



2016 PARTS CATALOG

2016 Morgan Olson Body
2016 Ford Chassis



South Mountain Creamery

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VIN #	UNIT #
1F64F5KY0G0A01372	
1F64F5KY2G0A01373	
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1F64F5KY7G0A01434	
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1F64F5KY0G0A01436	
1F64F5KY2G0A01437	
1F64F5KY4G0A01438	
1F64F5KYXG0A01833	
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1F64F5KY6G0A04955	
1F64F5KY8G0A04956	
1F64F5KYXG0A04957	
1F64F5KY5G0A06275	

This parts guide contains illustrations and part numbers for South Mountain Creamery Package Cars and applies to bill of material # CV102821, produced in 2015 - 2016.

This book has been divided into chapters.

Each chapter has illustrations with part numbers and descriptions.

Each part is pointed out to help identify it. Orientation references are from the rear of the vehicle facing forward. LH (LEFT HAND) is roadside and RH (RIGHT HAND) is curbside.

Procedure to Order Parts

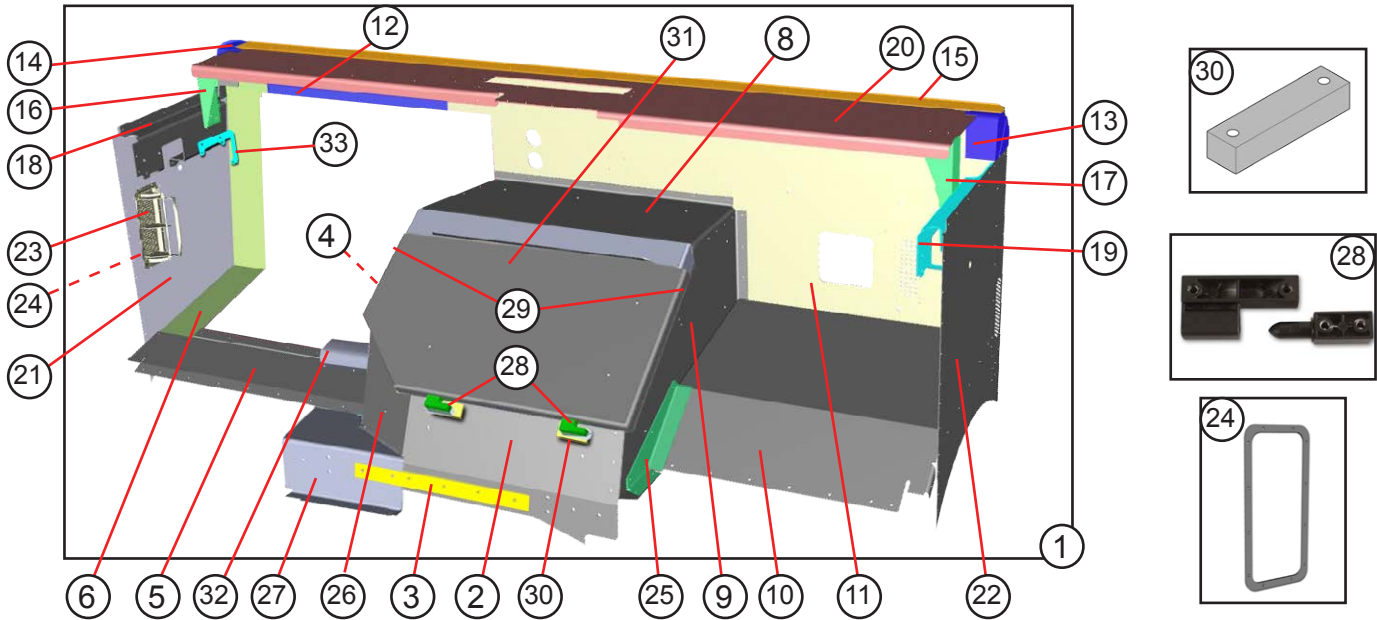
1. Depending on the part desired, turn to the appropriate section.
2. Locate the desired part on the Illustration Page(s) and note it's number.
3. Contact a Morgan Olson Service Parts Representative. Have part numbers readily available.
4. When placing orders, specify serial numbers.

FOR WARRANTY INFORMATION CALL 1-800-262-3437

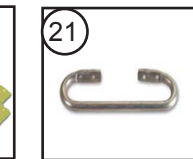
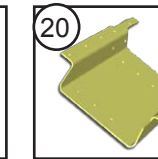
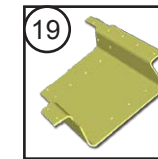
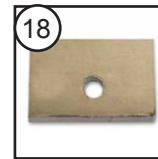
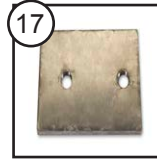
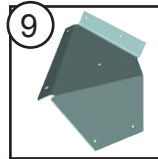
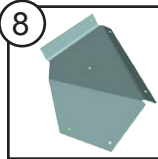
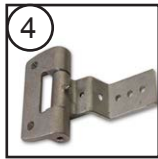
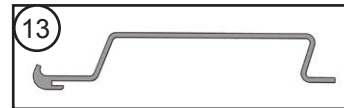
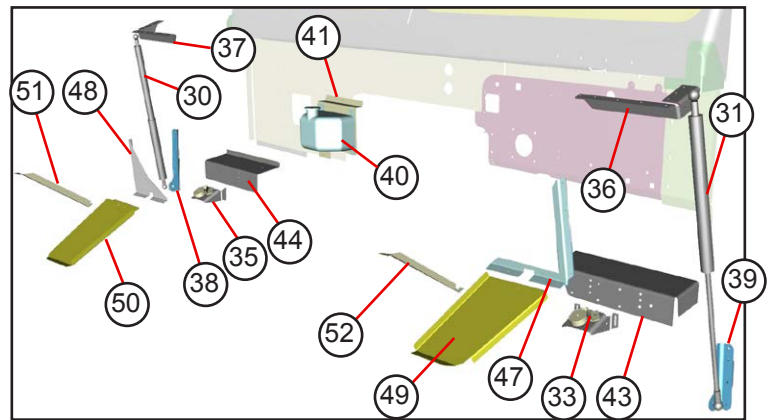
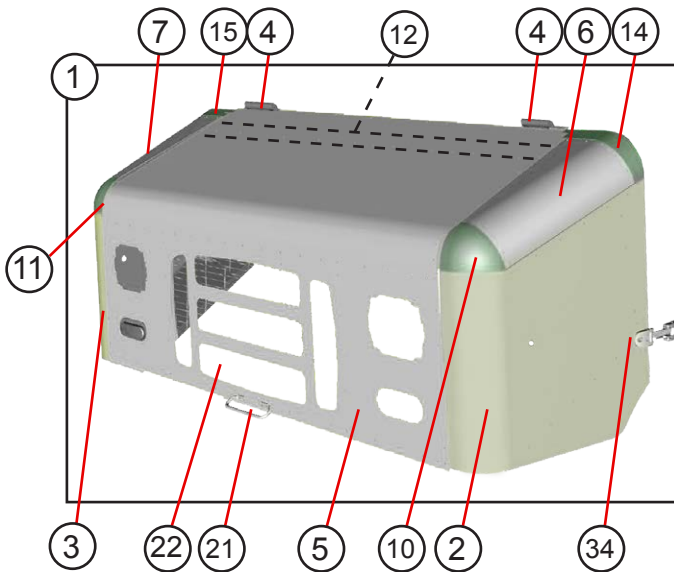
ANY QUESTIONS OR CONCERNS SHOULD BE DIRECTED TO YOUR SERVICE
PARTS REPRESENTATIVE AT
1-800-233-4823

At Morgan Olson, our quest for quality and safety is ongoing and therefore the specifications on the product described herein may vary over time.

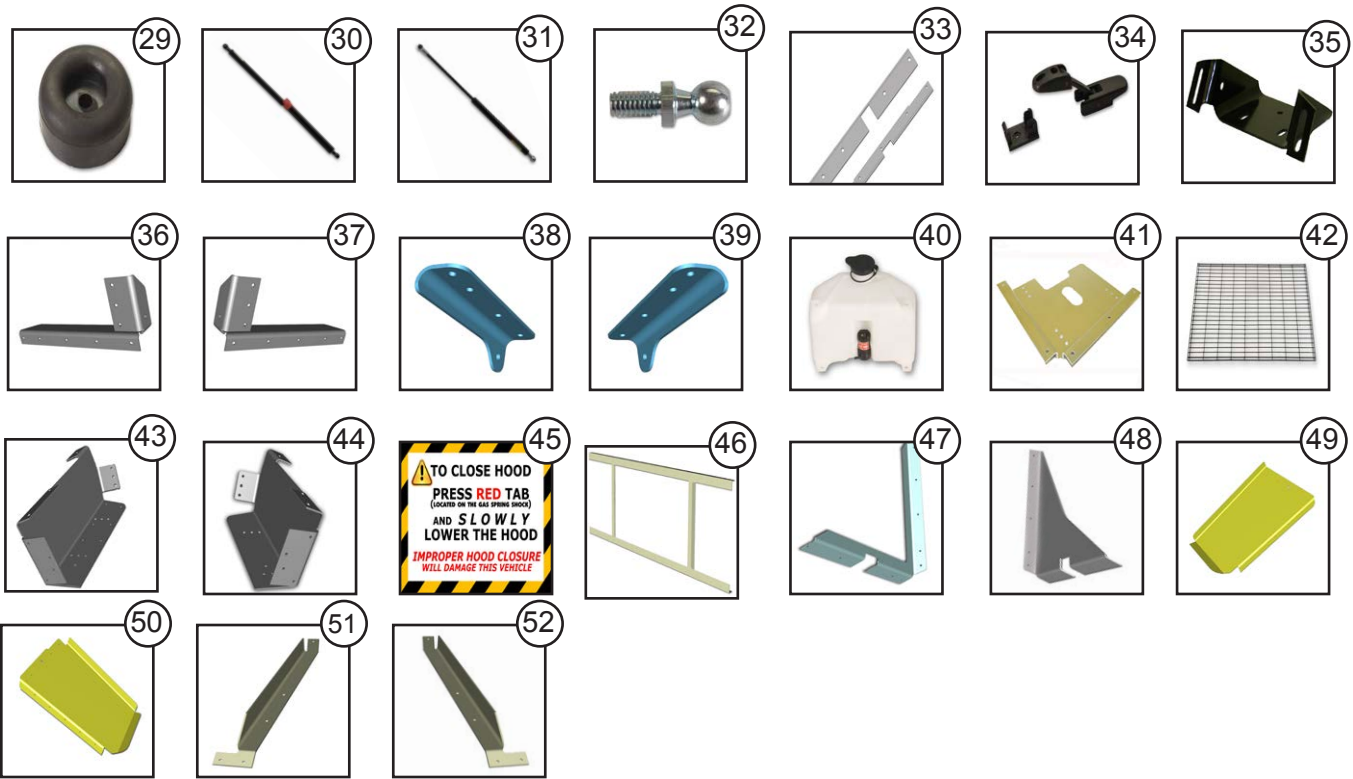
Please contact Morgan Olson for the latest product information and available safety features and options.



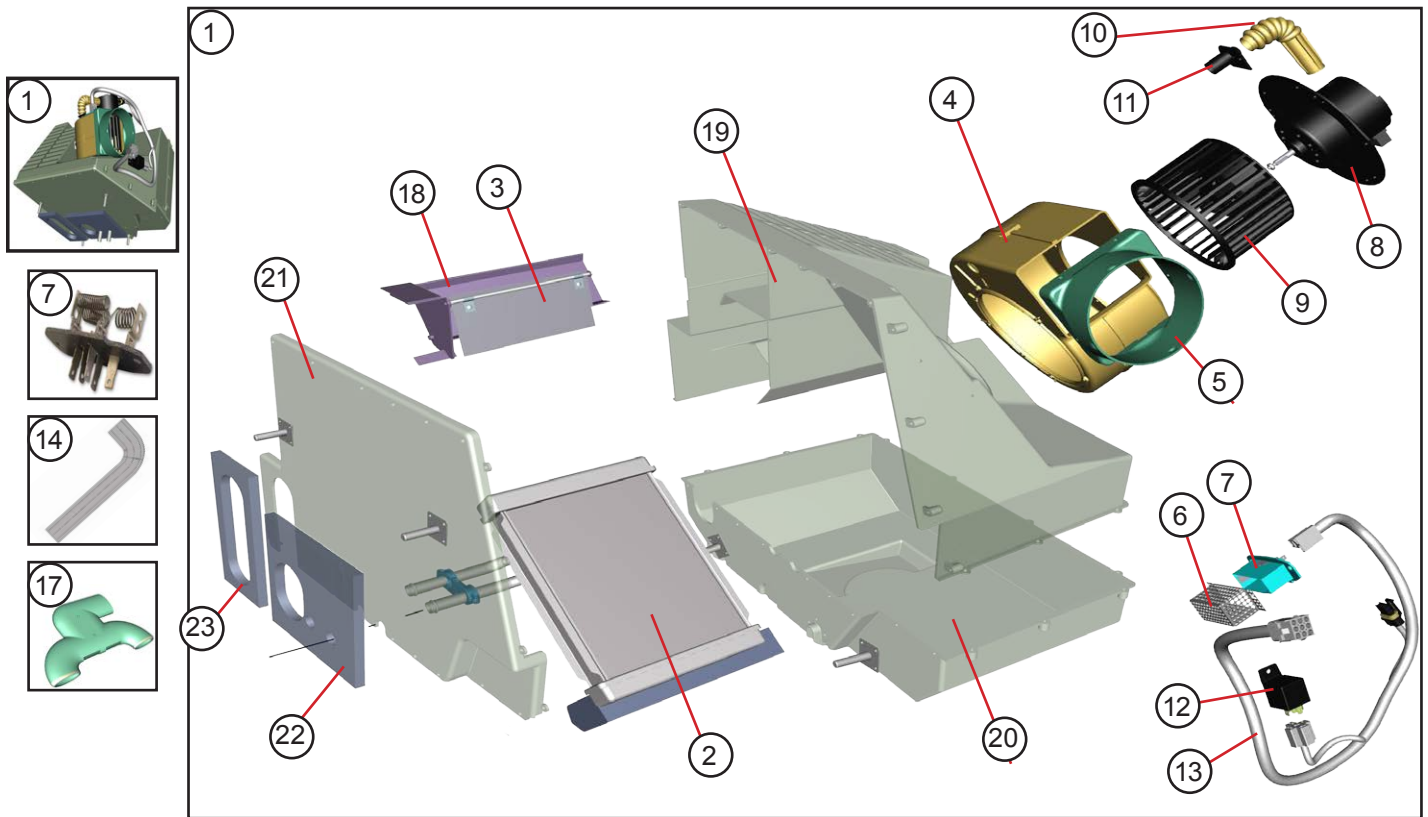
ITEM #	PART #	DESCRIPTION	QTY.	UNIT
1	115005224	CAB ASSEMBLY	1	EA
2	115005404	PLATE ENGINE BOX SADDLE AL.125X15.74X24.07	1	EA
3	077050402	SHIM AL .25X1.62X20.8	1	EA
4	115005403	ENGINE BOX SIDE ROADSIDE AL.102X19.26X27.88	1	EA
5	115005405	TOE BOARD ROADSIDE AL.125X6.76X34.53	1	EA
6	115005406	ADAPTOR TOE BOARD AL.102X7.24X45.63	1	EA
8	115005402	ENGINE BOX TOP AL.125X15.88X33.04	1	EA
9	098005501	ENGINE BOX HOUSING AL.102X20.85X32.55	1	EA
10	115005415	TOE BOARD CURBSIDE AL.102X28.09X29.44	1	EA
11	115005400	DASH WALL CURBSIDE AL.125X25.89X60.38	1	EA
12	115005401	DASH WALL ROADSIDE AL.125X8.46X30.45	1	EA
13	8502000	CORNER CASTING CURBSIDE	1	EA
14	8502001	CORNER CASTING ROADSIDE	1	EA
15	083023402	WINDSHIELD RAIL AL 851100X89	1	EA
16	083005418	SUPPORT RAIL ROADSIDE AL.102X5.74X8.27	1	EA
17	083005419	SUPPORT RAIL CURBSIDE AL.102X5.74X8.27	1	EA
18	077050400	STIFFENER ROADSIDE AL.125X10.93X17.81	1	EA
19	077050401	STIFFENER CURBSIDE AL.125X10.93X17.81	1	EA
20	093005512	DASH SHELF AL.125X13.74X89	1	EA
21	115005417	CAB SKIRT ROADSIDE AL.07X27.29X30.57	1	EA
22	093005440	CAB SKIRT CURBSIDE AL.07X27.28X30.57	1	EA
23	47008545	VENT 2 WAY HINGLESS	1	EA
24	47008548	GASKET VENT	1	EA
25	115005416	GUSSET TOE BOARD CURBSIDE AL.125X7.84X14.44	1	EA
26	115005409	FILLER SADDLE LOWER RS AL.125X11.66X14.49	1	EA
27	115005408	SADDLE FILLER AL.125X9.6X13.06	1	EA
28	47007859	HINGE OFFSET	2	EA
29	47000932	LATCH ENGIN BOX LID	2	EA
30	117028400	SHIM ENGINE BOX	2	EA
31	115028400	PANEL ENGINE BOX LID AL.102X20.18X32.87	1	EA
32	115005420	CASTING TRANSITION F59	1	EA
33	115084402	BRACKET FUSE BOX AL.102X6.4X8.66	1	EA



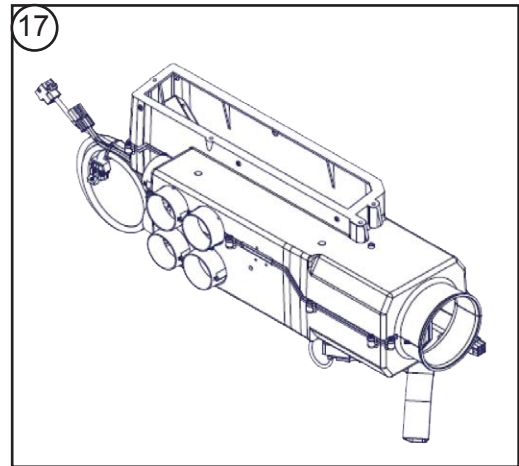
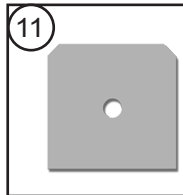
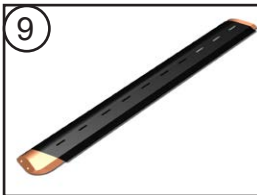
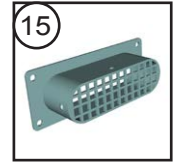
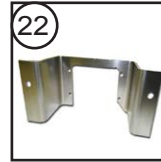
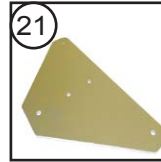
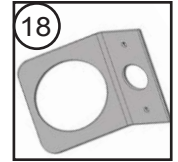
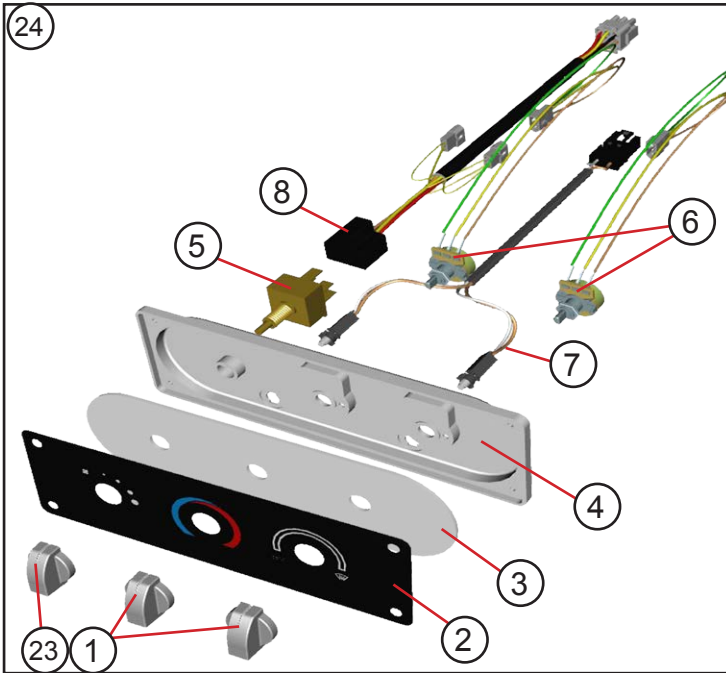
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1	115017200	HOOD ASSEMBLY	1	EA
2	088017414	HOOD SKIRT AL .07X30.78X33.11 ROADSIDE	1	EA
3	088017415	HOOD SKIRT AL .07X30.78X33.11 CURBSIDE	1	EA
4	47007852	HINGE ASSEMBLY	2	EA
5	115017400	PANEL HOOD FCC AL.07X53.36X72	1	EA
6	088017416	COWL HOOD ROADSIDE AL .07X15.91X22.28	1	EA
7	088017417	COWL HOOD CURBSIDE AL .07X15.91X22.28	1	EA
8	95817312	GUSSET CORNER ROADSIDE AL .07X13.52X14.72	1	EA
9	95817313	GUSSET CORNER CURBSIDE AL .07X13.52X14.72	1	EA
10	45100057	CORNER CAST KNEE COWL FRONT ROADSIDE	1	EA
11	45100058	CORNER CAST KNEE COWL FRONT CURBSIDE	1	EA
12	088017420	STIFFENER HOOD AL 450015X68.62	1	EA
13	45001500	BRACKET HOOD AL HD X69.77	1	EA
14	45100060	CAP COWL END ROADSIDE	1	EA
15	45100061	CAP COWL END CURBSIDE	1	EA
17	91617304	PLATE TAP AL .188X2X2.69	2	EA
18	96717312	SHIM AL .125X.62X1.88	2	EA
19	115017403	STIFFENER HOOD ROADSIDE	1	EA
20	115017404	STIFFENER HOOD CURBSIDE	1	EA
21	90187300	GRAB HANDLE .5DIAX15.7	1	EA
22	45700101	MESH GRILLE 20.5X38.81	1	EA
NS	088017423	ANGLE SUPPORT GRILLE 450186X69.62	1	EA
NS	088017421	SUPPORT GRILLE ANGLE 450180X22.8	2	EA
NS	088017441	ANGLE HORZ 450186X69.62	1	EA
NS	44004077	SEAL TAPE #1458BTXFT	4.42	FT



