (NCHS) CODES

DETAIL RACE AND HISPANIC ORIGIN FOR FARS


DETAIL RACE AND HISPANIC ORIGIN FOR FARS


* SEE NATIONAL CENTER FOR HEALTH STATISTICS (NCHS) CODES

DETAIL RACE AND HISPANIC ORIGIN FOR FARS

| $\xrightarrow{\sim}$ | Race (CDC) | Ancestryl Ethnicity (CDC) | Country | Region | CDC Race* | $\begin{gathered} \text { CDC } \\ \text { Ethnic* } \end{gathered}$ | FARS Detail Race | FARS Hispanic Origin |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Luxembourg | Europe | -- | -- | 01 | 07 |
|  |  |  | Macau |  | -- | -- | 04 | 07 |
|  |  |  | Macedonia | Europe | -- | -- | 01 | 07 |
|  |  | Madagascan | Madagascar | Africa | -- | 24 | 99 | 07 |
|  |  | Majorca |  |  | -- | 05 | 99 | 05 |
|  | Malawian | Malawi | Malawi | Africa | 2 | 24 | 02 | 07 |
|  | Malayan | Malaysian | Malaysia | Asia | 9 | 20 | 68 | 07 |
|  |  |  | Maldives | Asia | -- | -- | 99 | 07 |
|  |  | Mali | Mali | Africa | -- | 24 | 99 | 07 |
|  |  | Mallorca (Mallorquin) |  |  | -- | 05 | 99 | 05 |
|  | Maltese | Maltese | Malta | Europe | 1 | 19 | 01 | 07 |
|  | Maori | Maori |  |  | 9 | 20 | 68 | 07 |
|  | Marshallese |  | Marshall Islands | Australasia \& Pacific | 9 | -- | 68 | 07 |
|  | Marshenese |  |  |  | 1 | -- | 01 | 99 |
|  |  |  | Martinique |  | -- | -- | 02 | 07 |
|  | Mauritian | Mauritanian | Mauritania | Africa | 1 | 24 | 01 | 07 |
|  |  | Mauritius | Mauritius | Africa | -- | 24 | 99 | 07 |
|  | Mediterranean |  |  |  | 1 | -- | 01 | 99 |
|  | Melanesian | Melanesian |  |  | 9 | 20 | 68 | 07 |
|  | Mestizo |  |  |  | 6 | -- | 03 | 04 |
|  | Mestizo-Inca |  |  |  | 6 | -- | 03 | 04 |
|  | Mexican | Mexican (Mexicano) | Mexico | North America | 1 | 01 | 01 | 01 |
|  | Mexican Indian |  |  |  | 3 | -- | 03 | 01 |
|  |  | Mexican American |  |  | -- | 01 | 99 | 01 |
|  | Micronesian | Micronesian |  |  | 9 | 20 | 68 | 07 |
| 0 | Mixed | Mixed |  |  | 6 | 99 | 98 | 99 |
| $\geqslant$ | Mohammed Ali |  |  |  | 6 | -- | 98 | 07 |

* SEE NATIONAL CENTER FOR HEALTH STATISTICS (NCHS) CODES

DETAIL RACE AND HISPANIC ORIGIN FOR FARS

| Race (CDC) | Ancestryl Ethnicity (CDC) | Country | Region | $\begin{gathered} \text { CDC } \\ \text { Race* } \end{gathered}$ | CDC Ethnic* | FARS Detail Race | FARS Hispanic Origin |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mohammedan (Moslem) |  |  |  | 1 | -- | 01 | 07 |
|  |  | Moldova | Europe | -- | -- | 01 | 07 |
|  |  | Monaco | Europe | -- | -- | 01 | 07 |
| Mongolian | Mongolian | Mongolia | Asia | -- | 20 | 68 | 07 |
|  |  | Montenegro |  | -- | -- | 01 | 07 |
| Moor(ish) |  |  |  | 6 | -- | 98 | 07 |
| Morroccan | Morroccan | Morocco | North Africa | 1 | 23 | 01 | 07 |
|  | Moslem |  |  | -- | 99 | 99 | 99 |
| Mugandan |  |  |  | 2 | -- | 02 | 99 |
| Mullato |  |  |  | 2 | -- | 02 | 99 |
| Muslim | Muslim |  |  | 1 | 99 | 01 | 99 |
|  |  | Mozambique | Africa | -- | -- | 02 | 07 |
|  |  | Myanmar (also Burma) | Asia | -- | -- | 68 | 07 |
|  |  | Namibia | Africa | -- | -- | 02 | 07 |
| Nassau |  |  |  | 2 | -- | 02 | 99 |
|  | Native American |  |  | -- | 07 | 03 | 07 |
|  |  | Nauru | Australasia \& Pacific | -- | -- | 78 | 07 |
| Negro | Negro |  |  | 2 | 24 | 02 | 07 |
| Negro/Indian |  |  |  | 2 | -- | 02 | 07 |
| Nepalese | Nepali | Nepal | Asia | 9 | 21 | 68 | 07 |
|  |  | Netherlands | Europe | -- | -- | 01 | 07 |
|  |  | Netherlands Antilles |  | -- | -- | 99 | 99 |
|  |  | New Caledonia | Australasia \& Pacific | -- | -- | 78 | 07 |
|  | New Zelander | New Zealand | Australasia \& Pacific | -- | 20 | 99 | 07 |
|  | Newfoundland |  |  | -- | 15 | 01 | 07 |
| Nicaraguan | Nicaragua (Nicaraguense) | Nicaragua | Central America | 6 | 04 | 98 | 04 |

* SEE NATIONAL CENTER FOR HEALTH STATISTICS (NCHS) CODES

DETAIL RACE AND HISPANIC ORIGIN FOR FARS


* SEE NATIONAL CENTER FOR HEALTH STATISTICS (NCHS) CODES

DETAIL RACE AND HISPANIC ORIGIN FOR FARS

| Race (CDC) | Ancestryl Ethnicity (CDC) | Country | Region | CDC Race* | CDC Ethnic* | FARS Detail Race | FARS Hispanic Origin |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Polynesian | Polynesian |  |  | 9 | 20 | 68 | 07 |
| Ponapean |  |  |  | 9 | -- | 68 | 07 |
| Portuguese | Portuguese | Portugal | Europe | 1 | 19 | 01 | 07 |
|  | Prussia |  |  | -- | 10 | 01 | 07 |
| Puerto Rican | Puerto Rican (Puertorriqueno) | Puerto Rico |  | 1 | 02 | 01 | 02 |
| Punjabi | Punjabi |  |  | 9 | 20 | 68 | 07 |
|  | Qatar | Qatar | Middle East | -- | 22 | 99 | 07 |
| Quadroon |  |  |  | 2 | -- | 02 | 99 |
| Red | Red |  |  | 3 | 07 | 03 | 07 |
| Rhodesian |  | Rhodesia |  | -- | 24 | 02 | 07 |
|  |  | Reunion | Africa | -- | -- | 99 | 07 |
| Romanian |  | Romania | Europe | 1 | -- | 01 | 07 |
|  | Romany |  |  | -- | 22 | 99 | 07 |
| Rotanese |  |  |  | 9 | -- | 68 | 99 |
|  | Rumanian |  |  | -- | 18 | 99 | 07 |
| Russian | Russian | Russia | Europe | 1 | 18 | 01 | 07 |
|  | Rwanda | Rwanda | Africa | -- | 24 | 02 | 07 |
| Ryukyan |  |  |  | 5 | -- | 05 | 07 |
| Salpanese |  |  |  | 9 | -- | 68 | 99 |
| Salvadorian | Salvadoreno |  |  | 6 | 04 | 98 | 04 |
| Samoa(n) | Samoan | American Samoa | Australasia \& Pacific | 9 | 20 | 38 | 07 |
|  |  | Saint Kitts-Nevis |  | -- | -- | 02 | 07 |
|  |  | Saint Lucia |  | -- | -- | 02 | 07 |
|  |  | Saint Vincent |  | -- | -- | 02 | 07 |
|  |  | San Marino |  | -- | -- | 01 | 07 |
|  |  | Sao Tome and Principe | Africa | -- | -- | 02 | 07 |

* SEE NATIONAL CENTER FOR HEALTH STATISTICS (NCHS) CODES

DETAIL RACE AND HISPANIC ORIGIN FOR FARS

| Race (CDC) | Ancestryl Ethnicity (CDC) | Country | Region | CDC Race* | CDC Ethnic* | FARS Detail Race | FARS Hispanic Origin |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Saudia-Arabian | Saudi Arabian | Saudi Arabia | Middle East | 1 | 22 | 01 | 07 |
| Saxon(y) |  |  |  | 1 | -- | 01 | 07 |
| Scandinavian | Scandinavian |  |  | 1 | 12 | 01 | 07 |
| Scotch | Scottish | Scotland | Europe | 1 | 08 | 01 | 07 |
|  | Scotch-Irish |  |  | -- | 08 | 01 | 07 |
| Selawik |  |  |  | 3 | -- | 03 | 07 |
| Semitic |  |  |  | 1 | -- | 01 | 99 |
|  |  | Senegal | Africa | -- | -- | 02 | 07 |
| Serbian | Serbian | Serbia | Europe | 1 | 19 | 01 | 07 |
|  | Serbo-Croation |  |  | -- | 19 | 01 | 07 |
| Servian |  |  |  | 1 | -- | 01 | 99 |
| Seychelloise |  | Seychelles | Africa | 2 | -- | 02 | 07 |
| Siamese | Siamese |  |  | 9 | 20 | 68 | 07 |
| Sicilian | Sicilian |  |  | 1 | 14 | 01 | 07 |
|  | Sierra Leone | Sierra Leone | Africa | -- | 24 | 02 | 07 |
| Sikh | Sikhs |  |  | 9 | 21 | 68 | 07 |
|  | Singaporean | Singapore | Asia | -- | 20 | 68 | 07 |
| Singhalease | Singhalease |  |  | 9 | 21 | 68 | 07 |
| Sino Burman |  |  |  | 4 | -- | 04 | 07 |
| Slovakian | Slovak | Slovakia | Europe | 1 | 18 | 01 | 07 |
|  | Sloavic (Slovenian) | Slovenia | Europe | -- | 19 | 01 | 07 |
|  | Slovikian |  |  | -- | 19 | 01 | 07 |
|  | Slovish |  |  | -- | 19 | 01 | 07 |
|  |  | Solomon Islands | Australasia \& Pacific | -- | -- | 68 | 07 |
|  | Somalian | Somalia | Africa | -- | 24 | 99 | 07 |
|  | South African | South Africa | Africa | -- | 24 | 99 | 07 |
| South American |  |  |  | 1 | -- | 01 | 06 |

* SEE NATIONAL CENTER FOR HEALTH STATISTICS (NCHS) CODES

DETAIL RACE AND HISPANIC ORIGIN FOR FARS


* SEE NATIONAL CENTER FOR HEALTH STATISTICS (NCHS) CODES

DETAIL RACE AND HISPANIC ORIGIN FOR FARS

| $\stackrel{N}{\stackrel{N}{\omega}}$ | Race (CDC) | Ancestryl Ethnicity (CDC) | Country | Region | CDC Race* | CDC Ethnic* | FARS <br> Detail <br> Race | FARS Hispanic Origin |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Tuvalu | Australasia \& Pacific | -- | -- | 68 | 07 |
|  | Ubontilian |  |  |  | 9 | -- | 68 | 07 |
|  | Ugandan | Ugandan | Uganda | Africa | 2 | 24 | 02 | 07 |
|  | Ukrainian | Ukrainian | Ukraine | Europe | 1 | 18 | 01 | 07 |
|  |  |  | United Arab Emirates | Middle East | -- | -- | 01 | 07 |
|  |  | United Kingdom |  |  | -- | 08 | 99 | 07 |
|  |  |  | United States of America | North America | -- | -- | 99 | 99 |
|  | Unknown or Blank | Unknown |  |  | 0 | 99 | 99 | 99 |
|  |  | Upper Volta |  | Africa | -- | 24 | 99 | 07 |
|  |  | Uruguay (Uruguayo) | Uruguay | South America | -- | 04 | 01 | 04 |
|  | Ute |  |  |  | 3 | -- | 03 | 07 |
|  |  |  | Uzbekistan | Asia | -- | -- | 68 | 07 |
|  |  | Valencian |  |  | -- | 05 | 01 | 05 |
|  |  |  | Vanuatu | Australasia \& Pacific | -- | -- | 68 | 07 |
|  | Venezuela(n) | Venezuela (Venezolano) | Venezuela | South America | 1 | 04 | 01 | 04 |
|  | Vietnam(ese) | Vietnamese | Vietnam | Asia | 9 | 20 | 48 | 07 |
|  |  | Viking |  |  | -- | 12 | 01 | 07 |
|  | W |  |  |  | 1 | -- | 01 | 99 |
|  | Welsh | Welsh | Wales (United Kindom) | Europe | 1 | 08 | 01 | 07 |
|  | West Indies (Indian) | West Indian |  |  | 2 | 15 | 02 | 07 |
|  |  |  | Western Sahara | Africa | -- | -- | 99 | 99 |
|  |  |  | Western Samoa | Australasia \& Pacific | -- | -- | 38 | 07 |
|  | White | White |  |  | 1 | 99 | 01 | 99 |
|  |  | White Russian |  |  | -- | 18 | 01 | 07 |
| $\stackrel{\infty}{0}$ | Wiam (White American) |  |  |  | 1 | -- | 01 | 99 |

* SEE NATIONAL CENTER FOR HEALTH STATISTICS (NCHS) CODES

DETAIL RACE AND HISPANIC ORIGIN FOR FARS

| Race (CDC) | Ancestryl Ethnicity (CDC) | Country | Region | CDC Race* | $\begin{gathered} \text { CDC } \\ \text { Ethnic* } \end{gathered}$ | FARS Detail Race | FARS Hispanic Origin |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Yapanes |  |  |  | 9 | -- | 68 | 07 |
|  | Yellow |  |  | -- | 20 | 78 | 07 |
|  | Yemen | Yemen | Middle East | -- | 22 | 99 | 07 |
| Yugoslavian | Yugoslavian | Yugoslavia | Europe | 1 | 19 | 01 | 07 |
|  | Zaire | Zaire | Africa | -- | 24 | 02 | 07 |
|  | Zambian | Zambia | Africa | -- | 24 | 02 | 07 |
|  | Zanzibar |  |  | -- | 24 | 02 | 07 |
|  |  | Zimbabwe | Africa | -- | -- | 02 | 07 |
| Zoroastrian |  |  |  | 1 | -- | 01 | 07 |

## NCHS (NATIONAL CENTER FOR HEALTH STATISTICS) RACE CODES

| CDC RACE CODE | RACE DISCRIPTION |
| :---: | :--- |
| 0 | Unknown/Blank |
| 1 | White/Mexican/Puerto Rican, Other Caucasian |
| 2 | Black |
| 3 | Indian (American, Canadian, Alaskan, Aleut/Eskimo) |
| 4 | Chinese |
| 5 | Japanese |
| 6 | Other Non-White |
| 7 | Hawaiian/Part Hawaiian |
| 8 | Filipino |
| 9 | Asian/Pacific Island Other |

## DETAIL RACE AND HISPANIC ORIGIN FOR FARS

 NCHS (NATIONAL CENTER FOR HEALTH STATISTICS) ANCESTRY CODES| CDC ANCESTORY CODE | ANCESTRY/ETHNICITY DESCRIPTION |
| :--- | :--- |
| 01 | Mexican |
| 02 | Puerto Rican |
| 03 | Cuban |
| 04 | Central or South American |
| 05 | Other \& Unknown Spanish |
| 06 | "American" |
| 07 | Indian (American, Alaskan, Canadian or Mexican Indian, Eskimo \& Aleut) |
| 08 | English, Scottish, Welsh, Scotch-lrish |
| 09 | Irish |
| 10 | German |
| 11 | French |
| 12 | Norwegian, Swedish, Danish |
| 13 | Polish |
| 14 | Italian |
| 15 | Other North, Central and South American or Canadian |
| 16 | Other Western European |
| 17 | Other Northern European |
| 18 | Other Eastern European |
| 19 | Other Southern European (Excluding Spain) |
| 20 | Southwest Asian \& Pacific Islander |
| 21 | South Central Asian |
| 22 | Other Asian |
| 23 | North African |
| 24 | Other African |
| 99 | Unknown |
| Blank | Blank |

## THIS PAGE INTENTIONALLY LEFT BLANK

## APPENDIX

## 2013 CONSISTENCY CHECKS

The following pages contain Consistency Checks, Intraconsistency Checks and Special

Processing Rules.
It is arranged in alpha/numeric order.

## ERROR CODE ERROR TEST

| 050P | If PERSON TYPE equals 04-08, 19, and NUMBER OF VEHICLE FORMS SUBMITTED equals 001, then NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST must equal 001. |
| :---: | :---: |
| 060P | If NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST is not equal to 000, 999, then the NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST must equal some VEHICLE NUMBER in the case. |
| 170F | If MONTH equals current month, then DAY must be at least 2 days prior to current day or 99. |
| 1AOP | If RELATED FACTORS-CRASH LEVEL equals 14, then NUMBER OF VEHICLE FORMS SUBMITTED must be greater than 001. |
| 1A1P | If RELATED FACTORS-CRASH LEVEL equals 05, then ROADWAY SURFACE CONDITIONS must equal 06 for at least one vehicle. |
| 1C0P | If the MODEL YEAR is not equal to 9998 or 9999, then the MODEL YEAR must not be greater than CRASH YEAR plus ONE. |
| 1D0P | If SPECIAL USE equals 01, then BODY TYPE must equal 02-09, 12, 14-21, 28, 29, 49, 99. |
| 1D0Q | If SPECIAL USE equals 00-03, then EMERGENCY MOTOR VEHICLE USE must equal 0. |
| 1F1P | If RELATION TO JUNCTION (b) does not equal 02, 03, then the second TRAFFICWAY IDENTIFIER should be blank. |
| 1GOP | If one RELATED FACTORS-VEHICLE LEVEL equals 99, then both factors must equal 99. |
| 1H0F | If DRIVER PRESENCE equals 0,9 , then PREVIOUS SPEEDING CONVICTIONS must be blank. |
| 1H1F | If DRIVER PRESENCE equals 0,9 , then DRIVER'S LICENSE STATE must be blank. |
| 1H2F | If DRIVER PRESENCE equals 0,9 , then LICENSE COMPLIANCE WITH CLASS OF VEHICLE must be blank. |

## ERROR CODE ERROR TEST

| $1 H 3 F$ | If DRIVER PRESENCE equals 0,9 , then NON-CDL LICENSE |
| :--- | :--- |
| STATUS and COMMERCIAL MOTOR VEHICLE LICENSE |  |
|  | STATUS must be blank. |

1H4F If DRIVER PRESENCE equals 0,9 , then COMPLIANCE WITH LICENSE RESTRICTIONS must be blank.

1H6F
If DRIVER PRESENCE equals 0 , 9 , then VIOLATIONS CHARGED must be blank.

1H7F
If DRIVER PRESENCE equals 0,9 , then PREVIOUS RECORDED CRASHES must be blank.

1H8F
If DRIVER PRESENCE equals 0,9 , then PREVIOUS RECORDED SUSPENSIONS must be blank.

1H9F
If DRIVER PRESENCE equals 0,9 , then PREVIOUS DWI CONVICTIONS must be blank.

1HAF If DRIVER PRESENCE equals 0, 9, then PREVIOUS OTHER HARMFUL MV CONVICTIONS must be blank.

1HBF
If DRIVER PRESENCE equals 0,9 , then DATE OF LAST CRASH, SUSPENSION, CONVICTION must be blank.

1HCF If DRIVER PRESENCE equals 0, 9, then DATE OF FIRST CRASH, SUSPENSION, CONVICTION must be blank.

1HDF If DRIVER PRESENCE equals 0, 9, then DRIVER HEIGHT (feet and inches) must equal blank.

1HEF
If DRIVER PRESENCE equals 0,9 , then DRIVER WEIGHT must equal blank.

1HFF If DRIVER PRESENCE equals 0,9 , then SPEEDING RELATED must be blank.

1HGF If DRIVER PRESENCE equals 0 or 9, then DRIVER LICENSE NUMBER must equal blank.

1HJF If DRIVER'S VISION OBSCURED BY equals 95, then DRIVER PRESENCE must equal 0 or 9.

1IOP If DRIVER'S LICENSE STATE equals 99, then NON-CDL LICENSE STATUS must not equal 0-4, 6, and COMMERCIAL MOTOR VEHICLE LICENSE STATUS must not equal 00-08.

| ERROR CODE | ERROR TEST |
| :---: | :---: |
| 1JOP | If any counter equals 99, then all counters must equal 99. |
| 1J1P | If any counter equals 99, then DATE OF LAST CRASH, SUSPENSION, CONVICTION must equal 999999. |
| 1J2P | If any counter equals 99, then DATE OF FIRST CRASH, SUSPENSION, CONVICTION must equal 999999. |
| 1K0P | If DRIVER'S LICENSE STATE equals 99, then LICENSE COMPLIANCE WITH CLASS OF VEHICLE must not equal 0-3. |
| 120P | If any RELATED FACTORS-DRIVER LEVEL equals blanks, then all RELATED FACTORS-DRIVER LEVEL must equal blanks. |
| 1L2P | If any DRIVER'S VISION OBSCURED BY equals 00 or 95 or 99 , then only that one code and no other must be coded for this vehicle. |
| 1L4P | If any DRIVER'S VISION OBSCURED BY equals 09, then at least one CONTRIBUTING CIRCUMSTANCES, MOTOR VEHICLE must equal 97. |
| 1L5P | If any DRIVER'S VISION OBSCURED BY equals 10, then at least one CONTRIBUTING CIRCUMSTANCES, MOTOR VEHICLE must equal 07 or 08 or 09. |
| 1M1F | If RELATED FACTORS-PERSON LEVEL (Not a MV Occupant) equals 13, then PERSON TYPE should equal 08. |
| 1NOF | If PERSON TYPE equals 06, then RELATED FACTORSPERSON LEVEL (Not a MV Occupant) must not equal 09, 13, 69, 70, 86, 90. |
| 1N1F | If PERSON TYPE equals 10 , then RELATED FACTORSPERSON LEVEL must not equal 09, 21, 37, 40-42, 51, 52, 56-57, 60-70, 72-78, 80-83, 90, 91. |
| 1N2F | If PERSON TYPE equals 10, then at least one NONMOTORIST SAFETY EQUIPMENT should equal 1. |
| 1N4F | If any NON-MOTORIST SAFETY EQUIPMENT equals 5, then NON-MOTORIST ACTION/ CIRCUMSTANCES AT TIME OF CRASH should not equal 13. |

## ERROR CODE ERROR TEST

| 1P2F | If PERSON TYPE equals 10, then NON-MOTORIST LOCATION AT TIME OF CRASH must equal 25. |
| :---: | :---: |
| 1P3F | If PERSON TYPE (NM7) equals 10, then NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH (NM11) must not equal 01-12, 16, and NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH (NM12) must not equal 01-20. |
| 1P4F | If PERSON TYPE equals 04, then NON-MOTORIST ACTION/ CIRCUMSTANCES PRIOR TO CRASH must not equal 04, 12. |
| 1P5F | If PERSON TYPE equals 06-08, 19 , then NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH must not equal 04. |
| 1P7F | If PERSON TYPE equals 04, then NON-MOTORIST ACTION/ CIRCUMSTANCES PRIOR TO CRASH should not equal 07, 10-11. |
| 1P8F | If PERSON TYPE equals 06, 07 , then NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH should not equal 10-12. |
| 1P9F | If PERSON TYPE equals 08, then NON-MOTORIST ACTION/ CIRCUMSTANCES PRIOR TO CRASH should not equal 11. |
| 1P0G | If PERSON TYPE equals 05 , then NON-MOTORIST ACTION/ CIRCUMSTANCES AT TIME OF CRASH must not equal 07, 08, 10, 13-18, 20. |
| 1P1G | If PERSON TYPE equals 19, then NON-MOTORIST ACTION/ CIRCUMSTANCES PRIOR TO CRASH should not equal 11, 12. |
| 1P3G | If PERSON TYPE equals 04, 06, 07, then NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH should not equal 04. |
| 1P4G | If PERSON TYPE equals 04, 06-08, 19, then NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH should not equal 05. |
| 1P5G | If PERSON TYPE equals 08, then NON-MOTORIST ACTION/ CIRCUMSTANCES AT TIME OF CRASH should not equal 20. |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| 1P6G | If PERSON TYPE equals 04, 06-08, 19, then CONDITION (IMPAIRMENT) AT TIME OF CRASH must not equal 03. |
| 1P7G | If PERSON TYPE equals 05-07, 19 , then CONDITION (IMPAIRMENT) AT TIME OF CRASH should not equal 04. |
| 1P8G | If PERSON TYPE equals 10, then CONDITION (IMPAIRMENT) AT TIME OF CRASH should not equal 01-10, 96. |
| 1P9G | If NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 20, then NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH must not equal 02-04, 15. |
| 1 POH | If NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21, then NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH must not equal 02-04, 07-10, 15, 16, 20. |
| 1P1H | If NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 22, then NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH must not equal 01, 02, 04, 07, 08, 15, 20. |
| 1P2H | If NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 23, then NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH must not equal 12, 15. |
| 1P3H | If NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 24, then NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH must not equal 01, 03, 04, 10. |
| 1P4H | If NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 25 , then NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH must not equal 01-04, 10, 12, 15-17, 20. |
| 1P5H | If NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 28, 98, 99, then NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH should not equal 01, 03, 04, $10,12,15,16,20$. |
| 1P6H | If NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 16, then NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH should not equal 04, 16. |
| 1P7H | If NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21, then NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH should not equal 01, 05, 12, 17. |

## ERROR CODE ERROR TEST

1P8H If NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 23, then NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH should not equal 02.

1P9H If NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 24, then NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH should not equal 02, 05, 12, 15, 16.

1PH0 If NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 25, then NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH should not equal 07-09.

1Q0F If PERSON TYPE equals 01, and BODY TYPE equals 80-83, 88, 89, then SEATING POSITION must not equal 12-55, 99.

1ROP If SEATING POSITION equals 51, and BODY TYPE equals 50-52, 55, 58, 59, then INJURY SEVERITY must not equal 0, 9.

1R1P If DIED AT SCENE/EN ROUTE equals 7, 8, then INJURY SEVERITY must equal 4.

1TOP
If SPEED LIMIT for every vehicle is greater than 55, and not equal to 98 or 99, then ROADWAY FUNCTION CLASS should not equal $15,16$.

1U1F If INJURY SEVERITY equals 4, then DEATH DATE must not equal 88888888.

1U2F If INJURY SEVERITY equals 4, then DEATH TIME must not equal 8888.

1VOP If DEATH MONTH or DAY equals 88, or DEATH YEAR equals 8888, then all must equal 8's.

1WOP If any RELATED FACTORS-PERSON LEVEL equals 99, then all factors must equal 99.

1YOP If RELATION TO JUNCTION (b) equals 06, then RAIL GRADE CROSSING IDENTIFIER must not equal 0000000.

SEQUENCE OF EVENTS for this vehicle should not include more than one occurrence of 01. Please see SEQUENCE OF EVENTS remarks for 01 (Rollover/Overturn) to confirm coding.

| ERROR CODE | ERROR TEST |
| :---: | :---: |
| 1Z1N | SEQUENCE OF EVENTS for this vehicle should not equal 01, 67 consecutively or 67,01 consecutively. |
| 1Z1P | If any SEQUENCE OF EVENTS equals 66, then ROADWAY GRADE should equal 6 for this vehicle. |
| 1Z2P | If any SEQUENCE OF EVENTS equals 01 and (BODY TYPE equals 01-79, 82, 90-99 or any RELATED FACTORSVEHICLE LEVEL equals 30), then ROLLOVER must equal 1, 2 or 9. |
| 200P | If CITY is greater than 0000 and less than 9997, and COUNTY is greater than 000 and less than 997, then COUNTY and CITY must be valid codes for the STATE. |
| 210P | If CITY is greater than 0000 and less than 9997, then COUNTY must not equal 999. |
| 220P | If LIGHT CONDITION equals 4 and STATE is not equal to 02 , then CRASH TIME must equal 0300-0900, 9999. |
| 2300 | If LIGHT CONDITION equals 5 , and STATE is not equal to 02, then CRASH TIME must equal 1600-2200, 9999. |
| 250P | If RELATION TO JUNCTION (b) equals 01, 02, 04, 06, 07, 16-19, 98, 99, and RELATION TO TRAFFICWAY equals 03, then TRAFFICWAY DESCRIPTION should equal 2,3 for at least one vehicle involved in the first harmful event. |
| 251P | If RELATION TO TRAFFICWAY equals 98, 99, then TYPE OF INTERSECTION should equal 98, 99. |
| 252P | If RELATION TO TRAFFICWAY equals 01, 02, 03, 04, 07, 08, 10, 11, 98 or 99, then UNIT TYPE for VEHICLE NUMBER (OTHER VEHICLE) involved in the FIRST HARMFUL EVENT must not equal 3. |
| 253P | If RELATION TO TRAFFICWAY equals 03, then CRASH TYPE should equal 06-10, 98 or 99 for the in-transport vehicles involved in the first harmful event. |
| 254P | If RELATION TO TRAFFICWAY equals 01, and RELATION TO JUNCTION (b) equals 20, then TRAFFICWAY DESCRIPTION must equal 6 for at least one vehicle involved in the first harmful event. |

## ERROR CODE ERROR TEST

| 255P | If RELATION TO TRAFFICWAY equals 01 or 11, then UNIT |
| :--- | :--- |
|  | TYPE for VEHICLE NUMBER (THIS VEHICLE) involved in the |
|  | FIRST HARMFUL EVENT must equal 1. |

256P If RELATION TO TRAFFICWAY equals 01 or 11, then UNIT TYPE for VEHICLE NUMBER (OTHER VEHICLE) involved in the FIRST HARMFUL EVENT should equal 1 or 4.