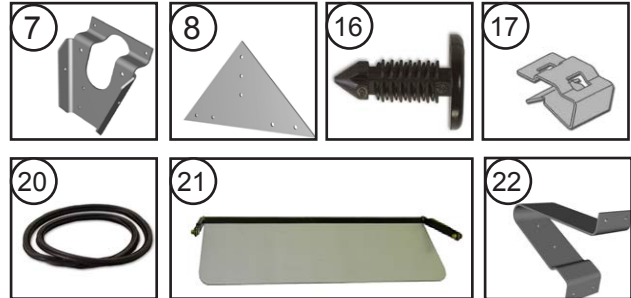
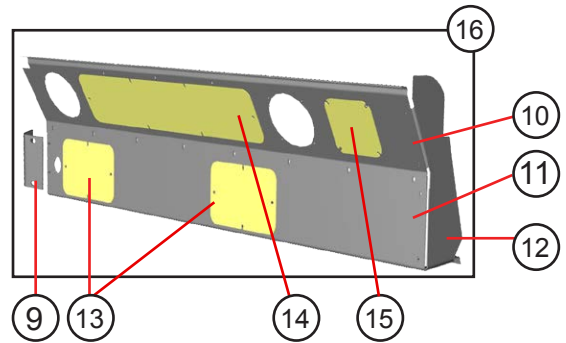
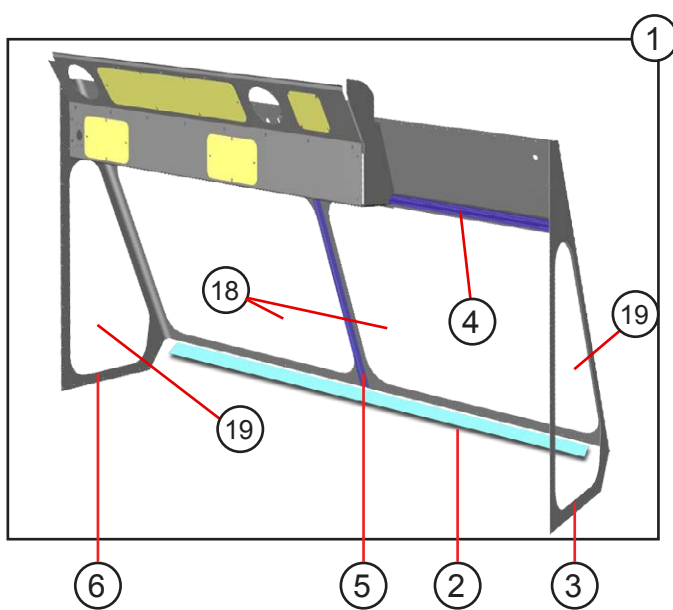
ITEM #	PART #	DESCRIPTION	QTY.	UNIT
29	44002004	BUMPER RUBBER HOOD REST	2	EA
30	47006116	GAS SPRING WITH LOCK 140LB 20/12 IGS	1	EA
31	47006117	GAS SPRING WITH OUT LOCK 140LB 20/12 IGS	1	EA
32	40900019	STUD BALL SUSPENSION	4	EA
33	96713300	STOP ANGLE HOOD REST	2	EA
34	47000613	LATCH HOOD	2	EA
35	077150400	BRACKET SUPPORT HOOD REST	2	EA
36	124016401	BRACKET GAS SPRING AL.125X3.6X16.48 ROADSIDE	1	EA
37	124016402	BRACKET GAS SPRING AL.125X3.6X16.48 CURBSIDE	1	EA
38	124016403	BRACKET HOOD LOWER AL.188X2.85X6.4 CURBSIDE	1	EA
39	124016404	BRACKET HOOD LOWER AL.188X2.85X6.4 ROADSIDE	1	EA
40	47004137	WASHER BOTTLE WITH PUMP	1	EA
41	003705413	WASHER BOTTLE MOUNTING PLATE	1	EA
42	45700101	MESH GRILL 20.5X38.81	1	EA
43	115026400	SPLASH PAN ROADSIDE	1	EA
44	077260404	SPLASH PAN CURBSIDE	1	EA
45	43000903	HOOD PROPER INSTRUCTIONS LABEL	1	EA
46	088017255	SUPPORT ASSEMBLY GRILL	1	EA
47	088017433	SUPPORT SPLASH PAN AL .102X16.07X16.83	1	EA
48	088017436	SUPPORT SPLASH PAN AL .102X16.07X16.83	1	EA
49	088017427	SPLASH PAN AL .102X19.43X26.95 ROADSIDE	1	EA
50	088017430	SPLASH PAN AL .102X19.93X26.95 CURBSIDE	1	EA
51	088017437	STRAP AL .125X2.98X25.76 ROADSIDE	1	EA
52	088017438	STRAP AL .125X2.98X25.76 CURBSIDE	1	EA
NS	44004077	SEAL TAPE #1458BTXFT	4.42	FT



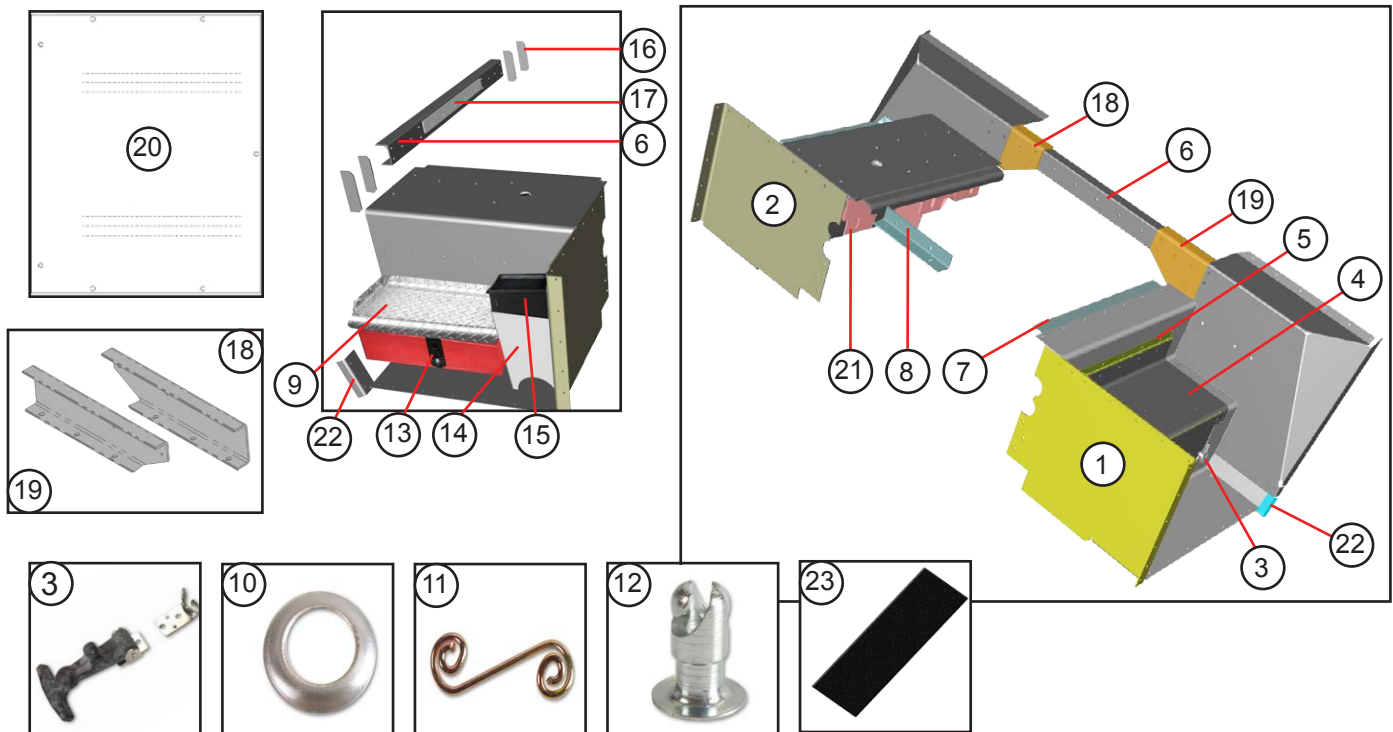
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1	555001014	HEATER ASSEMBLY (INSTALLATION 118080008)	1	EA
2	47008760	HEATER COIL W/GASKET & CLAMP	1	EA
3	47008753	DOOR W/SEAL	1	EA
4	47008754	BLOWER HOUSING	1	EA
5	47008755	BLOWER ADAPTER	1	EA
6	47008732	RESISTER CAGE	1	EA
7	47008357	RESISTER	1	EA
8	47008756	BLOWER MOTOR	1	EA
9	47008757	BLOWER WHEEL	1	EA
10	47008730	VENT TUBE	1	EA
11	47008731	VENT TUBE ADAPTOR	1	EA
12	47008716	RELAY	1	EA
13	47008758	HARNESS	1	EA
14	47008580	FORMED HEATER HOSE	2	EA
NS	555002053	VALVE WAT SCS #70-07754	1	EA
NS	098080004	DUCT FT DUMP SPCL	1	EA
17	090080401	DUCT FT DUMP SPCL	1	EA
18	N/A	AC PARTITION - PART OF HEATER ASSEMBLY	1	EA
19	N/A	HOUSING UPPER - PART OF HEATER ASSEMBLY	1	EA
20	N/A	HOUSING LOWER - PART OF HEATER ASSEMBLY	1	EA
21	N/A	HOUSING BACK - PART OF HEATER ASSEMBLY	1	EA
22	21-01201	GASKET - PART OF HEATER ASSEMBLY	1	EA
23	21-01202	GASKET - PART OF HEATER ASSEMBLY	1	EA



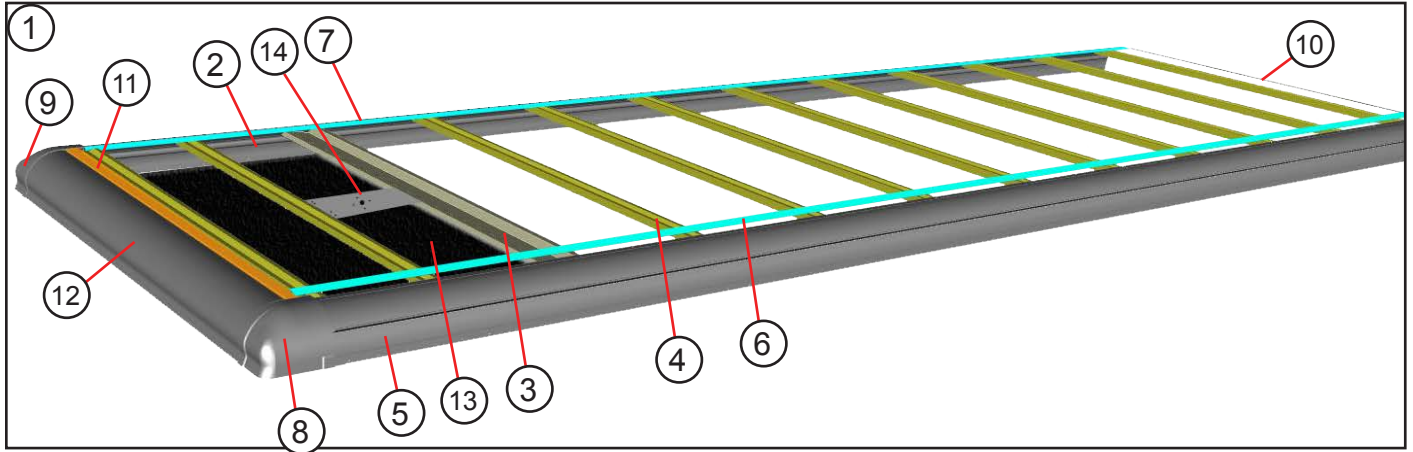
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1	47008706	KNOB	2	EA
2	47008707	DECAL	1	EA
3	47008708	LIGHT PANEL	1	EA
4	47008709	CONTROL PANEL	1	EA
5	47008700	BLOWER SWITCH	1	EA
6	47008710	POTENTIOMETER SWITCH	2	EA
7	47008711	HARNES ILLUMINATION W/BULBS	1	EA
8	47008712	HARNES BLOWER MOTOR	1	EA
9	555001723	DEFROST DUCT CURBSIDE	1	EA
10	555001724	DEFROST DUCT ROADSIDE	1	EA
11	093080400	HOLD DOWN PLATE DEFROSTER DUCTS	4	EA
12	555001523	HOSE DEFROSTER 2.5X16	2	EA
13	555001524	HOSE DEFROSTER 2.5X30	2	EA
12	555001525	HOSE DEFROSTER 2.5x38	1	EA
15	555002003	COLLER FRESH AIR INTAKE	1	EA
16	555001715	LUVER BALL	6	EA
17	555001321	DUCT HVAC	1	EA
18	107027405	BRACKET HEATER VENT	1	EA
20	555001533	HOSE BLOWER HEATER/DEFROSTER 5"X7.5"	1	EA
21	005780402	MOUNTING PLATE	1	EA
22	002080400	BRACKET HEATER CONTROL AL .102X3X11.67	1	EA
23	47008735	KNOB FAN SPEED	1	EA
24	555001416	PANEL CONTROL HVAC		



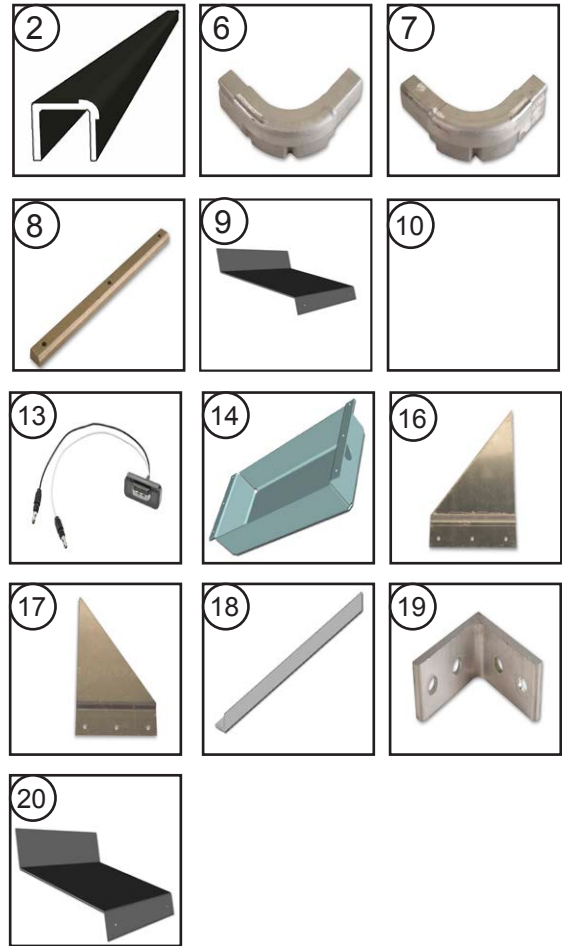
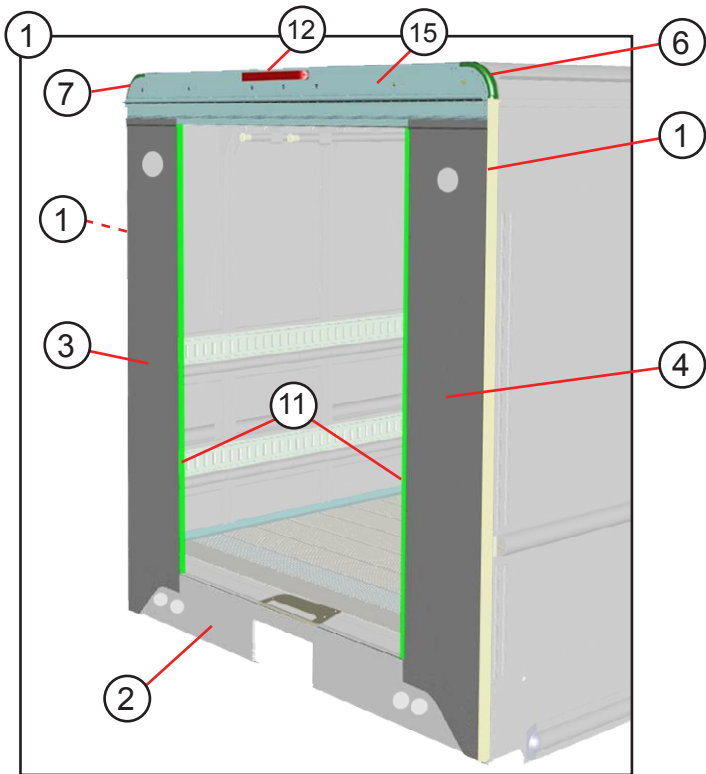
ITEM #	PART #	DESCRIPTION	QTY.	UNIT
1	088055204	WINDSHIELD ASSEMBLY 85H93W NO VENT	1	EA
2	083023402	WINDSHIELD RAIL (SEE PAGE 4 ITEM 12)	1	EA
3	088055406	FRAME W/S AL .102X53.45X70.25 CURBSIDE	1	EA
4	077055404	STIFFENER W/S AL 450540X44.25	2	EA
5	077055401	POST W/S CENTER AL 450540X44.84	1	EA
6	088055405	FRAME WINDSHEILD ROADSIDE	1	EA
7	077055402	GUSSET FRAME W/S AL .125X6.49X7.27	1	EA
8	998555329	GUSSET FRAME W/S AL .125X4.6X9.19	1	EA
9	088076449	BRACKET, MOUNTING	1	EA
10	097076488	COVER WIPER MOTOR UPPER	1	EA
11	097076476	SHELF LOWER	1	EA
12	097076461	COVER WIPER CURBSIDE	1	EA
13	097076436	PLATE COVER	2	EA
14	097076435	PLATE COVER	1	EA
15	097076437	PLATE COVER	1	EA
16	47006610	CLIP PUSH IN .45HEADX.64	52	EA
17	46021115	CLIP LARGE BODY PAN	1	EA
18	96756400	GLASS WINDSHIELD	2	EA
19	006756400	GLASS SIDE TRIANGLE	2	EA
20	44004303	WEATHER STRIPPING LS-1660 X147.5	2	EA
20	44004309	WEATHER STRIPPING LS-1660 X86.25	2	EA
21	47005504	SUN VISOR	2	EA
22	090061400	BRACKET SUN VISOR CURBSIDE	1	EA
NS	1109001	INSULATION FIBERGLASS 1X48X7.25FT	1	FT
NS	118011402	LINER ROOF CAB 452100X37.12X86.75	1	EA
NS	100011400	POLYESTER FILL ROOF LINER 4X22.5	1	EA



ITEM#	PART #	DESCRIPTION	QTY.	UNIT
1	115024201	STEP ASSEMBLY ROADSIDE	1	EA
2	115024202	STEP ASSEMBLY CURBSIDE	1	EA
3	1113334	LATCH STEPS	2	EA
4	115024411	BATTERY LID ALD .125X22.25X22.78	1	EA
5	006324498	HINGE AL .075X1.12X1.75X21	1	EA
6	077240400	CROSS MEMBER CENTER AL 456106X41	1	EA
7	96724408	STEP SUPPORT CURBSIDE AL .188X8.91X24.5	1	EA
8	138024416	SUPPORT ANGLE AL .188X3.58X11.5	1	EA
9	118024204	STEP ASSEMBLY ROADSIDE MID STEP	1	EA
10	40900081	GROMMET HALF	7	EA
11	40900082	SPRING	7	EA
12	40900080	STUD	7	EA
13	128068000	EMERGENCY FLARE KIT	1	EA
14	077240433	BRACKET TRASH HOLDER AL .125X11.78X16.37	1	EA
15	45200051	TRASH BIN	1	EA
16	077240438	GUSSET STEP CHANNEL AL .25X2.25X5.63	4	EA
17	077050402	SHIM AL .25X1.62X20.8	1	EA
18	083024460	CHANNEL CROSS MEMBER ROADSIDE AL 456109X23	1	EA
19	083024461	CHANNEL CROSS MEMBER CURBSIDE AL 456109X23	1	EA
20	105024209	FLOOR TRANSVERSE ALD .125X26.13X30.88	1	EA
21	117024407	TREAD STEP SUPPORT ALD .125X14.19X27.67	1	EA
22	084024415	RISER STEP FILLER AL .125X3.61X3.5	2	EA
23	96724608	DAMPENING PAD 45200007X9X20	1	EA