257P
If RELATION TO TRAFFICWAY equals 05, then UNIT TYPE for VEHICLE NUMBER (OTHER VEHICLE) involved in the FIRST HARMFUL EVENT must equal 1, 3, or 4.

If ROUTE SIGNING equals 1, then NATIONAL HIGHWAY SYSTEM must equal 1.

If JACKKNIFE equals 1-3, then VEHICLE TRAILING must not equal 0, 9.

2DOP If SPECIAL USE equals 02, then BODY TYPE should equal 15, 16, 19-21, 28, 29, 45, 48, 50-52, 55, 58, 59.

2F0F If NUMBER OF OCCUPANTS equals 00, then DRIVER PRESENCE must equal 0 .

2G0P If either RELATED FACTORS-VEHICLE LEVEL equals blanks, then the other factor must also equal blanks.

2H0F If DRIVER PRESENCE equals 0,9 , then RELATED FACTORSDRIVER LEVEL must not equal $04,08,12,13,15,16,19,52$, 53, 58, 59, 73, 74, 77-88.

2H1F If UNIT TYPE equals 1 and DRIVER PRESENCE equals 0 or 9, then DRIVER'S VISION OBSCURED BY must equal 95.

2IOP If DRIVER'S LICENSE STATE equals 99, then COMPLIANCE WITH LICENSE RESTRICTIONS must not equal 0-3.

2JOP If all counters are not blanks and PREVIOUS RECORDED CRASHES is not equal to 98 and any counter are not equal to 00, 99, then DATE OF LAST CRASH, SUSPENSION, CONVICTION must not equal 000000, 999999.

2J1P
If all counters are not blanks and PREVIOUS RECORDED CRASHES is not equal to 98, and any counter are not equal to 00, 99, then DATE OF FIRST CRASH, SUSPENSION, CONVICTION must not equal 000000, 999999.

| ERROR CODE | ERROR TEST |
| :---: | :---: |
| 2KOP | DATE OF FIRST CRASH, SUSPENSION, CONVICTION must be less than or equal to DATE OF LAST CRASH, SUSPENSION, CONVICTION. |
| 2LOP | If any RELATED FACTORS-DRIVER LEVEL equals 99, then all RELATED FACTORS-DRIVER LEVEL must equal 99. |
| 2M0F | If PERSON TYPE equals 01, then SEATING POSITION must not equal 21-55. |
| 2Q0F | If PERSON TYPE equals $02,03,09$, and BODY TYPE equals $01,02,04,08,10,17,31-33,39-41,45,48,90,91$, then SEATING POSITION must not equal 31-50. |
| 2ROP | If RESTRAINT SYSTEM/HELMET USE equals 00-04, 07-12, then BODY TYPE must not equal $80-83,88,89,90,91$. |
| 2R1P | If ANY INDICATION OF MIS-USE OF RESTRAINT SYSTEM/ HELMET USE equals 1, then RESTRAINT SYSTEM/HELMET USE must equal 01-05, 08-12, 19, 97. |
| 2SOP | If RESTRAINT SYSTEM/HELMET USE equals 05, 16, 17, 19 or 29, then AIR BAG DEPLOYED should equal 00. |
| 2S1P | If RESTRAINT SYSTEM/HELMET USE equals 07, 16 or 17, then ANY INDICATION OF MIS-USE OF RESTRAINT SYSTEM/HELMET USE must equal 0 . |
| 2UOP | If BODY TYPE equals 80-83, 88-91, then AIR BAG DEPLOYED should equal 00. |
| 2U0Q | If BODY TYPE equals 80-83, 88, 89, then AREAS OF IMPACT <br> - INITIAL CONTACT POINT should not equal 14. |
| 2U1F | If INJURY SEVERITY is not equal to 4, then DEATH DATE must equal 88888888. |
| 2U2F | If INJURY SEVERITY is not equal to 4, then DEATH TIME must equal 8888. |
| 2U3F | If INJURY SEVERITY equals 3, then TRANSPORTED TO FIRST MEDICAL FACILITY BY should not equal 0. |
| 2VOP | If DEATH DAY is 01-31, and DEATH MONTH is 01-12, then DEATH DAY must be a valid day for DEATH MONTH. |

## ERROR CODE ERROR TEST

2W0P If any RELATED FACTORS-PERSON LEVEL equals blanks, then all factors must equal blanks.

2Z0F
If any SEQUENCE OF EVENTS equals $12,14,45,54,55$, then NUMBER OF VEHICLE FORMS SUBMITTED must be greater than 001.

300P If NATIONAL HIGHWAY SYSTEM equals 0,9 , then ROADWAY FUNCTION CLASS must not equal 01, 11.

320P If ROADWAY FUNCTION CLASS equals 01, 11, and ROUTE SIGNING does not equal 7, then NATIONAL HIGHWAY SYSTEM must equal 1.

If NATIONAL HIGHWAY SYSTEM equals 0, 9, then ROUTE SIGNING must not equal 1.

340P
If ROUTE SIGNING equals 1 , then the first position of TRAFFICWAY IDENTIFIER \#1 must be "l" and the second position must be "-".

341P
If the first position of TRAFFICWAY IDENTIFIER \#1 equals "I" and the second position equals "-", then ROUTE SIGNING must equal 1 or 7 .

If ROUTE SIGNING equals 2 , then the first two positions of TRAFFICWAY IDENTIFIER \#1 must be "US" and the third position must be "-".

351P If the first two positions of TRAFFICWAY IDENTIFIER \#1 equals "US" and third position equals "-", then ROUTE SIGNING must equal 2 or 7 .

360P
If ROUTE SIGNING equals 3 , then the first two positions of TRAFFICWAY IDENTIFIER \#1 must be "SR" and the third position must be "-".

361P
If the first two positions of TRAFFICWAY IDENTIFIER \#1 equals "SR" and third position equals "-", then ROUTE SIGNING must equal 3 or 7 .

362P
If ROUTE SIGNING equals 4, then the first two positions of TRAFFICWAY IDENTIFIER \#1 must be "CR" and the third position must be "-".

| ERROR CODE | ERROR TEST |
| :---: | :---: |
| 3A0P | If SPECIAL USE equals 07, then BODY TYPE must equal 60-64, 66, 67, 71, 72, 78, 79, 99. |
| 3BOP | If JACKKNIFE equals 2, 3, then TRAVEL SPEED must not equal 000. |
| 3B1P | If CRASH TYPE equals 21-23, then TRAVEL SPEED must equal 000 for this vehicle. |
| 3B2P | If CRASH TYPE equals $20,24,28,34,36,38,40,50-54,56,58$ or 60, then AREAS OF IMPACT-INITIAL CONTACT POINT must equal 12 for this vehicle. |
| 3B3P | If CRASH TYPE equals 21-23, 25-27, 29-31, 35, 37, 39 or 41, then AREAS OF IMPACT-INITIAL CONTACT POINT must equal 6 for this vehicle. |
| 3B4P | If PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 10, then CRASH TYPE must not equal 44-69, 71-73, 76, 77, 79, 81-83, 86-92. |
| 3B5P | If PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 11, then CRASH TYPE must not equal 44-67, 69-71, 73, 77-81, 83, 86-92. |
| 3B6P | If CRASH TYPE equals 87 , then AREAS OF IMPACT-INITIAL CONTACT POINT must equal 01-05, 81-83 for this vehicle. |
| 3B7P | If CRASH TYPE equals 89 , then AREAS OF IMPACT-INTIAL CONTACT POINT must equal 07-11, 61-63 for this vehicle. |
| 3BAP | If UNIT TYPE equals 1 , and DRIVER PRESENCE equals 0 , then CRASH TYPE must equal $00,04,09,15,32,42,48,52$, $62,66,74,84,90,93$ or 98. |
| 3BCP | If CRASH TYPE equals $34,36,38,40,54,56,58$ or 60 , then DRIVER MANEUVERED TO AVOID must not equal 00. |
| 3BDP | If CRASH TYPE equals 46, 47, and ATTEMPTED AVOIDANCE MANEUVER equals 01 or 99, then PRE-EVENT MOVEMENT (PRIOR TO RECONITION OF CRITICAL EVENT) must not equal 01. |
| 3BEP | If CRASH TYPE equals 01 or 06, and ATTEMPTED AVOIDANCE MANEUVER equals 01, then PRE-IMPACT STABILITY should not equal 2-5 or 7 . |

## ERROR CODE ERROR TEST

| $3 B F P$ | If PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF |
| :--- | :--- |
|  | CRITICAL EVENT) equals 08 or 09, then CRASH TYPE must |
|  | not equal 46 or 47. |

3BGP If PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 00, then DRIVER PRESENCE must equal 0 or 9.

If CRASH TYPE equals 68, 72, 76 or 82 , then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 11 or 98.

If UNIT TYPE equals 1, and EXTENT OF DAMAGE equals 6, then VEHICLE REMOVAL should equal 2, 8, 9.

If CRASH TYPE equals 70,78 or 80, then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 10 or 98.

3C1P If EXTENT OF DAMAGE equals 0, 2, then VEHICLE REMOVAL must not equal 2.

3C1Q If EXTENT OF DAMAGE equals 0, 2, then VEHICLE REMOVAL should equal 3 or 5.

3C20 If this vehicle is involved in the first harmful event and its CRASH TYPE equals 29-31, then this vehicle's PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 02.

3C2P If VEHICLE REMOVAL equals 2, then EXTENT OF DAMAGE must equal 6, 8, 9 .

If PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 12, then CRASH TYPE should equal 98.

3C3P If EXTENT OF DAMAGE equals 6, then VEHICLE REMOVAL must not equal 3.

3C40 If CRASH TYPE equals 46, then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 06, 15, 16, or ATTEMPTED AVOIDANCE MANEUVER should equal 07, 09 or 12.

| ERROR CODE | ERROR TEST |
| :---: | :---: |
| 3 C 50 | If CRASH TYPE equals 92 , then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 08, 09, 13, 98, 99. |
| 3C60 | If CRASH TYPE equals 25-27, 29-31, then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should not equal 05 or 07. |
| 3C70 | If PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 13, then CRASH TYPE should equal 92 or 98. |
| $3 C 80$ | If CRASH TYPE equals 47, then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 06, 15, 16, or ATTEMPTED AVOIDANCE MANEUVER should equal 06, 08 or 11. |
| 3 CAO | If EXTENT OF DAMAGE for this vehicle equals 0 , then DAMAGED AREAS must equal 15. |
| 3D00 | If CRASH TYPE equals 20-49, and ATTEMPTED AVOIDANCE MANEUVER equals 00, 01, then CRITICAL EVENT PRECRASH (EVENT) should not equal 12-14, 54, 66-68, 71-73 or 80-85. |
| 3DOP | If SPECIAL USE for any vehicle equals 02 , then SCHOOL BUS RELATED must equal 1. |
| 3D10 | If CRASH TYPE equals 50-67, and ATTEMPTED AVOIDANCE MANEUVER equals 00-01, then CRITICAL EVENT PRECRASH (EVENT) should not equal 12-14, 51-53, 60, 61, $65,66,70,71,80-85$ or 87-92. |
| 3D40 | If CRASH TYPE equals 00 , then CRITICAL EVENT PRECRASH (EVENT) should equal 98. |
| 3D50 | If PRE-IMPACT STABILITY equals 1 , then CRASH TYPE should not equal $02,07,34,36,54$ or 56 . |
| 3D60 | If CRASH TYPE equals 46 or 47 , then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should not equal 01. |
| 3D70 | If CRITICAL EVENT - PRECRASH (EVENT) equals 01-04, then CONTRIBUTING CIRCUMSTANCES, MOTOR VEHICLE must not equal 00. |

## ERROR CODE ERROR TEST

3DB0 If any CONTRIBUTING CIRCUMSTANCES, MOTOR VEHICLE equal 00 or 98 or 99 , then only that one code and no other must be coded for this vehicle.

3E00 If CRITICAL EVENT - PRECRASH (EVENT) equals 65-68 or 70-73, then RELATION TO JUNCTION (b) should not equal 01 or 18.

3G0P If the first RELATED FACTORS-VEHICLE LEVEL equals 00, then the other factor must also equal 00.

3H0F If DRIVER PRESENCE equals 1, then there must be one and only one Person Level form for that vehicle with PERSON TYPE equal to 01, or there must be no Person Level form for that vehicle with PERSON TYPE equal to 01, and at least two Person Level forms for that vehicle with PERSON TYPE equal to 09 .

If DRIVER'S LICENSE STATE equals 99, then all driver history counters PREVIOUS RECORDED CRASHES must equal 99.
$312 P$
If DRIVER'S LICENSE STATE equals 99, then all driver history counters PREVIOUS RECORDED SUSPENSIONS AND REVOCATIONS must equal 99.

If DRIVER'S LICENSE STATE equals 99, then all driver history counters PREVIOUS DWI CONVICTIONS must equal 99.

314 P
If DRIVER'S LICENSE STATE equals 99, then all driver history counters PREVIOUS SPEEDING CONVICTIONS must equal 99.
$315 P$
If DRIVER'S LICENSE STATE equals 99, then all driver history counters PREVIOUS OTHER HARMFUL MV CONVICTIONS must equal 99.

3JOP If all counters equal 00, then DATE OF LAST CRASH, SUSPENSION, CONVICTION must equal 000000.

3J1P If all counters equal 00, then DATE OF FIRST CRASH, SUSPENSION, CONVICTION must equal 000000.

3K0P DATE OF LAST CRASH, SUSPENSION, CONVICTION must be less than or equal to CRASH DATE.

## ERROR CODE ERROR TEST

| 3LOP | If any RELATED FACTORS-DRIVER LEVEL equals 00, then all remaining RELATED FACTORS-DRIVER LEVEL must equal 00. |
| :---: | :---: |
| 3M0F | If PERSON TYPE equals 01, then RESTRAINT SYSTEM/ HELMET USE must not equal 04, 10-12. |
| 3P0F | If PERSON TYPE equals 03-08, 10, 19, then INJURY SEVERITY should not equal 6. |
| 3Q0F | If PERSON TYPE equals $02,03,09$, and BODY TYPE equals 01-17, 19, 20, 22, 28-33, 39, 41, 42, 50-52, 55, 58, 59, 65, 80-83, 88-92, 94, 95, 97, then SEATING POSITION must not equal 50. |
| 3R0P | If AIR BAG DEPLOYED does not equal 00,98 or 99 , then SEATING POSITION should not equal 12, 22, 32, 41-55. |
| 3SOP | If SEATING POSITION equals 55 , then EJECTION must equal 8. |
| 3UOP | If DEATH DATE equals CRASH DATE, and CRASH TIME is not equal to 9999, then DEATH TIME must not be less than CRASH TIME. |
| 3WOP | If any RELATED FACTORS-PERSON LEVEL equals 00 , then all subsequent factors must equal 00. |
| 420P | If MANNER OF COLLISION equals 07, 08, then there must be at least two vehicle forms with AREAS OF IMPACT-INITIAL CONTACT POINT equal to 01-05, 07-11, 61-63, 81-83, 98, 99. |
| 421P | If MANNER OF COLLISION equals 01, then AREAS OF IMPACT-INITIAL CONTACT POINT for one vehicle in the first harmful event must equal 12, and AREAS OF IMPACT- INITIAL CONTACT POINT for the other vehicle in the first harmful event must equal 06. |
| 422P | If MANNER OF COLLISION equals 02, then AREAS OF IMPACT-INITIAL CONTACT POINT for one vehicle in the first harmful event must equal 12, and AREAS OF IMPACT- INITIAL CONTACT POINT for the other vehicle in the first harmful event must equal 12. |

## ERROR CODE ERROR TEST

| 423P | If MANNER OF COLLISION equals 06, then AREAS OF IMPACT-INITIAL CONTACT POINT for one vehicle in the first harmful event must equal 01, 11, 12, 98, 99, and AREAS OF IMPACT- INITIAL CONTACT POINT for the other vehicle in the first harmful event must equal 01-05, 07-11, 61-63, 81-83, 98, 99. |
| :---: | :---: |
| 424P | If MANNER OF COLLISION equals 09, then AREAS OF IMPACT- CONTACT POINT for one vehicle in the first harmful event must equal 06, and AREAS OF IMPACT- INITIAL CONTACT POINT for the other vehicle in the first harmful event must equal 01-05, 07-11, 61-63, 98, 99. |
| 425P | If MANNER OF COLLISION equals 10, then AREAS OF IMPACT-INITIAL CONTACT POINT for one vehicle in the first harmful event must equal 06, and AREAS OF IMPACT- INITIAL CONTACT POINT for the other vehicle in the first harmful event must equal 06, 98, 99. |
| 426P | If MANNER OF COLLISION equals 02, then CRASH TYPE must not equal 64-67 for the vehicles involved in the first harmful event. |
| 427P | If MANNER OF COLLISION equals 06, then CRASH TYPE must not equal $20-43$ or $50-53$ for the vehicles involved in the first harmful event. |
| 428P | If CRASH TYPE equals 20-91, then NUMBER OF VEHICLE FORMS SUBMITTED must be greater than 001. |
| 429P | If NUMBER OF VEHICLE FORMS SUBMITTED equals 001, then CRASH TYPE must equal 00, 01-16, 92, 98, 99. |
| 42AP | If NUMBER OF MOTOR VEHICLES FORMS SUBMITTED equals 001, and RELATION TO TRAFFICWAY equals 02, 04, 06-08, and ATTEMPTED AVOIDANCE MANEUVER equals 00 or 01, then CRITICAL EVENT - PRECRASH (EVENT) should equal 01-06, 08-14 or 19. |
| 42BP | If there is only one vehicle involved in the First Harmful Event where UNIT TYPE equals 1, then the number of vehicles where CRASH TYPE is coded 00, 1-16, 92, 93 or 99 (excluding from the vehicles being counted, those where CRASH TYPE equals 98) must not equal 0 or be greater than 1. |

## ERROR CODE ERROR TEST

| 42CP | If there are two vehicles involved in the FIRST HARMFUL EVENT, then those two vehicles' CRASH TYPES must belong to the same CRASH TYPE Configuration. |
| :---: | :---: |
| 440F | If FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 01, then there must be at least one Person Level (Not a MV Occupant) form with NON-MOTORIST LOCATION AT TIME OF CRASH equal to 01-03, 09-11, 13, 16, 23,98 or 99. |
| 450F | If FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 07, then there must be at least one Person Level (Not a MV Occupant) form with NON-MOTORIST LOCATION AT TIME OF CRASH equal to 14. |
| 460F | If FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 02, then there must be at least one Person Level (Not a MV Occupant) form with NON-MOTORIST LOCATION AT TIME OF CRASH equal to 02, 20. |
| 470F | If FIRST HARMFUL EVENT equals $08,09,15$, and RELATION TO TRAFFICWAY equals $03,08,10$, then there must be at least one Person Level (Not a MV Occupant) form with NONMOTORIST LOCATION AT TIME OF CRASH equal to 20, 22, 98, 99. |
| 480F | If FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 04, 06, then there must be at least one Person Level (Not a MV Occupant) form with NONMOTORIST LOCATION AT TIME OF CRASH equal to 09, 16, 20, 21, 24, 25, 28, 98, 99. |
| 490F | If FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 05, then there must be at least one Person Level (Not a MV Occupant) form with NON-MOTORIST LOCATION AT TIME OF CRASH equal to $24,25$. |
| 4AOP | If BODY TYPE equals 80-83, 88, 89, then SPECIAL USE must not equal 01-03, 06, 07. |
| 4C1P | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 01-05, 07-09, 14, 15, 17, 19, 94, 95, 97, and VEHICLE TRAILING does NOT equal 0, then NUMBER OF OCCUPANTS must not be greater than 20. |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| 4C2P | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 06, 11, 16, and VEHICLE TRAILING does NOT equal 0, then NUMBER OF OCCUPANTS must not be greater than 22. |
| 4C3P | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 12, and VEHICLE TRAILING does NOT equal 0 , then NUMBER OF OCCUPANTS must not be greater than 25 |
| 4C4P | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 80-83, 88, 89, and VEHICLE TRAILING does NOT equal 0 , then NUMBER OF OCCUPANTS must not be greater than 5 . |
| 4C5P | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 42, 73, and VEHICLE TRAILING does NOT equal 0 , then NUMBER OF OCCUPANTS must not be greater than 30 . |
| 4C6P | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 60-65, 71, 72, 79, and VEHICLE TRAILING does NOT equal 0, then NUMBER OF OCCUPANTS must not be greater than 55. |
| 4C7P | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 66, and VEHICLE TRAILING does NOT equal 0 , then NUMBER OF OCCUPANTS must not be greater than 77 |
| 4C8P | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 91, and VEHICLE TRAILING does NOT equal 0 , then NUMBER OF OCCUPANTS must not be greater than 10 |
| 4C9P | If NUMBER OF OCCUPANTS is 01-96, and BODY <br> TYPE equals 90, and VEHICLE TRAILING does NOT equal 0, then NUMBER OF OCCUPANTS must not be greater than 20. |
| 4COP | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 99, and VEHICLE TRAILING does NOT equal 0 , then NUMBER OF OCCUPANTS must not be greater than 10. |
| 4DOP | If SPECIAL USE equals 03, then BODY TYPE must equal 21, 28, 29, 50-52, 55, 58, 59. |
| 4F1P | If NUMBER OF OCCUPANTS is less than 97, and BODY TYPE equals 01-05, 07-10, 13, 17, 80-83, 88-90, 91-94, 95, 97, and VEHICLE TRAILING equals 0 , and VEHICLE TRAILING equals 0 , then NUMBER OF OCCUPANTS must not be greater than 15. |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| 4F2P | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 06, 11, and VEHICLE TRAILING equals 0, then NUMBER OF OCCUPANTS must not be greater than 22. |
| 4F3P | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 12, and VEHICLE TRAILING equals 0, then NUMBER OF OCCUPANTS must not be greater than 25. |
| 4F4P | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 80-83, 88, 89, and VEHICLE TRAILING equals 0 , then NUMBER OF OCCUPANTS must not be greater than 5 . |
| 4F5P | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals $15,16,42,73$, and VEHICLE TRAILING equals 0 , then NUMBER OF OCCUPANTS must not be greater than 30. |
| 4F6P | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 60-65, 71, 72, 79, and VEHICLE TRAILING equals 0 , then NUMBER OF OCCUPANTS must not be greater than 55 . |
| 4F7P | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 66, and VEHICLE TRAILING equals 0 , then NUMBER OF OCCUPANTS must not be greater than 50. |
| 4F8P | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 91, and VEHICLE TRAILING equals 0 , then NUMBER OF OCCUPANTS must not be greater than 10. |
| 4F9P | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 90, and VEHICLE TRAILING equals 0 , then NUMBER OF OCCUPANTS must not be greater than 20. |
| 4FOP | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 99, and VEHICLE TRAILING equals 0 , then NUMBER OF OCCUPANTS must not be greater than 10. |
| 4GOP | A RELATED FACTORS-VEHICLE LEVEL between 30 and 44 can be used only once per vehicle form. |
| 4HOF | If DRIVER PRESENCE equals 0,9 , then there must not be a Person Level form for that vehicle with PERSON TYPE equal to 01 . |
| 4H1P | If DRIVER HEIGHT/INCHES is less than 12, then DRIVER HEIGHT/FEET must not be blank. |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| 4H2P | If DRIVER HEIGHT/INCHES is greater than 11, then DRIVER HEIGHT/FEET must equal 0. |
| 4H3P | If DRIVER HEIGHT/FEET is 2-8, then DRIVER HEIGHT/ INCHES must equal 00-11. |
| 4H4P | If DRIVER HEIGHT/FEET equals 9 , then DRIVER HEIGHT/ INCHES must equal 99. |
| 4H5P | If DRIVER HEIGHT/INCHES equals 99, then DRIVER HEIGHT/ FEET must equal 9. |
| 4H6P | If DRIVER HEIGHT/INCHES equals 98, then DRIVER HEIGHT/FEET must equal 0. |
| 4H7P | If DRIVER HEIGHT/FEET is 0 , then DRIVER HEIGHT/INCHES must equal 24-96, 98. |
| 4JOP | If all counters are not blanks, and the sum of all counters less than 98 is equal to 1 , then DATE OF LAST CRASH, SUSPENSION, CONVICTION must equal DATE OF FIRST CRASH, SUSPENSION, CONVICTION. |
| 4KOP | If Month of DATE OF LAST CRASH, SUSPENSION, CONVICTION equals 00, then Year (of same) must equal 0000. |
| 4K1P | If Year of DATE OF LAST CRASH, SUSPENSION, CONVICTION equals 0000, then Month (of same) must equal 00. |
| 4K2P | If Month of DATE OF FIRST CRASH, SUSPENSION, CONVICTION equals 00, then Year (of same) must equal 0000. |
| 4K3P | If Year of DATE OF FIRST CRASH, SUSPENSION, CONVICTION equals 0000, then Month (of same) must equal 00. |
| 4N1P | If VEHICLE CONFIGURAION does not equal 00, then MOTOR CARRIER IDENTIFICATION NUMBER must not equal 00-000000000. |
| 4N2P | If MOTOR CARRIER IDENTIFICATION NUMBER equals 00-000000000, then VEHICLE CONFIGURATION must equal 00. |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| 4N3P | If MOTOR CARRIER IDENTIFICATION NUMBER (Identification Number) equals 000000000, then MOTOR CARRIER IDENTIFICATION NUMBER (Issuing Authority) must equal 00. |
| 4N4P | If MOTOR CARRIER IDENTIFICATION NUMBER does not equal 00-000000000, then BODY TYPE must equal $21,28,31$, $40,45,48-52,55,58-64,66,67,71,72,78,79,92,93,99$, or HM2 must equal 2. |
| 4N5P | If BODY TYPE does not equal $21,28,31,40,45,48-52,55$, $58-64,66,67,71,72,78,92,93$, or HM2 does not equal 2, then MOTOR CARRIER IDENTIFICATION NUMBER must equal 00-000000000, 99-999999999. |
| 4N6P | If MOTOR CARRIER IDENTIFICATION NUMBER equals 77-777777777, then BODY TYPE should equal $28,45,48-52$, $55,58-64,66,67,71,72,78,93$, or HM1 should equal 2. |
| 4N7P | If MOTOR CARRIER IDENTIFICATION NUMBER (Identification Number) equals 888888888 or 777777777 or 999999999 , then MOTOR CARRIER IDENTIFICATION NUMBER (Issuing Authority) should be filled respectively as 88 or 77 or 99. |
| 4NAP | If MOTOR CARRIER IDENTIFICATION NUMBER (Issuing Authority) equals 01-58, 95-96, then MOTOR CARRIER IDENTIFICATION NUMBER (Identification Number) should not equal 888888888, 777777777, 999999997, 999999999. |
| 4NBP | If MOTOR CARRIER IDENTIFICATION NUMBER (Issuing Authority) 01-58, 95, 96, then MOTOR CARRIER IDENTIFICATION NUMBER (Identification Number) must not equal 000000000. |
| 4NCP | If MOTOR CARRIER IDENTIFICATION NUMBER (Issuing Authority) is 00 or 77 or 88 or 99 , then MOTOR CARRIER IDENTIFICATION NUMBER (Identification Number) must be filled respectively as 000000000 or 777777777 or 88888888 or 999999999. |
| 4Q0F | If PERSON TYPE equals 02, 03, 09, and BODY TYPE equals 80-83, 88, 89, then SEATING POSITION must not equal 12 , 14-19, 22-50. |
| 4Q1F | If PERSON TYPE equals 02, 03, and BODY TYPE equals 21, then SEATING POSITION must not equal $50,52$. |

## ERROR CODE ERROR TEST

| 4ROP | If SEATING POSITION equals 54, then VEHICLE TRAILING <br> must not equal 0. |
| :--- | :--- |
| 4 4S0P | If BODY TYPE equals $80-82,83,88,89$, then EJECTION must <br> equal 8. |
| 4 If1P | If BODY TYPE equals 80-83, 88, 89, and HM1 does not equal 1 <br> then COMPLIANCE WITH CDL ENDORSEMENTS MUST equa <br> 0. |

4U0F Each original submission must have at least one Person Level form with INJURY SEVERITY coded 4.

4V1F If INJURY SEVERITY equals 4, then DEATH DATE and DEATH TIME for this person must be within 720 hours of the CRASH DATE and CRASH TIME.

4V2F If CRASH MONTH equals 12, and DEATH MONTH equals 01, then DEATH YEAR must equal CRASH YEAR plus 1.

4V3F If CRASH MONTH equals 12, then DEATH MONTH must equal 01, 12, 88, 99.

4V4F If CRASH MONTH equals 02-11, and DEATH MONTH is not equal to 88 or 99, then DEATH MONTH must equal CRASH MONTH or CRASH MONTH plus 1.