ITEM	PART #	DESCRIPTION	QTY.	UNIT
1	155010005	ROOF INSTALLATION	1	EA
2	098010403	RAIL ROOF 14' 456144X213.25 LH	1	EA
3	89310478	ROOF/BOW @ O/LINE STL14GAX13.54X89.12	1	EA
4	45601603	ROOF/BOW STL 16GA SEC456016 X89.12	10	EA
5	098010404	RAIL ROOF 14' 456144X213.25 RH	1	EA
6	088010508	RAIL INTERLOCK ROOF AL 450140X213.25L	1	EA
7	088010509	RAIL INTERLOCK ROOF AL 450140X213.25R	1	EA
8	077100400	COR AL CST RF LH	1	EA
9	077100401	COR AL CST RF RH	1	EA
10	89310507	ROOF INTERLOCK TRAN AL450140X79.88	1	EA
11	89310506	ROOF INTERLOCK NOSE AL45014X82.38	1	EA
12	083010400	NOSE 93W AL 456107X82.5	1	EA
13	083011470	LINER ROOF FRONT EMB .023X39X86.99	1	EA
14	100092400	BRACKET DOME/LAMP AL.07X9X25	1	EA



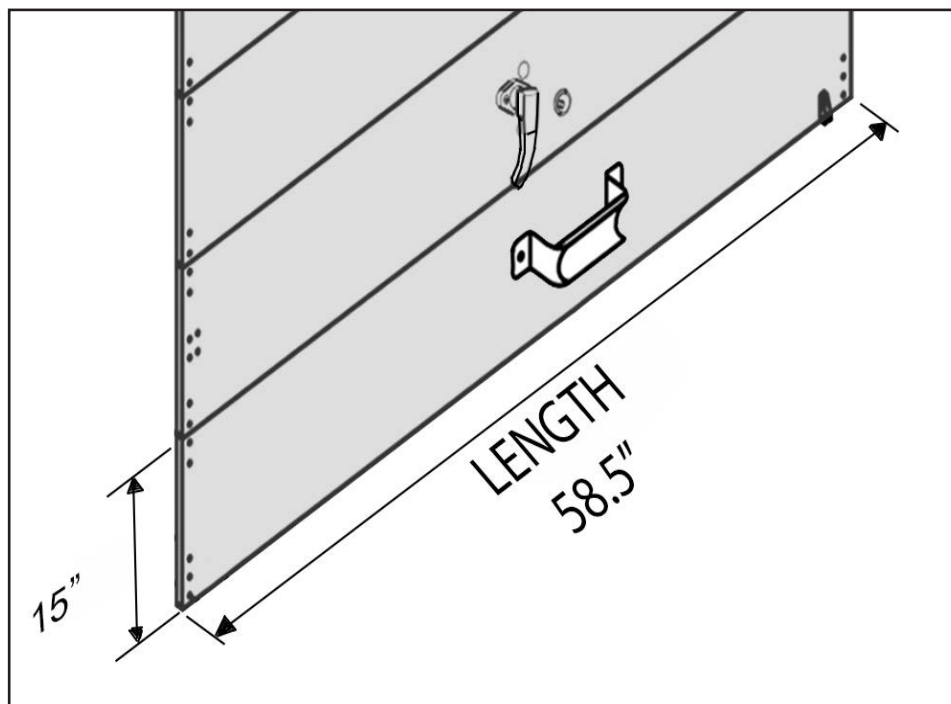
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1	083053453	CHANNEL POST CORNER AL 450359X92.69	2	EA
2	083053601	SILL REAR 93W AL 450024X88.75	1	EA
3	155050407	PANEL BACK AL .102X16.12X90 LH	1	EA
4	155050408	PANEL BACK AL .102X16.12X90 RH	1	EA
5	77552018	HEADER BACK 93 W AL 450138X92	1	EA
6	45100009	CORNER CAST REAR ROOF ANGLE ROADSIDE	1	EA
7	45100010	CORNER CAST REAR ROOF ANGLE CURBSIDE	1	EA
8	45100106	STRIKER BRZC DOOR	1	EA
9	7907976	GUARD LAMP REAR AL .07X14X14.03	2	EA
11	083050461	POST HINGE AL 450011X77.13	2	EA
12	46001905	LAMP AUX TURN BAR (GROMMET - 1107109)	1	EA
13	47009642	LAMP LED LICENSE PLATE BOX	1	EA
14	140092201	LICENSE PLATE BOX AL.102X12.45X23.18	1	EA
15	083050410	TRANSOM 93W HINGED 450254X91.62	1	EA
16	90650304	GUSSET UPPER AL .125X5.12X6.59 LH	1	EA
17	90650305	GUSSET UPPER AL .125X5.12X6.59 RH	1	EA
18	79885033	ANGLE SUPPORT LIC PLT BOX AL 450184X21.56	1	EA
19	96750313	ANGLE CLIP AL 450196X1	2	EA
20	7907976	GUARD LAMPS	2	EA

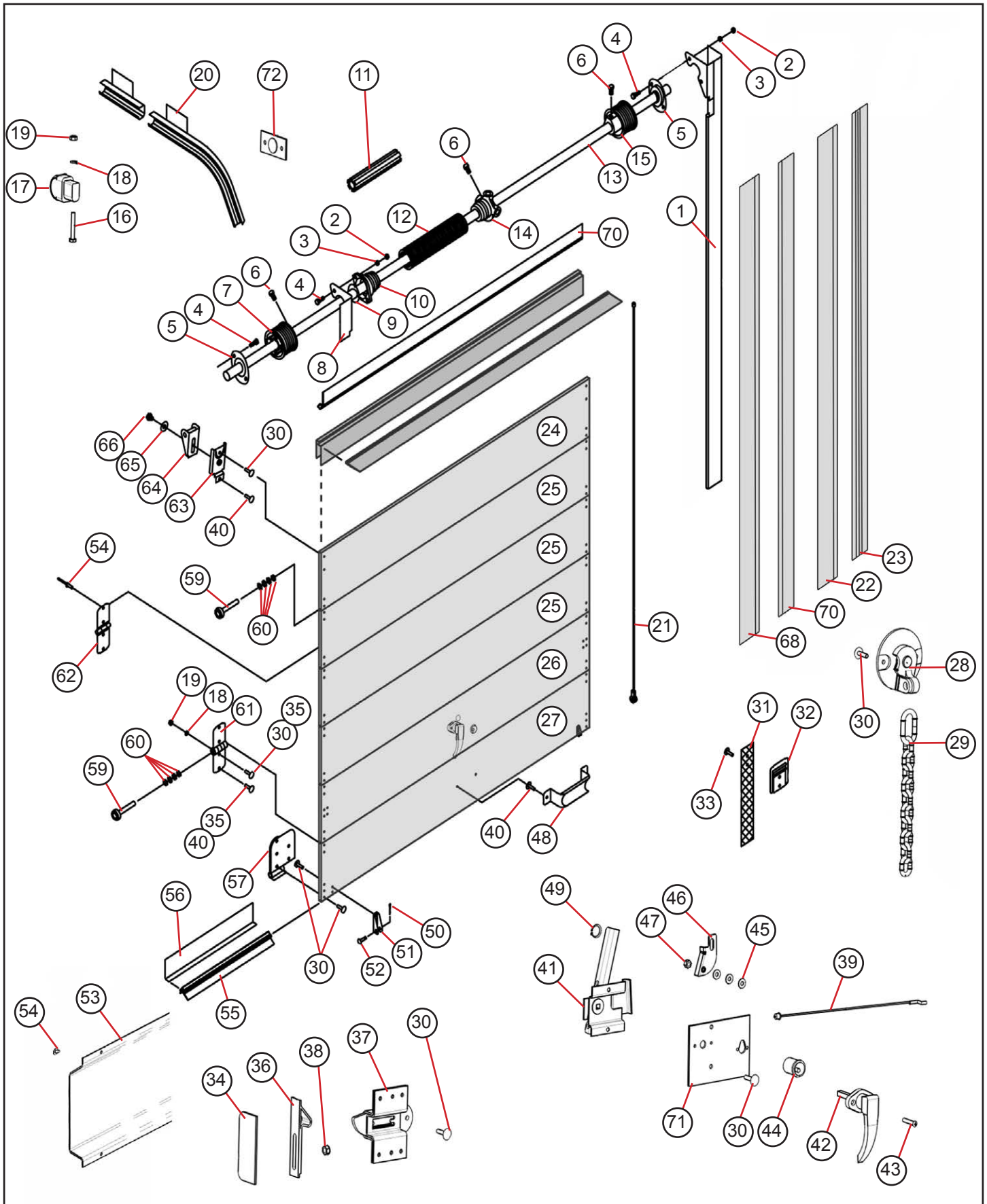


ROLL-UP DOOR SERIAL NUMBER LOCATION

WHEN ORDERING PARTS FOR ROLL-UP DOORS,
PLEASE PROVIDE THE FOLLOWING INFORMATION.
THE SERIAL NUMBER LOCATED ON THE INTERIOR TOP PANEL ROADSIDE EDGE.
THE LENGTH AND HEIGHT OF THE DOOR PANEL(S) TO BE ORDERED.

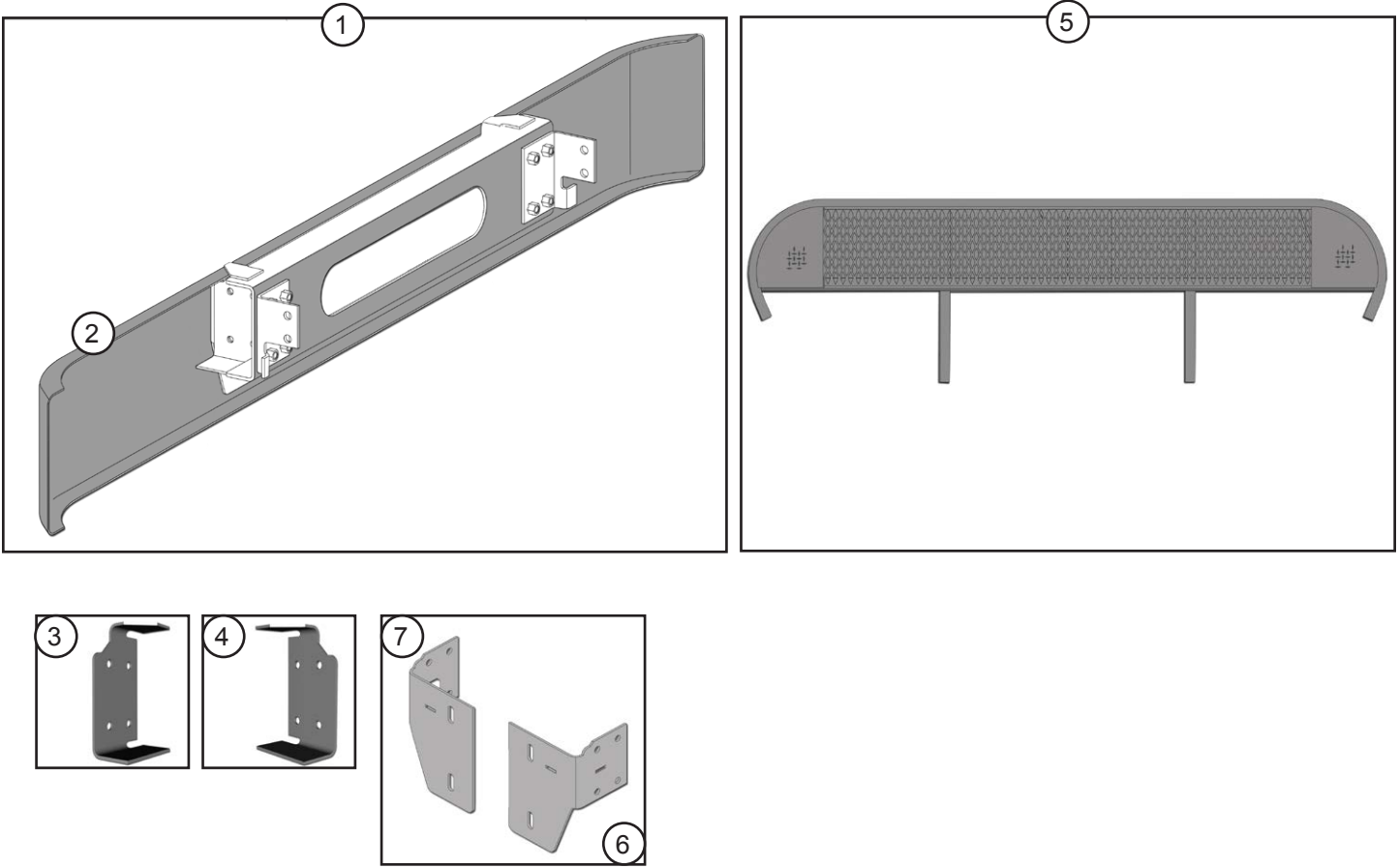
IN THE EVENT OF A DAMAGED, UN-READABLE OR MISSING SERIAL NUMBER,
PLEASE TRY TO PROVIDE THE COMPOSITION DETAILS OF THE DOOR PANEL.
(PLASTIC COATED, ALUMINUM CLAD, PLYWOOD, ETC.)



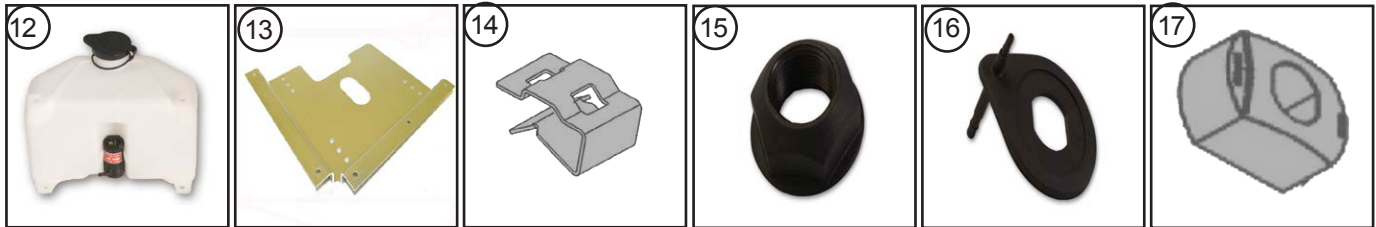
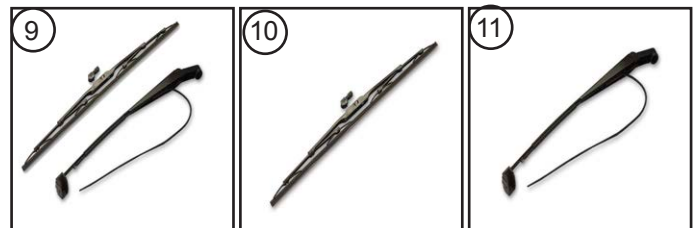
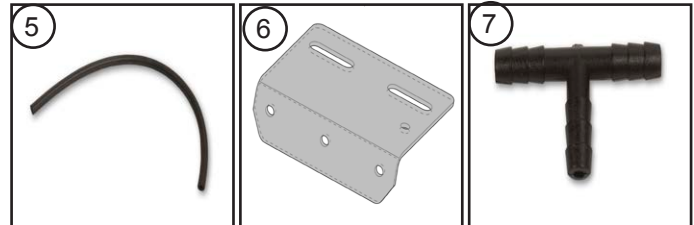
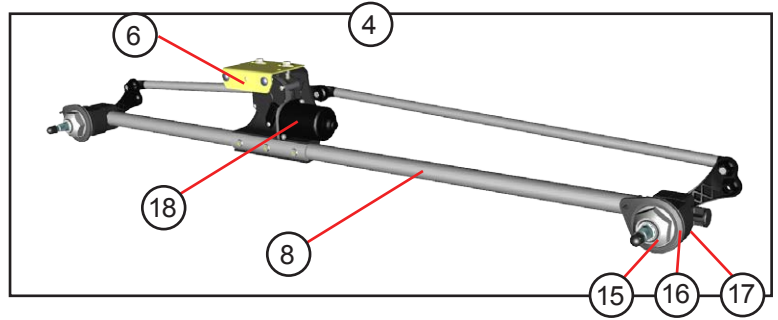
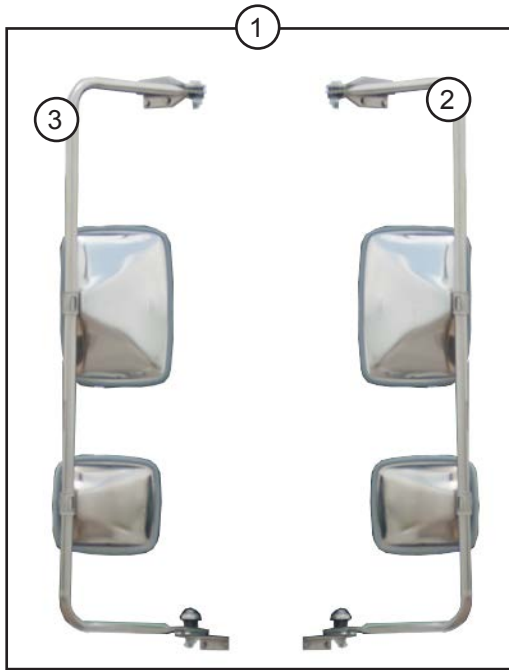


ITEM #	PART #	DESCRIPTION	QTY.	UNIT
	083130592	ROLL-UP DOOR 84H NON F/O SL	1	EA
N/S	005774400	MOUNTING ANGLE	2	EA
1	PER S/N	VERTICAL TRACK ASM.- R/H (CURBSIDE)	1	EA
N/S	PER S/N	VERTICAL TRACK ASM.- L/H (ROADSIDE)	1	EA
NS	117073400	TRACK KEYLESS MOD (47009726)	1	EA
2	N/A	HEX NUT - 5/16" NC	6	EA
3	N/A	LOCK WASHER - 5/16"	6	EA
4	N/A	HEX HEAD BOLT - 5/16" NC X 7/8"	6	EA
5	61380	BEARING ASSEMBLY	2	EA
6	47009906	HEX HEAD SET SCREW - 3/8" NC X 7/8"	6	EA
7	1116524	CABLE DRUM - L/H (ROADSIDE)	1	EA
8	61379	SPRING ANCHOR BRACKET	1	EA
9	1116586	BEARING - SPRING ANCHOR PLUG	1	EA
10	47003640	SPRING ANCHOR PLUG - 2 1/2" I.D. SPRING	1	EA
11	N/A	FILLER PLUG - 2 1/2" I.D. SPRING	1	EA
12	47003641	SPRING - 2 1/2" I.D. - #5 X 30" LONG	1	EA
13	47003642	COUNTERBALANCE SHAFT - 58 3/4" LONG	1	EA
14	47003643	SPRING WINDING PLUG - 2 1/2" I.D. SPRING	1	EA
15	1116523	CABLE DRUM - R/H (CURBSIDE)	1	EA
16	N/A	HEX HEAD BOLT - 1/4" NC X 1 3/4"	2	EA
17	47003644	HEAD PROTECTOR	2	EA
18	N/A	LOCK WASHER - 1/4" I.D.	14	EA
19	N/A	HEX NUT - 1/4" NC	14	EA
20	PER S/N	HORIZONTAL TRACK - R/H (CURBSIDE)	1	EA
N/S	PER S/N	HORIZONTAL TRACK - L/H (ROADSIDE)	1	EA
21	61384	CABLE ASSEMBLY - 110" LONG	1	PR
22	47106602	BRUSH SIDE SEAL - 1" X 85.75" LONG	2	EA
23	47003648	BRUSH RETAINER - SIDE SEAL - 87" LONG	2	EA
24	PER S/N	WEATHERTITE TOP PANEL - 10 1/8" X 58 3/4"	1	EA
25	PER S/N	WEATHERTITE INTERM PANEL - 15" X 58 3/4"	3	EA
26	PER S/N	WEATHERTITE INTERM LOCK PANEL ASM. - 15" X 58 3/4"	1	EA
27	PER S/N	WEATHERTITE BOTTOM PANEL - 15" X 58 3/4"	1	EA
28	47003653	SAFETY CHAIN LOCK ASSEMBLY	1	EA
29	76431026	STAINLESS STEEL SAFETY CHAIN W/XM - 3343 SLEEVE	1	EA
30	N/A	RIVET - STAINLESS STEEL - 1 1/8"	28	EA
31	47003674	PULL STRAP - 62" LONG (BLACK)	1	EA
32	47000827	PULL STRAP RETAINER	1	EA
33	N/A	SPLINED CARRIAGE BOLT - 1/4" NC X 1 1/2"	2	EA
34	47003675	CATCH MOUNTING PLATE - R/H (CURBSIDE)	1	EA
N/S	47003676	CATCH MOUNTING PLATE - L/H (ROADSIDE)	1	EA
35	N/A	STEP BOLT - 1/4" NC X 1 1/4" STAINLESS STEEL	8	EA
36	47003677	LOCK CATCH	2	EA
37	47000080	END LATCH - R/H (CURBSIDE)	1	EA