4V5F If CRASH MONTH equals 01, and DEATH MONTH is not equal to 88, or 99, then DEATH MONTH must equal CRASH MONTH or CRASH MONTH plus 1 or CRASH MONTH plus 2.

4V6P If DEATH MONTH is not equal to blanks, then DEATH DAY and DEATH YEAR must not equal blanks.

4V7P If DEATH DAY is not equal to blanks, then DEATH MONTH and DEATH YEAR must not equal blanks.

4V8P If DEATH YEAR is not equal to blanks, then DEATH MONTH and DEATH DAY must not equal blanks.

4WOP A RELATED FACTORS-PERSON LEVEL (MV Occupant) between 05 and 92 can be used only once per person form.

4W1P A RELATED FACTORS-PERSON LEVEL (Not a MV Occupant) between 08 and 91 can be used only once per person form.

## ERROR CODE ERROR TEST

| 4X2F | If any CONDITION (IMPAIRMENT) AT TIME OF CRASH (D23) equals 00 or 98 or 99 , then only that one code and no other must be coded for this driver. |
| :---: | :---: |
| 4X3F | If any CONDITION (IMPAIRMENT) AT TIME OF CRASH (NM14) equals 00 or 98 or 99, then only that one code and no other must be coded for this person. |
| 4X4F | If any CONDITION (IMPAIRMENT) AT TIME OF CRASH (D23) equals 09, then POLICE REPORTED ALCOHOL INVOLVEMENT (P16) or POLICE REPORTED DRUG INVOLVEMENT (P19) should equal 1 for this person. |
| 4X5F | If NON-MOTORIST ACTION/CIRCUMSTANCE PRIOR TO CRASH is selected 04, then NON-MOTORIST ACTION/ CIRCUMSTANCE PRIOR TO CRASH attributes 05 or 06 or 16 should also be selected. |
| 4X6F | If any CONDITION (IMPAIRMENT) AT TIME OF CRASH (NM14) equals 09, then POLICE REPORTED ALCOHOL INVOLVEMENT (NM15) or POLICE REPORTED DRUG INVOLVEMENT (NM18) should equal 1 for this person. |
| 4X7F | If any NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH equals 15 or 98 or 99 , then only that one code and no other must be coded for this person. |
| 4X8F | If any NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH equals 00 or 98 or 99 , then only that one code and no other must be coded for this person. |
| 4X9F | If any NON-MOTORIST SAFETY EQUIPMENT equals 1 or 8 or 9 , then only that one code and no other must be coded for this person. |
| 4ZOP | If SEQUENCE OF EVENTS equals 02, then FIRE OCCURRENCE for this vehicle must equal 1. |
| 4Z1P | If UNIT TYPE equals 1 and FIRE OCCURRENCE equals 1 , then at least one SEQUENCE OF EVENTS must equal 02. |
| 500F | If FIRST HARMFUL EVENT equals 01-11, 14, 15-21 23-26, 30-35, 44-53, 57-59, 72,73 , then MANNER OF COLLISION must not equal 01, 02, 06-11, 98, 99. |

## ERROR CODE ERROR TEST

| 510F | If FIRST HARMFUL EVENT equals $12,54,55$, then MANNER |
| :--- | :--- |
| OF COLLISION must not equal 00. |  |

If FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 99, then there must be at least one Person Level (Not a MV Occupant) form with NON-MOTORIST LOCATION AT TIME OF CRASH equal to 09, 98, 99.

If FIRST HARMFUL EVENT equals 08, 09, 15, and RELATION TO TRAFFICWAY equals 11, then there must be at least one Person Level (Not a MV Occupant) form with NON-MOTORIST LOCATION AT TIME OF CRASH equal to 11.

If FIRST HARMFUL EVENT equals 02, then the vehicle involved in the first harmful event must have FIRE OCCURRENCE equal to 1.

550F
If FIRST HARMFUL EVENT equals 08, then at least one person must have PERSON TYPE equal 05, 10.

560F
If FIRST HARMFUL EVENT equals 09, then at least one person must have PERSON TYPE equal to 06, 07.

If FIRST HARMFUL EVENT equals 05, 06, then at least one PERSON TYPE equal to 01-03, 09 must have INJURY SEVERITY equal to 1-5, or blank.

580F
If FIRST HARMFUL EVENT equals 14, and RELATED FACTORS - PERSON (MV OCCUPANT) LEVEL does not equal 32, 89 for at least one occupant in the not in-transport motor vehicle involved in the first harmful event, then RELATION TO TRAFFICWAY should not equal 01.

590F
If FIRST HARMFUL EVENT equals 15, then at least one Person Level form must have a PERSON TYPE of 08.

5AOP If BODY TYPE equals 80, 81, 83, 88, 89, and any RELATED FACTORS - VEHICLE LEVEL does not equal 30, then ROLLOVER must equal 0 .

5A1P If BODY TYPE equals 60-79, and UNIT TYPE equals 1, then FINAL STRATUM should not equal 1, 3, 5 or 6.


## ERROR CODE ERROR TEST

| 5BOP | If JACKKNIFE equals 0 and BODY TYPE equals 66, then VEHICLE TRAILING must not equal 1-4. |
| :---: | :---: |
| 5B0Q | If JACKKNIFE equals 0 , then VEHICLE TRAILING must equal 0 or 9. |
| 5D0P | If SPECIAL USE equals 04, then BODY TYPE must equal 01-12, 15-17, 19-22, 28-33, 39-41, 45, 48-50, 55, 58, 59, 60-64, $66,67,71,72,78,79,90,99$. |
| 5F0F | If NUMBER OF OCCUPANTS equals 00-95, and BODY TYPE does not equal $50-52,55,58,59$, then the number of Person Level forms for that vehicle must be less than or equal to the NUMBER OF OCCUPANTS. |
| 5IOP | If NON-CDL LICENSE STATUS equals 0 , then COMPLIANCE WITH LICENSE RESTRICTIONS must not equal 1-3, 9. |
| 511P | If NON-CDL LICENSE STATUS for this person equals 9, then COMMERCIAL MOTOR VEHICLE LICENSE STATUS should equal 99. |
| 5JOP | If the sum of all counters less than 98 is greater than fifteen, then DATE OF LAST CRASH, SUSPENSION, CONVICTION must not equal DATE OF FIRST CRASH, SUSPENSION, CONVICTION. |
| 5K0P | The Year of DATE OF FIRST CRASH, SUSPENSION, CONVICTION must be within three years of the Year of CRASH DATE. |

5L0F If RELATED FACTORS-DRIVER LEVEL equals 20, then DRIVER PRESENCE must not equal 1, 9.

5L1F If RELATED FACTORS-DRIVER LEVEL equals 04, 08, 12, 13, 15, 16, 19, 52, 53, 58, 59, 73, 74, 77-88, then DRIVER PRESENCE must not equal 0 or 9.

5M0F If PERSON TYPE equals 01, then all RELATED FACTORSPERSON LEVEL (MV Occupant) must equal 00.

5M0G If SPECIAL USE equals 06, and PERSON TYPE equals 02 or 09, then RELATED FACTORS - PERSON (MV OCCUPANT) LEVEL should equal 86 or 92.

## ERROR CODE ERROR TEST

| 5NOF | If PERSON TYPE equals 02, then RELATED FACTORSPERSON LEVEL must not equal 21, 26, 28, 29, 33, 37, 40-42, 44, 45, 47, 51-53, 57-70, 72-78, 80-83, 91. |
| :---: | :---: |
| 5Q0F | If PERSON TYPE equals 02 , and BODY TYPE equals 50-52, $55,58,59$, then SEATING POSITION must not equal 11, 21-50, 99. |
| 5SOP | If BODY TYPE equals $80-83,88$, 89 or 90 , then EXTRICATION must equal 0 . |
| 5T6P | If ALCOHOL TEST STATUS equals 2, and ALCOHOL TEST TYPE equals 98, then ALCOHOL TEST RESULTS must equal 00-94, 97, 98. |
| 5T7P | If ALCOHOL TEST STATUS equals 0,1 , then ALCOHOL TEST TYPE must equal 00, and ALCOHOL TEST RESULT must equal 96. |
| 5T8P | If ALCOHOL TEST STATUS equals 9 , then ALCOHOL TEST TYPE and ALCOHOL TEST RESULT must equal 99. |
| 5T9P | If ALCOHOL TEST STATUS equals 2, then ALCOHOL TEST TYPE must equal 01-10, 98, and ALCOHOL TEST RESULT must equal 00-94, 97, 98. |
| 5TCP | If ALCOHOL TEST STATUS equals 8 , then ALCOHOL TEST TYPE must equal 95 and ALCOHOL TEST RESULT must equal 95. |
| 5WOP | If RELATED FACTORS-PERSON LEVEL equals 18, then SEX must equal 2, and AGE must be greater than 012. |
| 5Y0F | If FIRST HARMFUL EVENT equals 08, 09, 15 , then NUMBER OF FORMS SUBMITTED FOR PERSONS NOT IN MOTOR VEHICLES must not equal 00. |
| 5ZOF | If SEQUENCE OF EVENTS equals 08, then at least one person must have PERSON TYPE equal to 05,10 . |
| 610P | If TRAFFIC CONTROL DEVICE equals 00, then DEVICE FUNCTIONING must equal 0. |
| 640F | If TRAFFIC CONTROL DEVICE equals 23 for any vehicle, then RELATED FACTORS-CRASH LEVEL should equal 21. |

## ERROR CODE ERROR TEST

| 641F | If RELATED FACTORS-CRASH LEVEL equals 21, then TRAFFIC CONTROL DEVICE should not equal 00 for every vehicle. |
| :---: | :---: |
| 642F | If TRAFFIC CONTROL DEVICE equals 00 for every vehicle, then RELATED FACTORS-CRASH LEVEL should not equal 21. |
| 650P | If TRAFFIC CONTROL DEVICE equals 65 for any vehicle, then RAIL GRADE CROSSING IDENTIFIER must not equal 0000000. |
| 660P | If TRAFFIC CONTROL DEVICE is not equal to 00, then DEVICE FUNCTIONING must not equal 0. |
| 661P | If TRAFFIC CONTROL DEVICE equals 97, the DEVICE FUNCTIONING must equal 8. |
| 670F | If FIRST HARMFUL EVENT equals $12,14,45,54,55$, then NUMBER OF VEHICLE FORMS SUBMITTED must be greater than 001. |
| 671F | If the only harmful event in SEQUENCE OF EVENTS for this vehicle equals 02 or 04, then CRITICAL EVENT - PRECRASH (EVENT) must equal 98. |
| 6A1P | If UNDERRIDE/OVERRIDE equals 1-8, then BODY TYPE must not equal 80-83, 88-91. |
| 6D0P | If SPECIAL USE equals 05, then BODY TYPE must equal 01-12, 14-17, 19-22, 28-33, 39-41, 45, 48, 49, 55, 58-64, 66, 67, 71, 72, 78-82, 88-91, 94, 95, 97-99. |
| 6GOP | If RELATED FACTORS-VEHICLE LEVEL equals 32, then REGISTRATION STATE must not equal 00, 92. |
| 6G0Q | If any RELATED FACTORS - VEHICLE LEVEL equals 30, then BODY TYPE must equal 80 for this vehicle. |
| 6HOP | If DRIVER PRESENCE equals 0,9 , then DRIVER'S ZIP CODE must be blank. |
| 6H1P | If DRIVER PRESENCE equals 0,9 , then CONDITION (IMPAIRMENT) AT TIME OF CRASH (D23) must be blank. |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| 6IOP | If NON-CDL LICENSE STATUS equals 9, and COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 00, then COMPLIANCE WITH LICENSE RESTRICTIONS must not equal 1-3. |
| 6KOP | If VIOLATION CHARGED equals 71, then RELATED FACTORS-DRIVER LEVEL must not equal 19. |
| 6LOP | If COMPLIANCE WITH LICENSE RESTRICTIONS equals 1 , and RELATED FACTORS-DRIVER LEVEL equals 19, then LICENSE COMPLIANCE WITH CLASS OF VEHICLE must equal 3. |
| 6Q0F | If PERSON TYPE equals $02,03,09$, and BODY TYPE equals $60-67,71,72,78,79$, then SEATING POSITION must not equal 31-49. |
| 6S0P | If EJECTION equals 1, then EXTRICATION must not equal 1, 9. |
| 6VOP | DEATH DATE must not be less than CRASH DATE. |
| 6Z0F | If SEQUENCE OF EVENTS equals 09, then at least one person must have PERSON TYPE equal to 06, 07. |
| 730P | If RELATION TO JUNCTION (b) equals 07, then RELATION TO TRAFFICWAY must not equal 04-07, 10, 11, 99. |
| 740P | If RELATION TO JUNCTION (b) equals 07, then TRAFFICWAY DESCRIPTION must equal 2,3 for at least one vehicle. |
| 750P | If RELATION TO JUNCTION (b) equals 07, then RAIL GRADE CROSSING IDENTIFIER must equal 0000000. |
| 770P | If RELATION TO TRAFFICWAY equals 07, then RELATION TO JUNCTION must equal 01, 03, 08, 19, 98, 99. |
| 772P | If RELATION TO TRAFFICWAY equals 07, then RELATION TO JUNCTION (a) must not equal 1. |
| 773P | If RELATION TO JUNCTION (b) equals 01, then RELATION TO JUNCTION (a) must equal 0. |
| $773 Q$ | If RELATION TO JUNCTION(b) equals 04, 06, 07, or 16, then RELATION TO JUNCTION (a) should not equal 1. |

## ERROR CODE ERROR TEST

| 775P | If RELATION TO JUNCTION (b) equals 17 or 18 or 19 , then RELATION TO JUNCTION (a) must equal 1. |
| :---: | :---: |
| 776P | If RELATION TO JUNCTION (b) equals 01, 04-08, 16-19, then TYPE OF INTERSECTION must equal 1. |
| 778P | If RELATION TO JUNCTION (b) equals 01, 04-08, 16-20, then TYPE OF INTERSECTION must equal 01. |
| 77AP | If CRASH TYPE equals 14, then RELATION TO JUNCTION (b) must not equal 02. |
| 77BP | If CRASH TYPE equals 68-91, then RELATION TO JUNCTION (b) should not equal 01. |
| 77CP | If CRASH TYPE equals 14, then RELATION TO JUNCTION (b) should equal 01, 03, 19. |
| 77DP | If RELATION TO TRAFFICWAY equals 07, and RELATION TO JUNCTION (a) equals 1, then RELATION TO JUNCTION (b) should not equal 03, 08. |
| 780P | If RELATION TO TRAFFICWAY equals 10 , then RELATION TO JUNCTION (b) must not equal 02, 04, 08. |
| 781P | If TYPE OF INTERSECTION equals 02-07, 10, then TRAFFICWAY IDENTIFIER (b) should not be blank. |
| 782P | If TYPE OF INTERSECTION equals 02-07, 10, then RELATION TO JUNCTION (b) must equal 02, 03. |
| 783P | If RELATION TO JUNCTION (b) equals 98, 99, then TYPE OF INTERSECTION should equal 01, 98, 99. |
| 784P | If TYPE OF INTERSECTION equals $\mathbf{0 1}$, then RELATION TO JUNCTION (b) must not equal 02, 03. |
| 7B0F | If JACKKNIFE equals 2,3 , then DRIVER PRESENCE must equal 1. |
| 7DOP | If SPECIAL USE equals 06, then BODY TYPE must equal 11, 14-17, 19, 21, 22, 28, 29, 40, 41, 45, 48, 49, 61, 62, 64, 79, 97 , 99. |
| 7EOP | If INJURY SEVERITY equals 4 , then DEATH CERTIFICATE NUMBER must NOT equal 0000-00-000000. |

## ERROR CODE ERROR TEST

| 7E1P | If INJURY SEVERITY equals 4, then RACE must not equal 00. |
| :---: | :---: |
| 7E2P | If INJURY SEVERITY equals 4, then HISPANIC ORIGIN must not equal 00. |
| 7E3P | If INJURY SEVERITY does not equal 4, then RACE AND HISPANIC ORIGIN must equal 00. |
| 7F0P | If DEATH CERTIFICATE NUMBER is not blank or 0000-00000000, then INJURY SEVERITY must equal 4. |
| 7F1P | If RACE equals 00, then INJURY SEVERITY must not equal 4. |
| 7F2P | If HISPANIC ORIGIN equals 00, then INJURY SEVERITY must not equal 4. |
| 7F3P | If RACE is not equal to 00, and HISPANIC ORIGIN is not equal to 00, then INJURY SEVERITY must equal 4. |
| 710P | If COMPLIANCE WITH LICENSE RESTRICTIONS equals 1 , and RELATED FACTORS-DRIVER LEVEL equals 19, then NON-CDL LICENSE STATUS must equal 6. |
| 7KOP | If any VIOLATIONS CHARGED equals 71, then NON-CDL LICENSE STATUS must equal $0,1,2$, or COMMERCIAL MOTOR VEHICLE LICENSE STATUS must equal 01, 02, 05. |
| 7K1P | VIOLATIONS CHARGED code 99 must not be used more than once per driver. |
| 7LOP | Any RELATED FACTORS-DRIVER LEVEL can be used only once per driver form. |
| 7M0F | If PERSON TYPE equals 03, then RELATED FACTORSPERSON LEVEL (MV Occupant) must not equal 21, 26, 28, 29, 33, 37, 40-42, 44, 45, 47, 51-53, 57-70, 72-78, 80-83, 91. |

7M1F If PERSON TYPE equals 03 and SEATING POSITION is not equal to 11 or 13 and INJURY SEVERITY does not equal 4; then DRUG TEST STATUS must not equal 8.

7P0F If PERSON TYPE equals 01, then AGE must not be less than 002.

## ERROR CODE ERROR TEST

| 7Q0F | If PERSON TYPE equals 09, and BODY TYPE equals 50-52, $55,58,59$, then SEATING POSITION must not equal $12-50$, 52-54. |
| :---: | :---: |
| 7R0P | If FATAL INJURY AT WORK equals $0,1,9$, then INJURY SEVERITY must equal 4. |
| 7V0F | If DEATH YEAR equals 9999, then CRASH MONTH must not be 01-11. |
| 7WOP | If FATAL INJURY AT WORK equals 8, then INJURY SEVERITY must not equal 4. |
| 7Z0F | If any SEQUENCE OF EVENTS equals 05, 06, then at least one occupant of this vehicle (PERSON TYPES 01, 02, 09) must have INJURY SEVERITY equal to 1-5, or blank. |
| 840P | If any RELATED FACTORS-CRASH LEVEL equals 99, then all RELATED FACTORS-CRASH LEVEL must equal 99. |
| 850P | If the first RELATED FACTORS-CRASH LEVEL equals 00 , then all RELATED FACTORS-CRASH LEVEL must be 00. If the second equals 00, then the third must also. |
| 860P | If any RELATED FACTORS-CRASH LEVEL is blank, then all RELATED FACTORS-CRASH LEVEL must be blanks. |
| 870P | A RELATED FACTORS-CRASH LEVEL 01-07, 13-28 can be used only once per crash. |
| 880F | If RELATED FACTORS-CRASH LEVEL equals 16, then there must be a Person Level (Not a MV Occupant) form with PERSON TYPE equal to 04-08, 19. |
| 890F | If RELATED FACTORS-CRASH LEVEL equals 15, then there must be a Person Level (Not a MV Occupant) form with PERSON TYPE equal to 04-08, 10, 19. |
| 8D0P | If SPECIAL USE equals 08, then BODY TYPE must not equal 60-64, 66, 67, 71, 72, 78, 79, 99. |
| 8IOP | If NON-CDL LICENSE STATUS equals 0-4, 9, then RELATED FACTORS-DRIVER LEVEL must not equal 19. |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| 8J0P | If NON-CDL LICENSE TYPE equals 0, then NON-CDL LICENSE STATUS must equal 0. |
| 8J1P | If NON-CDL LICENSE STATUS equals 0 , then NON-CDL LICENSE TYPE must equal 0. |
| 8J2P | If RELATED FACTORS-DRIVER LEVEL equals 73, 74, then COMPLIANCE WITH LICENSE RESTRICTIONS must equal 2. |
| 8K0P | If VIOLATIONS CHARGED equals 07, 08, then HIT-AND-RUN must not equal 0 . |
| 8LOP | If LICENSE COMPLIANCE WITH CLASS OF VEHICLE equals 0-2, 9, then RELATED FACTORS-DRIVER LEVEL must not equal 19. |
| 8L8Q | If AREAS OF IMPACT (THIS VEHICLE) equals 18 or 19 in the CRASH EVENTS, then the corresponding event in that row must not equal 12 or 55. |
| 8L8R | If the CRASH EVENTS event equals 54, then AREAS OF IMPACT (THIS VEHICLE) must equal 18 or 19 in that row. |
| 8L8S | If AREAS OF IMPACT (THIS VEHICLE) equals 18 or 19 in the CRASH EVENTS and the corresponding event in that row equals 14, 45 or 54, then RELATED FACTORS-CRASH LEVEL must equal 14. |
| 8L8T | If RELATED FACTORS-CRASH LEVEL equals 14, then there must exist at least one event in the CRASH EVENTS where AREAS OF IMPACT (THIS VEHICLE) equals 18 or 19 and the corresponding event in that row equals 14, 45 or 54. |
| 8L8U | If AREAS OF IMPACT (THIS VEHICLE) equals 18 or 19 in the CRASH EVENTS and the corresponding event in that row equals 08, 09, 15, 49, then RELATED FACTORS-CRASH LEVEL must equal 15. |
| 8L8V | If RELATED FACTORS-CRASH LEVEL equals 15, then there must exist at least one event in the CRASH EVENTS where AREAS OF IMPACT (THIS VEHICLE) equals 18 or 19, and the corresponding event in that row equals 08-10, 15, 18 or 49. |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| 8L8X | If AREAS OF IMPACT (THIS VEHICLE) equals 18, then there should be a previous event involving that vehicle where the CRASH EVENTS event equals 60. |
| 8L9P | If BODY TYPE does not equal 80-83, 88-91 and the CRASH EVENTS event equals 54, and the corresponding AREAS OF IMPACT (THIS VEHICLE) equals 19 in that row, then there should be a previous event with CRASH EVENTS event equal to $\mathbf{1 8}$ or $\mathbf{7 3}$ involving that vehicle. |
| 8MOF | If PERSON TYPE equals 04, then RELATED FACTORSPERSON LEVEL (Not a MV Occupant) must not equal 13, 86, 90. |
| 8POP | If PERSON TYPE equals 01, and AGE is less than 008, then BODY TYPE must not equal 01-12, 14-17, 19-22, 28-33, 39-42, 45, 48-52, 55, 58-67, 71, 72, 78-83, 89, 92, 93. |
| 8P1P | If PERSON TYPE equals 01, and AGE is less than 008, then BODY TYPE should equal 88, 91. |
| 8Q0F | If PERSON TYPE equals 08, then RELATED FACTORSPERSON LEVEL must not equal 09, 86, 90. |
| 8TOF | If any NON-MOTORIST SAFETY EQUIPMENT equals 2 , then PERSON TYPE should equal 06-08. |
| 8VOP | If DEATH YEAR equals 9999, then DEATH MONTH and DEATH DAY must equal 99. |
| 8Z0F | If any SEQUENCE OF EVENTS equals 15 , then at least one Person Level (Not a MV Occupant) form must have a PERSON TYPE code of 08. |
| 900P | If VEHICLE IDENTIFICATION NUMBER (VIN) does not equal 0's, 8's or 9's, and VEHICLE MODEL YEAR is a valid year and greater than or equal to 1980 and VEHICLE MODEL YEAR equals $\qquad$ , then the 10th digit of the valid VEHICLE IDENTIFICATION NUMBER (VIN) should equal $\qquad$ (contact Headquarters for VIN Assistance). |
| 920P | If any one of the fields MAKE, MODEL, BODY TYPE, and MODEL YEAR, equals Not Reported [MAKE (97), MODEL (997), BODY TYPE (98), and MODEL YEAR (9998)], then the other three must also equal Not Reported. |

## ERROR CODE ERROR TEST

| 921P | If MAKE is not 97, 98, 99, and equals $\qquad$ , and MODEL equals $\qquad$ , then MODEL YEAR must equal $\qquad$ , or CRASH YEAR plus 1. |
| :---: | :---: |
| 930P | If any one of the fields MAKE, MODEL, BODY TYPE, and MODEL YEAR, does not equal Not Reported [MAKE (97), MODEL (997), BODY TYPE (98), and MODEL YEAR (9998)], THEN the other three must also not be coded as Not Reported. |
| 960P | If MAKE is not 98, 99, and equals $\qquad$ , and MODEL equals $\qquad$ then BODY TYPE must equal $\qquad$ . |
| 981P | If BODY TYPE equals $80-83,88,89,90,91$, then RESTRAINT SYSTEM/HELMET USE must equal 05, 16, 17, 19, 29, 97, 98, 99. |
| 982P | If BODY TYPE does not equal $80-83,88,89,90,91$, then RESTRAINT SYSTEM/HELMET USE must not equal 05,16 , 17, 19, 29. |
| 990P | If any counter equals 99, then all counters and DATE OF LAST CRASH, SUSPENSION, CONVICTION and DATE OF FIRST CRASH, SUSPENSION, CONVICTION must equal 9999. |
| 9A2P | If UNIT TYPE equals 2,3 , then REGISTERED VEHICLE OWNER must equal 6. |
| 9A3P | If UNIT TYPE equals 2-4, then DRIVER PRESENCE must equal 0 . |
| 9A5P | If PERSON TYPE equals 03, then UNIT TYPE must equal 2-4. |
| 9B3P | If UNDERRIDE/OVERRIDE equals 7, then there must be at least one vehicle with UNIT TYPE equal to 1. |
| 9B4P | If UNDERRIDE/OVVERIDE equals 8, then there must at least one vehicle with UNIT TYPE equal 2-4. |
| 9B5P | If UNIT TYPE equals 2,3 , then UNDERRIDE/OVERRIDE must equal 0 . |
| 9B7P | If UNIT TYPE equals 2-4, then PERSON TYPE of all occupants of this vehicle must equal 03. |
| 9B9P | If any SEQUENCE OF EVENTS equals 55, then there must be at least one other vehicle with UNIT TYPE equal to 1. |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| 9BAP | If MANNER OF COLLISION equals 07, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 10 or 11 for neither one of the vehicles involved in the first harmful event, then CRASH TYPE should equal 44-49, 98, 99 for the vehicles involved in the first harmful event. |
| 9BCP | If MANNER OF COLLISION equals 08, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 10 or 11 for neither one of the vehicles involved in the first harmful event, then CRASH TYPE should equal 64-67, 98, 99 for the vehicles involved in the first harmful event. |
| 9BDP | If MANNER OF COLLISION equals 01, then CRASH TYPE should not equal 44-49 for the vehicles involved in the first harmful event. |
| 9COP | If FIRST HARMFUL EVENT equals 55, then there must be at least one vehicle with UNIT TYPE equal to 1. |
| 9C1P | If UNIT TYPE equals 4, then RELATED FACTORS-VEHICLE LEVEL must not equal 39. |
| 9C4P | If UNIT TYPE equals 1 , and DRIVER PRESENCE equals 0 or 9 , then DRIVER MANEUVERED TO AVOID must only equal 95. |
| 9C5P | If DRIVER MANEUVERED TO AVOID equals 95, then DRIVER PRESENCE must equal 0 or 9. |
| 9J0P | If LICENSE COMPLIANCE WITH CLASS OF VEHICLE equals $0-1$, then COMPLIANCE WITH LICENSE RESTRICTIONS must not equal 1-3, 9. |
| 9KOP | If HM2 equals 2, then REGISTRATION STATE must not equal 00. |
| 9MOF | If PERSON TYPE equals 05, then RELATED FACTORSPERSON LEVEL (Not a MV Occupant) must not equal 13, 21, $26,40,42,51,52,57,68-70,73-83,88$. |
| 9POF | If PERSON TYPE equals $04-08,10,19$, then EXTRICATION must not equal 1, 9. |
| 9VOP | If DEATH MONTH equals 99, then DEATH DAY must equal 99. |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| A010 | If STATE equals 02, and LIGHT CONDITION equals 4, then CRASH TIME should equal 0300-1000, 9999. |
| A020 | If STATE equals 02, and LIGHT CONDITION equals 5 , then CRASH TIME should equal 1500-2359, 9999. |
| A030 | If CRASH MONTH equals 05-09, then ATMOSPHERIC CONDITIONS should not equal 03, 04, 11, 12. |
| A040 | If CRASH MONTH equals 05-09, then ROADWAY SURFACE CONDITIONS should not equal 03, 04, 10. |
| A050 | If CRASH TIME equals 0900-1600, then LIGHT CONDITION should not equal 2-6. |
| A060 | If CRASH TIME equals 2300-0400, then LIGHT CONDITION should not equal 1, 4, 5, 9. |
| A070 | If NOTIFICATION TIME EMS is not 8888, 9998 or 9999, then NOTIFICATION TIME EMS should not be more than 120 minutes later than CRASH TIME. |
| A080 | If DRIVER PRESENCE equals 0 , and FIRST HARMFUL EVENT equals 12, and NUMBER OF VEHICLE FORMS SUBMITTED equals 002, then one RELATED FACTORS-DRIVER LEVEL should equal 20. |
| A090 | If NUMBER OF VEHICLE FORMS SUBMITTED is greater than 001, then there should be at least one vehicle with TRAVEL SPEED of 001-151, 997-999, or blanks. |
| A100 | If FIRST HARMFUL EVENT is not equal to $02,04,05,10,16$, 18, then there should be one vehicle with TRAVEL SPEED of 001-151, 997-999, or blanks. |
| A110 | If FIRST HARMFUL EVENT equals 10, then ROADWAY FUNCTION CLASS should not equal 01, 11, 12. |
| A131 | If RELATION TO JUNCTION (b) equals 02, 04, 06, 16, 17, or 20, then RELATION TO TRAFFICWAY must equal 01. |
| A141 | If RELATION TO JUNCTION (b) equals 18, then RELATION TO TRAFFICWAY must equal 01 or 11. |

## ERROR CODE ERROR TEST

A150 If ROADWAY FUNCTION CLASS equals 01, 11, 12, and RELATION TO JUNCTION (a) equals 0, then RELATION TO JUNCTION should not equal 02-04, 06, 08.