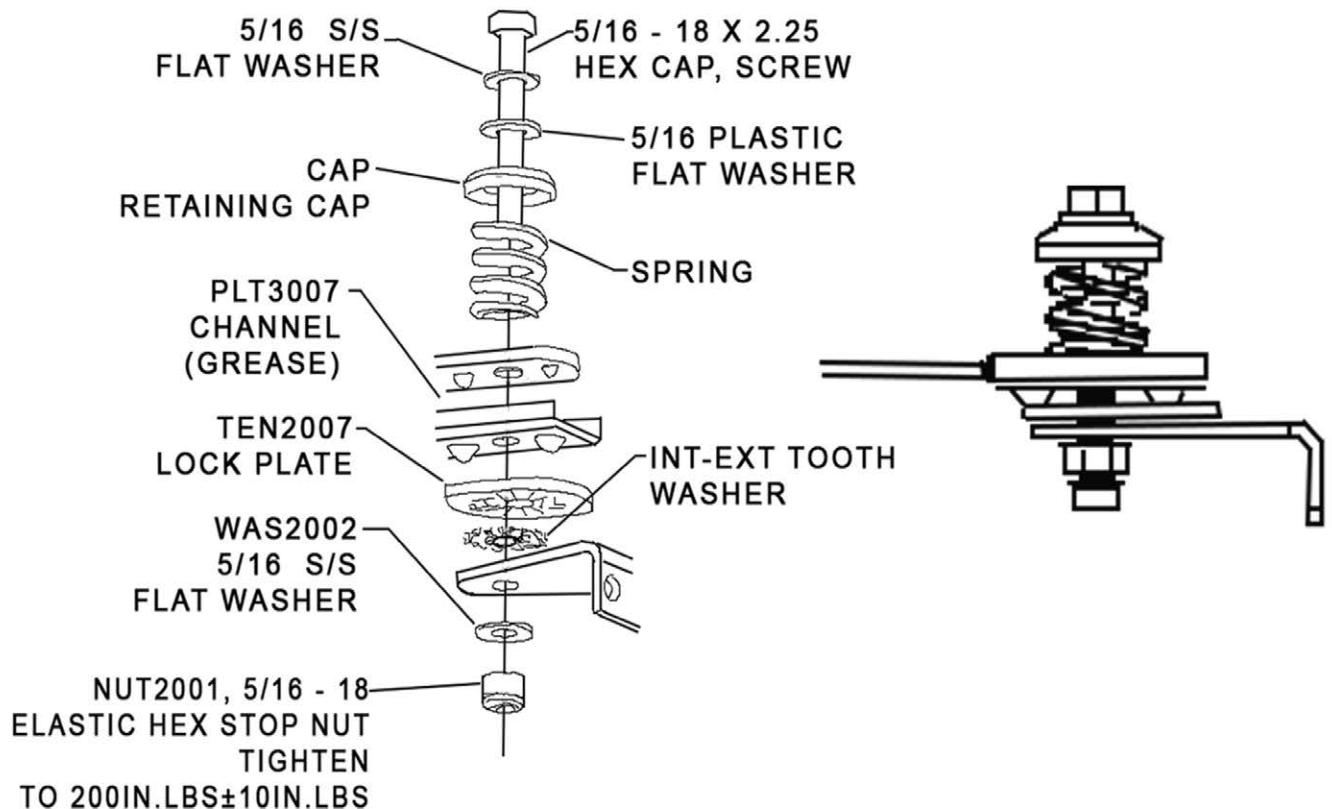
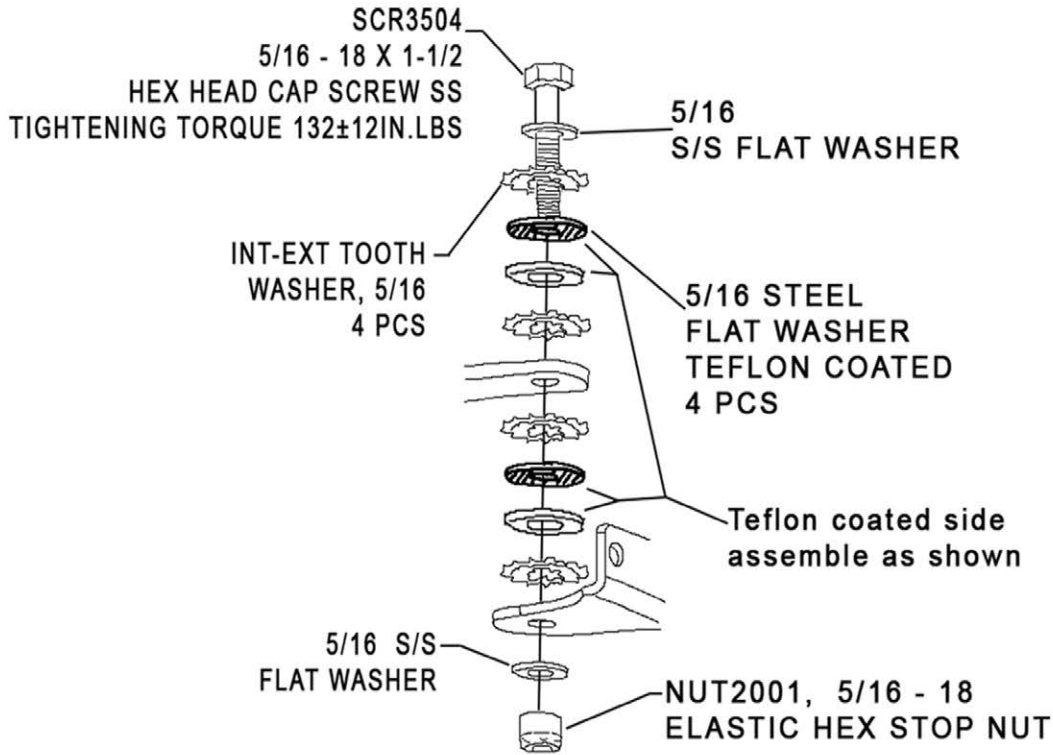
ITEM #	PART #	DESCRIPTION	QTY.	UNIT
N/S	47000081	END LATCH - R/H (ROADSIDE)	1	EA
38	N/A	FLANGE LOCK NUT - 5/16" NC	4	EA
39	47003678	LOCK CABLE ASSEMBLY - 24 - 9/16" LONG	2	EA
40	N/A	RIVET - STAINLESS STEEL - 1" LONG	46	EA
41	47003679	CENTER CONTROL ASSEMBLY	1	EA
42	1116535	PLAIN "L" HANDLE	1	EA
43	N/A	OVAL HEAD MACHINE SCREW - #10 - 32 X 1 1/4"	2	EA
44	47003680	BEST CYLINDER KIT - (NO CORE OR KEYS)	1	EA
45	N/A	FLAT WASHER - 1/4" I.D.	3	EA
46	47000082	TOP CAM CATCH	1	EA
47	N/A	LOCK NUT - 1/4" NC	1	EA
48	1116536	LIFT HANDLE	1	EA
49	47003681	RETAINING RING	1	EA
50	N/A	COTTER PIN - 3/32" DIA.	2	EA
51	47009923	CABLE ANCHOR BRACKET	2	EA
52	1116538	CABLE ANCHOR PIN	2	EA
53	47003682	LOCK COVER - ALUMINUM - 58 1/4" LONG	1	EA
54	N/A	1/4" POP RIVET	30	EA
55	47003683	BOTTOM SEAL - HEAVY DUTY - 58 3/4" LONG	1	EA
56	47003684	BOTTOM ANGLE - 53 3/4" LONG	1	EA
57	47003685	HEAVY DUTY BOTTOM FIXTURE - R/H (CURBSIDE)	1	EA
N/S	47003694	HEAVY DUTY BOTTOM FIXTURE - L/H (ROADSIDE)	1	EA
58	N/A	RIVET - STAINLESS STEEL - 1 1/4" LONG	4	EA
59	61360	ROLLER - SEALED	14	EA
60	47009917	SPACER WASHER - ROLLER	16	EA
61	61419	END HINGE	10	EA
62	61397	CENTER HINGE	10	EA
63	1116531	BASE - ADJUSTABLE TOP FIXTURE	2	EA
64	1116530	SLIDE - ADJUSTABLE TOP FIXTURE	2	EA
65	N/A	FLAT WASHER - 3/8" I.D.	2	EA
66	47009912	E-LOK BOLT - 3/8" NC	2	EA
67	47003686	HEAD SEAL RETAINER - 58 3/4" LONG	1	EA
68	PER S/N	BRUSH SIDE SEAL - 1 1/2" BRUSH X 86" LONG	2	EA
N/S	PER S/N	BRUSH SIDE SEAL - 1 1/2" BRUSH X 86" LONG	2	EA
N/S	PER S/N	BRUSH HEAD SEAL - 1 1/2" BRUSH X 54" LONG	1	EA
69	N/A	DRIVE RIVET - 3/16" X 15/32" LONG	4	EA
70	47003690	HEAD SEAL RETAINER - 54" LONG	1	EA
N/S	47003691	SIDE RETAINER 86" -LONG	1	EA
71	47003692	BACK PLATE-TWO-POINT LOCK W/BEST CYLINDER	1	EA
72	47003693	TRACK CLOSE-OUT	2	EA
N/S	127050404	WIRING COVER	1	EA
NS	127050404	CHANNEL WIRE COVER	1	EA
NS	127050402	ANGLE WIRE COVER	2	EA

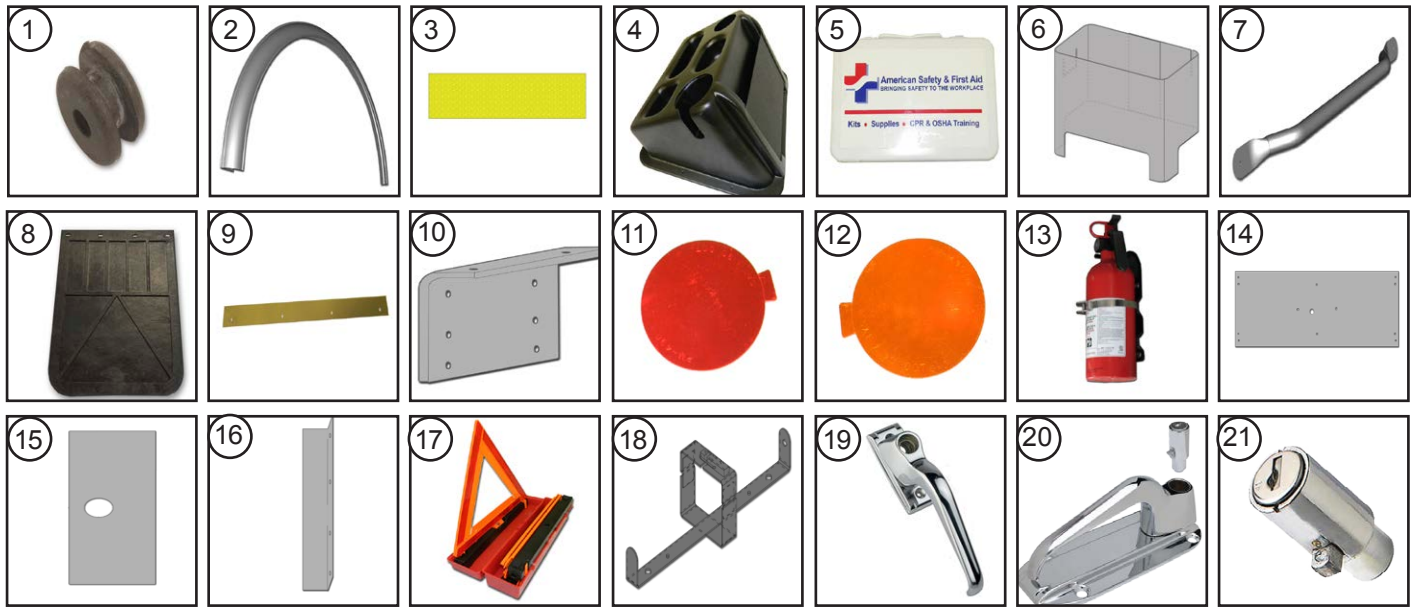


ITEM #	PART #	DESCRIPTION	QTY.	UNIT
1	115008001	BUMPER FRONT INSTALLATION	1	EA
2	004057457	BUMPER STEEL 93W 11"	1	EA
3	115008402	BRACKET BUMPER STEEL 7GAX4.5X12.56 ROADSIDE	1	EA
4	115008403	BRACKET BUMPER STEEL 7GAX4.5X12.56 CURBSIDE	1	EA
5	008257203	BUMPER REAR ASSEMBLY 93W 12" G/STRU FLAT	1	EA
6	115008200	BUMPER FRONT WELDMENT ASSEMBLY ROADSIDE	1	EA
7	115008201	BUMPER FRONT WELDMENT ASSEMBLY CURBSIDE	1	EA

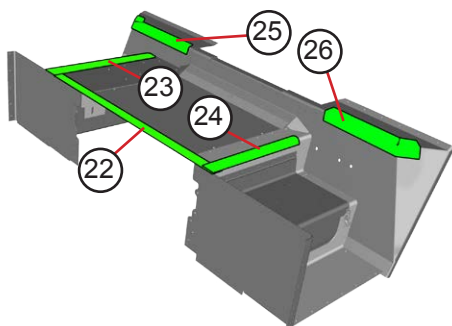


ITEM #	PART #	DESCRIPTION	QTY.	UNIT
1	007251004	MIRROR INSTALLATION	1	PR
2	47005641	MIRROR ASSEMBLY ROADSIDE	1	EA
3	47005642	MIRROR ASSEMBLY CURBSIDE	1	EA
4	117363001	WINDSHIELD WIPER INSTALLATION (INCLUDES ITEMS 5,6,7, 8)	1	EA
5	1107122	HOSE .188 ID WSW	12	FT
6	083055454	BRACKET WIPER MOTOR	1	EA
7	1101694	TEE WSWA U/T	1	EA
8	47004188	WIPER SYSTEM TBLR 2 PIVOT	1	EA
9	007363004	WIPER ARM WITH BLADE	1	EA
10	47004134	BLADE 24IN BLACK	1	EA
11	47004186	ARM WSW WET 22IN RADIAL BLACK	1	EA
12	47004137	RSVR W/PUMP WSWA	1	EA
13	003705413	BRACKET MOUNTING RSVR	1	EA
14	46021115	CLIP BODY LARGE PAN	1	EA
15	47005901	NUT	2	EA
16	47005902	PIVOT COVER	2	EA
17	47005903	SPACER	2	EA
18	47005900	MOTOR WINDSHIELD WIPER	1	EA
NS	47005625	NON HEATED MIRROR ROADSIDE (CURBSIDE 47005624) SEE COVER PIC	1	EA





ITEM #	PART #	DESCRIPTION	QTY.	UNIT
1	1107324	GROMMET	1	EA
2	083129404	FENDER RUBBER TYPB X69.25 RR (OPTIONAL)	2	EA
3	138100438	ADHESIVE ANTI SLIP VINYL 4.5X24	20	EA
4	47009626	CENTER CONSOLE CUP HOLDER	1	EA
5	47009644	FIRST AID KIT - 10 PERSON	1	EA
6	137024400	SHIELD SPLASH BATTERY 45200014X12X52	1	EA
7	47001063	GRAB HANDLE 1" AL 31.875L 2.75DP ANZ	5	EA
8	1107308	MUD FLAPS BLACK NO LOGO 20X24	1	PR
9	7504428	RETAINER MUD FLAPS	2	EA
10	80795014	ANGLE RETAINER MUD FLAPS	2	EA
11	46025017	REFLECTOR RED SPITFIRE 2.88 DIA. X4	1	EA
12	46025018	REFLECTOR AMBER SPITFIRE 2.88 DIA. X2	1	EA
13	47009622	FIRE EXTINGUISHER 5LB.	1	EA
14	100092400	BRACKET DOME LAMP MOUNTING (2 LOAD / 1 CAB)	0	EA
15	78331095	PLATE TIE DOWN	23	EA
16	97650306	ANGLE TIE DOWN	1	EA
17	47009547	REFLECTOR KIT - TRIANGLES	1	EA
18	47009548	BRACKET REFLECTOR FLARE KIT	1	EA
19	47001192	HANDLE REAR CHROME RUD W/O CYCLINDER	0	EA
20	47000690	HANDLE SIDE CHROME W/O CYCLINDER	0	EA
21	47001181	CYLINDER REMOVABLE (CHROME)	0	EA



TRIM - STEP ASSEMBLY

- 22 - 083019418 - TRIM MAT @ O/LINE ALD .08X2.29X53
- 23 - 090019402 - TRIM STEP ALD .08X2.68X27.25 LH
- 24 - 090019403 - TRIM STEP ALD .08X2.68X27.25 RH
- 25 - 090019400 - TRIM TOEBOARD ALD .08X7.89X22.64 LH
- 26 - 090019401 - TRIM TOEBOARD ALD .08X7.89X22.64 RH
- NS - 42002055 - INSUL SOUND ABSRB FLOORMAT 60X95



ITEM #	PART #	DESCRIPTION	QTY.	UNIT
1	115085004	HORN INSTALLATION	1	EA
2	115085401	MOUNTING BRACKET HORN	1	EA
3	98150310	GRAB HANDLE AL 450243X26.38	3	EA
4	47009282	SHELF WORK STATION NO LOCK / DIVIDERS	1	EA
5	098137406	PLATE STEP FBG .125X10X16	1	EA
6	098137405	PLATE STEP FBG .125X9.1X17	1	EA
7	093116410	INSULATION DASH WALL BTRLAX3-2A	1	EA
8	90187300	GRAB HANDLE .5DIAX15.7	1	EA
9	098137400	PLATE STEP OVERLAY FBG .125X5X24.12	1	EA
10	098137401	PLATE STEP OVERLAY FBG .125X7.75X22	1	EA
11	46004443	GROMMET REAR LIGHTS	4	EA
12	47106596	SEAL BRUSH SIDE 1.0" / SEAL BRUSH HEADER 47106599 1.5"	2	EA
13	1113539	PLUG LIGHTER 12V	1	EA
14	47005504	SUNVISOR (BRACKET-090061400 AL.102X2.5X13.97 RH)	2	EA
15	1113430	DOCUMENT POUCH	1	EA
16	1107072	GROMMET	1	EA
17	11007087	GROMMET (HEATED MIRRORS)	2	EA
18	43004362	BAG PLASTIC DOC WALK-IN	1	EA
19	46025559	ANTENNA TP/SI	1	EA
21	115028401	ENGINE BOX INSULATION 42002056X13.55X28.25	1	EA
22	115028402	ENGINE BOX INSULATION 42002056X14.28X31.29	1	EA
23	115028403	ENGINE BOX INSULATION 42002056X15.09X33.05	1	EA
24	115028404	ENGINE BOX INSULATION 42002056X21.25X30.59	1	EA
25	098005406	ENGINE BOX INSULATION 42002056X19.58X30.72	1	EA



ITEM #	PART #	DESCRIPTION	QTY.	UNIT
1	46023508	SWITCH ROCKER CAB DOME SPST ON-OFF	1	EA
2	46023603	SWITCH ROCKER FRONT LOAD DOME SPDT ON-ON	1	EA
3	46023605	SWITCH ROCKER DASH FAN SPDT ON-OFF-ON	1	EA
4	46030011	FAN DASH 2 SPEED 270CFM (GROMMET - 44000052)	1	EA
5	46026414	FLASHER TURN SIGNAL LED	1	EA
6	46001365	LAMP MARKER LED AMBER	6	EA
7	46001366	LAMP MARKER LED AMBER	1	EA
8	46001367	LAMP MARKER LED RED	1	EA
9	46004443	GROMMET 4" BLACK	4	EA
10	46001447	LAMP BACK UP LED	2	EA
11	46002266	LAMP COMBO STOP/TURN/TAIL	4	EA
12	47009642	LAMP LICENSE PLATE BOX	1	EA
13	46002637	LAMP DOME RECESSED LED CAB (CARGO X3 - 46002637)	3	EA
14	100092400	BRACKET DOME LAMP CAB AL .07X9X25 (CARGO X3 - 100092401)	3	EA
15	47006065	RING TUBE STEEL 4IN ROUND FLANGE MTD	3	EA
16	48200114	MONITOR 5.6"	1	EA
17	48200043	CAMERA BACKUP KIT	1	EA
18	46001905	LAMP AUX S/LH+RH TURN BAR (GROMMET - 1107109)	1	EA
19	46003404	LAMP STRB LED AMB 4"	2	EA
20	46000206	HEADLAMP RECTANGLE ASSEMBLY (BRACKET ONLY - 46000210)	2	EA
21	46027653	LAMP P/T LED FRONT AMBER / (GROMMET OVAL BLACK 46004402)	1	EA
22	46003017	LAMP INT WIPER	1	EA
23	46025593	RADIO AM/FM/CD/WB/MON DOUBLE DIN	1	EA
24	46025590	SPEAKER 6.5 IN.	1	PR
25	46022608	CUP MOUNTING W/O TGL SW	1	EA
26	46026378	RECP 12V POWER W/TETHER SS BDY	2	EA