A160
If ROADWAY FUNCTION CLASS equals 01, 02, 04, 11, 12, 13, 15, then ROADWAY SURFACE TYPE should equal 1, 2, 8 or 9 for at least one vehicle.

A170
If ROADWAY SURFACE TYPE equals 3-5 for every vehicle, then ROADWAY FUNCTION CLASS should not equal 01-03, 11-15.

A180 If ROADWAY FUNCTION CLASS equals 01, 11, then SPECIAL JURISDICTION should not equal 1-5, 8, 9.

If ROADWAY FUNCTION CLASS equals 12, then SPECIAL JURISDICTION should not equal 4.

If ROADWAY SURFACE CONDITIONS equals 01 for a vehicle involved in the first harmful event, then ATMOSPHERIC CONDITIONS should not equal 02-04, 11, 12.

A1B0
If TRAFFIC CONTROL DEVICE equals 20, 21 for a vehicle involved in the first harmful event, then RELATION TO JUNCTION (b) should not equal 01, 18.

A1C0
If ROADWAY SURFACE CONDITIONS equals 01, then DRIVER'S VISION OBSCURED BY should not equal 08.

A1E0 If RELATION TO JUNCTION (b) equals 19, then RELATION TO TRAFFICWAY must not equal 01, 05, 11, 98, 99.

A1E1 If RELATION TO JUNCTION (b) equals 20, then RELATION TO TRAFFICWAY must equal 01.

A200

A210

A220

If RELATION TO JUNCTION (b) equals 07, then ROADWAY FUNCTION CLASS should not equal 04-06, 16.

If ROADWAY FUNCTION CLASS equals 01, 11, 12, and RELATION TO JUNCTION (a) equals 0, then TRAFFIC CONTROL DEVICE should not equal 01-04, 07, 20, 23, 40, 50, 65.

If ROADWAY FUNCTION CLASS equals 01, 11, and RELATION TO JUNCTION (a) equals 0, then SPEED LIMIT should not equal 05-40 for any vehicle.

## ERROR CODE ERROR TEST

| A230 | If SEQUENCE OF EVENTS equals 10, then ROADWAY FUNCTION CLASS should not equal 01, 11. |
| :---: | :---: |
| A240 | If ROADWAY FUNCTION CLASS equals 01, 11, and RELATION TO JUNCTION (a) equals 0 , then TRAVEL SPEED should not equal 005-040 for any vehicle. |
| A250 | If ROADWAY FUNCTION CLASS equals 01, 02, 11-13, and RELATION TO JUNCTION (a) equals 1, and RELATION TO JUNCTION (b) does not equal 03, 05, 20, then TOTAL LANES IN ROADWAY should not equal 1 for the vehicles involved in the first harmful event. |
| A270 | If any VIOLATIONS CHARGED equals 31-35, 37, then TRAFFIC CONTROL DEVICE should equal 01-20, 98. |
| A280 | If ROUTE SIGNING equals 1 , then SPECIAL JURISDICTION should not equal 1-5, 8, 9. |
| A290 | If ROUTE SIGNING equals 1 and RELATION TO JUNCTION (a) equals 0 , then RELATION TO JUNCTION (b) should not equal 02-04, 06, 08, 16. |
| A291 | If RELATION TO JUNCTION (b) equals 07, then ROUTE SIGNING should not equal 5,6 . |
| A292 | If any TRAFFICWAY DESCRIPTION, TOTAL LANES IN ROADWAY, ROADWAY ALIGNMENT, ROADWAY GRADE, ROADWAY SURFACE TYPE, or ROADWAY SURFACE CONDITIONS equals 0,00 , then all must equal 0,00 , and SPEED LIMIT must equal 00 for this vehicle. |
| A293 | If WORK ZONE equals 1-3, and RELATION TO JUNCTION (b) equals 02, 03, then TRAFFIC CONTROL DEVICE should equal 01-03, 20, 40, 97 or 98 for the vehicle(s) involved in the first harmful event. |
| A294 | If WORK ZONE equals 1-3, and RELATION TO JUNCTION (b) equals 01, 04, 05, 08, 17-19, then TRAFFIC CONTROL DEVICE should equal 00, 21, 28, 40,50, 97 or 98 for the vehicle(s) involved in the first harmful event. |
| A300 | If ROUTE SIGNING equals 1 , then TRAFFICWAY DESCRIPTION should equal $2,3,6$ for at least one vehicle. |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| A310 | If ROUTE SIGNING equals 1 and RELATION TO JUNCTION (a) equals 0 , then TOTAL LANES IN ROADWAY should not equal 1 for any vehicle. |
| A320 | If ROUTE SIGNING equals 1 and RELATION TO JUNCTION (a) equals 0, then SPEED LIMIT should not equal 05-40 for any vehicle. |
| A330 | If ROUTE SIGNING equals 1,2 , then ROADWAY SURFACE TYPE should equal 1, 2, 8 for at least one vehicle. |
| A350 | If ROUTE SIGNING equals 1 , then FIRST HARMFUL EVENT should not equal 10. |
| A360 | If RELATION TO JUNCTION (b) equals 07, then ROUTE SIGNING should not equal 4. |
| A370 | If FIRST HARMFUL EVENT equals 99, then MANNER OF COLLISION should not equal 00, 01-11. |
| A380 | If FIRST HARMFUL EVENT equals 01 and this vehicle is involved in the first harmful event and BODY TYPE does not equal 80-89 for this vehicle, and RELATION TO TRAFFICWAY equals $\qquad$ , then LOCATION OF ROLLOVER should equal $\qquad$ respectively. |
| A390 | If FIRST HARMFUL EVENT equals 17, 19-21, 23-26, 30-35, $38-43,52,53,57$, then RELATION TO TRAFFICWAY should not equal 01, 02, 07, 11. |
| A3C0 | If FIRST HARMFUL EVENT equals 02-07, 16, 44, 51, 72 , then CRASH TYPE must equal 00 for the vehicle involved in the first harmful event. |
| A3D0 | If FIRST HARMFUL EVENT equals 01-07, 16, 44, 51, 72 , then CRASH TYPE must not equal 20-91. |
| A3E0 | If CRASH TYPE equals 13 , then FIRST HARMFUL EVENT must equal 08, 09, 11, 15 or 49. |
| A3G0 | If INTERSTATE HIGHWAY equals 1, RELATION TO JUNCTION (a) equals 1 and RELATION TO JUNCTION (b) is not equal to 03 or 05 or 20, then TOTAL LANES IN ROADWAY should not equal 1 for at least one vehicle involved in the first harmful event. |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| A3H0 | If INTERSTATE HIGHWAY equals 1, RELATION TO JUNCTION (a) equals 1, and RELATION TO JUNCTION (b) is not equal to 03 or 05 or 20, then TRAFFICWAY DESCRIPTION should not equal 4 for at least one vehicle involved in the first harmful event. |
| A3I0 | If INTERSTATE HIGHWAY equals 1 , then RELATION TO JUNCTION (b) should not equal 02, 04, 06, 08 or 16. |
| A3J0 | If INTERSTATE HIGHWAY equals 1, RELATION TO JUNCTION (a) equals 1, and RELATION TO JUNCTION (b) is not equal to 03 or 05 or 20, then SPEED LIMIT should not equal 01-40 for at least one vehicle involved in the first harmful event. |
| A3K0 | If FIRST HARMFUL EVENT equals 10, then INTERSTATE HIGHWAY should not equal 1. |
| A420 | If FIRST HARMFUL EVENT equals 10 , then RELATION TO JUNCTION (b) should equal 06. |
| A430 | If PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 10-11 for a vehicle involved in the first harmful event, then RELATION TO JUNCTION (b) should not equal 01, 18. |
| A440 | If RELATION TO JUNCTION (b) equals 06, then TRAFFIC CONTROL DEVICE should equal 65 for any vehicle involved in the first harmful event. |
| A470 | If WORK ZONE equals 0 , and TRAFFICWAY DESCRIPTION equals 1-3, 5 , then TOTAL LANES IN ROADWAY should not equal 1. |
| A480 | If CRASH TYPE equals 00 , then FIRST HARMFUL EVENT must equal 02-07, 16, 44, 51, 72. |
| A481 | If TRAFFICWAY DESCRIPTION equals 6 , then TOTAL LANES IN ROADWAY should equal 1, 2, 8, 9. |
| A482 | If TRAFFICWAY DESCRIPTION equals 4 or 6, then TOTAL LANES IN ROADWAY should not equal 5-7. |
| A490 | If TRAFFICWAY DESCRIPTION equals $2,3,5$, then ROADWAY SURFACE TYPE should not equal 4, 5, 7 . |

## ERROR CODE ERROR TEST

| A491 | If TRAFFICWAY DESCRIPTION equals 1 or 5, then TOTAL LANES IN ROADWAY should not equal 7. |
| :---: | :---: |
| A492 | If TRAFFICWAY DESCRIPTION equals $2,3,5,6$, then SPEED LIMIT must not equal 00. |
| A493 | If TRAFFICWAY DESCRIPTION equals $2,3,5$, then SPEED LIMIT should be greater than 15 . |
| A494 | If TRAFFICWAY DESCRIPTION equals 6 , then ROADWAY GRADE should not equal $3,4$. |
| A495 | If TRAFFICWAY DESCRIPTION equals 0 , then the first event in SEQUENCE OF EVENTS for this vehicle should not equal 63, 64, 69 or 71. |
| A4A0 | If CRASH TYPE equals 01-16, then FIRST HARMFUL EVENT must not equal 12. |
| A4B0 | If CRASH TYPE equals 01-11 or 14, then RELATION TO TRAFFICWAY must not equal 01 or 11. |
| A4BP | If FIRST HARMFUL EVENT equals 54 or 55 , then CRASH TYPE must equal 98 for the vehicles involved in the first harmful event. |
| A4C0 | If RELATION TO JUNCTION (b) equals 04, then at least one PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) for the vehicles involved in the first harmful event should equal 10, 11, 13 or 98. |
| A4D0 | If PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 14, then ROADWAY ALIGNMENT must equal 2-4. |
| A4D1 | If PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 01, then ROADWAY ALIGNMENT should not equal 2-4. |
| A4DP | If CRASH TYPE equals 20-91, then FIRST HARMFUL EVENT must equal 12. |
| A500 | If TOTAL LANES IN ROADWAY equals 3-7, then ROADWAY SURFACE TYPE should not equal 4, 5, 7 . |

## ERROR CODE ERROR TEST

A510 If any AMOSPHERIC CONDITIONS equals 02-04, 11, 12, then ROADWAY SURFACE CONDITIONS should not equal 01, 07, 08, 99 for any vehicle.

If SEQUENCE OF EVENTS equals 10, then TRAFFIC CONTROL DEVICE should not equal 01-09, 20-29, 40-50, 98.

If any SEQUENCE OF EVENTS equals 46, then SPEED LIMIT should equal 05-55, 98 or 99 for this vehicle.

A540 If NOTIFICATION TIME EMS is not 8888, 9998, or 9999, and ARRIVAL TIME EMS is not 8888, 9997, 9998, 9999, then ARRIVAL TIME EMS should not be more than 120 minutes later than NOTIFICATION TIME EMS.

A550 If ARRIVAL TIME EMS is not 8888, 9997, 9998, or 9999, and EMS TIME AT HOSPITAL is not 8888, 9997, 9998, 9999, then EMS TIME AT HOSPITAL should not be more than 60 minutes later than ARRIVAL TIME EMS.

A551 If EMS TIME AT HOSPITAL equals 8888, 9997, 9998, then TRANSPORTED TO FIRST MEDICAL FACILITY BY should not equal 1, 3, 5 for any PERSON.

A560 If NOTIFICATION TIME EMS is not 8888, 9998, or 9999, and EMS TIME AT HOSPITAL is not 8888, 9997, 9998, 9999, then EMS TIME AT HOSPITAL should not be more than 180 minutes later than NOTIFICATION TIME EMS.

A60F If FIRST HARMFUL EVENT equals 14, and RELATED FACTORS - PERSON (MV OCCUPANT) LEVEL equals 32, 89 for all occupants of the not in-transport motor vehicle involved in the first harmful event, then CRASH TYPE should equal 01-11, 92, 98, 99 for the in-transport vehicle involved in the first harmful event.

If RELATION TO TRAFFICWAY equals 01, and RELATION TO JUNCTION (b) equals 05, then TRAFFICWAY DESCRIPTION should equal 6 for at least one vehicle involved in the first harmful event.

A611
If TRAFFICWAY DESCRIPTION equals 6 for at least one vehicle involved in the first harmful event, then RELATION TO JUNCTION (b) should equal 02, 03, 05, 17-20.

## ERROR CODE ERROR TEST

| A61F | If FIRST HARMFUL EVENT equals 08, 09, 11, 15, 49, and RELATION TO TRAFFICWAY equals 01, 02, 07, 11, and PREEVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) is not equal to 00, 13 for the vehicle involved in the first harmful event, then CRASH TYPE should equal 13 for the vehicle involved in the first harmful event. |
| :---: | :---: |
| A61G | If the FIRST HARMFUL EVENT equals 08, and PERSON TYPE equals 05, and NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21, 22, 24, 25, 28, and the NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST is involved in the first harmful event, then CRASH TYPE should not equal 13 for this vehicle. |
| A61H | If the FIRST HARMFUL EVENT equals 09, and PERSON TYPE equals 06, 07, and NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21, 22, 24, 25, 28, and the NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST is involved in the first harmful event, then CRASH TYPE should not equal 13 for this vehicle. |
| A61J | If the FIRST HARMFUL EVENT equals 15, and PERSON TYPE equals 08, and NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21, 22, 24, 25, 28, and the NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST is involved in the first harmful event, then CRASH TYPE should not equal 13 for this vehicle. |
| A61K | If the FIRST HARMFUL EVENT equals 49, and PERSON TYPE equals 04, and NON-MOTORIST LOCATION AT THE TIME OF CRASH equals 21, 22, 24, 25, 28, and the NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST is involved in the first harmful event, then CRASH TYPE should not equal 13 for this vehicle. |

A620 If CRASH TYPE equals 06-10, and TRAFFICWAY DESCRIPTION equals 3, then RELATION TO TRAFFICWAY should equal 03.

A62F If FIRST HARMFUL EVENT equals 18 or 43, 73, and RELATION TO TRAFFICWAY equals 01 or 11, then CRASH TYPE should equal 12 or 15 for the vehicle involved in the first harmful event.

\section*{ERROR CODE ERROR TEST <br> | A63F | If FIRST HARMFUL EVENT equals 01, then CRASH TYPE should equal 01-10, 98, 99 for the vehicle involved in the first harmful event. |
| :---: | :---: |
| A700 | If SPEED LIMIT is greater than 65 for every vehicle, then ROUTE SIGNING should equal 1-4. |
| A720 | If ROADWAY FUNCTION CLASS equals 01, 11, 12 , then TRAFFICWAY DESCRIPTION should equal 2, 3, 6 for at least one vehicle. |
| A770 | If FIRST HARMFUL EVENT equals 46, then TRAFFIC CONTROL DEVICE should equal 01-04 for the vehicle involved in the first harmful event. |
| A780 | If FIRST HARMFUL EVENT equals 46, then TRAFFIC CONTROL DEVICE should not equal 00 for the vehicle involved in the first harmful event. |
| A790 | If FIRST HARMFUL EVENT equals 46, then RELATION TO JUNCTION (b) should not equal 01, 07. |
| A800 | If FIRST HARMFUL EVENT equals 46, then RELATION TO TRAFFICWAY should not equal $01,02,05,07,11$. |
| A810 | If FIRST HARMFUL EVENT equals 46, and RELATION TO JUNCTION (a) equals 1, and RELATION TO JUNCTION (b) does not equal 02, 03, 05, then ROADWAY FUNCTION CLASS should not equal 01, 11. |
| A820 | If FIRST HARMFUL EVENT equals 46, and RELATION TO JUNCTION (a) equals 1 and RELATION TO JUNCTION (b) does not equal 02, 03, 05, then ROUTE SIGNING should not equal 1. |
| A830 | If FIRST HARMFUL EVENT equals 46, then SPEED LIMIT should be less than 55 for the vehicle involved in the first harmful event. |
| A840 | If ROUTE SIGNING equals 7, then ROADWAY FUNCTION CLASS should equal 01, 02, 11-13. |
| A850 | If ROADWAY FUNCTION CLASS equals 02, 12, and ROUTE SIGNING equals 2 , then NATIONAL HIGHWAY SYSTEM should equal 1. |

## ERROR CODE ERROR TEST

A860 If NATIONAL HIGHWAY SYSTEM equals 1, then ROADWAY

A881

A882

A883

A890

A900

A910

A20

If INTERSTATE HIGHWAY equals 1 and RELATION TO JUNCTION (a) equals 1, and RELATION TO JUNCTION (b) is not equal to 03 or 05 or 20, then TRAFFIC CONTROL DEVICE should not equal 01-03, 20, 23 or 65 for at least one vehicle involved in the first harmful event.

A940
If STATE NUMBER equals 11, then maximum SPEED LIMIT (not including 98 or 99 ) should equal 55.

If STATE NUMBER equals 15, then maximum SPEED LIMIT (not including 98 or 99) should equal 60.

A950
If STATE NUMBER equals $02,09,10,17,23,24,25,33,34,36$, $39,41,42,43,44,50,55$, then maximum SPEED LIMIT (not including 98 or 99 ) should equal 65.

## ERROR CODE ERROR TEST

| A955 | If STATE NUMBER equals $01,05,06,12,13,18,19,20,21,22$, $26,27,28,29,37,45,47,51,53,54$, then maximum SPEED LIMIT (not including 98 or 99 ) should equal 70. |
| :---: | :---: |
| A960 | If STATE NUMBER equals $04,08,16,30,31,32,35,38,40,46$, 48, 49, 56 , then maximum SPEED LIMIT (not including 98 or 99 ) should equal 75. |
| A965 | If PSU equals $72,91,9,21,22,4,1,2,3,23,24,25,26,30,5$, $6,7,8,71$, then maximum SPEED LIMIT (not including 98 or 99) should equal 65. |
| A970 | If PSU equals $47,48,79,80,96,97,41,42,61,73,93,28,10$, 11, 12, 13, 29, 31, 32, 33, 92, 43, 44, 45, 46, 27, 81, 82, then maximum SPEED LIMIT (not including 98 or 99 ) should equal 70. |
| A975 | If PSU equals $76,77,78,75,94,74,95,64, \mathbf{4 9}, \mathbf{5 0}, \mathbf{5 1}, \mathbf{6 2 , ~ 6 3}$, then maximum SPEED LIMIT (not including 98 or 99 ) should equal 75. |
| AB1P | If VEHICLE CONFIGURATION equals 01, then CARGO BODY |

ACOA If RELATION TO JUNCTION (b) equals 02, 03, then the second TRAFFICWAY IDENTIFIER should not be all blank.

AC1A If FIRST HARMFUL EVENT equals 54, then MANNER OF COLLISION should equal 11.

ADOP If VEHICLE CONFIGURATION equals 04, 06-08, then VEHICLE TRAILING must not equal 0 .

AEOP If VEHICLE CONFIGURATION equals 05 and CARGO BODY TYPE does not equal 12, then VEHICLE TRAILING must equal 0.

AE1P If VEHICLE CONFIGURATION equals 05-08, then BODY TYPE must equal 66.

AF1P If VEHICLE CONFIGURATION equals 20, then CARGO BODY TYPE must equal 22.

AF2P If VEHICLE CONFIGURATION equals 20, 21, then BODY TYPE must equal 20, 21, 50-52, 55, 58, 59.

## ERROR CODE ERROR TEST

AHOP If VEHICLE CONFIGURATION does not equal 00, 99, then BODY TYPE should equal 15, 16, 21, 28, 31, 40, 41, 45, 48-52, $55,58-64,66,67,71,72,78,92,93$, or HM2 must equal 2.

AH1P
If BUS USE equals 08, then BODY TYPE must equal 21, 22, 28, 29, 50-59.

If BUS USE equals 06, then BODY TYPE should equal 21 or 52 or 55 .

If CARGO BODY TYPE equals 22, 96, then JACKKNIFE should equal 0.

ALOP If CARGO BODY TYPE equals 22, then BODY TYPE must equal 21, 50-52, 55, 58, 59.

AL1P If SEQUENCE OF EVENTS equals 51, 62, 70, then VEHICLE TRAILING must not equal 0 .

AL2P If SEQUENCE OF EVENTS equals 45, then WORK ZONE should equal 1-4.

AL3P If UNIT TYPE equals 2-4, then MOST HARMFUL EVENT must not equal 54 for this vehicle.

AL4P If there is one and only one parked vehicle (UNIT TYPE equals 2 or 3) in the crash, then MOST HARMFUL EVENT for the parked vehicle must not equal 14.

AL5P
If UNIT TYPE equals 1, then at least one event in the SEQUENCE OF EVENTS must equal the MOST HARMFUL EVENT.

AL6P
If MOST HARMFUL EVENT equals $\qquad$ and UNIT TYPE equals 1, then at least one event in the SEQUENCE OF EVENTS must equal $\qquad$ .

If FIRST HARMFUL EVENT equals __, then at least one SEQUENCE OF EVENTS must equal __ for at least one vehicle.

AL8P
If SEQUENCE OF EVENTS equals 51, 70 , then JACKKNIFE must equal 2, 3.

## ERROR CODE ERROR TEST

| AMOP | If CARGO BODY TYPE does not equal 00, 99, then BODY TYPE should equal $15,16,21,28,31,40,41,45,48-52,55$, $58-64,66,67,71,72,78,92,93$, or HM2 must equal 2. |
| :---: | :---: |
| AM1P | If FIRST HARMFUL EVENT equals 54 or 73, or SEQUENCE OF EVENTS equals 54, 73 for any vehicle, then one RELATED FACTORS-CRASH LEVEL must equal 14. |
| AM2P | If any SEQUENCE OF EVENTS equals 25 or 57 , then TRAFFICWAY DESCRIPTION should equal 3, 6. |
| AQ0P | If REGISTRATION STATE equals 00, 92, then REGISTERED VEHICLE OWNER must equal 0, 5, 6. |
| AROP | If SPECIAL USE equals 04, then REGISTERED VEHICLE OWNER must not equal 0, 1-2, 4. |
| ASOP | If RELATED FACTORS-VEHICLE LEVEL equals 32, then REGISTERED VEHICLE OWNER must not equal 0. |
| AT00 | An ATMOSPHERIC CONDITIONS 01-08, 10-12, 98, 99 can be used only once per crash. |
| AT10 | If first ATMOSPHERIC CONDITIONS equals 99, then second ATMOSPHERIC CONDITIONS must equal 00. |
| AT20 | If first ATMOSPHERIC CONDITIONS equals 01-08, 10-12, 99, then second ATMOSPHERIC CONDITIONS must not equal 99. |
| AT30 | First ATMOSPHERIC CONDITIONS must not equal 00. |
| AT40 | If the first ATMOSPHERIC CONDITIONS equals 01, then the second ATMOSPHERIC CONDITIONS must equal 00 or 10. |
| AVOP | If REGISTERED VEHICLE OWNER equals 3,4 , then REGISTRATION STATE must not equal 99. |
| AZ1P | If UNIT TYPE equals 1, and FIRE OCCURRENCE equals 1 , then at least one SEQUENCE OF EVENTS must equal 02. |
| AZ20 | If UNIT TYPE equals 1, and DRIVER PRESENCE equals 0 or 9, then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 00. |


| AZ2P | If CRITICAL EVENT-PRECRASH (EVENT) equals 14, and ATTEMPTED AVOIDANCE MANEUVER equals 01, then CRASH TYPE must equal 14. |
| :---: | :---: |
| AZ30 | If PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 00, then ATTEMPTED AVOIDANCE MANEUVER must equal 00. |
| AZ50 | If PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 00, then PRE-IMPACT STABILITY must equal 0 . |
| AZ5P | If CRITICAL EVENT-PRECRASH (EVENT) equals 70-73 for a vehicle involved in the first harmful event, then RELATION TO JUNCTION (b) should equal 04 or 08. |
| AZ60 | If PRE-IMPACT STABILITY equals 0 , then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 00. |
| AZ6P | If any DRIVER MANEUVERED TO AVOID equals 00 , then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must not equal 17. |
| AZ70 | If PRE-IMPACT LOCATION equals 0 , then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 00. |
| AZ7P | If any DRIVER MANEUVERED TO AVOID equals 00 or 95 or 98 or 99, then only that one code and no other must be coded for this vehicle. |
| AZ80 | If PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 00, then PRE-IMPACT LOCATION must equal 0 . |
| AZAO | If PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 05 or 07, then TRAVEL SPEED should equal 000 for this vehicle. |
| AZBP | If any DRIVER MANEUVERED TO AVOID equals 03, then CRITICAL EVENT - PRECRASH (EVENT) should equal 87-89. |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| AZCP | If any DRIVER MANEUVERED TO AVOID equals 05, then CRITICAL EVENT - PRECRASH (EVENT) should equal 80-85. |
| AZEP | If any DRIVER MANEUVERED TO AVOID equals 01, then CRITICAL EVENT - PRECRASH (EVENT) should equal 90-92. |
| B10P | If PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) does not equal 17, ATTEMPTED AVOIDANCE MANUEVER equals 00 , 01 ,then DRIVER MANEUVERED TO AVOID should equal 00 or 95. |
| B13P | If CRASH TYPE equals 20-49, and ATTEMPTED AVOIDANCE MANEUVER equals 00-01, then CRITICAL EVENT-PRECRASH (EVENT) should not equal 12-14, 54, 66-68, 71-73 or 80-85. |
| B15P | If CRITICAL EVENT-PRECRASH (EVENT) equals 91, and ATTEMPTED AVOIDANCE MANEUVER equals 00, 01, and the vehicle is involved in the first harmful event, then CRASH TYPE should equal 15. |
| B16P | If CRITICAL EVENT-PRECRASH (EVENT) equals 90, and ATTEMPTED AVOIDANCE MANEUVER equals 01, and the vehicle is involved in the first harmful event, then CRASH TYPE should equal 12 or 15 . |
| BAOP | If EJECTION equals 0,8 , then EJECTION PATH must equal 0 . |
| BBOP | If EJECTION equals 1-3, 9 , then EJECTION PATH must equal 1-9, or blanks. |
| BCOP | If EJECTION PATH equals 1-9, then EJECTION must equal 1-3, 7 or 9 . |
| BEOP | If BODY TYPE equals $80-83,88,89$, then EJECTION PATH must equal 0 . |
| BFOF | If PERSON TYPE equals 04-08, 10, 19, then EJECTION PATH must equal 0 . |
| BIOP | If DRIVER'S LICENSE STATE equals 99, then COMPLIANCE WITH CDL ENDORSEMENTS must not equal 1, 2. |

## ERROR CODE ERROR TEST

BJOP If DRIVER PRESENCE equals 0,9 , then COMPLIANCE WITH CDL ENDORSEMENTS must be blank.

BJ1P If UNIT TYPE equals 1, and DRIVER PRESENCE equals 0 or 9, then DRIVER DISTRACTED BY must equal 16.

BJ2P If UNIT TYPE equals 1, and DRIVER PRESENCE equals 1, then DRIVER DISTRACTED BY must not equal 16 or blank.

BJ3P If UNIT TYPE equals 1, and DRIVER DISTRACTED BY equals 16, then DRIVER PRESENCE must equal 0 or 9.

BJ4P If any DRIVER DISTRACTED BY equals 03, then NUMBER OF OCCUPANTS must be greater than 01.

BJ7P If any DRIVER DISTRACTED BY equals 00 or 01 or 16 or 17 or 18 or 19 or 92 or 93 or 96 or 99, then only that one code and no other must be used.

BKOP If LICENSE COMPLIANCE WITH CLASS OF VEHICLE equals 1, then COMPLIANCE WITH CDL ENDORSEMENTS must not equal 1-3, 9.

BLOP If COMPLIANCE WITH CDL ENDORSEMENTS equals 1, and any RELATED FACTORS-DRIVER LEVEL equals 19, then LICENSE COMPLIANCE WITH CLASS OF VEHICLE must equal 3.

BNOP If DRIVER PRESENCE equals 0,9 , then COMMERCIAL MOTOR VEHICLE LICENSE STATUS must be blank.

BPOP If MODEL YEAR is greater than 1999, and BODY TYPE does not equal 50-52, 58-66, 71-79, 80-83, 88-93, 95, 97 and SEATING POSITION equals 11, 13, 18, 19 then AIRBAG DEPLOYED should not equal 00.