PAGE	PART #	DESCRIPTION	QTY.	UNIT
24	007388320	HARN JPR Y 2WR P&P X240 RF FD	1	EA
25	007388322	HARN JPR Y 2WR P&P X120	1	EA
26-27	007391210	HARN RF/N 2008 STRK	1	EA
28	46025591	HARN SPKR ASA# MOSPKHRN	1	EA
29-30	46025593	RADIO AM/FM/WB/CD JEN	1	EA
31	47004506	HARN PGTL PUMP WSWA 2015	1	EA
32	88117437	HARN JPR TEE GNRC	1	EA
33	090087200	HARN RR WRG LH SILL WCC/FCC	1	EA
34	090087202	HARN RR WRG RH SILL WCC/FCC	1	EA
35	090093202	HARN JPR CRG D/LP GEN .180BLLT	1	EA
36	092084201	HARN RKR SW JPR FOR OPT	1	EA
37-38	093093201	HARN RF 13/16FT6IN M100	1	EA
39	093093205	HARN TRAN CHMSL READY M100	1	EA
40	110094201	HARN MOD SVLCD MON	1	EA
41	115080201	HARN A/C LOW PRESS SW F-59	1	EA
42-44	115084202	HARN CMD CTR F59 2011	1	EA
45	115084203	HARN FUSE CTR F59 2011	1	EA
46	115085202	HARN HD F59 2011 W/ HORN	1	EA
47	115088201	HARN JPR I/P BLNT CUT F59 2011	1	EA
48	115088202	HARN JPR I/P WPR F59 2011	1	EA
49	140088200	HARN JPR Y 2WR P&P X48	1	EA
50	152081206	HARN SW & REV TRIG W/ RLY	1	EA

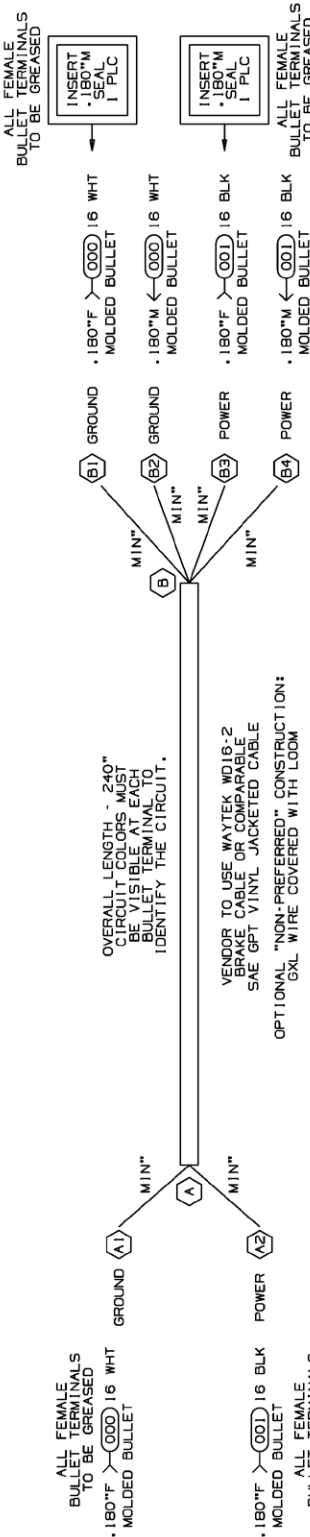
DRAWING NO.
007388320

REV
RELEASE TO PRODUCTION

SHT
L of 1

REV.	DESCRIPTION	ISSUE DATE	BY

CIRCUIT	DESCRIPTION	END POINTS	FUNCTION
000	16 WHT	A1, B1, B2	GROUND
001	16 BLK	A2, B3, B4	POWER



8. VENDOR MAY REPLACE PIGTAILS WITH WIRING TO APPROVED MOLDINGS OR CONNECTORS. PIGTAILS SHOWN IN TERMINAL VIEW.
7. HARNESS TO BE TESTED FOR CONTENT, OPENS, SHORTS, AND CONTINUITY.
6. CONNECTORS SHOWN FROM WIRE ENTRY SIDE, UNLESS OTHERWISE NOTED.
5. SPLICES TO BE AUTOMATED WITH HEAT SHRINK TUBING. HARNESS MUST BE ACCEPTED FOR FABRICATION IF NECESSARY.
4. TAPE [1111096]: 6" AT BREAKOUTS AND 2" AT LOOM ENDS.
3. HARNESS TO HAVE A LABEL WITH THE ORGANIZATION, PART NUMBER, REVISION LEVEL, AND DATE OF MANUFACTURE.
2. SPLIT POLY LOOM UNLESS JACKETED CABLE IS USED.
1. JACKETED CABLE AS NOTED.

NOTES:

PROPRIETARY

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GENERAL STANDARDS UNLESS OTHERWISE NOTED:

1. WELDING TO A307	2. GASKETS TO A105	3. PIPE FITTING TO MSS SP-45	4. PLATE FITTING TO MSS SP-43
5. BOLT AND NUT TO A193	6. WIRE TO A503	7. GASKET TO A105	8. CABLE TO SAE J1126
9. SPLIT POLY LOOM TO MIL-STD-883C	10. POLYURETHANE LAMINATE TO MIL-STD-883C	11. TAPE TO MIL-STD-1700	12. MARKING TO MIL-STD-883C

DATE: 24OCT07 TMC
DATE: 24OCT07 TMC
DATE: 07-1587 TMC

DO NOT SCALE

HARNESSES: JUMPER 240" 2W "V" (180" TO 180" / 180" EACH CKT)

DRAWING NO.: 007388320

SHT L of 1

HARNESSES AND LOOM TOLERANCES

- UP TO 60" = -0/+2"
- 60" TO 100" = -0/+4"
- 100" TO 200" = -0/+5"
- 200" TO 400" = -0/+6"
- 400" TO 600" = -0/+7"
- OVER 600" = -0/+8"
- BO TO BO = -0/+2"

TOLERANCE IS NOT ACCUMULATIVE. LENGTH APPLIES TO OVERALL HARNESS LENGTH, BREAKOUT TO END, OR LOOM.

FIRST USE: BEACON/STROBE INSTALLATION BASED ON: 007388322

REV.	DESCRIPTION	DATE	SHT
001	RELEASE TO PRODUCTION		1 Of 1

DRAWING NO.	REV.	SHT
007388322		1 Of 1

CIRCUIT	DESCRIPTION	END POINTS	FUNCTION
000	16 WHT	A1,B1,B2	GROUND
001	16 BLK	A2,B3,B4	POWER



- VENDOR MAY REPLACE PIGTAILS WITH WIRING TO APPROVED MOLDINGS OR CONNECTORS. PIGTAILS SHOWN IN TERMINAL VIEW.
- HARNESS TO BE TESTED FOR CONTENT, OPENS, SHORTS, AND CONTINUITY.
- CONNECTORS SHOWN FROM WIRE ENTRY SIDE, UNLESS OTHERWISE NOTED.
- SPLICES TO BE AUTOMATED WITH HEAT SHRINK TUBING. TUBING MUST BE APPLICABLE FOR U.S. AND CANADA. FABRICATION IF NECESSARY.
- TAPE [1111096]: 6" AT BREAKOUTS AND 2" AT LOOM ENDS.
- HARNESS TO HAVE A LABEL WITH LOGO AND PART NUMBER AND VISION LEVEL, AND DATE OF MANUFACTURE.
- SPLIT POLY LOOM UNLESS JACKETED CABLE IS USED.
- JACKETED CABLE AS NOTED.

- NOTES:
- PROPRIETARY
- This is a proprietary drawing. It is to be used solely for the purpose of manufacturing the component described herein. It is not to be used for any other purpose without the express written consent of Morgan Olson. All rights reserved.
- GENERAL STANDARDS UNLESS OTHERWISE NOTED:
- WIRING TO BE DONE IN ACCORDANCE WITH SAE J1304 AND J1309.
 - WIRING TO BE DONE IN ACCORDANCE WITH SAE J1304 AND J1309.
 - WIRING TO BE DONE IN ACCORDANCE WITH SAE J1304 AND J1309.
 - WIRING TO BE DONE IN ACCORDANCE WITH SAE J1304 AND J1309.
 - WIRING TO BE DONE IN ACCORDANCE WITH SAE J1304 AND J1309.
- DATE: 09JUL07 09JUL07 09JUL07
 TMC TMC
 DO NOT SCALE
 007388322

MORGAN OLSON

GENERAL STANDARDS UNLESS OTHERWISE NOTED:

- WIRING TO BE DONE IN ACCORDANCE WITH SAE J1304 AND J1309.
- WIRING TO BE DONE IN ACCORDANCE WITH SAE J1304 AND J1309.
- WIRING TO BE DONE IN ACCORDANCE WITH SAE J1304 AND J1309.
- WIRING TO BE DONE IN ACCORDANCE WITH SAE J1304 AND J1309.
- WIRING TO BE DONE IN ACCORDANCE WITH SAE J1304 AND J1309.

DATE: 09JUL07 09JUL07 09JUL07
 TMC TMC
 DO NOT SCALE
 007388322

HARNESS AND LOOM TOLERANCES

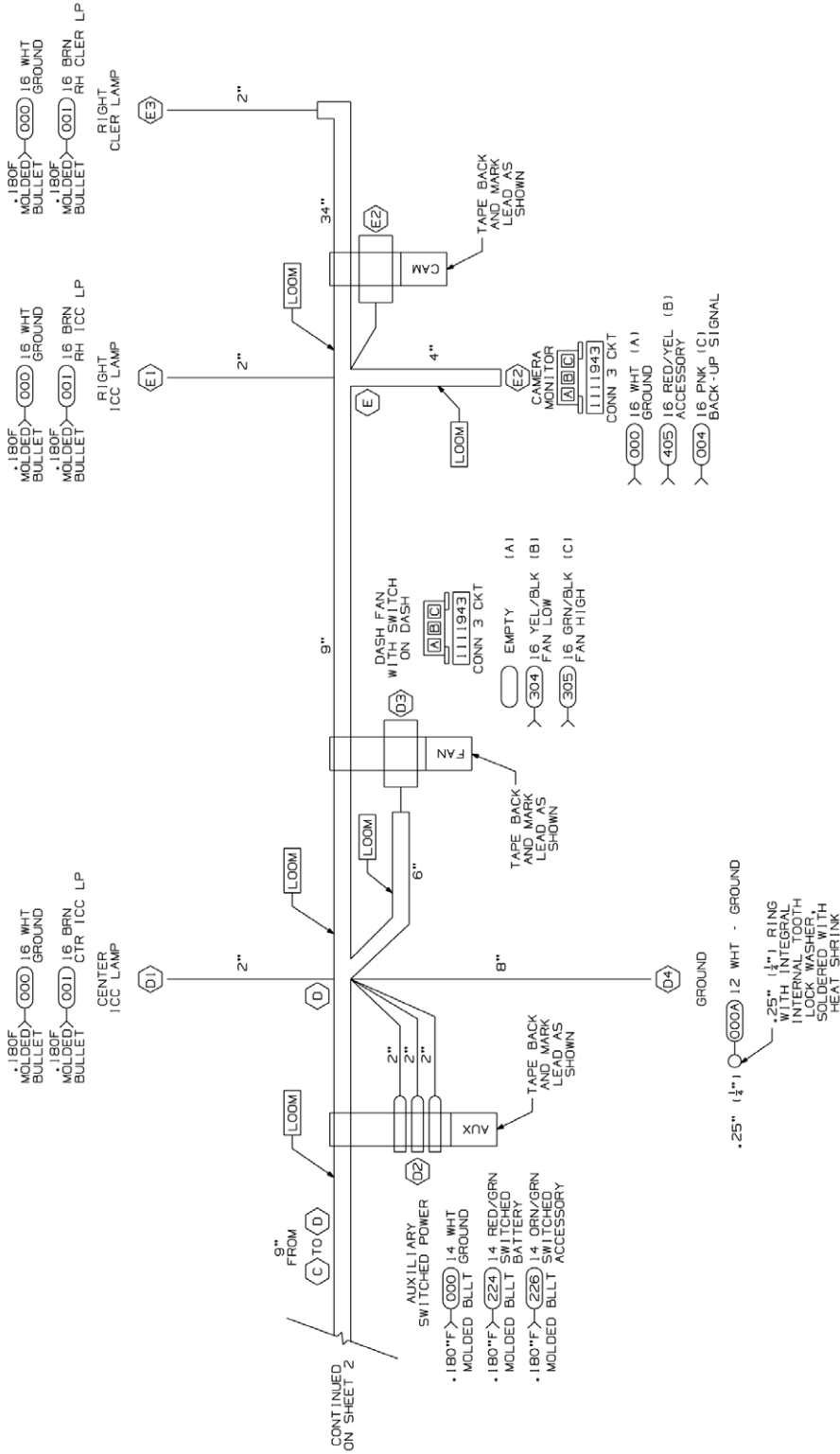
UP TO 60" = +/-2"
 60" TO 100" = +/-4"
 100" TO 200" = +/-5"
 200" TO 400" = +/-6"
 400" TO 600" = +/-7"
 OVER 600" = +/-8"

BO TO BO = +/-2"
 HARNESS JUMPER 120" 2W "V"
 (180" TO 180" / 180" EACH CKT)

TOLERANCE IS NOT ACCUMULATIVE. LENGTH APPLIES TO OVERALL HARNESS LENGTH, BREAKOUT TO END, OR LOOM.

FIRST USE: CURBSIDE MID-BODY MARKER

REV	DESCRIPTION	BY	DATE
007391210	A		
RELEASE FOR PRODUCTION			
A REDRAWN & REVISED			
DEFW			
3/11/14			
P21210			



- VENDOR TO GREASE FEMALE BULLET TERMINALS.
- THIS IS A PURCHASED HARNESS. NO BILL OF MATERIAL EXISTS.
- VENDOR MAY REPLACE WITH APPROVED MOLDING FOR CONNECTORS. PICTALS SHOWN IN TERMINAL VIEW.
- HARNESS TO BE TESTED FOR CONTINUITY, SHORTS, AND CORRECTNESS.
- CONNECTORS SHOWN FROM WIRE ENTRY SIDE, UNLESS OTHERWISE NOTED.
- SPLICES TO BE AUTOMATED LINED WITH SOLDER, AND ADHESIVE LINED HEAT SHRINK TUBING.
- TAPE (1111098): 6" AT BREAKOUTS, 2" AT 18" INTERVALS FOR UNINTERRUPTED LOOM LENGTHS GREATER THAN 24", AND 2" AT LOOM ENDS.
- HARNESS TO HAVE A LABEL SHOWING MORGAN OLSON PART NUMBER, REVISION NUMBER, AND DATE OF MANUFACTURE.
- SPLIT POLY LOOM UNLESS OTHERWISE NOTED.
- GXL WIRE.

NOTES:

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GENERAL STANDARDS UNLESS OTHERWISE NOTED:	
1. MOLDING: 1. 0.9 DECIMALS	2. 0.001 INCHES
3. DIMENSIONS: 0.005 INCHES	4. DIMENSIONS: 0.005 INCHES
5. DIMENSIONS: 0.005 INCHES	6. DIMENSIONS: 0.005 INCHES
DATE	DATE
20DEC07	07-1852
DO NOT SCALE	2008 SEED TRK
HARN ROOF NOSE 2008 SEED TRUCK 2P DYN PK WPR	
SCALE	NONE
DRAWING NO.	007391210
SHT	1 of 2
REV	A

HARNES AND LOOM TOLERANCES

UP TO 60"	-0/+2"
60" TO 100"	-0/+4"
100" TO 200"	-0/+5"
200" TO 400"	-0/+6"
400" TO 600"	-0/+7"
OVER 600"	-0/+8"
BO TO BO	-0/+2"

LENGTHS APPLY FROM BREAKOUT TO BREAKOUT, OR BREAKOUT TO WIRE ENTRY SIDE OF CONNECTOR, OR END OF COVER.

BASED ON
005391200

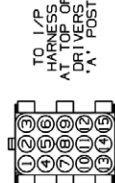
DRAWING NO.	REV	SHT
007391210	A	2 of 2
DESCRIPTION	DATE	BY
RELEASE FOR PRODUCTION		
REWORK & REVISED		

CIRCUIT	GA/COLOR	END POINTS	FUNCTION
109	16 ORN	A1,C2	WIPER PK SWITCH OUTPUT
224	14 RED/GRN	A1,D2	BATTERY - SWITCHED
226	14 ORN/GRN	A1,D3	ACCESSORY - SWITCHED
304	16 YEL/BLK	A1,D3	DASH FAN LOW
305	16 GRN/BLK	A1,D3	DASH FAN HIGH
405	16 RED/YEL	A1,E2	AUXILIARY ACCESSORY

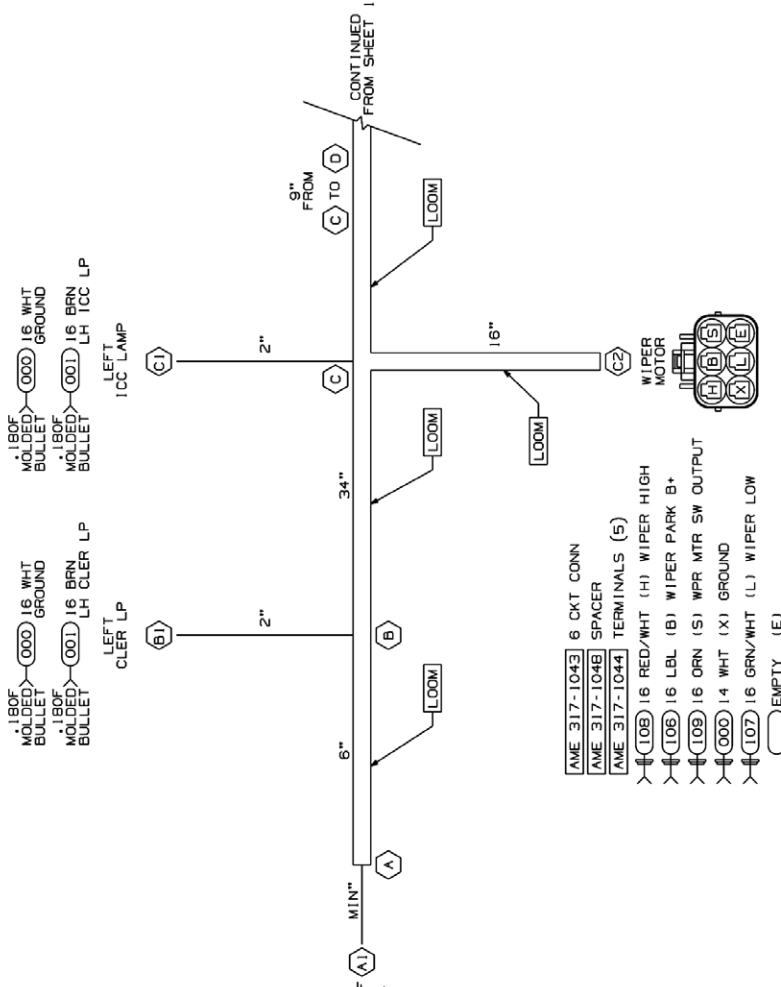
CIRCUIT	GA/COLOR	END POINTS	FUNCTION
000A	12 WHT	A1,D4, SPLICE 1	GROUND
000	14/16 WHT	B1,C1,C2,D1,D2,E1,E2,E3,SPLICE 1	GROUND
001	16 BRN	A1,B1,C1,D1,E1,E3	CLEARANCE/1CC LPS
004	16 PNK	A1,E2	BACK-UP SIGNAL
106	16 LBL	A1,C2	WIPER PARK SWITCH B+
107	16 GRN/WHT	A1,C2	WIPER LOW
108	16 RED/WHT	A1,C2	WIPER HIGH

[SPLICE 1]
000A, 12 WHT, IS TO BE
SPliced TO THE
GROUND CLAMP
VENDOR TO DETERMINE
LOCATION(S)

- ← (000A) 12 WHT (1) GROUND
- ← (001) 16 BRN (2) CLEARANCE/1CC LAMPS
- ← (004) 16 PNK (3) BACK-UP SIGNAL
- ← (106) 16 LBL (4) WIPER PARK SWITCH B+
- ← () EMPTY (5)
- ← (107) 16 GRN/WHT (6) WIPER LOW
- ← (108) 16 RED/WHT (7) WIPER HIGH
- ← () EMPTY (8)
- ← (109) 16 ORN (9) WIPER PARK SW OUTPUT
- ← (224) 14 RED/GRN (10) BATT (SW)
- ← () EMPTY (11)
- ← (226) 14 ORN/GRN (12) ACCY (SW)
- ← (304) 16 YEL/BLK (13) FAN LOW
- ← (305) 16 GRN/BLK (14) FAN HIGH
- ← (405) 16 RED/YEL (15) ACCESSORY