BQOP If METHOD OF DRUG DETERMINATION BY POLICE equals 8, then POLICE-REPORTED DRUG INVOLVEMENT must equal $0,1,8,9$.

BROP If METHOD OF DRUG DETERMINATION BY POLICE equals 1-7, then POLICE-REPORTED DRUG INVOLVEMENT must equal $0,1,8$.

## ERROR CODE ERROR TEST

BT1P If DRUG TEST STATUS equals 0,1 , then all DRUG TEST TYPE must equal 0, and all DRUG TEST RESULT must equal 000.

BT2P If DRUG TEST STATUS equals 8, then DRUG TEST TYPE 1 must equal 6, and all DRUG TEST RESULT 1 must equal 095 and remaining DRUG TEST TYPES and DRUG TEST RESULTS must be 0 filled.

BT3P If DRUG TEST STATUS equals 2, then at least one DRUG TEST TYPE must equal 1-8, and one corresponding DRUG TEST RESULT must equal 001, 100-295, 300-395, 400-495, 500-595, 600-695, 700-795, 800-895, 900-995, 996-998.

BT6P If DRUG TEST STATUS equals 9, then all DRUG TEST TYPE must equal 9, and DRUG TEST TYPE 1 must equal 9, and all DRUG TEST RESULT 1 must equal 999 and remaining DRUG TEST TYPES and DRUG TEST RESULTS must be 0 filled.

BT7P If DRUG TEST STATUS equals 2, and DRUG TEST RESULT one equals 001, 100-295, 300-395, 400-495, 500-595, 600-695, 700-795, 800-895, 900-995, 996, 997, 998, then DRUG TEST RESULT two and three must not equal 999.

BT8P More than one of the same DRUG TEST RESULT values must not be coded for the same person except for 000, 996.

BT9P If DRUG TEST RESULT 1 equals 000, 001, 997, 998, 095, or 999, then DRUG TEST RESULT 2 and DRUG TEST RESULT 3 must equal 000.

BYOP DRIVER'S ZIP CODE must be a valid code, blanks, 00000 or 99999.

BZ10 If CRITICAL EVENT- PRECRASH (EVENT) equals 53, then AREAS OF IMPACT-INITIAL CONTACT POINT should not equal 12 for this vehicle.

If CRITICAL EVENT-PRECRASH (EVENT) equals 51, 52, then AREAS OF IMPACT-INITIAL CONTACT POINT should not equal 06 for this vehicle.

BZ40
If CRITICAL EVENT - PRECRASH (EVENT) equals 01, then at least one SEQUENCE OF EVENTS must equal 61 for this vehicle.

| ERROR CODE | ERROR TEST |
| :---: | :---: |
| BZ50 | If CRITICAL EVENT - PRECRASH (EVENT) equals 12, and PRE-IMPACT LOCATION is not equal to 5, then at least one SEQUENCE OF EVENTS must equal 64 for this vehicle. |
| BZ60 | If CRITICAL EVENT - PRECRASH (EVENT) equals 13, and PRE-IMPACT LOCATION is not equal to 5, then at least one SEQUENCE OF EVENTS must equal 63 for this vehicle. |
| BZ70 | If CRITICAL EVENT - PRECRASH (EVENT) equals 14, then at least one SEQUENCE OF EVENTS must equal 71 for this vehicle. |
| BZ80 | If MANNER OF COLLISION equals 00, then PRECRASH CRASH TYPE must equal 00, 01-16, 92, 98, 99 for the vehicle in the first harmful event. |
| BZ90 | If CRASH TYPE equals 01-05, and PRE-IMPACT LOCATION is not equal to 5, then at least one SEQUENCE OF EVENTS prior to the first harmful event must equal 63. |
| BZ91 | If CRASH TYPE equals 06-10, and PRE-IMPACT LOCATION is not equal to 5, then at least one SEQUENCE OF EVENTS prior to the first harmful event must equal 64. |
| CBOP | If REGISTERED VEHICLE OWNER equals 6, then DRIVER PRESENCE must equal 0. |
| CCOP | If COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 00, 99, then COMPLIANCE WITH CDL ENDORSEMENTS must not equal 1. |
| CGOP | If LICENSE COMPLIANCE WITH CLASS OF VEHICLE equals 0 , then COMPLIANCE WITH CDL ENDORSEMENTS must not equal 1, 3. |
| CIOP | If VEHICLE TRAILING equals 1-4, then JACKKNIFE must not equal 0. |
| CJOO | If PREVIOUS RECORDED CRASHES equals 98, then DRIVER'S LICENSE STATE should equal 09, 13, 28, 30, 35, 49. |
| CKOP | If PERSON TYPE equals 07, then RELATED FACTORSPERSON LEVEL (Not a MV Occupant) must not equal 09, 13, 69, 70, 86-87, 90. |


\section*{ERROR CODE ERROR TEST <br> | CLOP | If PERSON TYPE equals 09, then RELATED FACTORSPERSON LEVEL (MV Occupant) must not equal 21, 26, 28, 29, $33,37,40-42,44,45,47,51,52,56-70,72-78,80-83,91$. |
| :---: | :---: |
| CMOP | If PERSON TYPE equals 19, then RELATED FACTORSPERSON LEVEL (Not a MV Occupant) must not equal 13, 69, 70, 90. |
| CSI1 | NUMBER OF VEHICLE FORMS must equal the actual number of Vehicle Level forms for this case. |
| CSI2 | There must be exactly one Driver Level form corresponding to each Vehicle Level form. |
| CSI3 | NUMBER OF MOTOR VEHICLE OCCUPANT FORMS SUBMITTED must equal the actual number of Person Level (Motor Vehicle Occupant) forms for this case. |
| CSI4 | NUMBER OF FORMS SUBMITTED FOR PERSONS NOT IN MOTOR VEHICLES must equal the actual number of persons not in motor vehicles in this case. |
| CSI5 | If VEHICLE NUMBER at the Person Level is greater than 000, then VEHICLE NUMBER at the Person Level must equal a VEHICLE NUMBER at the Vehicle Level. |
| CSI6 | For each VEHICLE NUMBER, PERSON NUMBERS must be consecutive, beginning with 001 and with no gaps. |
| CSI7 | PERSON NUMBERS for persons not in motor vehicles must be consecutive, beginning with 001 and with no gaps. | <br> D010 If DRIVER'S LICENSE STATE equals 96, 97, then PREVIOUS RECORDED CRASHES should equal 99. RECORDED SUSPENSIONS AND REVOCATIONS should equal 99. <br> If DRIVER'S LICENSE STATE equals 96, 97 , then PREVIOUS DWI CONVICTIONS should equal 99.}


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| D050 | If DRIVER'S LICENSE STATE equals 96, 97, then PREVIOUS OTHER HARMFUL MV CONVICTIONS should equal 99. |
| D060 | If NON-CDL LICENSE STATUS equals 1-4, 6 , or COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 1-8, and PERSON TYPE equals 01, then AGE should not be less than 015. |
| D080 | If VIOLATION CHARGED equals 01-06, 09, 31-69, 81-91, 98 , then RELATED FACTORS-DRIVER LEVEL should not all equal 00, 99. |
| D090 | If VIOLATIONS CHARGED equals 11-19, and PERSON TYPE equals 01, 03, then POLICE-REPORTED ALCOHOL INVOLVEMENT should equal 1, or POLICE-REPORTED DRUG INVOLVEMENT should equal 1. |
| D091 | DRIVER LICENSE NUMBER must not equal the VEHICLE LICENSE PLATE NUMBER for the vehicle driven. |
| D100 | If NON-CDL LICENSE STATUS equals 9, then all driver history counters PREVIOUS RECORDED CRASHES should equal 99. |
| D110 | If NON-CDL LICENSE STATUS equals 9, then all driver history counters PREVIOUS RECORDED SUSPENSIONS AND REVOCATIONS should equal 99. |
| D120 | If NON-CDL LICENSE STATUS equals 9 , then all driver history counters PREVIOUS DWI CONVICTIONS should equal 99. |
| D130 | If NON-CDL LICENSE STATUS equals 9 , then all driver history counters PREVIOUS SPEEDING CONVICTIONS should equal 99. |
| D140 | If NON-CDL LICENSE STATUS equals 9, then all driver history counters PREVIOUS OTHER HARMFUL MV CONVICTIONS should equal 99. |
| D150 | If the sum of all counters less than 98 is greater than five but less than fifteen, then DATE OF LAST CRASH, SUSPENSION, CONVICTION should not equal DATE OF FIRST CRASH, SUSPENSION, CONVICTION. |
| D160 | If NON-CDL LICENSE STATUS does not equal 9, or COMMERCIAL MOTOR VEHICLE LICENSE STATUS does not equal 99, then DRIVER'S ZIP CODE should not equal 99999. |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| D180 | If DRIVER LICENSE STATE equals 95-97, then DRIVER ZIP CODE should not equal 99999. |
| D260 | If NON-CDL LICENSE STATUS equals 9 , or COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 99, then COMPLIANCE WITH LICENSE RESTRICTIONS should not equal 0 . |
| D270 | If BODY TYPE equals $50-52,55,63,66,72$, or HM1 equals 2 , then COMMERCIAL MOTOR VEHICLE LICENSE STATUS should not equal 00. |
| D280 | If VEHICLE CONFIGURATION equals 05-08, 21, or HM1 equals 2, then COMMERCIAL MOTOR VEHICLE LICENSE STATUS should not equal 00. |
| D300 | If HM2 equals 2, then COMMERCIAL MOTOR VEHICLE LICENSE STATUS should not equal 00 or 99. |
| D310 | If HM2 equals 2, then COMPLIANCE WITH CDL ENDORSEMENTS should equal 1-3. |
| D320 | If DRIVER'S LICENSE STATE does not equal 93-99, then DRIVER'S ZIP CODE should equal 9999 or be a valid zip code for DRIVER'S LICENSE STATE. |
| D330 | If DRIVER PRESENCE equals 0 , and REGISTRATION STATE is not equal to 00, 92, 99, then REGISTERED VEHICLE OWNER should equal 3-6. |
| D340 | If NON-CDL LICENSE STATUS equals $1-4,6,9$, or COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 01-08, 99, then LICENSE COMPLIANCE WITH CLASS OF VEHICLE should not equal 0 . |
| D350 | If VIOLATIONS CHARGED equals 71, then NON-CDL LICENSE STATUS should not equal 0, 3, 6, 9 . |
| D380 | If NON-CDL LICENSE STATUS equals 9 , then LICENSE COMPLIANCE WITH CLASS OF VEHICLE should equal 1, 9. |
| D390 | If NON-CDL LICENSE STATUS equals 0 , then LICENSE COMPLIANCE WITH CLASS OF VEHICLE should not equal 2, 3, 8, 9 . |

## ERROR CODE ERROR TEST

| D400 | If NON-CDL LICENSE STATUS equals 0-4, then LICENSE |
| :--- | :--- |
|  | COMPLIANCE WITH CLASS OF VEHICLE should not equal |
|  | $3,8,9$. |
| D410 | If LICENSE COMPLIANCE WITH CLASS OF VEHICLE equals <br>  <br>  <br>  <br>  <br>  <br> not equal 1-3, 9. |

If COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 0, then COMPLIANCE WITH CDL ENDORSEMENTS should not equal 1-3.

D430
If COMPLIANCE WITH CDL ENDORSEMENTS equals 1-3, then COMMERCIAL MOTOR VEHICLE LICENSE STATUS should not equal 00.

D440 If COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 00 , then BODY TYPE should not equal $50-52,55,63,66,72$, and HM2 should not equal 2.

D450 If COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 00, then VEHICLE CONFIGURATION should not equal 05-08, 21 , and HM2 should not equal 2.

If COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 9, then COMPLIANCE WITH CDL ENDORSEMENTS should equal 0, 3, 9 .

D470 If any RELATED FACTORS-DRIVER LEVEL equals 37, then at least one RELATED FACTORS-CRASH LEVEL should equal 20.

If DRIVER'S LICENSE STATE equals 09, 13, 28, 30, 35, 49, then PREVIOUS RECORDED CRASHES should equal 98.

D500 If VIOLATIONS CHARGED equals 05, then at least one RELATED FACTORS-CRASH LEVEL should equal 20.

D530
If any VIOLATIONS CHARGED equals 36 for a vehicle involved in the first harmful event, then RELATION TO JUNCTION (b) should equal 06.

D560 If VIOLATIONS CHARGED equals 66, then BODY TYPE should equal 80-83, 88, 89.

## ERROR CODE ERROR TEST

D570 If any VIOLATIONS CHARGED equal 83, then not all occupants of this vehicle should have RESTRAINT SYSTEM/HELMET USE equal 01-05, 08, 10-12, 16, 19.

D580 If VIOLATIONS CHARGED equals 85, then HM1 should equal 2.

D5A0 If VIOLATIONS CHARGED equals 21-25, 29, then SPEEDING RELATED must equal 2-5.

D5B0 If any VIOLATIONS CHARGED equals 11-13, 18, 19, then at least one CONDITION (IMPAIRMENT) AT TIME OF CRASH (D23) should equal 09.

D5C0 If VIOLATIONS CHARGED equals 14 or 16, then at least one CONDITION (IMPAIRMENT) AT TIME OF CRASH (D23) should equal 09.

D5D0 If any VIOLATIONS CHARGED equals 16, and COMMERCIAL MOTOR VEHICLE LICENSE STATUS equals 06, then at least one CONDITION (IMPAIRMENT) AT TIME OF CRASH (D23) must equal 09.

D5E0 If any VIOLATIONS CHARGED equals 00 or 97 , then only that one code and no other must be coded for this driver.

If DRIVER HEIGHT/INCHES is greater than 11, then DRIVER HEIGHT/INCHES should not be less than 48.

If DRIVER HEIGHT/FEET is not blank, then DRIVER HEIGHT/FEET should not be less than 3.

D620 If NON-CDL LICENSE TYPE equals 7, then AGE (for the driver) should equal 014-016.

If NON-CDL LICENSE TYPE equals 2, then AGE (for the driver) should equal 015-017.

If AGE equals 014-017, and PERSON TYPE equals 01, then NON-CDL LICENSE TYPE should equal 2, 7.

D650
If AGE equals 018-120, and PERSON TYPE equals 01, and NON-CDL LICENSE STATUS does not equal 0, then NON-CDL LICENSE TYPE should equal 1.

| ERROR CODE | ERROR TEST |
| :---: | :---: |
| D680 | If NON-CDL LICENSE TYPE does not equal 0, 9, then NONCDL LICENSE STATUS should not equal 0,9 . |
| D690 | If NON-CDL LICENSE TYPE equals 2, 7, and COMPLIANCE WITH LICENSE RESTRICTIONS equals 2, then RELATED FACTORS-DRIVER LEVEL should equal 73, 74. |
| D700 | If NON-CDL LICENSE TYPE equals 1, and COMPLIANCE WITH LICENSE RESTRICTIONS equals 2 , then RELATED FACTORS-DRIVER LEVEL should equal 74. |
| D710 | If DRIVER'S LICENSE STATE equals $02,04,09,15,20,21,30$, $38,40,56$, then NON-CDL LICENSE TYPE should not equal 2. |
| D730 | If RELATED FACTORS-DRIVER LEVEL equals 73, then COMPLIANCE WITH LICENSE RESTRICTIONS should equal 2, and NON-CDL LICENSE TYPE should equal 2, 7. |
| E01P | If NOTIFICATION TIME EMS equals 9998, then ARRIVAL TIME EMS must equal 9998, and EMS TIME AT HOSPITAL must equal 8888 or 9998. |
| E02P | If ARRIVAL TIME EMS equals 9998, then EMS TIME AT HOSPITAL must equal 8888 or 9998. |
| E03P | If ARRIVAL TIME EMS equals 8888, then NOTIFICATION TIME EMS and EMS TIME AT HOSPITAL must equal 8888. |
| E04P | If NOTIFICATION TIME EMS equals 8888, then ARRIVAL TIME EMS and EMS TIME AT HOSPITAL must equal 8888. |
| E05P | If EMS TIME AT HOSPITAL equals 9997, then ARRIVAL TIME EMS must equal 9997. |
| E06P | If ARRIVAL TIME EMS equals 9997, then EMS TIME AT HOSPITAL must equal 9997. |
| E07P | If ARRIVAL TIME EMS equals 9997, then NOTIFICATION TIME EMS must not equal 8888, 9998. |
| E08P | If NOTIFICATION TIME EMS is not 8888, 9998, and EMS TIME AT HOSPITAL is not $8888,9996,9997,9998$, then ARRIVAL TIME EMS must not equal 9997 or 9998. |

## ERROR CODE ERROR TEST

\(\left.$$
\begin{array}{ll}\text { FAOF } & \text { If FIRST HARMFUL EVENT equals blank, case status is flawed. } \\
\text { FA1F } & \begin{array}{l}\text { CRASH TYPE for all in-transport vehicles not involved in the first } \\
\text { harmful event must equal 98. }\end{array} \\
\text { FD0F } & \begin{array}{l}\text { If DRIVER PRESENCE is blank, case status is flawed. } \\
\text { FP0F } \\
\text { FP1F PERSON TYPE is blank, case status is flawed. }\end{array} \\
\text { FP2F } & \begin{array}{l}\text { If AREAS OF IMPACT - INITIAL CONTACT POINT equals } \\
\text { blank, case status is flawed. }\end{array} \\
\text { FP3F } & \begin{array}{l}\text { If UNIT TYPE equals 1, and CRASH TYPE equals blank, case } \\
\text { status is flawed. }\end{array} \\
\text { FP4F UNIT TYPE is blank, case status is flawed. } \\
\text { FP5F } & \begin{array}{l}\text { If CRASH DATE is blank, case status is flawed. }\end{array} \\
\text { FP6F } & \begin{array}{l}\text { If CRASH TIME is blank, case status is flawed. }\end{array}
$$ <br>
If UNIT TYPE equals 1, and CRITICAL EVENT - PRECRASH <br>

(CATEGORY) equals blank, case status is flawed.\end{array}\right\}\)| If UNIT TYPE equals 1, and CRITICAL EVENT - PRECRASH |
| :--- |
| FP5F |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| G04P | If STATE is $\qquad$ and GLOBAL POSITION - LONGITUDE (degrees) is not equal to $777,888,999$, then LONGITUDE (degrees) must be equal to, or greater than, (3d) and LONGITUDE (degrees) must not be greater than (4d). |
| G05P | If STATE is $\qquad$ and GLOBAL POSITION - LONGITUDE (degrees) equals (3d), then LONGITUDE (minutes) must be equal to, or greater than (3s). |
| G06P | If STATE is $\qquad$ and GLOBAL POSITION - LONGITUDE (degrees) equals (4d), then LONGITUDE (minutes) must not be greater than ( 4 s ). |
| G07P | If any part of GLOBAL POSITION - LATITUDE (degrees, minutes or seconds) is all 8 's, then all parts of LATITUDE must be all 8 's. |
| G08P | If any part of GLOBAL POSITION - LONGITUDE (degrees, minutes or seconds) is all 8's, then all parts of LONGITUDE must be all 8 's. |
| G09P | If any part of GLOBAL POSITION - LATITUDE (degrees, minutes or seconds) is all 9's, then all parts of LATITUDE must be all 9's. |
| G10P | If any part of GLOBAL POSITION - LONGITUDE (degrees, minutes or seconds) is all 9's, then all parts of LONGITUDE must be all 9's. |
| G11P | If any part of GLOBAL POSITION - LATITUDE (degrees, minutes or seconds) is blank, then all parts of LATITUDE must be blank. |
| G12P | If any part of GLOBAL POSITION - LONGITUDE (degrees, minutes or seconds) is blank, then all parts of LONGITUDE must be blank. |
| G0AP | If any part of GLOBAL POSITION - LONGITUDE (degrees, minutes or seconds) is all 7's, then all parts of LONGITUDE must be all 7's. |
| G0BP | If any part of GLOBAL POSITION - LATITUDE (degrees, minutes or seconds) is all 7's, then all parts of LATITUDE must be all 7 's. |

## ERROR CODE ERROR TEST

\(\left.\begin{array}{|ll}P010 \& If PERSON TYPE equals 01, then AGE should not be less than <br>

O12.\end{array}\right\}\)| If PERSON TYPE equals 01-03, 09, and RESTRAINT SYSTEM/ |
| :--- |
| P01F |
|  |
| HELMET USE equals 01-04, 08, 10-12, and BODY TYPE does |
| not equal 80-89, then EJECTION should equal 0 or 7. |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| P075 | If PERSON TYPE equals $02,04-08,10$, and INJURY |
|  | SEVERITY does not equal 4, then DRUG TEST STATUS must not equal 8 , any DRUG TEST TYPE must not equal 6 , and any DRUG TEST RESULTS must not equal 095. |
| P080 | ALCOHOL TEST RESULTS should not equal 34-94. |
| P090 | If INJURY SEVERITY equals 0 , then TRANSPORTED TO FIRST MEDICAL FACILITY BY must equal 0. |
| P091 | If TRANSPORTED TO FIRST MEDICAL FACILITY BY equals 1 , 3,5 , then EMS TIME AT HOSPITAL should not equal 8888, 9997, 9998. |
| P093 | If all persons TRANSPORTED TO FIRST MEDICAL FACILITY BY equals 2,4 , then NOTIFICATION TIME EMS, ARRIVAL TIME EMS, EMS TIME AT HOSPITAL must equal 8888. |
| P094 | If EJECTION equals 8, then SEATING POSITION must equal 55 , or BODY TYPE must equal $80-83,88,89$. |
| P110 | If METHOD OF ALCOHOL DETERMINATION BY POLICE equals $1-5,8$, then POLICE-REPORTED ALCOHOL INVOLVEMENT should equal 0,1 . |
| P130 | If BODY TYPE equals $60-67,71,72,78,79$, and PERSON TYPE equals 01, 03, and INJURY SEVERITY equals 4, then FATAL INJURY AT WORK should equal 1. |
| P140 | If POLICE-REPORTED DRUG INVOLVEMENT equals 8 , 9 , then METHOD OF DRUG DETERMINATION BY POLICE should equal 8. |
| P150 | If POLICE-REPORTED DRUG INVOLVEMENT equals 1 , then DRUG TEST STATUS should not equal 0 . |
| P160 | If POLICE-REPORTED DRUG INVOLVEMENT equals 1 , and METHOD OF DRUG DETERMINATION BY POLICE equals 2 , then not all DRUG TEST RESULTS should equal 001. |
| P170 | If METHOD OF DRUG DETERMINATION BY POLICE equals 1-7, then POLICE-REPORTED DRUG INVOLVEMENT should equal 0,1 . |
| P180 | If PERSON TYPE equals 01, and AGE is less than 009, then BODY TYPE should not equal 90 . |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| P1A0 | If AGE is less than 012, and INJURY SEVERITY equals 4, then FATAL INJURY AT WORK should equal 0. |
| P200 | If POLICE-REPORTED ALCOHOL INVOLVEMENT equals 8,9 , then METHOD OF ALCOHOL DETERMINATION BY POLICE should equal 9. |
| P210 | If AIR BAG DEPLOYED equals 28 , then SEATING POSITION should equal 13. |
| P230 | If SEATING POSITION equals $21,23,28,29,31,33,38$ or 39 , and BODY TYPE equals 50-97, then AIR BAG DEPLOYED should equal 00. |
| P260 | If SEATING POSITION equals 18-19, then AIR BAG DEPLOYED should equal 00, 99. |
| P290 | If AIR BAG DEPLOYED equals 01-03, 07-09, 20, 28, and BODY TYPE equals 01-49, and MODEL YEAR equals 1998 or newer, then SEATING POSITION should equal 11, 13, 21, 23, 31 or 33. |
| P300 | If POLICE-REPORTED ALCOHOL INVOLVEMENT equals 1 , and INJURY SEVERITY equals 4, then ALCOHOL TEST STATUS should not equal 0,1 . |
| P310 | If EJECTION equals 1-3, and BODY TYPE does not equal 90, 91, 97, then RESTRAINT SYSTEM/HELMET USE must not equal $05,16,17,19,29$. |
| P320 | If SEATING POSITION equals 22, 23, 31-53, then RESTRAINT SYSTEM/HELMET USE must not equal 05, 16, 17, 19, 29. |
| P330 | If RESTRAINT SYSTEM/HELMET USE equals 00, then SEATING POSITION should equal 50-55. |
| P340 | If SEATING POSITION equals $50,52-55$, then RESTRAINT SYSTEM/HELMET USE should equal 00. |
| P50P | If DIED AT SCENE/EN ROUTE equals 7, then TRANSPORTED TO FIRST MEDICAL FACILITY BY must equal 0. |
| P510 | If EMS TIME AT HOSPITAL equals 8888, 9997, 9998, then DIED AT SCENE/EN ROUTE should not equal 8 for any PERSON. |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| P51P | If DIED AT SCENE/EN ROUTE equals 8, then TRANSPORTED TO FIRST MEDICAL FACILITY BY must equal 1-6. |
| P520 | If CRASH DATE and DEATH DATE are the same, and CRASH TIME and DEATH TIME are the same, then TRANSPORTED TO FIRST MEDICAL FACILITY BY should equal 0, and DIED AT SCENE/EN ROUTE should equal 7. |
| P52P | If DIED AT SCENE/EN ROUTE equals 9 , then TRANSPORTED TO FIRST MEDICAL FACILITY BY must equal 8 or 9. |
| P530 | If EMS TIME AT HOSPITAL equals 9996, then DIED AT SCENE/EN ROUTE must equal 8 for at least one person. |
| P53P | If INJURY SEVERITY equals $0-3,5,6$, then DIED AT SCENE/ EN ROUTE must equal 0 . |
| P54P | If DIED AT SCENE/EN ROUTE equals 8, then EMS TIME AT HOSPITAL should not equal 8888, 9997, 9998. |
| P55P | If TRANSPORTED TO FIRST MEDICAL FACILITY BY equals 9 , then DIED AT SCENE/EN ROUTE must equal 0, 9 . |
| P56P | If DIED AT SCENE/EN ROUTE equals 7, then DEATH TIME should be within 30 minutes of the CRASH TIME. |
| PB00 | If PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE equals 110-910, then at least one SEQUENCE OF EVENTS for the striking vehicle must equal 08 or 15 . |
| PB02 | If PEDESTRIAN/BIKE TYPING - BICYCLIST CRASH TYPE equals 111-980, then at least one SEQUENCE OF EVENTS for the striking vehicle must equal 09. |
| PB04 | If PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE for a person involved in the first harmful event equals 211, 212, $460,465,680,830,890,900$ or 910 , then RELATION TO JUNCTION (b) must not equal 02. Note: this edit is restricted to vehicles which are involved in only one event with pedestrian(s). |
| PB05 | If PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE for a person involved in the first harmful event equals 311, 312 or 313 , then RELATION TO TRAFFICWAY must equal 01 or 11. Note: this edit is restricted to vehicles which are involved in only one event with pedestrian(s). |

## ERROR CODE ERROR TEST

PB06 If PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE equals 730, then TRAFFIC CONTROL DEVICE for the striking vehicle must equal 01-03.

PB07 If PEDESTRIAN/BIKE TYPING - BICYCLIST CRASH TYPE for a person involved in the first harmful event equals 311, 312, 321 or 322 , then RELATION TO JUNCTION (b) must equal 04 or 08. Note: this edit is restricted to vehicles which are involved in only one event with bicyclist(s).

PB08 If PEDESTRIAN/BIKE TYPING - BICYCLIST CRASH TYPE for a person involved in the first harmful event equals 141-144, 147, $151-157$ or 159 , then RELATION TO JUNCTION (b) must equal 02 or 03. Note: this edit is restricted to vehicles which are involved in only one event with bicyclist(s).

PB09
If PEDESTRIAN/BIKE TYPING - BICYCLIST CRASH TYPE equals 141, 143, 151-158, 217 or 218, then TRAFFIC CONTROL DEVICE for the striking vehicle must not equal 00.

PB10 If PEDESTRIAN/BIKE TYPING - BICYCLIST CRASH TYPE equals 151, 156, 157, 217 or 218, then TRAFFIC CONTROL DEVICE for the striking vehicle must equal 01-04.

PB11 If PEDESTRIAN/BIKE TYPING - BICYCLIST CRASH TYPE equals 143 or 154, then TRAFFIC CONTROL DEVICE for the striking vehicle must equal 01-04, 20, 21, 28 or 29.

PB12 If PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE for a person involved in the first harmful event equals 510, 520 or 590, then RELATION TO TRAFFICWAY must not equal 01 or 11. Note: this edit is restricted to vehicles which are involved in only one event with pedestrian(s).

PB15 If PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE equals 910, then NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH must equal 03.

PB16
If PEDESTRIAN/BIKE TYPING - BICYCLIST CRASH TYPE equals 142, 144, 147, 153, 155, 156, 157, 159, 311, 312, 318, 319 or 357, then at least one NON-MOTORIST ACTION/ CIRCUMSTANCES AT TIME OF CRASH must equal 02.

PB17
If PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE for a person involved in the first harmful event equals 211-214 or 219, then PRE-EVENT MOVEMENT (PRIOR TO

| ERROR CODE | ERROR TEST <br> RECOGNITION OF CRITICAL EVENT) must equal 08, 09, 13 or 97. Note: this edit is restricted to vehicles which are involved in only one event with pedestrian(s). |
| :---: | :---: |
| PB18 | If PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE equals 741 or 742 , then at least one NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH must equal 01. |
| PB19 | If NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH equals 08, then PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE must not equal 510, 520, 590, 830 or 890 . |
| PB20 | If PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE equals 510,520 or 590 , then at least one NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH must equal 02. |
| PB21 | If PEDESTRIAN/BIKE TYPING - BICYCLIST CRASH TYPE equals 160, then TRAFFIC CONTROL DEVICE for the striking vehicle should equal 00. |
| PB22 | If SCHOOL BUS RELATED equals 1 , and PERSON TYPE equals 05 or 08, then PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE should equal 342. |
| PB23 | If PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE equals 342, and PERSON TYPE equals 05 or 08, then SCHOOL BUS RELATED should equal 1. |
| PB24 | If PERSON TYPE equals 05 or 08, and NON-MOTORIST LOCATION AT TIME OF CRASH equals $14,16,20,21,22$, 24 or 25 , then PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE should equal 230, 320, 410, 420, 430, 440, 459, $510,520,590,830$ or 890. |
| PB25 | If PERSON TYPE equals 05 or 08, and NON-MOTORIST LOCATION AT TIME OF CRASH equals 01-03 or 09, then PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE should equal $690,710,730,741,742,760,770,781,782,791$, 792, 794, 795 or 799. |
| PB26 | If NON-MOTORIST ACTION/CIRCUMSTANCES AT TIME OF CRASH equals 02, and PERSON TYPE equals 06 or 07, then PEDESTRIAN/BIKE TYPING - BICYCLIST CRASH TYPE should equal $142,144,147,153,155,156,157,159,311,312$, 318,319 or 357. |

## ERROR CODE ERROR TEST

PB27 If NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH equals 05, and PERSON TYPE equals 05 or 08, then PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE should equal 410 or 420.

PB28
If NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH equals 06, and PERSON TYPE equals 05 or 08, then PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE should equal 430 or 440.

PB29
If NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH equals 04, and PERSON TYPE equals 05 or 08, then PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE should equal $410,420,430,440$ or 459.

PB30 If PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE equals 220, then at least one DRIVER PRESENCE must equal 0 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.

PB31 If PEDESTRIAN/BIKE TYPING - BICYCLIST CRASH TYPE equals 147,157 or 357 , then at least one DRIVER'S VISION OBSCURED BY must equal 06 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.

PB32 If PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE equals 742, then at least one DRIVER'S VISION OBSCURED BY must not equal 00 or 95 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST.

PB33 If PEDESTRIAN/BIKE TYPING - BICYCLIST CRASH TYPE equals 156, then DRIVER'S VISION OBSCURED BY for the striking vehicle must not equal 06.

PB34 If NUMBER OF FORMS SUBMITTED FOR PERSONS NOT IN MOTOR VEHICLES equals 01, and FIRST HARMFUL EVENT equals 08, and RELATION TO JUNCTION (b) equals 02, then PEDESTRIAN/ BIKE TYPING - PEDESTRIAN CRASH TYPE must not equal 320, 330, 360, 680, 830, 890, 900, or 910.

## ERROR CODE ERROR TEST

| PB35 | If NUMBER OF FORMS SUBMITTED FOR PERSONS NOT IN MOTOR VEHICLES equals 1, and FIRST HARMFUL EVENT equals 08, and RELATION TO JUNCTION (b) equals 02, then PEDESTRIAN/ BIKE TYPING - PEDESTRIAN CRASH LOCATION must equal 001. |
| :---: | :---: |
| PB36 | If PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE equals 250, then PERSON TYPE must equal 08. |
| PB37 | If PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE equals 311, 312 or 313, then at least one NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH must equal 08 or 10. |
| PB38 | If PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE equals 410 or 420, and PEDESTRIAN/BIKE TYPING PEDESTRIAN POSITION does not equal 5, then at least one NON-MOTORIST ACTION/ CIRCUMSTANCES PRIOR TO CRASH must equal 05. |
| PB39 | If PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE equals 430 or 440, and PEDESTRIAN/BIKE TYPING PEDESTRIAN POSITION does not equal 5, then at least one NON-MOTORIST ACTION/ CIRCUMSTANCES PRIOR TO CRASH must equal 06. |
| PB40 | If PEDESTRIAN/BIKE TYPING - BICYCLIST CRASH TYPE equals 600, then at least one PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 08,09 , or 13 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST. |
| PB41 | If PEDESTRIAN/BIKE TYPING - BICYCLIST CRASH TYPE equals 215, then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 08 or 09 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST. |
| PB42 | If PEDESTRIAN/BIKE TYPING - BICYCLIST CRASH TYPE equals 111, 211 or 212, then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 11 or 17 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST. |

## ERROR CODE ERROR TEST

| PB43 | If PEDESTRIAN/BIKE TYPING - BICYCLIST CRASH TYPE |
| :--- | :--- |
| equals 112, 151, 213, 214, 217 or 218, then PRE-EVENT |  |
| MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL |  |
|  | EVENT) must equal 10 or 17 for the vehicle number identified in |
| this person's NUMBER OF MOTOR VEHICLE STRIKING NON- |  |
| MOTORIST. |  |

If PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE equals 240, then EMERGENCY MOTOR VEHICLE USE should equal 2-5 for at least one vehicle.

PB45 If PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE equals 781 or 782 , then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 11 or 17 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.

PB46
If PEDESTRIAN/BIKE TYPING - BICYCLIST CRASH TYPE equals 221-225, then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) should equal 01 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST.

PB47
PEDESTRIAN/BIKE TYPING - BICYCLIST CRASH TYPE must not equal 400.

If PERSON TYPE equals 05 or 08 and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 13 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST, then at least one PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE should equal 211-214 or 219.

PB50
If PERSON TYPE equals 05 or 08, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 10-12 or 16 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST, then at least one PEDESTRIAN/BIKE TYPING PEDESTRIAN CRASH TYPE should equal 460, 465, 510, 781, $782,791,792,794,795$ or 799.

| ERROR CODE | ERROR TEST |
| :---: | :---: |
| PB51 | If PERSON TYPE equals 06 or 07 and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 11 or 17 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST, then at least one PEDESTRIAN/ BIKE TYPING BICYCLIST CRASH TYPE should equal 111, 211 or 212. |
| PB52 | If PERSON TYPE equals 06 or 07, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 13 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST, then at least one PEDESTRIAN/BIKE TYPING BICYCLIST CRASH TYPE should equal 600. |
| PB53 | If PERSON TYPE equals 06 or 07, and PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) equals 10 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NONMOTORIST, then at least one PEDESTRIAN/ BIKE TYPING BICYCLIST CRASH TYPE should equal 112, 151, 213, 214, 217 or 218. |
| PB56 | If PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE equals 791, 792, 794, 795, then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 10 or 17 for the vehicle number identified in this person's NUMBER OF MOTOR VEHICLE STRIKING NON-MOTORIST. |
| PB58 | NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH must not equal 05,06 or 16 in combination. |
| PB59 | If NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH equals 16, and PERSON TYPE equals 05 or 08, then PEDESTRIAN/BIKE TYPING -PEDESTRIAN CRASH TYPE should equal 459. |
| PB60 | If PERSON TYPE equals 05 or 08, and DRIVER PRESENCE equals 0 for the motor vehicle which strikes the nonmotorist, then PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE should equal 220. |
| PB61 | If PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE equals 220, then DRIVER PRESENCE should equal 0 for the motor vehicle striking the non-motorist. |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| PB62 | If PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE equals 220, then at least one NON-MOTORIST ACTION/ CIRCUMSTANCES PRIOR TO CRASH must equal 12. |
| PB63 | If PEDESTRIAN/BIKE TYPING - PEDESTRIAN CRASH TYPE equals 230, then at least one RELATED FACTOR - CRASH LEVEL should equal 19 or 23. |
| PB64 | If any NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH equals 03, then the NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH must not also equal 05,06 or 16 for this person. |
| PB65 | If any NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH equals 07, then the NON-MOTORIST ACTION/CIRCUMSTANCES PRIOR TO CRASH must not also equal 03, 05, 06, 08 or 16 for this person. |
| PC20 | If RELATION TO TRAFFICWAY equals 02-08 or 10, then PREIMPACT LOCATION of the vehicle(s) involved in the first harmful event should equal $0,4,5$ or 9 . |
| PC30 | If PRE-IMPACT LOCATION for a vehicle involved in the first harmful event equals 4, 5, then RELATION TO TRAFFICWAY should not equal 01 or 11 . |
| PC40 | If PRE-IMPACT LOCATION for a vehicle involved in the first harmful event equals 1-3, 6, then RELATION TO TRAFFICWAY should equal 01 or 11. |
| PC50 | If PRE-IMPACT LOCATION equals 2, then TOTAL LANES IN ROADWAY should not equal 1. |
| U010 | UNLIKELY: SPECIAL JURISDICTION equals 02-04, 06. |
| U020 | UNLIKELY: FIRST HARMFUL EVENT equals 02, 04, 06, 51, 72. |
| U030 | UNLIKELY: FIRST HARMFUL EVENT equals 12, 55, and MANNER OF COLLISION equals 10, 11. |
| U040 | UNLIKELY: REGISTRATION STATE equals 97. |
| U050 | UNLIKELY: SPECIAL USE equals 04, 08. |

## ERROR CODE ERROR TEST

U060 UNLIKELY: TRAVEL SPEED should equal 98 or 99.
U070 UNLIKELY: More than one vehicle with HIT-AND-RUN equal to 1.

U080 If BODY TYPE does not equal 50-59, then UNLIKELY: SPECIAL USE equals 02 or 03.

UNLIKELY: AGE should not be greater than 094, unless equal to 998, 999.

UNLIKELY: SEATING POSITION equals 41-43, 48.
UNLIKELY: NON-MOTORIST LOCATION AT TIME OF CRASH equals 16, 25.

UNLIKELY: INJURY SEVERITY equals 6.
UNLIKELY: RESTRAINT SYSTEM/HELMET USE equals 01.
UNLIKELY: PREVIOUS RECORDED CRASHES is greater than 5 and less than 98.

UNLIKELY: PREVIOUS RECORDED SUSPENSIONS AND REVOCATIONS is greater than 10 and less than 98.

UNLIKELY: PREVIOUS DWI CONVICTIONS is greater than 5 and less than 98.

UNLIKELY: PREVIOUS SPEEDING CONVICTIONS is greater than 5 and less than 98.

U250
UNLIKELY: PREVIOUS OTHER HARMFUL MV CONVICTIONS is greater than 5 and less than 98.

UNLIKELY: DRIVER HEIGHT is less than 3 feet or greater than 7 feet, verify data.

U280
UNLIKELY: DRIVER HEIGHT is less than 36 inches or greater than 84 inches, verify data.

U290 UNLIKELY: DRIVER WEIGHT is less than 50 lbs . or greater than 399 lbs., verify data.

U340
UNLIKELY: HIT-AND-RUN equals 0 or 9, and SEX equals 9.

| ERROR CODE | ERROR TEST |
| :---: | :---: |
| U350 | UNLIKELY: INJURY SEVERITY equals 1-6, and SEATING POSITION equals 98. |
| U360 | UNLIKELY: HIT-AND-RUN equals 0 or 9, and AGE equals 999. |
| U370 | UNLIKELY: EXTENT OF DAMAGE equals 8. |
| U390 | UNLIKELY: LIGHT CONDITION equals 8. |
| U410 | UNLIKELY: DRIVER'S LICENSE STATE equals 98. |
| U420 | UNLIKELY: SPECIAL USE equals 98. |
| U430 | UNLIKELY: VEHICLE REMOVAL equals 8. |
| U440 | UNLIKELY: VIOLATIONS CHARGED equals 97. |
| U450 | UNLIKELY: REGISTRATON STATE equals 91. |
| U460 | UNLIKELY: VEHICLE MODEL equals 997. |
| U470 | UNLIKELY: BODY TYPE equals 98. |
| U480 | UNLIKELY: VEHICLE MAKE equals 97. |
| U490 | UNLIKELY: GVWR/GVCR equals 8 and VEHICLE MODEL YEAR is greater than 1980 and not equal to 9998 or 9999 and VEHICLE IDENTIFICATION NUMBER does not equal 0's, 8's or 9's. |
| U510 | UNLIKELY: VEHICLE MODEL YEAR equals 9998. |
| U520 | UNLIKELY: RESTRAINT SYSTEM/HELMET USE equals 98. |
| U530 | UNLIKELY: any CONDITION (IMPAIRMENT) AT TIME OF CRASH (D23) equals 03, 05 or 07. |
| U590 | UNLIKELY: CONDITION (IMPAIRMENT) AT TIME OF CRASH (NM14) equals 05 or 07. |
| U640 | UNLIKELY: FIRST HARMFUL EVENT equals 99. |

## ERROR CODE ERROR TEST

U670 UNLIKELY: TOTAL LANES IN ROADWAY equals 7 (Note: If coding a divided highway, count only the through lanes on the side of the highway where this vehicle was prior to its Critical Precrash Event.).

U680 UNLIKELY: MOTOR CARRIER IDENTIFICATION NUMBER (Identification Number) equals 999999997.

U681
UNLIKELY: METHOD OF ALCOHOL DETERMINATION BY POLICE equals 8.

V010
MODEL YEAR should not be less than 1940.

If VEHICLE MODEL YEAR is less than 1950, then VEHICLE IDENTIFICATION NUMBER must equal Os.

If VEHICLE TRAILING equals 1, then BODY TYPE should not equal 50-52, 55, 80-83, 88-91.

If RELATED FACTORS-VEHICLE LEVEL equals 39, then BODY TYPE should not equal 01, 12, 13, 32, 33, 42, 50-52, 55, 58, 59, 65, 73, 80-83, 88-92.

If RELATED FACTORS-VEHICLE LEVEL equals 40, then BODY TYPE should not equal 01, 12, 13, 32, 33, 42, 50-52, 55, 58, 59, 60-67, 71-73, 78, 80-83, 88-93.

If RESTRAINT SYSTEM/ HELMET USE equals 05, 16, 17, 19, 29, then BODY TYPE must equal 80-83, 88-91.

If BUS USE equals 01, then BODY TYPE should equal 21 or 50 or 55 .

If BUS USE equals 04, then BODY TYPE should equal 51.
If BUS USE equals 05 , then BODY TYPE should equal 12,16 , 21, 51,55 or 58.

V054 If BUS USE equals 07, then BODY TYPE should equal 21, 22, 29, 50-59.

V055
V056 If SPECIAL USE equals 02, then BUS USE should equal 01.

## ERROR CODE ERROR TEST

V057 If SPECIAL USE equals 03, then BUS USE should equal 04-07, 99.

If EMERGENCY MOTOR VEHICLE USE equals 2-5, then SPECIAL USE should equal 04-08, 13.

If SPECIAL USE equals 04, then REGISTRATION STATE should equal 94.

If HM1 equals 2, then REGISTRATION STATE should not equal 92.

If HM1 equals 2, then COMMERCIAL MOTOR VEHICLE LICENSE STATUS should equal 06, 99.

V100 If HM1 equals 2, and RELATED FACTORS-DRIVER LEVEL does not equal 19, then COMMERCIAL MOTOR VEHICLE LICENSE STATUS should not equal 01, 02, 05.

V16P If RELATED FACTORS-DRIVER LEVEL equals 88, then VEHICLE TRAILING must not equal 0, 9.

If NUMBER OF OCCUPANTS is less than 97, and VEHICLE TRAILING equals 0, and BODY TYPE equals 01-05, 07-09, 14, 15, 17, 19, 94, 95, 97, then NUMBER OF OCCUPANTS should not be greater than 8 .

If NUMBER OF OCCUPANTS is less than 97, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 06,11 , then NUMBER OF OCCUPANTS should not be greater than 12.

If NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 80-83, 88, 89, then NUMBER OF OCCUPANTS should not be greater than 2 .

V210 If NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals $15,16,42,73$, then NUMBER OF OCCUPANTS should not be greater than 12.

V220
If NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0, and BODY TYPE equals 60-65, 71, 72, 79, then NUMBER OF OCCUPANTS should not be greater than 12.

| V230 | If NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 66, then NUMBER OF OCCUPANTS should not be greater than 5 . |
| :---: | :---: |
| V240 | If NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 91, then NUMBER OF OCCUPANTS should not be greater than 2. |
| V250 | If NUMBER OF OCCUPANTS is 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 90 , then NUMBER OF OCCUPANTS should not be greater than 8 . |
| V260 | If NUMBER OF OCCUPANTS is, 01-96, and VEHICLE TRAILING equals 0 , and BODY TYPE equals 99, then NUMBER OF OCCUPANTS should not be greater than 5 . |
| V270 | Possible error in VIN character types or number of characters. |
| V280 | Possible error in VIN digit check. |
| V290 | If BODY TYPE equals 90, then NUMBER OF OCCUPANTS should equal 01. |
| V300 | Possible error in VIN Production Number. |
| V320 | If BODY TYPE equals 50-52, 55, 58-66, 71-79 and SEATING POSITION does not equal 11,13, 98, then AIR BAG DEPLOYED should equal 00. |
| V330 | If SCHOOL BUS RELATED equals 1, then BODY TYPE of at least one of the involved vehicles should equal 50 (School Bus) or SPECIAL USE for at least one involved vehicle should equal 02 - Vehicle Used as School Bus, and BUS USE for at least one vehicle should equal 01. |
| V340 | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 01-05, 07-09, 14, 15, 17, 19, 97, and VEHICLE TRAILING does NOT equal 0 , then NUMBER OF OCCUPANTS should not be greater than 8 . |
| V350 | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 06, 11, 16, and VEHICLE TRAILING does NOT equal 0 , then NUMBER OF OCCUPANTS should not be greater than 12 |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| V360 | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 12, and VEHICLE TRAILING does NOT equal 0, then NUMBER OF OCCUPANTS should not be greater than 15. |
| V370 | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 80-83, 88, 89, and VEHICLE TRAILING does NOT equal 0 , then NUMBER OF OCCUPANTS should not be greater than 02. |
| V380 | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 42, 73, and VEHICLE TRAILING does NOT equal 0 , then NUMBER OF OCCUPANTS should not be greater than 12. |
| V390 | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 60-65, 71, 72, 79, and VEHICLE TRAILING does NOT equal 0 , then NUMBER OF OCCUPANTS should not be greater than 12. |
| V400 | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 66, and VEHICLE TRAILING does NOT equal 0 , then NUMBER OF OCCUPANTS should not be greater than 5.1 |
| V410 | If NUMBER OF OCCUPANTS is less than 01-96, and BODY TYPE equals 91, and VEHICLE TRAILING does NOT equal 0 , then NUMBER OF OCCUPANTS should not be greater than 2. |
| V420 | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 90 , and VEHICLE TRAILING does NOT equal 0 , then NUMBER OF OCCUPANTS should not be greater than 8. |
| V430 | If NUMBER OF OCCUPANTS is 01-96, and BODY TYPE equals 98, 99, and VEHICLE TRAILING does NOT equal 0 , then NUMBER OF OCCUPANTS should not be greater than 5 . |
| V440 | If BODY TYPE equals 50, then SCHOOL BUS RELATED should equal 1. |
| V46P | If VEHICLE CONFIGURATION equals 21, then BODY TYPE must equal 21, 50-52, 55, 58, 59. |
| V470 | If VEHICLE CONFIGURATION equals 01, then CARGO BODY TYPE should be 01-05, 07, 12, 96-98. |
| V47P | If VEHICLE CONFIGURATION equals 21, then CARGO BODY TYPE must equal 22. |

## ERROR CODE ERROR TEST

V502 If GVWR/GCWR equals 0, and HM1 equals 1, then VEHICLE CONFIGURATION and CARGO BODY TYPE must equal 00.

If GVWR/GCWR equals 1, then HM2 should equal 2, or VEHICLE CONFIGURATION should equal 20.

V504
If GVWR/GCWR equals 1 , then BODY TYPE should equal 01-22, 28-39, 41-49.

V505 If GVWR/GCWR equals 9, then BODY TYPE should not equal 61-63, 66, 67.

If BODY TYPE equals 60, then GVWR/GCWR should equal 2.
If BODY TYPE equals 01-21, 28-30, 32-39, 45-49, then GVWR/GCWR should equal 0, 1.

If BODY TYPE equals 61, 62, 67, 71, and VEHICLE CONFIGURATION does not equal 04, then GVWR/GCWR must equal 2, 9. (See GVWR/GCWR Remarks on how to use PCVina to determine GVWR.)

V51P If BODY TYPE equals 63, 66, 72, then GVWR/GCWR must equal 3. (See GVWR/GCWR Remarks on how to use PCVina to determine GVWR.)

If BUS USE equals 01, 04-07, 98, then VEHICLE CONFIGURATION should equal 20, 21, and CARGO BODY TYPE should equal 22.

V532
If VEHICLE CONFIGURATION equals 01, 02, 04-08, 19, 21 , then GVWR/GCWR should not equal 0 or 1.

V533
If CRASH TYPE equals $03,08,38,40,58$ or 60 , then ATTEMPTED AVOIDANCE MANEUVER must not equal 00 or 01.

If ATTEMPTED AVOIDANCE MANEUVER equals 00, then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must equal 00.

V538
If JACKKNIFE equals 2 , then PRE-EVENT MOVEMENT (PRIOR TO RECOGNITION OF CRITICAL EVENT) must not equal 04, 05, 07-09 or 13 for this vehicle.

| ERROR CODE | ERROR TEST |
| :---: | :---: |
| V540 | If BODY TYPE equals 42, 65, 73 , and HM1 equals 1 , then GVWR/GCWR should equal 0. |
| V550 | If REGISTRATION STATE equals 93, 94, then REGISTERED VEHICLE OWNER should equal $3,4$. |
| V560 | If SPECIAL USE equals 04, then REGISTERED VEHICLE OWNER should equal 3, and REGISTRATION STATE should equal 94. |
| V56P | If VEHICLE CONFIGURATION equals 10, then BODY TYPE must equal 01-22, 28-49. |
| V570 | If HM1 equals 2, then REGISTERED VEHICLE OWNER should not equal 0, 1, 2, 4. |
| V57P | If VEHICLE CONFIGURATION equals 05, then CARGO BODY TYPE must equal 12, 96, and BODY TYPE must equal 66. |
| V580 | If HM1 equals 2, then REGISTERED VEHICLE OWNER should equal 3. |
| V58P | If VEHICLE CONFIGURATION equals 04, then BODY TYPE must not equal 66. |
| V590 | If RELATED FACTORS-VEHICLE LEVEL equals 32, then REGISTERED VEHICLE OWNER should equal 1-3. |
| V592 | If RELATED FACTORS-VEHICLE LEVEL equals 37, then REGISTRATION STATE should not equal 00, 92. |
| V593 | If RELATED FACTORS-VEHICLE LEVEL equals 37, then REGISTERED VEHICLE OWNER should not equal 0. |
| V59P | If VEHICLE CONFIGURATION equals 06, then BODY TYPE must equal 66, and VEHICLE TRAILING must equal 1. |
| V600 | If REGISTERED VEHICLE OWNER equals 9, then REGISTRATION STATE should equal 99. |
| V60P | If VEHICLE CONFIGURATION equals 07, then BODY TYPE must equal 66, and VEHICLE TRAILING must equal 2. |
| V61P | If VEHICLE CONFIGURATION equals 08, then BODY TYPE must equal 66, and VEHICLE TRAILING must equal 3. |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| V620 | If CRASH MONTH is between January and March, then the VEHICLE MODEL YEAR should NOT be greater than the CRASH YEAR unless it equals 9998 or 9999 (contact Coding Assistance). |
| V62P | If CARGO BODY TYPE equals 01-12, 97, 98, and VEHICLE IDENTIFICATION NUMBER does not equal Not Reported or Unknown, then GVWR/GCWR must equal 2, 3. |
| V630 | If REGISTRATION STATE equals 00, 92 , then REGISTERED VEHICLE OWNER should NOT equal 5. |
| V640 | If VEHICLE CONFIGURATION does not equal 00, 99, then BODY TYPE should not equal $28,30,42,45,48,49$. |
| V64P | If BODY TYPE equals $50-59,60-64,66-72,78$, then GVWR/GCWR must not equal 0-1. |
| V65P | If GVWR/GCWR equals 2,3 , then VEHICLE CONFIGURATION must not equal 00 and CARGO BODY TYPE must not equal 00. |
| V660 | If CARGO BODY TYPE does not equal 00, 99 , then BODY TYPE should not equal $28,30,42,45,48,49$. |
| V670 | If REGISTERED VEHICLE OWNER equals 1, 2 , then REGISTRATION STATE should NOT equal 99. |
| V68P | If CARGO BODY TYPE equals 12, then VEHICLE TRAILING must equal 5. |
| V700 | If ROLLOVER equals 2 , then CRASH TYPE should equal 01-10, 14, 98 or 99 for this vehicle. |
| V74P | If UNIT TYPE equals 1, and ROLLOVER equals $1,2,9$, or LOCATION OF ROLLOVER equals 1-7, 9, then at least one SEQUENCE OF EVENTS must equal 01 for this vehicle. |
| V750 | If UNDERRIDE/OVERRIDE equals 1-3, then FIRST HARMFUL EVENT or at least one SEQUENCE OF EVENTS (for this vehicle) should equal 12, 55. |
| V75P | If ROLLOVER is not blank, then LOCATION OF ROLLOVER must not be blank. |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| V760 | If UNDERRIDE/OVERRIDE equals 4-6, then FIRST HARMFUL EVENT or at least one SEQUENCE OF EVENTS (for this vehicle) should equal $14,45$. |
| V76P | If ROLLOVER is blank, then LOCATION OF ROLLOVER must be blank. |
| V770 | If UNDERRIDE/OVERRIDE equals 7 , then at least one SEQUENCE OF EVENTS (for this vehicle) must equal 12, 55. |
| V77P | If ROLLOVER equals $1,2,9$, then LOCATION OF ROLLOVER must equal 1-7, 9 . |
| V780 | If UNDERRIDE/OVERRIDE equals 8 , then at least one SEQUENCE OF EVENTS (for this vehicle) must equal 14, 45. |
| V78P | If ROLLOVER equals 0 , then LOCATION OF ROLLOVER must equal 0. |
| V790 | If BODY TYPE equals 20, then VEHICLE CONFIGURATION should equal 00, and CARGO BODY TYPE should equal 00. |
| V79P | If ROLLOVER equals 2 , and FIRST HARMFUL EVENT equals 01, then CRASH TYPE must equal 01-10, 14, 15 or 98 for the vehicle involved in the first harmful event. |
| V800 | If BODY TYPE equals $21,22,28,29$, then VEHICLE CONFIGURATION should equal 00, 04, 10, 20, 21, 99, and CARGO BODY TYPE should equal 00, 01, 22, 99. |
| V810 | If BODY TYPE equals 67, and VEHICLE TRAILING equals 1-4, then VEHICLE CONFIGURATION should equal 04, and CARGO BODY TYPE should equal 01, 03, 04, 09. |
| V840 | If BODY TYPE equals 50-59, then VEHICLE CONFIGURATION should equal 21, and CARGO BODY TYPE should equal 22. |
| V850 | If BODY TYPE equals 60, then VEHICLE CONFIGURATION should equal 01, 03, 04, and CARGO BODY TYPE should equal 01. |
| V860 | If HIT-AND-RUN equals $\mathbf{0}$, and BODY TYPE equals 61-64, then VEHICLE CONFIGURATION should equal 01, 02, 04, and CARGO BODY TYPE should equal 01-10, 12, 96-98. |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| V870 | If BODY TYPE equals 65, then VEHICLE CONFIGURATION should equal 00, and CARGO BODY TYPE should equal 00. |
| V880 | If HIT-AND-RUN equals 0, and BODY TYPE equals 66, then VEHICLE CONFIGURATION should equal 05-08,19, and CARGO BODY TYPE should equal 01-04, 06-12, 96-98. |
| V890 | If BODY TYPE equals 71,72 , then VEHICLE CONFIGURATION should equal 19, and CARGO BODY TYPE should equal 01-04, 08, 10, 96-98. |
| V900 | If BODY TYPE equals 73, then VEHICLE CONFIGURATION should equal 00, and CARGO BODY TYPE should equal 00. |
| V910 | If BODY TYPE equals 78 , then VEHICLE CONFIGURATION should equal 19, and CARGO BODY TYPE should equal 98. |
| V915 | If BODY TYPE equals 67, and VEHICLE TRAILING equals 0 , then VEHICLE CONFIGURATION should equal 01, and CARGO BODY TYPE should equal 97. |
| V920 | If BODY TYPE equals 79, then VEHICLE CONFIGURATION should equal 99, and CARGO BODY TYPE should equal 99. |
| V922 | If MAKE equals 98, 99, and MODEL equals $\qquad$ , then MODEL YEAR should equal $\qquad$ . |
| V930 | If VEHICLE CONFIGURATION equals 00 , or CARGO BODY TYPE equals 00, then BODY TYPE should not equal 50-64, 66-72, 78, 79. |
| V940 | If HM1 equals 2, then VEHICLE CONFIGURATION should not equal 00, 99 and CARGO BODY TYPE should not equal 00, 99. |
| V941 | If BODY TYPE equals 90 or 91 , then VEHICLE LICENSE PLATE NUMBER should equal 0000000000. |
| V950 | If vehicle MODEL YEAR is less than 1994, and SEATING POSITION equals 31, 33, 39, then RESTRAINT SYSTEM/HELMET USE should not equal 01, 03, and BODY TYPE should equal 12, 15, 16, 19-21. |
| V960 | If REGISTRATION STATE equals 99, then REGISTERED VEHICLE OWNER should equal $5,6,9$. |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| V961 | If MAKE equals 98, 99, and MODEL equals $\qquad$ , then BODY should equal $\qquad$ . |
| V980 | If BODY TYPE equals $50-52,55,58-64,66,67,71,72,78,93$, or HM1 equals 2, then MOTOR CARRIER IDENTIFICATION NUMBER must not equal 00-000000000. |
| V981 | If VEHICLE CONFIGURATION equals 00, then MOTOR CARRIER IDENTIFICATION NUMBER should equal 00000000000. |
| V982 | If MOTOR CARRIER IDENTIFICATION NUMBER does not equal 00-000000000, then VEHICLE CONFIGURATION should not equal 00. |
| V983 | If VEHICLE TRAILING equals 3 , then STATE should equal 04, $08,16,18,20,30-32,38-41,46,49$. |
| V984 | If STATE does not equal $04,08,16,18,20,30-32,38-41,46$, 49, then VEHICLE TRAILING should not equal 3. |
| V985 | If VEHICLE TRAILING equals 5 , then VEHICLE CONFIGURATION should not equal 00, 10, 19-21. |
| V986 | If VEHICLE TRAILING equals 3, then PSU should equal 29, 30, 31, 64, 73, 74, 75, 76, 77, 78, 94. |
| V990 | If any SEQUENCE OF EVENTS equals 61, then CONTRIBUTING CIRCUMSTANCES, MOTOR VEHICLE should not equal 00. |
| V991 | If VEHICLE TRAILING equals 0 , then VEHICLE CONFIGURATION must not equal 04, 06-08. |
| V992 | If VEHICLE TRAILING equals 1, then VEHICLE CONFIGURATION must not equal 01, 02, 05, 07 or 08. |
| V993 | If VEHICLE TRAILING equals 2, then VEHICLE CONFIGURATION must not equal 01, 02, 05, 06 or 08. |
| V994 | If VEHICLE TRAILING equals 3, then VEHICLE CONFIGURATION must not equal 01, 02, 05-07. |
| V995 | If VEHICLE TRAILING equals 4, then VEHICLE CONFIGURATION must not equal 01, 02, 05-08. |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| V997 | If VEHICLE TRAILING equals 6, then VEHICLE CONFIGURATION must not equal 04, 06-08. |
| V998 | If VEHICLE TRAILING equals 9, then VEHICLE CONFIGURATION must not equal 04-07 or 08. |
| VA00 | If HM1 equals 1 , then HM2, HM5 must equal $0, \mathrm{HM} 4$ must equal 00 and HM3 must equal 0000. |
| VA10 | If HM1 equals 2, then HM2, HM5 must not equal 0, HM4 must not equal 00 and HM3 must not equal 0000. |
| VA20 | If any of HM2, HM5 equals 0 , or HM4 equals 00 or HM3 equals 0000, then HM1 must equal 1. |
| VA30 | If any of HM2, HM5 does not equal 0 , or HM4 does not equal 00 , or HM3 does not equal 0000, than HM1 must equal 2. |
| VA40 | If HM5 equals 2, then HM3 should not equal 8888 or HM4 should not equal 88. |
| VA50 | If HM3 equals 8888 and HM4 equals 88, then HM5 should not equal 2. |
| VA60 | If HM3 does not equal $\mathbf{0 0 0 0}, \mathbf{8 8 8 8}$, or HM4 does not equal $\mathbf{0 0}$, 88, then HM2 should equal 2. |
| VA70 | If GVWR/GCWR equals 1 , and HM2 equals 2 , then VEHICLE CONFIGURATION must equal 10. |
| VB60 | If PRE-IMPACT STABILITY equals 0 , then PRE-IMPACT LOCATION must equal 0 . |
| VB70 | If PRE-IMPACT STABILITY is not equal to 0 , then PRE-IMPACT LOCATION must not equal 0 . |
| VBAO | If PRE-IMPACT LOCATION equals 1 , then PRE-IMPACT STABILITY should equal 1, 2 or 9. |
| VH06 | If BODY TYPE equals 82, then RELATED FACTORS-VEHICLE LEVEL must not equal 30. |
| VH10 | If PRE-IMPACT LOCATION equals 0 , then ATTEMPTED AVOIDANCE MANEUVER must equal 00. |