AMP 1-480711-0
CONN 15 CKT
USE MALE TERMS



- [AME 317-1043] 6 CKT CONN
- [AME 317-1048] SPACER
- [AME 317-1044] TERMINALS (5)
- (108) 16 RED/WHT (H) WIPER HIGH
- (106) 16 LBL (B) WIPER PARK B+
- (109) 16 ORN (S) WPR MTR SW OUTPUT
- (000) 14 WHT (X) GROUND
- (107) 16 GRN/WHT (L) WIPER LOW
- () EMPTY (E)

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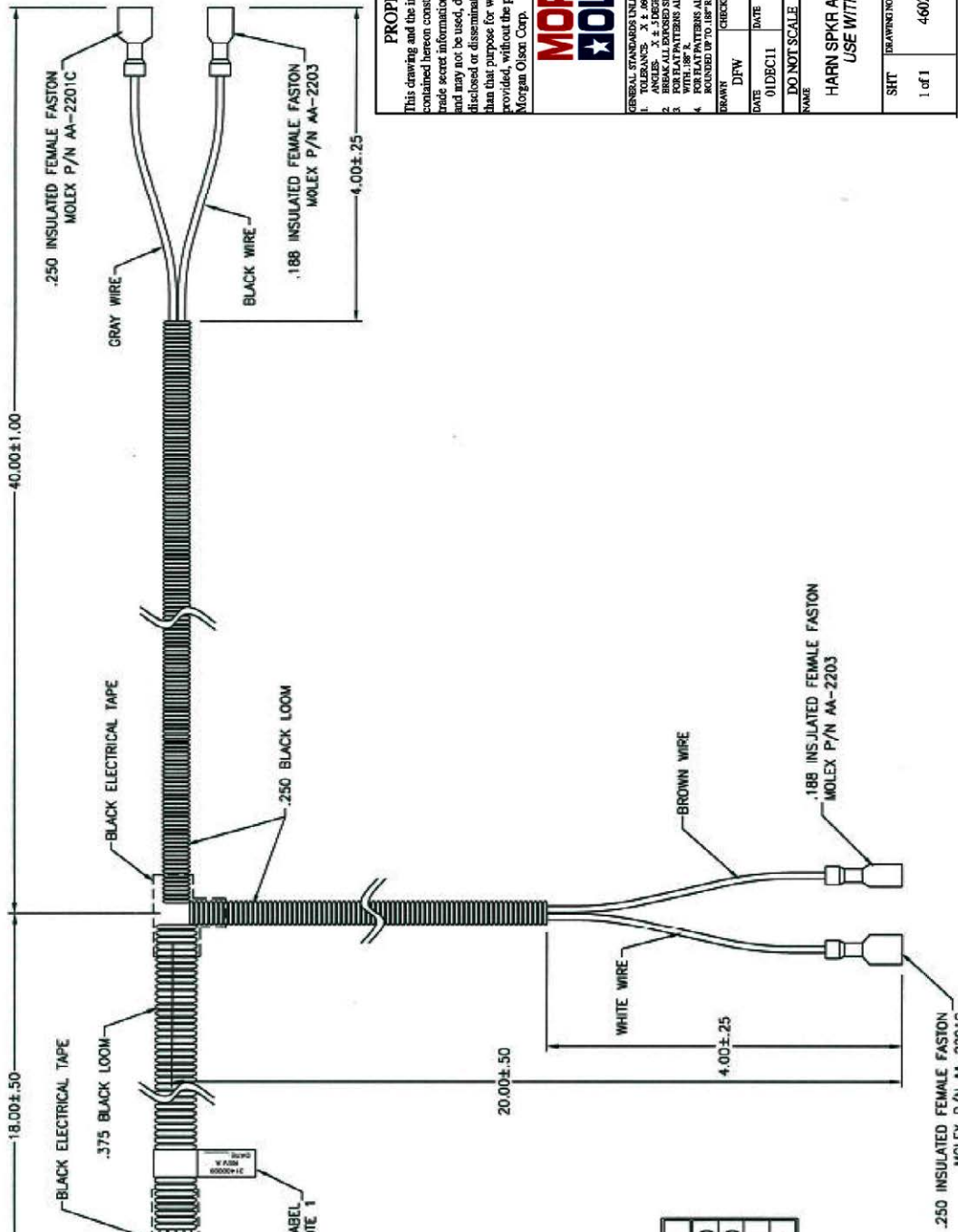
MORGAN OLSON

GENERAL STANDARDS UNLESS OTHERWISE NOTED:
1. WIRE GAUGE: 16 AWG
2. WIRE COLOR: AS SHOWN
3. FOR ALL WIRING ALL INSIDE CONDUITS MUST BE USED
4. FOR ALL WIRING ALL WIRING MUST BE IN CONDUIT
5. ALL WIRING MUST BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE
6. ALL WIRING MUST BE IN ACCORDANCE WITH THE AUTOMOTIVE WIRING STANDARDS

DATE: 20DEC07
TMC: TMC
07-1852
20DEC07
20DEC07
DO NOT SCALE
2008 SEED TRK
HARN ROOF NOSE
2008 SEED TRUCK
2P DYN PK WPR
SCALE: NONE
DRAWING NO.: 007391210
SHT: 2 of 2
REV: A

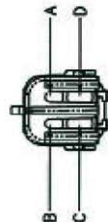
DESIGN REVISIONS	
REV	DATE
A	10/14/11 ORIGINAL

ECO/



- NOTES:
- 1) LABEL TO HAVE PART NUMBER, REVISION, AND DATE.
 - 2) ALL WIRES TO BE 20 GAUGE

PART NUMBER LABEL
SEE NOTE 1



VIEW A-A
WIRE INSERTION VIEW

PIN NO.	WIRE COLOR	DESCRIPTION
A	BLACK	RIGHT SPEAKER (-)
B	GRAY	RIGHT SPEAKER (+)
C	BROWN	LEFT SPEAKER (-)
D	WHITE	LEFT SPEAKER (+)

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GENERAL STANDARDS UNLESS OTHERWISE NOTED:

1. TOLERANCES: X ± .000, .XX ± .000, .XXX ± .000
2. ANGLES: 1 X ± .00005, .XX ± .0005, .XXX ± .0005
3. FOR PLAT PATTERNS ALL INSIDE CORNERS MUST BE ROUNDED TO .005 R.
4. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE TO BE UNLESS OTHERWISE SPECIFIED.

DATE	01/DEC/11	DATE	01/DEC/11
DESIGNED BY		CHECKED	37156
DATE		DATE	
DO NOT SCALE			

HARN SPKR ASA# MOSPK-HRN
USE WITH 46025590

SHT	1 of 1	SCALE	NONE
DRAWING NO.	46025591	REV	

Part #: **31400009**

DESCRIPTION: HARNESS, 4 PIN PACKARD TO FASTON SPEAKERS

SCALE: N/A

SHEET: 1 of 1

DATE: 10/14/11

DRAWN BY: J.HAMILTON

REV: P

AS Electronics
2602 Marina Drive
Elkhart, IN 46514
www.aselectronics.com

REV	DATE	BY	DESCRIPTION
1	10/14/11	JH	NEW
2			
3			

REV	DESCRIPTION	BY	REL. DATE
A	RELEASE TO PRODUCTION	DFW	3/5/40
	ADDED SHTS 2-6		27/JAN/12

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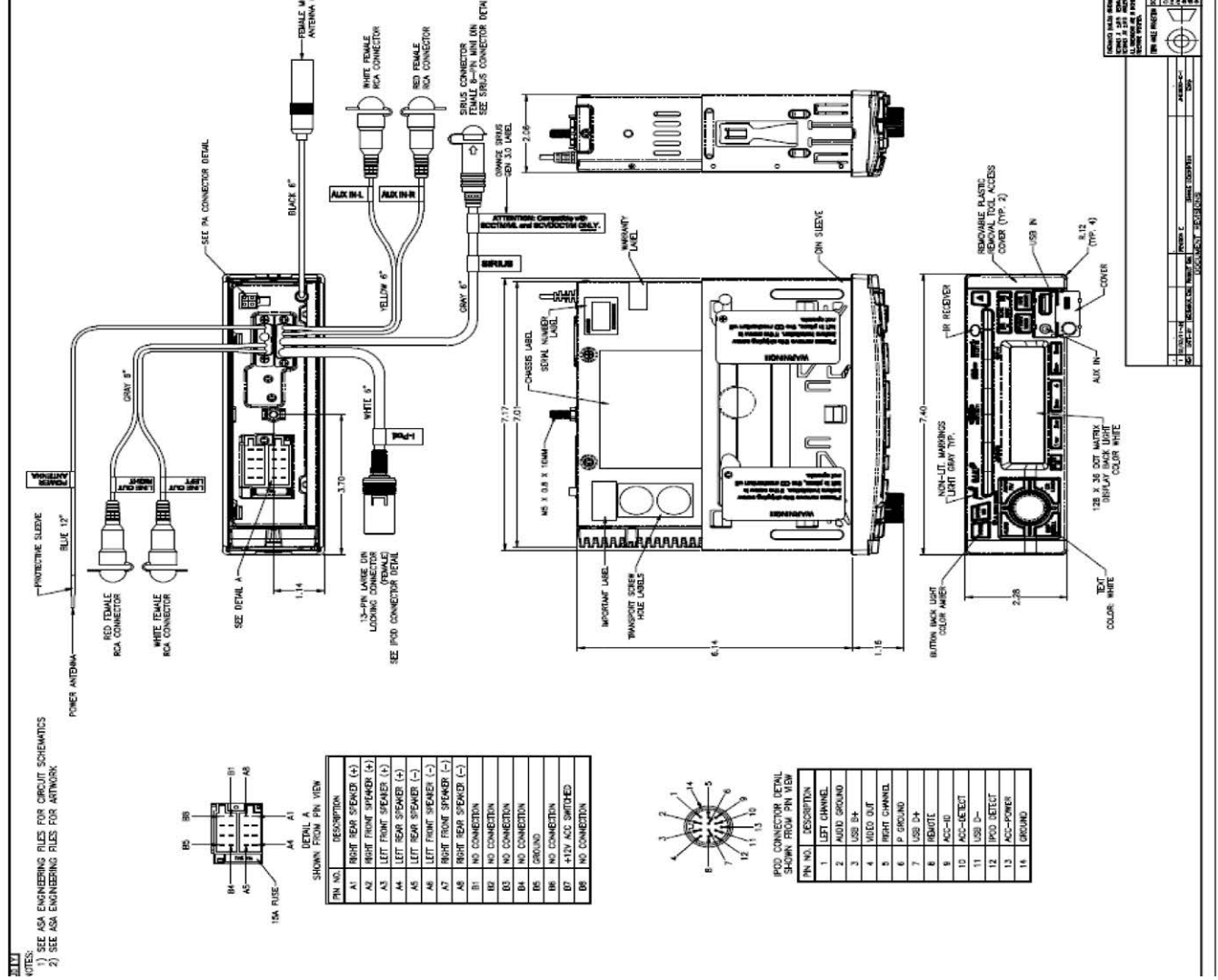


GENERAL STANDARDS UNLESS OTHERWISE NOTED:	RELEASE NO.
1. TOLERANCE .X ± .060 .XX ± .030 .XXX ± .010	DFW
2. ANGLES .X ± .5 DEGREES	DATE
3. BREAK ALL EXPOSED SHARP EDGES AND DEBURR.	27/JAN/12
4. FOR FLAT PATTERNS ALL INSIDE CORNERS MUST BE WITH 188° R.	DO NOT SCALE
5. FOR FLAT PATTERNS ALL OUTSIDE CORNERS MAY BE ROUNDED UP TO .188" R TO FACILITATE PRODUCTION	NAME
DRAWN	
CHECKED	
DATE	
27/JAN/12	

RDO AM/FM/WB/CD JEN	SCALE
#JHD3620PED W/PIGTAIL	NONE
SHT	DRAWING NO.
4 of 6	46025593
	REV
	A

DESIGN REVISIONS

REV	DATE	DESCRIPTION
A	12/17/11	ISSUE CHANGE TO REFLECT 10 WIRELESS OPERATIONS
B	02/17/12	ISSUE CHANGE TO REFLECT 10 WIRELESS OPERATIONS
C	02/17/12	ISSUE CHANGE TO REFLECT 10 WIRELESS OPERATIONS
D	02/17/12	ISSUE CHANGE TO REFLECT 10 WIRELESS OPERATIONS
E	02/17/12	ISSUE CHANGE TO REFLECT 10 WIRELESS OPERATIONS



3 NO. 5025593

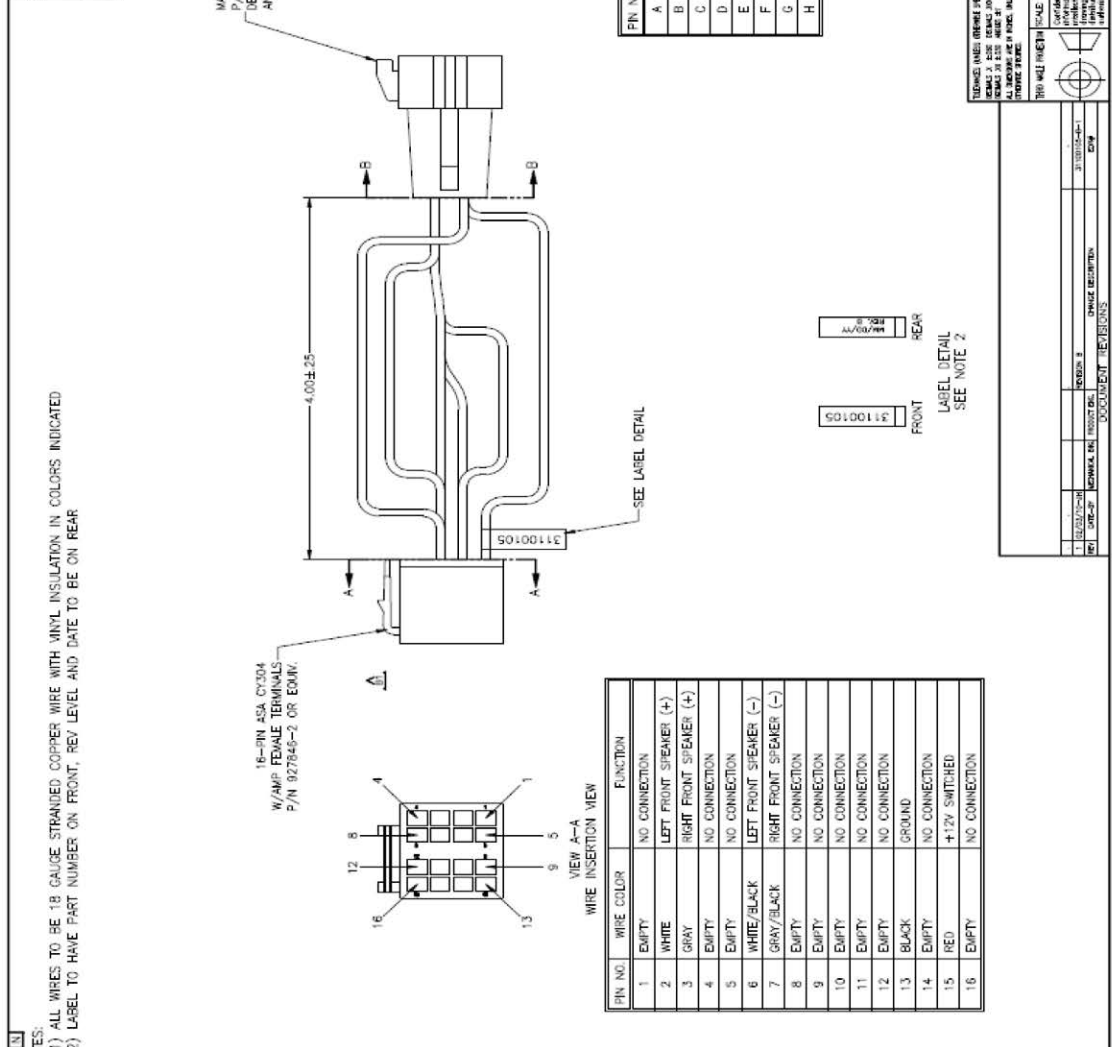
REV A

SHT 4 of 6

REV	DESCRIPTION	BY	REL. DATE
	RELEASE TO PRODUCTION	CHK.	
A	ADDED SHTS 2-6	DFW	27JAN12

REV	DESCRIPTION	BY	REL. DATE
	RELEASE TO PRODUCTION	CHK.	
A	ADDED SHTS 2-6	DFW	27JAN12

REV	DATE	REVISION HISTORY	ENG
A	12/09/09	ORIGINAL	
B	02/02/10	RELEASED AMP CONNECTORS 952109-1 & 952109-1-1 W/RT 0324	31100105-1



ES:
 1) ALL WIRES TO BE 18 GAUGE STRANDED COPPER WIRE WITH VINYL INSULATION IN COLORS INDICATED
 2) LABEL TO HAVE PART NUMBER ON FRONT, REV LEVEL AND DATE TO BE ON REAR

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GENERAL STANDARDS UNLESS OTHERWISE NOTED:
 1. TOLERANCE: .X ± .060 .XX ± .030 .XXX ± .010
 ANGLES: X ± .5 DEGREES
 2. BREAK ALL EXPOSED SHARP EDGES AND DEBURR.
 FOR FLAT PATTERNS ALL INSIDE CORNERS MUST BE WITH .188" R.
 3. FOR FLAT PATTERNS ALL OUTSIDE CORNERS MAY BE ROUNDED UP TO .188" R TO FACILITATE PRODUCTION.
 DRAWN: DFW
 CHECKED: -
 RELEASE NO: 37540
 DATE: 27JAN12
 DATE: 27JAN12
 DO NOT SCALE
 NAME:

RDO AM/FM/WB/CD JEN #JHD3620PED W/P/IGTAIL	
SHT	DRAWING NO.
6 of 6	46025593
SCALE	NONE
REV	A

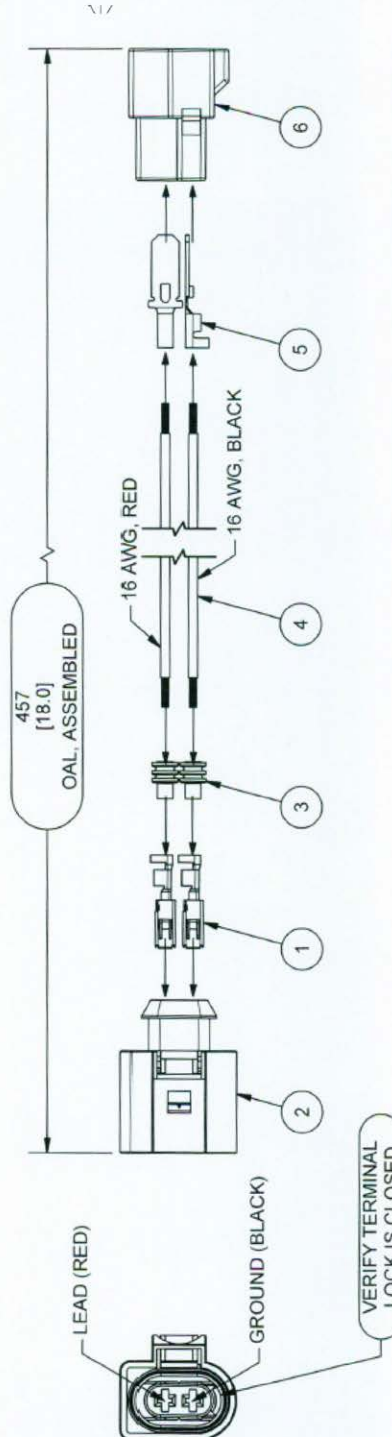
FN NO.	WIRE COLOR	DESCRIPTION
A	BLACK	GROUND
B	RED	+12V ACCESSORY (SWITCHED)
C	EMPTY	NO CONNECTION
D	EMPTY	NO CONNECTION
E	GRAY/BLACK	RIGHT FRONT SPEAKER (-)
F	GRAY	RIGHT FRONT SPEAKER (+)
G	WHITE/BLACK	LEFT FRONT SPEAKER (-)
H	WHITE	LEFT FRONT SPEAKER (+)

FN NO.	WIRE COLOR	FUNCTION
1	EMPTY	NO CONNECTION
2	WHITE	LEFT FRONT SPEAKER (+)
3	GRAY	RIGHT FRONT SPEAKER (+)
4	EMPTY	NO CONNECTION
5	EMPTY	NO CONNECTION
6	WHITE/BLACK	LEFT FRONT SPEAKER (-)
7	GRAY/BLACK	RIGHT FRONT SPEAKER (-)
8	EMPTY	NO CONNECTION
9	EMPTY	NO CONNECTION
10	EMPTY	NO CONNECTION
11	EMPTY	NO CONNECTION
12	EMPTY	NO CONNECTION
13	BLACK	GROUND
14	EMPTY	NO CONNECTION
15	RED	+12V SWITCHED
16	EMPTY	NO CONNECTION

31100105
 DESCRIPTION: ADAPTER, ISO MALE TO DELPHI PACKARD
 THIS WELDING SCALE N/A
 SHEET 1 OF 1
 DATE: 12/09/09
 DRAWN BY: J.HAMILTON
 P.P.
 2002 Moore Drive
 Elkhart, IN 46015
 www.morganolson.com

REV	DESCRIPTION	BY	REL
	RELEASE TO PRODUCTION	CHK	DATE

PARTS LIST	
ITEM	DESCRIPTION
1	AMP MCP2.8 FLAT TYPE RECEPTACLE
2	AMP MCP2.8, TE P/N: 1-968851-1
3	CONNECTOR, 2POS, AMP MCP2.8, TE P/N: 1-1355200-1
4	SINGLE SEAL, 5.6 mm DIA, TE P/N: 828905-1
5	STRANDED WIRE, 16 AWG, INSULATED SXL/AEXF OR EQUIVALENT
6	Terminal, Male, 250 Type (KET ST40254-1) (Yasaki 71142020)
7	Housing, Female, 2 Terminal, 250 Type (KET MG620042) (Yasaki PN 71222128)



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GENERAL STANDARDS UNLESS OTHERWISE NOTED:
 1. TOLERANCE: X + .000 XX ± .000 XXX ± .010
 2. ANGLES: X + 5 DEGREES
 3. BREAK ALL EXPOSED SHARP EDGES AND DEBURR.
 4. ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED WITH .005" R.
 5. FOR FLAT PATTERNS ALL OUTSIDE CORNERS MAY BE ROUNDED UP TO .188" R TO FACILITATE PRODUCTION.

DRAWN	CHECKED	RELEASE NO.
ALL	45440	

DATE	DATE
17JUN15	17JUN15

DO NOT SCALE
 NAME
 HARN PGTL PUMP WSWA, 2015
 AM EQUIP #310-1117

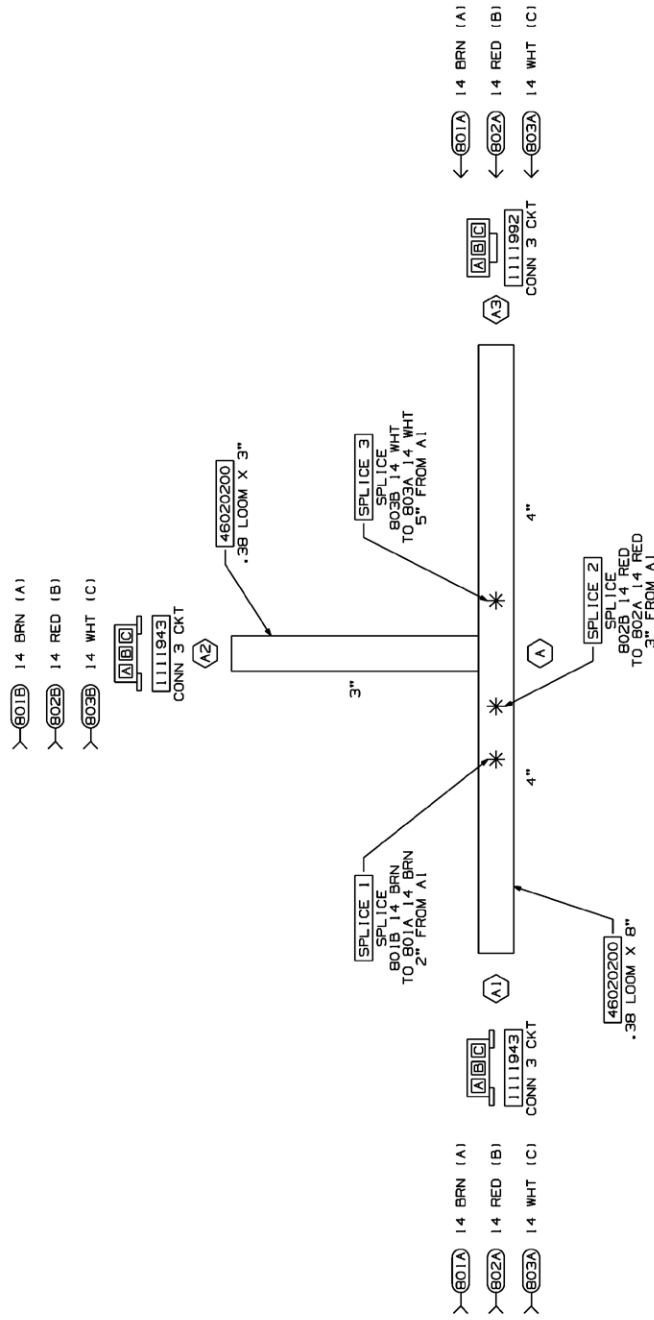
SHT	DRAWING NO	SCALE
1 of 1	47004506	NONE

DRAWING NO.	REV	SHT
47004506	REL	1 of 1

Project	818-0122	Designed by	Checked by	Approved by	Material Specification	N/A	Finish Specification	N/A
Dimensions are in:	MM [INCHES]	9/6/2013	10/2/2013	10/22/2013				
UNLESS OTHERWISE SPECIFIED								
1 PLACE DEC. =	N/A							
2 PLACE DEC. =	+0.01							
3 PLACE DEC. =	+0.005							
4 PLACE DEC. =	+0.0025							
ANGULAR DIM. =	±1°							
DO NOT SCALE DRAWING								
WORK TO GIVEN DIMENSIONS								
AM EQUIPMENT								
Jefferson, Oregon 97352								
www.amequipment.com								
THIS DRAWING IS THE SOLE PROPERTY OF AM EQUIPMENT AND CANNOT BE REPRODUCED IN ANY WAY WITHOUT THE EXPRESS WRITTEN PERMISSION OF AM EQUIPMENT								
Part Name	Wire Harness, KET to 2.8 MCP, 2 wire, 18"	Revision	0	1	OF	1	Sheet	
Part Number	310-1117	Revision	0	1	OF	1	Sheet	

DRAWING NO. 88117437		REV	SHT 1 of 1
REV.	DESCRIPTION	DATE	BY
	RELEASE TO PRODUCTION		TMC

CIRCUIT	DESCRIPTION	END POINTS	FUNCTION
B01A	14 BRN 008 1111944 OE 4601B504	A1, A3	GENERIC
B01B	14 BRN 005 1111944 OE STR .25	A2, SPLICE 1	GENERIC
B02A	14 RED 008 1111944 OE 4601B504	A1, A3	GENERIC
B02B	14 RED 004 1111944 OE STR .25	A2, SPLICE 2	GENERIC
B03A	14 WHI 008 1111944 OE 4601B504	A1, A3	GENERIC
B03B	14 WHI 004 1111944 OE STR .25	A2, SPLICE 3	GENERIC



- VENDOR MAY REPLACE PIGTAILS WITH WIRING APPROVED MOLDINGS OR CONNECTORS. PIGTAILS SHOWN IN TERMINAL VIEW.
- HARNESS TO BE TESTED FOR CONTENT, OPENS, SHORTS, AND CONTINUITY.
- CONNECTORS SHOWN FROM THE FRONT SIDE, UNLESS OTHERWISE NOTED.
- SPLICES TO BE AUTOMATED WITH HEAT SHRINK TUBING. HEAT SHRINK BUTT SPLICES ARE NOT ACCEPTABLE FOR FABRICATION IF NECESSARY.
- TAPE [1111098]: 6" AT BREAKOUTS AND 2" AT LOOM ENDS.
- HARNESS TO HAVE A LABEL SHOWING GRUMMAN OLSON LEVEL AND DATE OF MANUFACTURE.
- SPLIT POLY LOOM UNLESS OTHERWISE NOTED.
- GLX WIRE.

NOTES:

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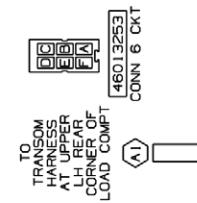


GENERAL STANDARDS UNLESS OTHERWISE NOTED: .0005 ± .010	
1. ALL DIMENSIONS ARE IN INCHES.	2. DIMENSIONS IN PARENTHESES ARE FOR INFORMATION ONLY.
3. DIMENSIONS IN SQUARE BRACKETS ARE FOR INFORMATION ONLY.	4. DIMENSIONS IN CIRCLES ARE FOR INFORMATION ONLY.
DATE 27FEB02	DATE 28FEB02
TIME	TIME
DO NOT SCALE	DO NOT SCALE
JUMPER-HARN TEE-GENERIC	
DRAWING NO.	SCALE
88117437	NONE
SHT 1 of 1	REV

HARNESS AND LOOM TOLERANCES
 UP TO 60" = -0/+2"
 60" TO 100" = -0/+4"
 100" TO 200" = -0/+5"
 200" TO 400" = -0/+6"
 400" TO 600" = -0/+7"
 OVER 600" = -0/+8"
 BO TO BO = -0/+2"
 TOLERANCE IS NOT ACCUMULATIVE. LENGTH APPLIES TO OVERALL HARNESS LENGTH, BREAKOUT TO END, OR LOOM.

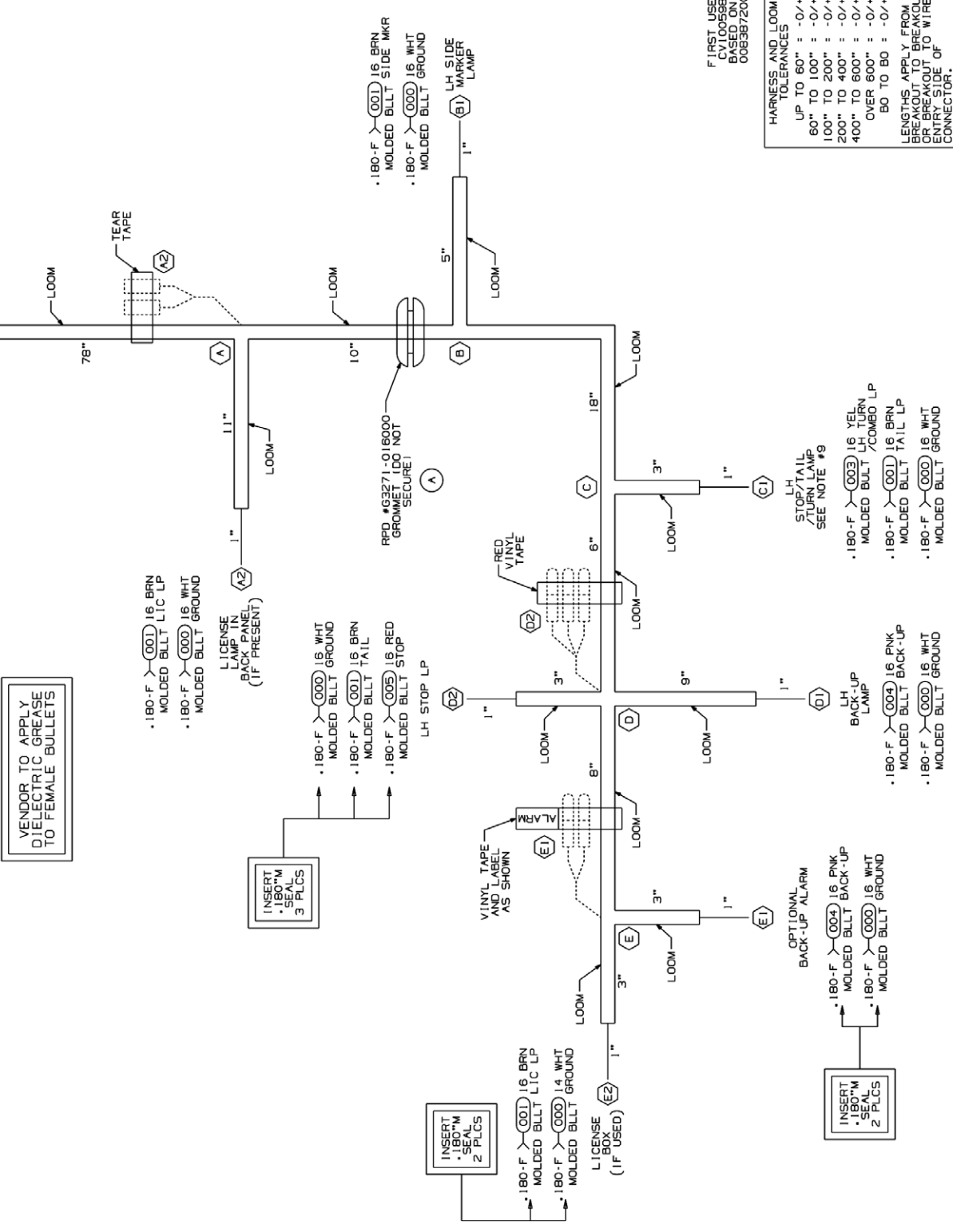
DRAWING NO.	REV	SHT
090087200	A	1 OF 1
DESCRIPTION	DATE	BY
RELEASE FOR PRODUCTION		
ADDED GROMMET (DFW)	20221	
BETWEEN "A" AND "B"	20221	

- ← (000) 14 WHT (A) GROUND
- ← (001) 16 BRN (B) TAIL LP/SIDE MKR
- ← (002) EMPTY (C)
- ← (003) 16 YEL (D) LH TURN/COMBO LP
- ← (004) 16 PNK (E) BACK-UP LP
- ← (005) 16 RED (F) STOP ONLY



CIRCUIT	DESCRIPTION	END POINTS	FUNCTION
000	14/16 WHT	A1, A2, B1, C1, D1, D2, E1, E2	GROUND
001	16 BRN	A1, A2, B1, C1, D2, E2	TAIL/SIDE MARKER LPS
003	16 YEL	A1, C1	LH TURN/COMBO LP
004	16 PNK	A1, D1, E1	BACK-UP LP
005	16 RED	A1, D2	ISO STOP LP

VENDOR TO APPLY DIELECTRIC GREASE TO FEMALE BULLETS



9. WHEN ISOLATED STOP CIRCUIT USED, STOP CIRCUITS 002 AND 003 CAN REMAIN AS COMBINATION OR THEY CAN BECOME TURN ONLY BY UNPLUGGING THE BRAKE FEED INTO TURN SIGNAL SWITCH.
8. VENDOR MAY REPLACE PIGTAILS WITH WIRING TO APPROVED MOLDINGS OR CONNECTORS. PIGTAILS SHOWN IN TERMINAL VIEW.
7. HARNESS TO BE TESTED FOR CONTENT, OPENS, SHORTS, AND CONTINUITY.
6. CONNECTORS SHOWN FROM WIRE ENTRY SIDE UNLESS OTHERWISE NOTED.
5. SPLICES TO BE AUTOMATED WITH SOLDER, AND ADHESIVE LINED HEAT SHRINK TUBING.
4. TAPE (1111098): 6" AT BREAKOUTS AND 2" AT LOOM ENDS.
3. HARNESS TO HAVE A LABEL SHOWING MORGAN OLSON PART NUMBER, REVISION NUMBER AND DATE OF MANUFACTURE.
2. SPLIT POLY LOOM UNLESS OTHERWISE NOTED.
1. GXL WIRE.

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FIRST USE: CV100588 BASED ON: 008387200	
HARNES AND LOOM TOLERANCES	
UP TO 60"	-0/+2"
60" TO 100"	-0/+4"
100" TO 200"	-0/+5"
200" TO 400"	-0/+6"
400" TO 600"	-0/+7"
OVER 600"	-0/+8"
BO TO BO	-0/+2"
LENGTHS APPLY FROM BULLET TO BREAKOUT, OR BREAKOUT TO WIRE ENTRY SIDE OF CONNECTOR.	
DATE	DATE
30 JUL 09	30 JUL 09
DFW	DFW
27784	
DATE	DATE
30 JUL 09	30 JUL 09
DFW	DFW
27784	
DATE	DATE
30 JUL 09	30 JUL 09
DFW	DFW
27784	
DATE	DATE
30 JUL 09	30 JUL 09
DFW	DFW
27784	
DATE	DATE
30 JUL 09	30 JUL 09
DFW	DFW
27784	
DATE	DATE
30 JUL 09	30 JUL 09
DFW	DFW
27784	
DATE	DATE
30 JUL 09	30 JUL 09
DFW	DFW
27784	

MORGAN OLSON

GENERAL STANDARDS UNLESS OTHERWISE NOTED: 1. WIRE: GXL UNLESS OTHERWISE NOTED. 2. TAPES: 1111098 UNLESS OTHERWISE NOTED. 3. HARNESS: 2000000 UNLESS OTHERWISE NOTED. 4. POLY LOOM: 1111098 UNLESS OTHERWISE NOTED. 5. SPLICING: 1111098 UNLESS OTHERWISE NOTED. 6. LABELS: 1111098 UNLESS OTHERWISE NOTED. 7. BULLETS: 1111098 UNLESS OTHERWISE NOTED. 8. WIRE ENTRY: 1111098 UNLESS OTHERWISE NOTED.
DRAWING NO. 090087200
SCALE NONE
REV A

DRAWING NO.	REV	SHT
090087202	A	1 OF 1
DESCRIPTION		
RELEASE FOR PRODUCTION		
ADDED GROMMET	DFW	20021
BETWEEN "A" AND "B"	DFW	090087202

CIRCUIT	DESCRIPTION	END POINTS	FUNCTION
000	14/16 WHT	A1, A2, B1, C1, D1, D2	GROUND
001	16 BRN	A1, B1, C1, D2	TAIL/SIDE MARKER LPS
002	16 GRN	A1, C1	RH TURN/COMBO LP
004	16 PNK	A1, D1	BACK-UP LP
005	16 RED	A1, D2	ISO STOP LP
090	16 BLU/WHT	A1, A2	3-WAY SWITCH
091	16 BLU/YEL	A1, A2	3-WAY SWITCH

- ← (000) 14 WHT (A) GROUND
- ← (001) 16 BRN (B) TAIL LP/SIDE MKR
- ← (002) 16 GRN (C) RH TURN/COMBO LP
- ← () EMPTY (D)
- ← (004) 16 PNK (E) BACK-UP LP
- ← (005) 16 RED (F) STOP ONLY
- ← (090) 16 BLU/WHT (G) 3-WAY SW
- ← (091) 16 BLU/YEL (H) 3-WAY SW

VENDOR TO APPLY DIELECTRIC GREASE TO FEMALE BULLETS

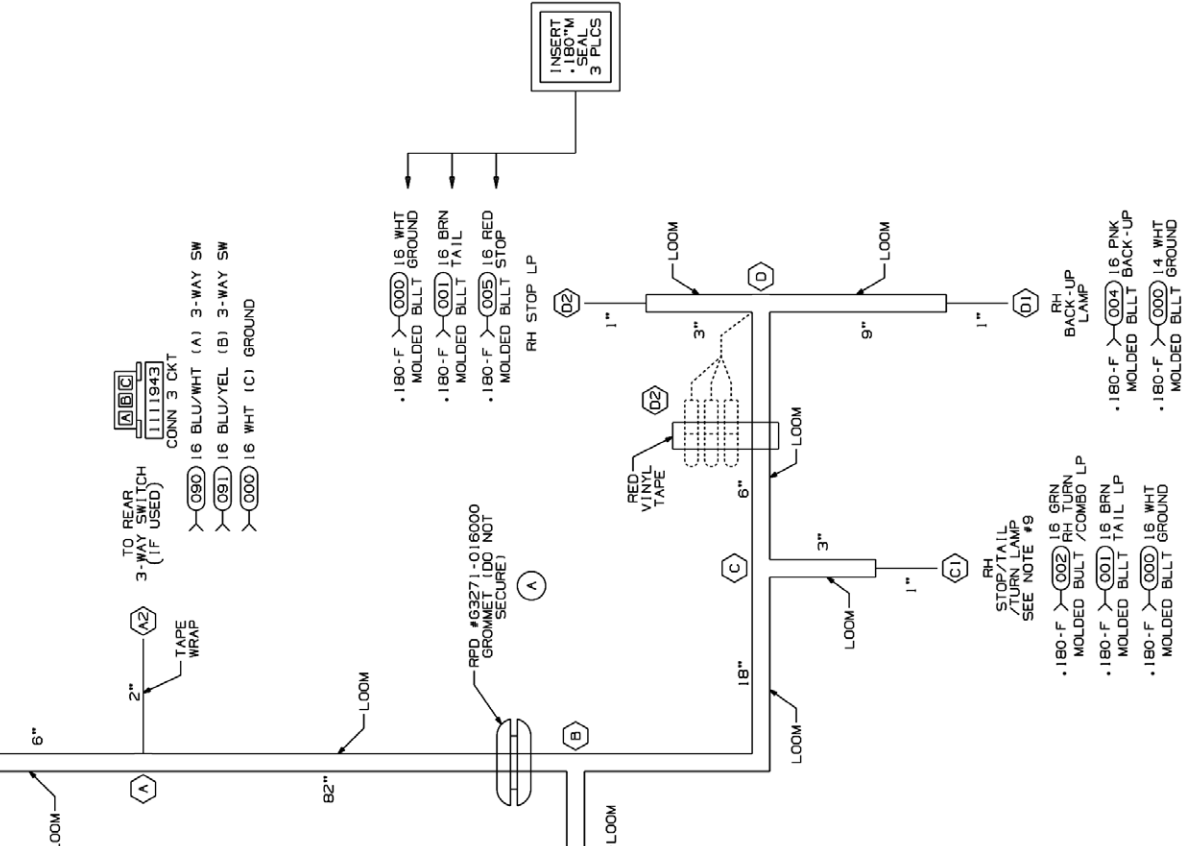
- (090) 16 BLU/WHT (A) 3-WAY SW
- (091) 16 BLU/YEL (B) 3-WAY SW
- (000) 16 WHT (C) GROUND

- 180-F (000) 16 WHT MOLDED BLLT GROUND
- 180-F (001) 16 BRN MOLDED BLLT TAIL
- 180-F (005) 16 RED MOLDED BLLT STOP

- 180-F (001) 16 BRN MOLDED BLLT SIDE MKR
- 180-F (000) 16 WHT MOLDED BLLT GROUND

- 180-F (002) 16 GRN MOLDED BULLT/COMBO LP
- 180-F (001) 16 BRN MOLDED BLLT TAIL LP
- 180-F (000) 16 WHT MOLDED BLLT GROUND

- 180-F (004) 16 PNK MOLDED BLLT BACK-UP
- 180-F (000) 14 WHT MOLDED BLLT GROUND



INSERT 180T SEAL 3 PLCS

TO REAR 3-WAY SWITCH (IF USED)

TAPE WRAP

RPD #G3271-016000 GROMMET (DO NOT SECURE)

RED VINYL TAPE

FIRST USE: CV100615 BASED ON: 090087201

HARNES AND LOOM TOLERANCES

- UP TO 60" : -0/+2"
- 60" TO 100" : -0/+4"
- 100" TO 200" : -0/+5"
- 200" TO 400" : -0/+6"
- 400" TO 600" : -0/+7"
- OVER 600" : -0/+8"

BO TO BO : -0/+2"
LENGTHS APPLY FROM BOLT TO BREAKOUT, OR BREAKOUT TO WIRE ENTRY SIDE OF CONNECTOR.