| ERROR CODE | ERROR TEST |
| :---: | :---: |
| VH20 | If ATTEMPTED AVOIDANCE MANEUVER equals 00, then PRE-IMPACT LOCATION must equal 0 . |
| VH25 | If UNIT TYPE equals 4, then REGISTERED VEHICLE OWNER should not equal 6, 9. |
| VH70 | If UNIT TYPE equals 2-4, then elements $\mathrm{V} 15, \mathrm{~V} 24, \mathrm{~V} 31$ must all be left blank. |
| VH75 | If UNIT TYPE equals 4, then VEHICLE CONFIGURATION should not equal $05,20,21,10$. |
| VH80 | If UNIT TYPE equals 4, then CARGO BODY TYPE should not equal 06, 07, 11, 12, 22. |
| VH81 | If any DAMAGED AREAS equals 15 or 99, then only that one values must be coded. |
| VH82 | If EXTENT OF DAMAGE for this vehicle equals $2,4,6$, then DAMAGED AREAS must not equal 15. |
| VH83 | If the only harmful SEQUENCE OF EVENTS for this vehicle equals 04-06, then DAMAGED AREAS should equal 15. |
| VH84 | If the only harmful SEQUENCE OF EVENTS for this vehicle equals 01-03, 16, 44, 51, 72, then DAMAGED AREAS should not equal 15. |
| VH85 | If AREAS OF IMPACT-INITIAL CONTACT POINT equals 61-63, then DAMAGED AREAS should include at least one of the codes 07-11. |
| VH86 | If AREAS OF IMPACT-INITIAL CONTACT POINT equals 81-83, then DAMAGED AREAS should include at least one of the codes 01-05. |
| VH87 | If HIT-AND-RUN equals $\mathbf{0}$, and AREAS OF IMPACT-INITIAL CONTACT POINT equals 01-14, then the corresponding code should be included in DAMAGED AREAS or DAMAGED AREAS should equal 15. |
| VH89 | If UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and BODY TYPE equals 01-49, then STRATUM should not equal 3. |

## ERROR CODE ERROR TEST

VH90 If UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and BODY TYPE equals 01-49 or 60-79, then FINAL STRATUM must not equal 4.

VH91 If UNIT TYPE equals 1, and VEHICLE REMOVAL equals 2, and BODY TYPE equals 01-49, then FINAL STRATUM must not equal 3.

## THIS PAGE INTENTIONALLY LEFT BLANK

# PEDESTRIAN/BIKE TYPING <br> MARKED CROSSWALK PRESENT <br> SIDEWALK PRESENT SCHOOL ZONE 

FORMAT: Element Completed in MDE
SAS NAME: pbtype.PBCWALK/ pbtype.PBSWALK/ pbtype.PBSZONE

## ELEMENT VALUES:

Was a marked crosswalk present at the crash site?
0 No
1 Yes
9 Unknown

Was a sidewalk present at the crash site?
0 No
1 Yes
9 Unknown

Did the crash occur in a school zone?
0 No
1 Yes
9 Unknown

## Remarks:

## School Zone

Yes is used when the case materials indicated the crash occurred in a school zone. It does not matter as to the time of the crash, but only that the investigating officer stated or coded the crash was in a school zone.

## THIS PAGE INTENTIONALLY LEFT BLANK

## PEDESTRIAN/BIKE TYPING CRASH TYPE - PEDESTRIAN

FORMAT: Element Completed in MDE
SAS NAME: pbtype.PEDCTYPE

## ELEMENT VALUES:

000 Not a Pedestrian
110 Assault with Vehicle
120 Dispute-Related
130 Pedestrian on Vehicle
140 Vehicle-Vehicle / Object
150 Motor Vehicle Loss of Control
160 Pedestrian Loss of Control
190 Other Unusual Circumstances
211 Backing Vehicle - Driveway
212 Backing Vehicle - Driveway / Sidewalk Intersection
213 Backing Vehicle - Roadway
214 Backing Vehicle - Parking Lot
219 Backing Vehicle - Other / Unknown
220 Driverless Vehicle
230 Disabled Vehicle-Related
240 Emergency Vehicle-Related
250 Play Vehicle-Related
311 Working in Roadway
312 Playing in Roadway
313 Lying in Roadway
320 Entering / Exiting Parked Vehicle
330 Mailbox-Related
341 Commercial Bus-Related
342 School Bus-Related
360 Ice Cream / Vendor Truck-Related
410 Walking Along Roadway With Traffic - From Behind
420 Walking Along Roadway With Traffic - From Front
430 Walking Along Roadway Against Traffic - From Behind
440 Walking Along Roadway Against Traffic - From Front
459 Walking Along Roadway - Direction / Position Unknown
460 Motorist Entering Driveway or Alley
465 Motorist Exiting Driveway or Alley
469 Driveway Crossing - Other / Unknown
510 Waiting to Cross - Vehicle Turning
520 Waiting to Cross - Vehicle Not Turning

590 Waiting to Cross - Vehicle Action Unknown
610 Standing in Roadway
620 Walking in Roadway
680 Non-Intersection - Other / Unknown
690 Intersection - Other / Unknown
710 Multiple Threat
730 Trapped
741 Dash
742 Dart-Out
760 Pedestrian Failed to Yield
770 Motorist Failed to Yield
781 Motorist Left Turn - Parallel Paths
782 Motorist Left Turn - Perpendicular Paths
791 Motorist Right Turn - Parallel Paths
792 Motorist Right Turn on Red - Parallel Paths
794 Motorist Right Turn on Red - Perpendicular Paths
795 Motorist Right Turn - Perpendicular Paths
799 Motorist Turn / Merge - Other / Unknown
830 Off Roadway - Parking Lot
890 Off Roadway - Other / Unknown
900 Other - Unknown Location
910 Crossing an Expressway

## Remarks:

110 (Assault with Vehicle) is used when the driver intentionally struck the pedestrian with the vehicle.

120 (Dispute-Related) is used when the pedestrian struck by a vehicle during a domestic altercation or other dispute.

130 (Pedestrian on Vehicle) is used when the pedestrian was sitting on, leaning against, or clinging to a vehicle which began to move or was moving.

140 (Vehicle-Vehicle/Object) is used when the pedestrian was struck as a result of a prior vehicle into vehicle or vehicle into object crash.

150 (Motor Vehicle Loss of Control) is used when the vehicle lost control due to mechanical failure, surface conditions, driver error or impairment.

160 (Pedestrian Loss of Control) is used when the pedestrian stumbled, fell or rolled into path of vehicle due to surface conditions, impairment or other mishap.

190 (Other Unusual Circumstances) is used when the crash involved other unusual circumstances, such as pedestrian being struck by falling cargo or a loose wheel.

211 (Backing Vehicle - Driveway) is used when the pedestrian was struck in a driveway by a vehicle that was backing with a driver at the controls.

212 (Backing Vehicle - Driveway/Sidewalk Intersection) is used when the pedestrian was struck in a driveway/sidewalk intersection by a vehicle that was backing with a driver at the controls.

213 (Backing Vehicle - Roadway) is used when the pedestrian was struck in a roadway by a vehicle that was backing with a driver at the controls.

214 (Backing Vehicle - Parking Lot) is used when the pedestrian was struck in a parking lot by a vehicle that was backing with a driver at the controls.

219 (Backing Vehicle - Other/Unknown) is used when the pedestrian was struck in another or unknown location by a vehicle that was backing with a driver at the controls.

220 (Driverless Vehicle) is used when the pedestrian was struck by a vehicle that was moving without a driver at the controls or that was set in motion by the actions of a child.

230 (Disabled Vehicle-Related) is used when the pedestrian was struck while near or next to a disabled vehicle (including a vehicle that had been in a crash) or while walking to or from a disabled vehicle. Note: Crashes involving pedestrians standing near tow trucks responding to the disabled vehicle are also included in this crash type.

240 (Emergency Vehicle-Related) is used when the pedestrian was struck while near an active emergency vehicle, by an active emergency vehicle or by a vehicle being pursued.

250 (Play Vehicle - Related) is used when the pedestrian was struck while riding a play vehicle that was not a bicycle (e.g., skates, scooter, wagon, sled, etc.).

311 (Playing in Roadway) is used when the pedestrian is playing in the roadway.
312 (Working in Roadway) is used when the pedestrian is working in the roadway.
313 (Lying in Roadway) is used when the pedestrian is lying in the roadway.
320 (Entering/Exiting Parked Vehicle) is used when the pedestrian was in the process of getting into or out of a stopped or parked vehicle. Note: Does not include crashes involving pedestrian crossing or other movements that occurred after the pedestrian exited the vehicle.

330 (Mailbox-Related) is used when the pedestrian is going to or from or standing at a mailbox or newspaper box.

341 (Commercial Bus-Related) is used when the pedestrian is crossing in front of a commercial bus stopped at a marked bus stop.

342 (School Bus-Related) is used when the pedestrian is going to or from or waiting at a school bus or school bus stop.

360 (Ice-Cream/Vendor Truck-Related) is used when the pedestrian is going to or from an ice-cream truck or other type of vehicle vending from the curb or roadside.

410 (Walking Along Roadway With Traffic - From Behind) is used when the pedestrian was walking/running along the roadway with traffic and was struck from behind.

420 (Walking Along Roadway With Traffic - From Front) is used when the pedestrian was walking/running along the roadway with traffic and was struck from front.

430 (Walking Along Roadway Against Traffic - From Behind) is used when the pedestrian was walking/running along the roadway against traffic and was struck from behind.

440 (Walking Along Roadway Against Traffic - From Front) is used when the pedestrian was walking/running along the roadway against traffic and was struck from front.

459 (Walking Along Roadway - Direction/Position Unknown) is used when the pedestrian was walking/running along the roadway, but there is insufficient information to determine either the position or direction of the pedestrian at the time of the crash.

460 (Motorist Entering Driveway or Alley) is used when the motor vehicle was turning into a driveway or alley and struck the pedestrian on a sidewalk/walkway or driveway crossing.

465 (Motorist Exiting Driveway or Alley) is used when the motor vehicle was exiting a driveway or alley and struck the pedestrian on a sidewalk/walkway or driveway crossing.

469 (Driveway Crossing Other/Unknown) is used when the pedestrian was on a driveway intersection when struck but there were other or unknown circumstances surrounding the crash from those described.

510 (Waiting to Cross - Vehicle Turning) is used when the pedestrian was standing near the curb or roadway edge and waiting to cross the roadway when struck by a turning vehicle.

520 (Waiting to Cross - Vehicle Not Turning) is used when the pedestrian was standing near the curb or roadway edge and waiting to cross the roadway when struck by a vehicle that was not turning.

590 (Waiting to Cross - Vehicle Action Unknown) is used when the pedestrian was standing near the curb or roadway edge and waiting to cross the roadway when struck by a vehicle, but it could not be determined if the vehicle was turning or not.

610 (Standing in Roadway) is used when the pedestrian was standing in the roadway prior to the crash, but the crash cannot be further classified.

620 (Walking in Roadway) is used when the pedestrian was walking in the roadway prior to the crash, but the crash cannot be further classified.

680 (Non-Intersection Other/Unknown) is used when the crash occurred at a nonintersection location, but the actions of the pedestrian prior to the crash cannot be determined.

690 (Intersection - Other/Unknown) is used when the crash occurred at an intersection, but the actions of the pedestrian prior to the crash cannot be determined or it cannot be determined who failed to yield.

710 (Multiple Threat) is used when the pedestrian entered the traffic lane in front of stopped or slowing traffic and was struck by a vehicle traveling in the same direction as the stopped or slowing traffic.

730 (Trapped) is used when the pedestrian was struck while crossing at a signalized intersection or signalized mid-block crossing when the light changed and traffic started moving.

741 (Dash) is used when the pedestrian ran into the roadway and was struck by a vehicle whose view of the pedestrian was not obstructed..

742 (Dart-Out) is used when the pedestrian walked or ran into the roadway and was struck by a motorist whose view of the pedestrian was blocked until an instant before impact.

760 (Pedestrian Failed to Yield) is used when the pedestrian failed to yield to the motorist.
770 (Motorist Failed to Yield) is used when the motorist failed to yield to the pedestrian.
780 (Motorist Left Turn - Parallel Paths) is used when the motorist was initially traveling on a parallel path with the pedestrian before making a left turn and striking the individual.

781 (Motorist Left Turn - Perpendicular Paths) is used when the motorist was initially traveling on a crossing path with the pedestrian before making a left turn and striking the individual.

791 (Motorist Right Turn - Parallel Paths) is used when the motorist was initially traveling on a parallel path with the pedestrian before making a right turn and striking the individual.

792 (Motorist Right Turn on Red - Parallel Paths) is used when the motorist was initially traveling on a parallel path with the pedestrian before making a right turn on red and striking the individual.

794 (Motorist Right Turn on Red - Perpendicular Paths) is used when the motorist was initially traveling on a crossing path with the pedestrian before making a right turn on red and striking the individual.

795 (Motorist Right Turn - Perpendicular Paths) is used when the motorist was initially traveling on a crossing path with the pedestrian before making a right turn and striking the individual.

799 (Motorist Turn/ Merge - Other / Unknown) is used when either the approach paths or turn direction are unknown and do not fit with any of the prescribed circumstances.

830 (Off Roadway - Parking Lot) is used when the motorist struck a pedestrian in a parking lot.

890 (Off Roadway - Otherl Unknown) is used when there were other or unknown circumstances surrounding the crash.

900 (Other - Unknown Location) is used when the crash did not involve any of the usual vehicle types or vehicle actions described.

910 (Crossing an Expressway) is used the pedestrian was crossing a limited access expressway or expressway ramp.

# PEDESTRIAN/BIKE TYPING CRASH TYPE LOCATION - PEDESTRIAN 

FORMAT: Element Completed in MDE
SAS NAME: pbtype.PEDLOC

## ELEMENT VALUES:

1 Intersection
2 Intersection- Related
3 Non-Intersection Location
4 Non-Roadway Location
7 Not a Pedestrian
9 Unknown/Insufficient Information

## Remarks:



1 (Intersection) is used when the crash occurred within the intersection proper or within the crosswalk area. Note: Driveways controlled by signals or signs should be coded as 1 (Intersection). Uncontrolled driveways should be coded as 3 (Non-Intersection Location).

2 (Intersection-Related) is used when the crash occurred outside the intersection crosswalk area but within 15 m (50ft) of the intersection.

3 (Non-Intersection Location) is used when the crash occurred on or along the roadway and more than 15m (50ft) from an intersection.

4 (Non-Roadway Location) is used when the crash occurred off the roadway, including parking lots, driveways, private roads, yards, alleys and other open areas. Note: Crashes occurring on paved shoulders, sidewalks or driveway crossings are considered to be "roadway" crashes and should not be placed in the 4 (Non-Roadway Location).

9 (Unknown/Insufficient Information) is used when there is insufficient information to determine where the crash occurred.

## PEDESTRIAN/BIKE TYPING - <br> PEDESTRIAN POSITION

FORMAT: Element Completed in MDE
SAS NAME: pbtype.PEDPOS

## ELEMENT VALUES:

01 Intersection Proper
02 Crosswalk Area
03 Travel Lane
04 Paved Shoulder / Bike Lane / Parking Lane
05 Sidewalk / Shared Use Path / Driveway Crossing
06 Unpaved Right-of-Way
07 Driveway/alley
08 Non-Roadway-Parking Lot/Other
77 Not a Pedestrian
09 Other / Unknown

## Remarks:

02 (Crosswalk Area) is used when the pedestrian is within a crosswalk, marked or unmarked.
03 (Travel Lane) is used when the pedestrian is on a roadway, in a travel lane.
04 (Paved Shoulder / Bike Lane / Parking Lane) is used when the pedestrian is on a roadway, in a paved shoulder or bike lane, or parking lane.

05 (Sidewalk I Shared Use Path I Driveway Crossing) is used when the pedestrian is on a sidewalk, shared-use path, or driveway crossing.

06 (Unpaved Right-of-Way) is used when the pedestrian is on another road right-of-way (unpaved shoulder, etc.).

07 (Driveway/Alley) is used when the pedestrian is on a driveway or alley.
08 (Non-Roadway-Parking Lot/Other) is used when the pedestrian is on other non-roadway areas (parking lot, non-right-of-way sidewalk or multi-use path, yard, open areas, etc.)

09 (Other I Unknown) is used when the pedestrian's position is other or unknown.

## THIS PAGE INTENTIONALLY LEFT BLANK

# PEDESTRIAN/BIKE TYPING PEDESTRIAN INITIAL DIRECTION OF TRAVEL 

FORMAT: Element Completed in MDE
SAS NAME: pbtype.PEDDIR

## ELEMENT VALUES:

What was the Pedestrian's direction of Travel?
1 North
2 East
3 South
4 West
9 Unknown
7 Not a Pedestrian
8 Not Applicable / Unknown

## Remarks:

## GES SPECIAL INSTRUCTION:

This data element is derived by the PBCAT application from PB34-Motorist Direction and PB37-Pedestrian Scenario. For example, if PB34-motorist direction is coded west and PB37pedestrian scenario, is coded 11a (pedestrian within crosswalk area, approached from same direction as motorist), then the PBCAT application derives PB33-pedestrian initial direction of travel, as west, the same direction as the motorist.

9 (Unknown) is used when the pedestrian is at or near an intersection (PB31 - Pedestrian Crash Type Location equals $\mathbf{1}$ (Intersection) or $\mathbf{2}$ (Intersection- Related)) and the travel direction is unknown.

8 (Not Applicable/Unknown) is used when PB31 - Pedestrian Crash Type Location equals 3 (Non-Intersection Location, 4 (Non-Roadway Location) or 9 (Unknown/Insufficient Information).

## THIS PAGE INTENTIONALLY LEFT BLANK

## PEDESTRIAN/BIKE TYPING MOTORIST DIRECTION

FORMAT: Element Completed in MDE
SAS NAME: pbtype.MOTDIR
ELEMENT VALUES:
What was the Motorist Initial Direction of Travel?
1 North
2 East
3 South
4 West
9 Unknown
7 Not a pedestrian
8 Not Applicable

## THIS PAGE INTENTIONALLY LEFT BLANK

## PEDESTRIAN/BIKE TYPING MOTORIST MANEUVER

FORMAT: Element Completed in MDE
SAS NAME: pbtype.MOTMAN

## ELEMENT VALUES:

Select the maneuver being made by the motorist at the time of the collision.
1 Left Turn
2 Right Turn
3 Straight Through
8 Not Applicable
9 Unknown
7 Not a Pedestrian


## THIS PAGE INTENTIONALLY LEFT BLANK

## PEDESTRIAN/BIKE TYPING INTERSECTION LEG

FORMAT: Element Completed in MDE
SAS NAME: pbtype.PEDLEG

## ELEMENT VALUES:

1 Nearside
2 Farside
7 Not a Pedestrian
8 Not Applicable
9 Unknown

## Remarks:

Requires the user to select the correct leg of the intersection where the crash occurred. The choices, regardless of the motorist maneuver, will always be "Nearside" and "Farside."

Motorist Turning Left


1 (Nearside) indicates that the collision occurred as the motorist was approaching the intersection.

2 (Farside) indicates that the collision occurred as the motorist was departing the intersection.

Motorist Turning Right


# PEDESTRIAN/BIKE TYPING PEDESTRIAN SCENARIO 

FORMAT: Element Completed in MDE
SAS NAME: pbtype.PEDSNR

## ELEMENT VALUES:

Motorist traveling straight through - Crash Occurred on Near (Approach) Side of Intersection
1a Pedestrian within crosswalk area, traveled from motorist's left.
1b Pedestrian within crosswalk area, traveled from motorist's right.
1c Pedestrian within crosswalk area, approach direction unknown.
2a Pedestrian outside crosswalk area, traveled from motorist's left.

2b
Pedestrian outside crosswalk area, traveled from motorist's right.
Pedestrian outside crosswalk area, approach direction unknown.
Motorist traveling straight through - Crash Occurred on Far Side of

## Intersection

Pedestrian within crosswalk area, traveled from motorist's left.
Pedestrian within crosswalk area, traveled from motorist's right.
Pedestrian within crosswalk area, approach direction unknown.
Pedestrian outside crosswalk area, traveled from motorist's left.
Pedestrian outside crosswalk area, traveled from motorist's right.
Pedestrian outside crosswalk area, approach direction unknown.

## Motorist turning right - Crash Occurred on Near (Approach) Side of

## Intersection

Pedestrian within crosswalk area, traveled from motorist's left.
Pedestrian within crosswalk area, traveled from motorist's right.
Pedestrian within crosswalk area, approach direction unknown. Pedestrian outside crosswalk area, traveled from motorist's left. Pedestrian outside crosswalk area, traveled from motorist's right. Pedestrian outside crosswalk area, approach direction unknown.

Motorist turning right - Crash Occurred on Far Side of Intersection

Pedestrian within crosswalk area, approach direction same as motorist's. Pedestrian within crosswalk area, approach direction opposite motorist's. Pedestrian within crosswalk area, approach direction unknown. Pedestrian outside crosswalk area, approach direction same as motorist's. Pedestrian outside crosswalk area, approach direction opposite motorist's. Pedestrian outside crosswalk area, approach direction unknown.

## Motorist turning left - Crash Occurred on Near (Approach) Side of

 Intersection9a Pedestrian within crosswalk area, traveled from motorist's left.
9b Pedestrian within crosswalk area, traveled from motorist's right.
9c Pedestrian within crosswalk area, approach direction unknown.
10a Pedestrian outside crosswalk area, traveled from motorist's left.
10b Pedestrian outside crosswalk area, traveled from motorist's right.
10c Pedestrian outside crosswalk area, approach direction unknown.
Motorist turning left - Crash Occurred on Far Side of Intersection
11a Pedestrian within crosswalk area, approach direction same as motorist's.
11b Pedestrian within crosswalk area, approach direction opposite motorist's.
11c Pedestrian within crosswalk area, approach direction unknown.
12a Pedestrian outside crosswalk area, approach direction same as motorist's.
12b Pedestrian outside crosswalk area, approach direction opposite motorist's.
12c Pedestrian outside crosswalk area, approach direction unknown.
7 Not a Pedestrian
8 Not Applicable

## Remarks:

(See Scenario Diagram on following pages)

## Crash Occurred Near (Approach) Side of Intersection



Figure 118. Motorist traveling straight through.


Figure 119. Motorist turning right.


Figure 120. Motorist turning left.

## THIS PAGE INTENTIONALLY LEFT BLANK

## PEDESTRIAN/BIKE TYPING CRASH TYPE - BICYCLE

FORMAT: Element Completed in MDE
SAS NAME: pbtype.BIKECTYPE

## ELEMENT VALUES:

000
111

## 112

113
114
115
157 Bicyclist Failed to Clear - Multiple Threat
158 Signalized Intersection - Other/Unknown

159 Bicyclist Failed to Clear - Unknown
160 Crossing Paths - Uncontrolled Intersection
180 Crossing Paths - Intersection - Other/Unknown
211 Motorist Left Turn - Same Direction

212 Motorist Left Turn - Opposite Direction
213 Motorist Right Turn - Same Direction
214 Motorist Right Turn - Opposite Direction
215 Motorist Drive-in/out - Parking
216 Bus/Delivery Vehicle Pullover
217 Motorist Right Turn on Red - Same Direction
218 Motorist Right Turn on Red - Opposite Direction
219 Motorist Right Turn/Merge - Other/Unknown
221 Bicyclist Left Turn - Same Direction
222 Bicyclist Left Turn - Opposite Direction
223 Bicyclist Right Turn - Same Direction
224 Bicyclist Right Turn - Opposite Direction
225 Bicyclist Ride-out - Parallel Path
231 Motorist Overtaking - Undetected Bicyclist
232 Motorist Overtaking - Misjudged Space
235 Motorist Overtaking - Bicyclist Swerved
239 Motorist Overtaking - Other/Unknown
241 Bicyclist Overtaking - Passing on Right
242 Bicyclist Overtaking - Passing on Left
243 Bicyclist Overtaking - Parked Vehicle
244 Bicyclist Overtaking - Extended Door
249 Bicyclist Overtaking - Other/Unknown
250 Head-on - Bicyclist
255 Head-on - Motorist
259 Head-on - Unknown
280 Parallel Paths - Other/Unknown
311 Bicyclist Ride-Out - Residential Driveway
312 Bicyclist Ride-Out - Commercial Driveway/Alley
318 Bicyclist Ride-Out - Other Midblock
319 Bicyclist Ride-Out - Midblock - Unknown
321 Motorist Drive-Out - Residential Driveway
322 Motorist Drive-Out - Commercial Driveway/Alley
328 Motorist Drive-Out - Other Midblock
329 Motorist Drive-Out - Midblock - Unknown
357 Multiple Threat - Midblock
380 Crossing Paths - Midblock - Other/Unknown
400 Bicycle Only
510 Motorist Intentionally Caused
520 Bicyclist Intentionally Caused
600 Backing Vehicle
700 Play Vehicle-Related
800 Unusual Circumstances
910 Non-Roadway
970 Unknown Approach Paths
980 Unknown Location

## Remarks:

111 (Motorist Turning Error - Left Turn) is used when the motorist made a left turn, cut the corner and entered the opposing traffic lane.

112 (Motorist Turning Error - Right Turn) is used when the motorist made a right turn, swung too wide and entered the opposing traffic lane.

113 (Motorist Turning Error - Other) is used when the motorist made another type of turning error which led them into the path of the motorist..

114 (Bicyclist Turning Error - Left Turn) is used when the bicyclist made a left turn, cut the corner and entered the opposing traffic lane.

115 (Bicyclist Turning Error - Right Turn) is used when the bicyclist made a right turn, swung too wide and entered the opposing traffic lane.

116 (Bicyclist Turning Error - Other) is used when the bicyclist made another type of turning error which led them into the path of the bicyclist.

121 (Bicyclist Lost Control - Mechanical Problems) is used when the bicyclist lost control due to mechanical problems.

122 (Bicyclist Lost Control - Oversteering, Improper Braking, Speed) is used when the bicyclist lost control due to oversteering, improper braking, or speed too fast for conditions.

123 (Bicyclist Lost Control - Alcohol/Drug Impairment) is used when the bicyclist lost control due to alcohol or drug impairment.

124 (Bicyclist Lost Control - Surface Conditions) is used when the bicyclist lost control due to surface conditions (sand, debris, potholes, ice, etc.).

129 (Bicyclist Lost Control - Other/Unknown) is used when the bicyclist lost control due to other or unknown circumstances.

131 (Motorist Lost Control - Mechanical Problems) is used when the motorist lost control due to mechanical problems.

132 (Motorist Lost Control - Oversteering, Improper Braking, Speed) is used when the motorist lost control due to oversteering, improper braking, or speed too fast for conditions.

133 (Motorist Lost Control - Alcohol/Drug Impairment) is used when the motorist lost control due to alcohol or drug impairment.

134 (Motorist Lost Control - Surface Conditions) is used when the motorist lost control due to surface conditions (sand, debris, potholes, ice, etc.).

139 (Motorist Lost Control - Other/Unknown) is used when the motorist lost control due to other or unknown circumstances.

141 (Motorist Drive-Out Sign-Controlled Intersection) is used when he motorist was facing the sign or flashing signal and drove into the crosswalk area or intersection and collided with the bicyclist after stopping or yielding.

142 (Bicyclist Ride-Out Sign-Controlled Intersection) is used when the bicyclist was facing the sign or flashing signal and rode into the intersection and collided with the motorist after stopping or yielding.

143 (Motorist Drive-Through Sign-Controlled Intersection) is used when the motorist violated the sign or flashing signal and drove into the crosswalk area or intersection and collided with the bicyclist.

144 (Bicyclist Ride-Through Sign-Controlled Intersection) is used when the bicyclist violated the sign or flashing signal and rode into the intersection and collided with the motorist.

147 (Multiple Threat - Sign-Controlled Intersection) is used when the bicyclist entered a sign-controlled intersection in front of standing or slowing traffic and was struck by another vehicle whose view of the bicyclist was blocked.

148 (Sign-Controlled Intersection - Other/Unknown) is used when the crash occurred at a sign-controlled intersection but cannot be further classified.

151 (Motorist Drive-Out - Right Turn on Red) is used when the motorist was facing a red signal, stopped, and then drove into the crosswalk area or intersection and collided with the bicyclist while attempting to make a right turn on red.

152 (Motorist Drive-Out - Signalized Intersection) is used when the motorist was facing a red signal, stopped, and then drove into the crosswalk area or intersection and collided with the bicyclist.

153 (Bicyclist Ride-Out - Signalized Intersection) is used when the bicyclist was facing the red signal, stopped, and then rode into the intersection and collided with the motorist.

154 (Motorist Drive-Through - Signalized Intersection) is used when the motorist violated the signal and drove into the crosswalk area or intersection and collided with the bicyclist.

155 (Bicyclist Ride-Through - Signalized Intersection) is used when the bicyclist violated the signal and rode into the intersection and collided with the motorist.

156 (Bicyclist Failed to Clear - Trapped) is used when the bicyclist lawfully entered the intersection on green but did not clear the intersection before the signal changed to green for the cross-street traffic and was struck by a vehicle whose view was not obstructed by standing or stopped traffic.

157 (Bicyclist Failed to Clear - Multiple Threat) is used when the bicyclist lawfully entered the intersection on green but did not clear the intersection before the signal changed to green for the cross-street traffic and was struck by a motorist whose view of the bicyclist was obstructed by standing or stopped traffic.

158 (Signalized Intersection - Other/Unknown) is used when the crash occurred at a signalcontrolled intersection but cannot be further classified.

159 (Bicyclist Failed to Clear - Unknown) is used when the bicyclist failed to clear the intersection and was struck by a motorist, but it is unknown whether the bicyclist was trapped in the intersection by a signal change or if there was a multiple threat situation or other circumstances surrounding the crash.

160 (Crossing Paths - Uncontrolled Intersection) is used when the crash occurred at an intersection not controlled by signs or signals.

180 (Crossing Paths - Intersection - Other/Unknown) is used when the crash involved a bicyclist and motorist on initial crossing paths but cannot be further classified.

211 (Motorist Left Turn - Same Direction) is used when the motorist turned left in front of a bicyclist going in the same direction.

212 ((Motorist Left Turn - Opposite Direction) is used when the motorist turned left in front of a bicyclist coming from the opposite direction.

213 (Motorist Right Turn - Same Direction) is used when the motorist turned right in front of a bicyclist going in the same direction.

214 (Motorist Right Turn - Opposite Direction) is used when the motorist turned right in front of a bicyclist coming from the opposite direction.

215 (Motorist Drive-In/Out - Parking) is used when the motorist struck the bicyclist while exiting or entering on-street parking.

216 (Bus/Delivery Vehicle Pullover) is used when the bicyclist was struck by a bus or delivery vehicle pulling into or away from the curb.

217 (Motorist Right Turn on Red - Same Direction) is used when the bicyclist and motorist were initially traveling on parallel paths when the motorist turned right on red in front of a bicyclist traveling in the same direction as the motorist.

218 (Motorist Right Turn on Red - Opposite Direction) is used when the bicyclist and motorist were initially traveling on parallel paths when the motorist turned right on red in front of a bicyclist traveling in the opposite direction as the motorist.

219 (Motorist Turn/Merge - Other/Unknown) is used when the motorist's turning maneuver is other than those described or is unknown.

221 (Bicyclist Left Turn - Same Direction) is used when the bicyclist turned or merged left in front of a motorist going in the same direction.

222 (Bicyclist Left Turn - Opposite Direction) is used when the bicyclist turned or merged left in front of a motorist coming from the opposite direction.

223 (Bicyclist Right Turn - Same Direction) is used when the bicyclist turned or merged right in front of a motorist going in the same direction.

224 (Bicyclist Right Turn - Opposite Direction) is used when the bicyclist turned or merged right in front of a motorist coming from the opposite direction.

225 (Bicyclist Ride-Out - Parallel Path) is used when the bicyclist, initially on a sidewalk or other parallel path, rode into the roadway and into the path of a motor vehicle.

231 (Motorist Overtaking - Undetected Bicyclist) is used when the motorist was overtaking the bicyclist and failed to detect the bicyclist.

232 (Motorist Overtaking - Misjudged Space) is used when the motorist was overtaking the bicyclist and misjudged the width and distance required to pass the bicyclist.

235 (Motorist Overtaking - Bicyclist Swerved) is used when the bicyclist swerved or moved suddenly into the path of an overtaking vehicle.

239 (Motorist Overtaking - Other/Unknown) is used when the motorist was overtaking the bicyclist, but the specific circumstances surrounding the overtaking maneuver do not conform to the other situations described or are unknown.

241 (Bicyclist Overtaking - Passing on Right) is used when the bicyclist struck a motor vehicle in the travel lane while passing on the right.

242 (Bicyclist Overtaking - Passing on Left) is used when the bicyclist struck a motor vehicle in the travel lane while passing on the left.

243 (Bicyclist Overtaking - Parked Vehicle) is used when the bicyclist struck a parked vehicle while passing.

244 (Bicyclist Overtaking - Extended Door) is used the bicyclist struck an extended door on a parked vehicle while passing.

249 (Bicyclist Overtaking - Other/Unknown) is used when the specific circumstances surrounding the overtaking maneuver of the bicyclist do not conform to any of the situations described or are unknown.

250 (Head-On - Bicyclist) is used when the bicyclist was traveling the wrong way/wrong side and the two parties collided head-on.

255 (Head-On - Motorist) is used when the motorist was traveling the wrong way/wrong side and the two parties collided head-on.

259 (Head-On - Unknown) is used when he two parties collided head-on but it is unknown which party was traveling on the wrong side.

280 (Parallel Paths - Other/Unknown) is used when the crash involved a bicyclist and motorist on initial parallel paths but cannot be further classified.

311 (Bicyclist Ride-Out - Residential Driveway) is used when the bicyclist rode into the roadway and into the path of a motor vehicle from a residential driveway.

312 (Bicyclist Ride-Out - Commercial DrivewaylAlley) is used when the bicyclist rode into the roadway and into the path of a motor vehicle from a commercial driveway or alley.

318 (Bicyclist Ride-Out - Other Midblock) is used when the bicyclist rode into the roadway and into the path of a motor vehicle from a midblock area other than a driveway or alley.

319 (Bicyclist Ride-Out - Midblock - Unknown) is used when the bicyclist rode into the roadway and into the path of a motor vehicle from an unknown midblock location.

321 (Motorist Drive-Out - Residential Driveway) is used when the motorist drove into the roadway or sidewalk/driveway crossing area and into the path of a bicyclist from a residential driveway.

322 (Motorist Drive-Out - Commercial Driveway/Alley) is used when the motorist drove into the roadway or sidewalk/driveway crossing area and into the path of a bicyclist from a commercial driveway or alley.

328 (Motorist Drive-Out - Other Midblock) is used when the motorist drove into the roadway or sidewalk/driveway crossing area and into the path of a bicyclist from a midblock area other than a driveway or alley.

329 (Motorist Drive-Out - Midblock - Unknown) is used when the motorist drove into the roadway or sidewalk/driveway crossing area and into the path of a bicyclist an unknown midblock area.

357 (Multiple Threat - Midblock) is used when the bicyclist entered the roadway in front of standing or slowing traffic at a mid-block location and was struck by a motorist traveling in the same direction as the stopped traffic, and whose view of the bicyclist was blocked.

380 (Crossing Paths -Midblock - Other/Unknown) is used when the crash involved a bicyclist and motorist on initial crossing paths at a midblock location but cannot be further classified.

400 (Bicycle Only) is used when the crash involved a bicycle but no motor vehicle.
510 (Motorist Intentionally Caused) is used when the motorist intentionally caused the crash.
520 (Bicyclist Intentionally Caused) is used when the bicyclist intentionally caused the crash.

600 (Backing Vehicle) is used when the crash involved a motor vehicle that was backing and did not involve a play vehicle.

700 (Play Vehicle-Related) is used when the bicyclist was riding a child's vehicle such as a tricycle (not an adult tricycle), bicycle with training wheels, or "Big Wheel" type tricycle.
$\mathbf{8 0 0}$ (Unusual Circumstances) is used when there were other unusual circumstances not defined above (e.g., bicyclist struck by falling cargo).

910 (Non-Roadway) is used when the crash occurred off the street network (e.g., parking lots, driveways, alleys, trails, and other open areas). Note: crashes occurring on paved shoulders, bike lanes, sidewalks, or driveway crossings are considered to be "roadway" crashes and should not be placed in the non-roadway classification.

970 (Unknown Approach Paths) is used when there is insufficient information to determine the initial approach paths for the two vehicles.

980 (Unknown Location) is used when there is insufficient information to determine where the crash occurred

## PEDESTRIAN/BIKE TYPING CRASH LOCATION - BICYCLE

FORMAT: Element Completed in MDE
SAS NAME: pbtype.BIKELOC

## ELEMENT VALUES:

1 Intersection
2 Intersection-Related
3 Non-Intersection Location
4 Non-Roadway Location
7 Not A Cyclist
9 Unknown/Insufficient Information

## Remarks:



1 (Intersection) is used when the crash occurred within the intersection proper or within the crosswalk area. Note: Driveways are considered to be non-intersection locations. The exception is signalized commercial driveways which should be coded as intersections. Selecting this attribute moves to screen Bicyclist Position.

2 (Intersection-Related) is used when the crash occurred outside the intersection proper or crosswalk area but was the related to the presence of the intersection (e.g., the result of queuing traffic). Selecting this attribute moves to screen Bicyclist Position.

3 (Non-Intersection Location) is used when the crash occurred outside the intersection proper or crosswalk area and was not related to the presence of any intersection. Selecting this attribute moves to screen Bicyclist Position.

4 (Non-Roadway Location) is used when the crash occurred off the street network; this includes parking lots, driveways, alleys, and other open areas. Note: crashes occurring on paved shoulders, sidewalks, or driveway crossings are considered to be "roadway" crashes and should not be placed in the non-roadway classification. Selecting this attribute moves to screen Bicyclist Position.

9 (Unknown/Insufficient Information) is used when there is insufficient information to determine where the crash occurred.

## PEDESTRIAN/BIKE TYPING BICYCLIST POSITION

FORMAT: Element Completed in MDE
SAS NAME: pbtype.BIKEPOS
ELEMENT VALUES:
1 Travel Lane
2 Bike Lane / Paved Shoulder
3 Sidewalk / Crosswalk / Driveway crossing
4 Multi-Use Path
5 Driveway / Alley
6 Non-Roadway
8 Other
7 Not a Cyclist
9 Unknown

## Remarks:

None.

## THIS PAGE INTENTIONALLY LEFT BLANK

## PEDESTRIAN/BIKE TYPING BICYCLIST DIRECTION

FORMAT: Element Completed by MDE
SAS NAME: pbtype.BIKEDIR

## ELEMENT VALUES:

In what direction was the bicyclist initially traveling prior to being struck or prior to making any turns which caused the crash?

1 With Traffic
2 Facing Traffic
3 Not Applicable
7 Not a Cyclist
9 Unknown

## Remarks:

Information related to where the bicyclist was riding just prior to the crash or prior to making a maneuver that caused the crash.

1 (With Traffic) is used when the bicyclist was traveling with traffic prior to the crash.
2 (Facing Traffic) is used when the bicyclist was traveling facing traffic prior to the crash.
3 (Not Applicable) is used when the bicyclist was doing one of the following traveling on one of the following: exiting a driveway, parking lot, or other non-roadway area.

9 (Unknown) is used when the bicyclist's direction is unknown.

## THIS PAGE INTENTIONALLY LEFT BLANK

## PEDESTRIAN/BIKE TYPING CRASH GROUP - PEDESTRIAN

FORMAT: Element Completed by MDE
SAS NAME: pbtype.PEDCGP

## ELEMENT VALUES:

000 Not a Pedestrian
100 Unusual Circumstances
Assault with Vehicle (110)
Dispute-Related (120)
Pedestrian on Vehicle (130)
Vehicle - Vehicle/Object (140)
Motor Vehicle Loss of Control (150)
Pedestrian Loss of Control (160)
Other Unusual Circumstances (190)
Driverless Vehicle (220)
Disabled Vehicle-Related (230)
Emergency Vehicle-Related (240)
Play Vehicle-Related (250)
Backing Vehicle
Backing Vehicle - Driveway (211)
Backing Vehicle - Driveway/Sidewalk Intersection
(212)

Backing Vehicle - Roadway (213)
Backing Vehicle - Parking Lot (214)
Backing Vehicle - Other Unknown (219)
Working or Playing in Roadway
Working in Roadway (311)
Playing in Roadway (312)
Bus-Related
Commercial Bus-Related (341)
School Bus Related (342)
Unique Midblock
Entering/Exiting Parked Vehicle (320)
Mailbox-Related (330)
Ice Cream/Vendor Truck-Related (360)
400
Walking Along Roadway
Walking Along Roadway With Traffic - From Behind (410)
Walking Along Roadway With Traffic - From Front (420)
Walking Along Roadway Against Traffic - From Behind (430)
Walking Along Roadway Against Traffic - From Front (440)
Walking Along Roadway - Direction/Position Unknown (459)

Waiting to Cross
Waiting to Cross - Vehicle Turning (510)
Waiting to Cross - Vehicle Not Turning (520)
Waiting to Cross - Vehicle Action Unknown (590)
Pedestrian in Roadway - Circumstances Unknown
Standing in Roadway (610)
Walking in Roadway (620)
Lying in Roadway (313)
Crossing Driveway or Alley
Motorist Entering Driveway or Alley (460)
Motorist Exiting Driveway or Alley (465)
Driveway Crossing - Other/Unknown (469)
ultiple Threat / Trapped
Multiple Threat (710)
Trapped (730)
Dash / Dart-Out
Dash (741)
Dart-Out (742)
Crossing Roadway - Vehicle Not Turning
Pedestrian Failed to Yield (760)
Motorist Failed to Yield (770)
Crossing Roadway - Vehicle Turning
Motorist Left Turn - Parallel Paths (781)
Motorist Left Turn - Perpendicular Paths (782)
Motorist Right Turn - Parallel Paths (791)
Motorist Red Turn on Red - Parallel Paths (792)
Motorist Right Turn - Perpendicular Paths (795)
Motorist Right Turn on Red - Perpendicular Paths (794)
Motorist Turn/Merge - Other/Unknown (799)
Off Roadway
Off Roadway - Parking Lot (830)
Off Roadway - Other/Unknown (890)
Crossing Expressway
Crossing an Expressway (910)
Other / Unknown - Insufficient Details

Other - Unknown Location (900)
Non-Intersection - Other/Unknown (680)
Intersection - Other/Unknown (690)

## Remarks:

100 (Unusual Circumstances) is used when the crash involved a disabled vehicle, emergency vehicle or vehicle in pursuit, play vehicle, driverless vehicle, or the pedestrian was struck intentionally, was clinging to a vehicle, or was struck as a result of other unusual circumstances.

200 (Backing Vehicle) is used when the pedestrian was struck by a vehicle that was backing at the time.

310 (Working or Playing in Roadway) is used when the pedestrian was working or playing in the roadway.

340 (Bus-Related) is used when the pedestrian was struck while crossing/walking to a bus or bus stop or while waiting at a bus stop.

350 (Unique Midblock) is used when the crash was associated with a vendor truck, mailbox, or other roadside 'destination' that was not a bus, or the pedestrian was struck while entering or exiting a parked vehicle.

400 (Walking Along Roadway) is used when the pedestrian was standing or walking along the roadway on the edge of a travel lane, or on a shoulder or sidewalk.

460 (Crossing Driveway or Alley) is used when the pedestrian was crossing a driveway on a sidewalk crossing, shared-use path, shoulder, or edge of the travel lane.

500 (Waiting to Cross) is used when the pedestrian was standing on the curb or near the roadway edge waiting to cross the roadway when struck.

600 (Pedestrian in Roadway - Circumstances Unknown) is used when the pedestrian was standing, walking, or lying in the road right-of-way at an intersection or midblock location but the circumstances do not otherwise fit any previously described or are unknown.

720 (Multiple Threat/Trapped) is used when the pedestrian entered the roadway on a green signal or in front of standing or slowing traffic and was trapped when the signal changed and traffic started moving or was struck by a vehicle traveling in the same direction as the stopped traffic. Note: Multiple threat may occur at nonsignalized locations.

740 (Dash/Dart-Out) is used when the pedestrian either ran into the roadway in front of a motorist whose view of the pedestrian was not obstructed or walked or ran into the road and was struck by a motorist

750 (Crossing Roadway - Vehicle Not Turning) is used when the pedestrian was struck while crossing the roadway (not an expressway) by a vehicle that was traveling straight through.

790 (Crossing Roadway - Vehicle Turning) is used when the pedestrian was struck while crossing a non-expressway road by a vehicle that was turning or about to turn.

800 (Off Roadway) is used when the pedestrian was struck in a parking lot, driveway, open area or other or unknown, non-roadway area (vehicle not backing).

910 (Crossing Expressway) is used when the pedestrian was on an expressway or expressway ramp when struck by a motor vehicle.

990 (Other/Unknown - Insufficient Details) is used when the circumstances do not clearly fit any of the situations described or are unknown.

## PEDESTRIAN/BIKE TYPING CRASH GROUP - BICYCLIST

FORMAT: Element Completed by MDE
SAS NAME: pbtype.BIKECGP

## ELEMENT VALUES:

| 000 | Not a Cyclist |
| :---: | :---: |
| 110 | Loss of Control / Turning Error |
|  | Bicyclist Lost Control - Mechanical Problems (121) |
|  | Bicyclist Lost Control - Oversteering, Improper Braking, Speed (122) |
|  | Bicyclist Lost Control - Alcohol/Drug Impairment (123) |
|  | Bicyclist Lost Control - Surface Conditions (124) |
|  | Bicyclist Lost Control - Other/Unknown (129) |
|  | Motorist Lost Control - Mechanical Problems (131) |
|  | Motorist Lost Control - Oversteering, Improper Braking, Speed (132) |
|  | Motorist Lost Control - Alcohol/Drug Impairment (133) |
|  | Motorist Lost Control - Surface Conditions (134) |
|  | Motorist Lost Control - Other/Unknown (139) |
|  | Motorist Turning Error - Left Turn (111) |
|  | Motorist Turning Error - Right Turn (112) |
|  | Motorist Turning Error - Other (113) |
|  | Bicyclist Turning Error - Left Turn (114) |
|  | Bicyclist Turning Error - Right Turn (115) |
|  | Bicyclist Turning Error - Other (116) |
| 140 | Motorist Failed to Yield - Sign-Controlled Intersection |
|  | Motorist Drive-Out - Sign-Controlled Intersection (141) |
|  | Motorist Drive-Through - Sign-Controlled Intersection (143) |
| 145 | Bicyclist Failed to Yield - Sign-Controlled Intersection |
|  | Bicyclist Ride-Out - Sign-Controlled Intersection (142) |
|  | Bicyclist Ride-Through - Sign-Controlled Intersection (144) |
|  | Multiple Threat - Sign-Controlled Intersection (147) |
| 150 | Motorist Failed to Yield - Signalized Intersection |
|  | Motorist Drive-Out - Signalized Intersection (152) |
|  | Motorist Drive-Out - Right Turn on Red (151) |
|  | Motorist Drive-Through - Signalized Intersection (154) |
| 158 | Bicyclist Failed to Yield - Signalized Intersection |
|  | Bicyclist Ride-Out - Signalized Intersection (153) |
|  | Bicyclist Ride-Through - Signalized Intersection (155) |
|  | Bicyclist Failed to Clear - Trapped (156) |
|  | Bicyclist Failed to Clear - Multiple Threat (157) |
|  | Bicyclist Failed to Clear - Unknown (159) |

Crossing Paths - Other Circumstances
Sign-Controlled Intersection - Other/Unknown (148)
Signalized Intersection - Other/Unknown (158)
Crossing Paths - Intersection - Other/Unknown (180)
Crossing Paths - Uncontrolled Intersection (160)
Crossing Paths - Midblock - Other/Unknown (380)
Motorist Left Turn / Merge
Motorist Left Turn - Same Direction (211)
Motorist Left Turn - Opposite Direction (212)
Motorist Right Turn / Merge
Motorist Right Turn - Same Direction (213)
Motorist Right Turn on Red - Same Direction (217)
Motorist Right Turn - Opposite Direction (214)
Motorist Right Turn on Red - Opposite Direction (218)
Parking / Bus-Related
Motorist Drive-In/Out Parking (215)
Bus/Delivery Vehicle Pullover (216)
Bicyclist Left Turn / Merge
Bicyclist Left Turn - Same Direction (221)
Bicyclist Left Turn - Opposite Direction (222)
Bicyclist Ride-Out - Parallel Path (225)
Bicyclist Right Turn / Merge
Bicyclist Right Turn - Same Direction (223)
Bicyclist Right Turn - Opposite Direction (224)
Motorist Overtaking Bicyclist
Motorist Overtaking - Undetected Bicyclist (231)
Motorist Overtaking - Misjudged Space (232)
Motorist Overtaking - Bicyclist Swerved (235)
Motorist Overtaking - Other Unknown (239)
Bicyclist Overtaking Motorist
Bicyclist Overtaking - Passing on Right (241)
Bicyclist Overtaking - Passing on Left (242)
Bicyclist Overtaking - Parked Vehicle (243)
Bicyclist Overtaking - Extended Door (244)
Bicyclist Overtaking - Other/Unknown (249)
Head-On
Head-On - Bicyclist (250)
Head-On - Motorist (255)
Head-On - Unknown (259)
Parallel Paths - Other Circumstances
Motorist Turn/Merge - Other/Unknown (219)
Parallel Paths - Other/Unknown (280)
Bicyclist Ride-Out - Parallel Path (225)
Bicyclist Failed to Yield - Midblock
Bicyclist Ride-Out - Residential Driveway (311)
Bicyclist Ride-Out - Commercial Driveway / Alley

```
        Bicyclist Ride-Out - Other Midblock (318)
        Bicyclist Ride-Out - Midblock - Unknown (319)
        Multiple Threat - Midblock (357)
3 2 0
6 0 0
850
910
Non-Roadway
Other / Unknown - Insufficient Details
    Unknown Location (980)
    Unknown Approach Paths
```


## Remarks:

110 (Loss of Control I Turning Error) is used when either the motorist or the bicyclist lost control of their vehicle or made a turning error and inadvertently moved into the path of the other operator. Note: Includes loss of control due to mechanical problems or operator error, or turning errors such as traveling into the opposing lane.

140 (Motorist Failed to Yield - Sign-Controlled Intersection) is used when the motorist drove into the crosswalk area or intersection and collided with the bicyclist. The motorist either violated the sign or did not properly yield right-of-way to the bicyclist. Note: Crashes at traffic circles or roundabouts with yield control are included here.

145 (Bicyclist Failed to Yield - Sign-Controlled Intersection) is used when the bicyclist rode into the intersection and collided with the motorist. The bicyclist either violated the sign or did not properly yield right-of-way to the motorist. Note: Crashes at traffic circles or roundabouts with yield control are included here.

150 (Motorist Failed to Yield - Signalized Intersection) is used when the motorist drove into the crosswalk area or intersection and collided with the bicyclist. The motorist either violated the signal or did not properly yield right-of-way to the bicyclist.

158 (Bicyclist Failed to Yield - Signalized Intersection) is used when the bicyclist rode into the intersection and collided with the motorist. The bicyclist either violated the signal or did not properly yield right-of-way to the motorist.

190 (Crossing Paths - Other Circumstances) is used when the bicyclist and motorist were on initial crossing paths, but the crash cannot be further classified.

210 (Motorist Left Turn/Merge) is used when the motorist made a left turn or merge into the path of a bicyclist traveling in the same or opposite direction.

215 (Motorist Right Turn/Merge) is used when the motorist made a right turn or merge into the path of a bicyclist traveling in the same or opposite direction.

219 (Parking/Bus-Related) is used when the bicyclist was struck by a motorist entering or exiting a parking space or by a bus or delivery vehicle pulling into or away from the curb.

220 (Bicyclist Left Turn/Merge) is used when the bicyclist made a left turn or merge into the path of a motor vehicle traveling in the same or opposite direction.

225 (Bicyclist Right Turn/Merge) is used when the bicyclist made a right turn or merge into the path of a motor vehicle traveling in the same or opposite direction.

230 (Motorist Overtaking Bicyclist) is used when the motorist was overtaking the bicyclist at the time of the crash.

240 (Bicyclist Overtaking Motorist) is used when the bicyclist was overtaking the motorist at the time of the crash. Note: This group includes crashes involving bicyclists striking parked cars or extended doors.

258 (Head-On) is used when either operator was going the wrong way, and the two parties collided head-on.

290 (Parallel Paths - Other Circumstances) is used when the bicyclist and motorist were on initial parallel paths, but the crash cannot be further classified.

310 (Bicyclist Failed to Yield - Midblock) is used when the bicyclist rode into the street from a nonintersection location (including residential or commercial driveway or other midblock location) without yielding to the motorist.

320 (Motorist Failed to Yield - Midblock) is used when the motorist drove across the sidewalk or into the street from a nonintersection location (including residential or commercial driveway or other midblock location) without yielding to the bicyclist.

600 (Backing Vehicle) is used when the motorist was backing up at the time the crash occurred.

850 (Other/Unusual Circumstances) is used when there were unusual circumstances surrounding the crash, but the crash cannot be further classified.

910 (Non-Roadway) is used when the crash occurred off the road network such as in a parking lot, driveway, on a multi-use path separated from the road right-of-way, in an open grassy area or yard, etc.

990 (Other/Unknown - Insufficient Details) is used when there is insufficient information to determine where the crash occurred.

## THIS PAGE INTENTIONALLY LEFT BLANK

December 2014
U.S. Department of Transportation National Highway Traffic Safety Administration


[^0]:    * Values greater than 30 are unlikely and will raise a "U" flag.

[^1]:    ## IF

    (5WOP) RELATED FACTORS-PERSON LEVEL equals 18,
    (9L0F) PERSON TYPE equals 01, and RELATED FACTORS-DRIVER LEVEL equals 12,

    ## THEN

    SEX must equal 2, and AGE must be greater than 012.
    SEX must equal 2, and AGE must be greater than 012.
    (U340) UNLIKELY: HIT-AND-RUN equals 0 or 9, and SEX equals 9.

[^2]:    * SEE NATIONAL CENTER FOR HEALTH STATISTICS (NCHS) CODES