9. WHEN ISOLATED STOP CIRCUIT WHEN IS USED, TERMINALS 002 AND 003 CAN REMAIN AS COMBINATION OR THEY CAN BECOME TURN ONLY BY UNPLUGGING THE BRAKE FEED INTO TURN SIGNAL SWITCH.
8. VENDOR MAY REPLACE PIGTAILS WITH WIRING TO APPROVED MOLDINGS OR CONNECTORS. PIGTAILS SHOWN IN TERMINAL VIEW.
7. HARNESS TO BE TESTED FOR CONTENT, OPENS, SHORTS, AND CONTINUITY.
6. CONNECTORS SHOWN FROM WIRE ENTRY SIDE UNLESS OTHERWISE NOTED.
5. SPLICES TO BE AUTOMATED WITH SOLDER, AND ADHESIVE LINED HEAT SHRINK TUBING.
4. TAPE (1111098): 6" AT BREAKOUTS AND 2" AT LOOM ENDS.
3. HARNESS TO HAVE A LABEL SHOWING MORGAN OLSON PART NUMBER, REVISION NUMBER, AND DATE OF MANUFACTURE.
2. SPLIT POLY LOOM UNLESS OTHERWISE NOTED.
1. GXL WIRE.

NOTES:

PROPRIETARY

This information is the property of Morgan Olson. It is to be used only for the purpose intended. It is not to be distributed, copied, or otherwise used without the written consent of Morgan Olson.



GENERAL STANDARDS UNLESS OTHERWISE NOTED:
1. WIRE GAUGE: 180 = 18 GAUGE, 000 = 16 GAUGE, 001 = 16 GAUGE, 002 = 16 GAUGE, 003 = 16 GAUGE, 004 = 16 GAUGE, 005 = 16 GAUGE, 090 = 16 GAUGE, 091 = 16 GAUGE.
2. FOR ALL WIRING ALL HARNESS COMPONENTS MUST BE MORGAN OLSON PARTS.
3. ALL WIRING MUST BE DONE IN ACCORDANCE WITH THE MORGAN OLSON WIRING MANUAL.
4. ALL WIRING MUST BE DONE IN ACCORDANCE WITH THE MORGAN OLSON WIRING MANUAL.

DATE	10AUG09	DATE	10AUG09
DFW	DFW	DFW	DFW
DATE	10AUG09	DATE	10AUG09
DATE	10AUG09	DATE	10AUG09

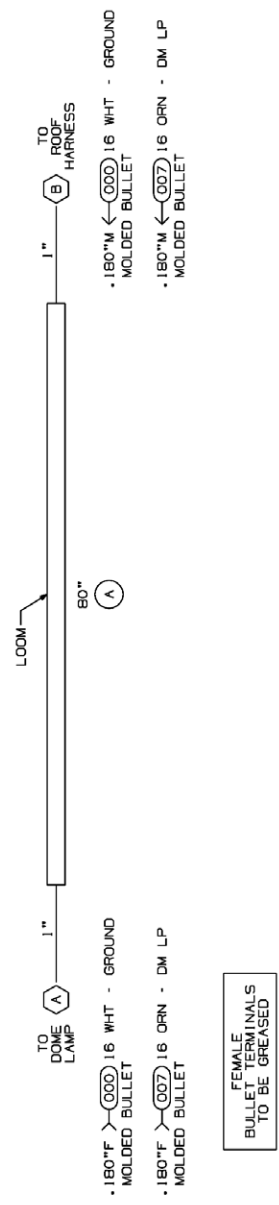
HARN RR WRG RH STILL WCC/FCC P&P .180" BLLTS WRG THRU RF 2009 M-100	SCALE	NONE
DRAWING NO.	REV	A
090087202	REV	A

DRAWING NO.		REV	SHT
090093202		A	1 OF 1
REV.	DESCRIPTION	ISSUE DATE	
A	RELEASE FOR PRODUCTION		
	80" WAS 64"	MIS	CONGR
			21MAY16

9. THIS IS A PURCHASED HARNESS. NO BILL OF MATERIAL EXISTS.
6. VENDOR MAY REPLACE PIGTAILS WITH WIRING TO APPROVED MOLDINGS OR CONNECTORS. PIGTAILS SHOWN IN TERMINAL VIEW.
7. HARNESS TO BE TESTED FOR CONTENT, OPENS, SHORTS, AND CONTINUITY.
6. CONNECTORS SHOWN FROM THE ENTRY SIDE, UNLESS OTHERWISE NOTED.
5. SPLICES TO BE AUTOMATED WITH SOLDER, AND ADHESIVE LINED HEAT SHRINK TUBING.
4. TAPE [1111096]: 6" AT BREAKOUTS, 2" AT 1/8" TERMINALS LENGTHS GREATER THAN 24", AND 2" AT LOOM ENDS.
3. HARNESS TO HAVE A LABEL PART NUMBER, REVISION LEVEL, AND DATE OF MANUFACTURE.
2. SPLIT POLY LOOM UNLESS OTHERWISE NOTED.
1. GXL WIRE.

PROPRIETARY
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MORGAN OLSON	
GENERAL STANDARDS UNLESS OTHERWISE NOTED:	
1. WIRE: MIL-STD-1750	SCALE: 1:1
2. DIMENSIONS: UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES.	DATE: 28816
3. DIMENSIONS: UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES.	DATE: 28816
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HARNESS AND LOOM TOLERANCES

UP TO 60" = -0/+2"
 60" TO 100" = -0/+4"
 100" TO 200" = -0/+5"
 200" TO 400" = -0/+6"
 400" TO 600" = -0/+7"
 OVER 600" = -0/+8"
 80 TO 80 = -0/+2"

LENGTHS APPLY FROM BREAKOUT TO BREAKOUT OR BREAKOUT TO WIRE ENTRY SIDE OF CONNECTOR, OR END OF COVER.

FIRST USE:
 CV100632
 BASED ON:
 007368326

REV	REV	SHT
		LOF1
092084201		
DESCRIPTION		
RELEASE FOR PRODUCTION		
BY	DATE	BY

9. THIS IS A PURCHASED HARNESS. NO BILL OF MATERIAL EXISTS.
8. VENDOR MAY REPLACE WITH APPROVED WIRING FOR APPROVED MODIFICATIONS. CONNECTORS, PIGTAILS SHOWN IN TERMINAL VIEW.
7. HARNESS TO BE TESTED FOR CONTENTS, OPENES, SHORTS, AND CONTINUITY.
6. CONNECTORS SHOWN FROM WIRE ENTRY SIDE, UNLESS OTHERWISE NOTED.
5. SPLICES TO BE AUTOMATED WITH SOLDER AND ADHESIVE LINED HEAT SHRINK TUBING.
4. TAPE [1111096]: 6" AT BREAKOUTS AND 2" AT LOOM ENDS.
3. HARNESS TO HAVE A LABEL SHOWING MORGAN OLSON PART NUMBER, REVISION LEVEL, AND DATE OF MANUFACTURE.
2. BRAIDED POLYESTER SLEEVING UNLESS OTHERWISE NOTED, CLOSED AT EACH END WITH ADHESIVE LINED HEAT SHRINK TUBING.
1. GXL WIRE

PROPRIETARY
 This drawing is the property of Morgan Olson. It is to be used for the production of parts only. It is not to be used for any other purpose without the express written consent of Morgan Olson. If this drawing is to be used for any other purpose, it must be approved by Morgan Olson in writing.



GENERAL STANDARDS UNLESS OTHERWISE NOTED

1. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES.
 2. DIMENSIONS IN PARENTHESIS ARE FOR REFERENCE ONLY.
 3. DIMENSIONS IN SQUARE BRACKETS ARE FOR REFERENCE ONLY.
 4. DIMENSIONS IN CIRCLES ARE FOR REFERENCE ONLY.

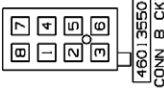
DATE: 04-OCT-09
 DF# 28501
 DO NOT SCALE

HARN RFR SW JBR FOR OPT
 BAY OR ACCY 2009 M.100

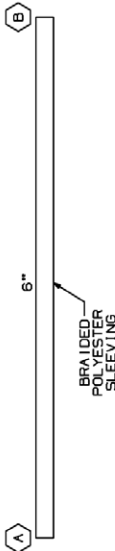
SHT 1
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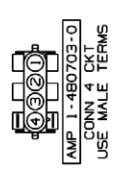
- EMPTY (1)
- (29B) 14 ORN/YEL (2) OPT PWR
- (299) 14 GR/YEL (3) OPT SW'D
- EMPTY (4)
- EMPTY (5)
- (299) 14 GR/YEL (6) PILOT LP
- (000) 16 WHT (7) GROUND
- (00B) 16 BLU (8) PNL LPS



TO OPT. ROCKER SWITCH



TO I/P HARNESS



- (000) 16 WHT (1) GROUND
- (00B) 16 BLU (2) PNL LPS
- (29B) 14 ORN/YEL (3) OPT PWR
- (299) 14 GR/YEL (4) OPT SW'D

HARNESS AND LOOM TOLERANCES

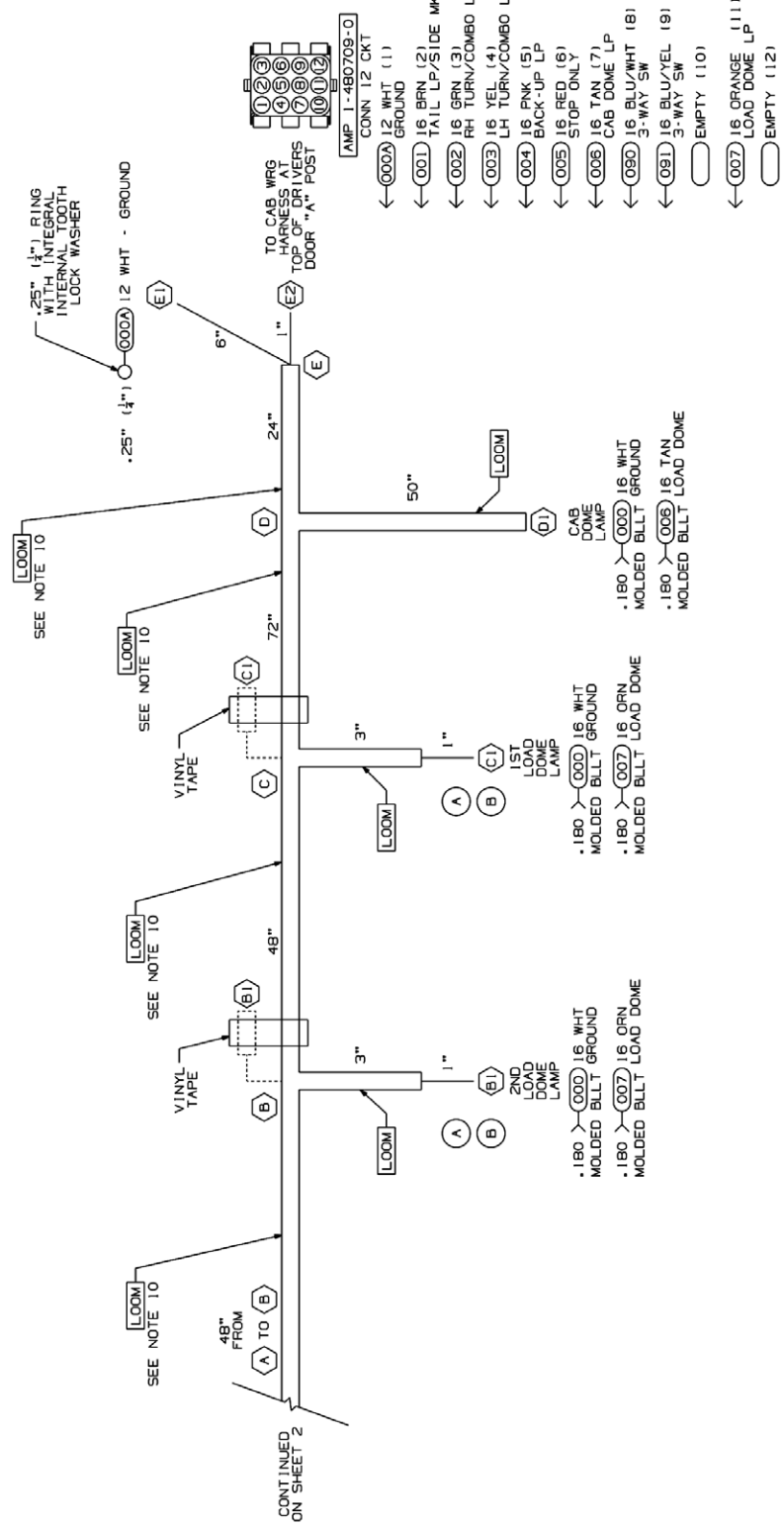
UP TO 60" = -0/+2"
 60" TO 100" = -0/+4"
 100" TO 200" = -0/+5"
 200" TO 400" = -0/+6"
 400" TO 600" = -0/+7"
 OVER 600" = -0/+8"

BO TO BO = -0/+2"

LENGTHS APPLY FROM BREAKOUT TO BREAKOUT, OR BREAKOUT TO WIRE ENTRY SIDE OF CONNECTOR, OR END OF COVER.

FIRST USE: CV100626

DRAWING NO.	REV	SHT
093093201	B	1 of 2
DESCRIPTION	REV	DATE
RELEASE TO PRODUCTION		
REVISED DOME LAMP		
BREAKOUT LENGTH		
REV'D DM LP B/O'S		



10. MAIN TRUNK OF HARNESS MUST FIT IN A .75 DIA. WIRE CHANNEL
9. THIS IS A PURCHASED HARNESS. NO BILL OF MATERIAL EXISTS.
8. VENDORS MAY REPLACE PIGTAILS WITH WIRING TO APPROVED MOLDINGS OR CONNECTORS. PIGTAILS SHOWN IN TERMINAL VIEW.
7. HARNESS TO BE TESTED FOR CONTENT OPENS, SHORTS, AND CONTINUITY.
6. CONNECTORS SHOWN FROM WIRE ENTRY SIDE, UNLESS OTHERWISE NOTED.
5. SPLICES TO BE AUTOMATED WITH HEAT SHRINK TUBING. HEAT SHRINK BUTT SPLICES ARE ACCEPTABLE FOR MFG FABRICATION IF NECESSARY.
4. TAPE [111096]: 6" AT BREAKOUTS AND 2" AT LOOM ENDS.
3. HARNESS TO HAVE A LABEL SHOWING MORGAN OLSON PART NUMBER, REVISION AND DATE OF MANUFACTURE.
2. SPLIT POLY LOOM UNLESS OTHERWISE NOTED.
1. GXL WIRE.

NOTES:

PROPRIETARY

This drawing is the property of Morgan Olson. It is to be used only for the purpose of manufacturing the product shown. It is not to be used for any other purpose without the written consent of Morgan Olson. It is to be kept confidential and not to be distributed outside the company.

MORGAN OLSON

GENERAL STANDARDS UNLESS OTHERWISE NOTED:

- 1. WIRE GAUGE: 16 AWG
- 2. WIRE TYPE: GXL
- 3. WIRE COLOR: AS SHOWN
- 4. WIRE LENGTH: AS SHOWN
- 5. WIRE STRIP LENGTH: AS SHOWN
- 6. WIRE BEND RADIUS: 1.5 TIMES WIRE DIAMETER
- 7. WIRE TENSION: 10 LB
- 8. WIRE STORAGE: IN ORIGINAL PACKAGING

DATE: 14APR09
 T: J.M.
 DATE: 26B36

DO NOT SCALE

HARNESS ROOF 13' - 16' 6"
 M100 TRUCK - 180F BLTT

DRAWING NO. 093093201
 SCALE NONE
 SHT 1 of 2
 REV B

HARNESS AND LOOM TOLERANCES

UP TO 60"	= -0/+2"
60" TO 100"	= -0/+4"
100" TO 200"	= -0/+5"
200" TO 400"	= -0/+8"
400" TO 600"	= -0/+7"
OVER 600"	= -0/+8"

BO TO BO = -0/+2"
 BO TO B0 = -0/+2"
 TOLERANCE IS NOT ACCUMULATIVE. LENGTH APPLIES TO OVERALL HARNESS LENGTH, BREAKOUT TO END, OR LOOM.

DRAWING NO.	REV	SHT
093093201	B	2 of 2
DESCRIPTION	REV	DATE
RELEASE TO PRODUCTION	DKL	
REVISED ONE LAMP	LJM	2/24/02
BREAKOUT LENGTH	DFH	02/24/02
REV'D DM LP B/O'S	DFH	02/24/02

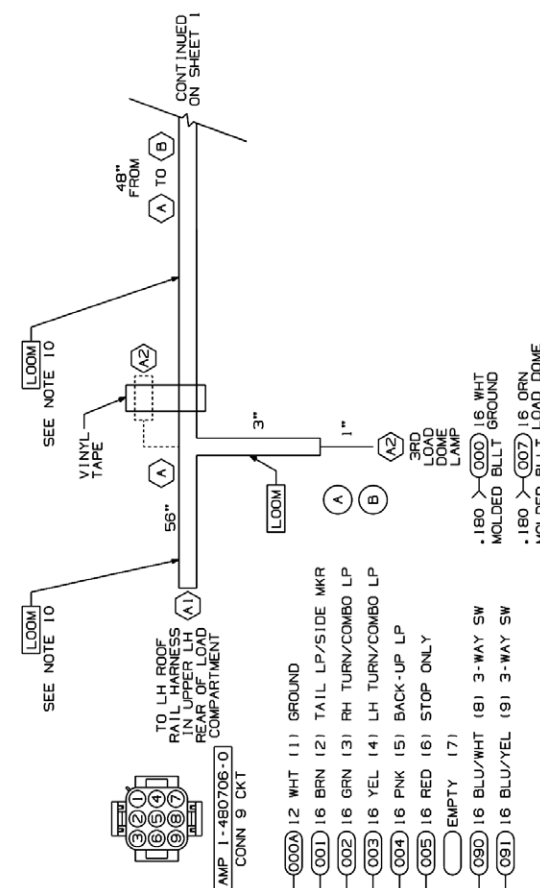
SPLICE 1
 000A 12 WHT IS TO BE
 SPLICED TO THE
 0000 WHT CIRCUIT.
 VENDOR TO DETERMINE
 LOCATION(S)

CIRCUIT	DESCRIPTION	END POINTS	FUNCTION
000A	12 WHT	A1, E1, E2, SPLICE 1	GROUND
000	14/16 WHT	A2, B1, C1, D1, SPLICE 1	GROUND
001	16 BRN	A1, E2	CLERK/ICC LPS
002	16 GRN	A1, E2	RH TURN LP
003	16 YEL	A1, E2	LH TURN LP
004	16 PNK	A1, E2	BACK-UP LPS
005	16 RED	A1, E2	STOP LPS
006	16 TAN	D1, E2	CAB DOME LP
007	16 ORN	A2, B1, C1, E2	LOAD DOME LAMPS
008	16 BLU/WHT	A1, E2	3-WAY SWITCH - LOAD DMS
009	16 BLU/YEL	A1, E2	3-WAY SWITCH - LOAD DMS

10. MAIN TRUNK OF HARNESS MUST FIT IN A .75 DIA. WIRE CHANNEL
9. THIS IS A PURCHASED HARNESS. NO BILL OF MATERIAL EXISTS.
8. VENDOR MAY REPLACE PISTAILS WITH WIRING TO APPROVED MOLDINGS OR CONNECTORS. PISTAILS SHOWN IN TERMINAL VIEW.
7. HARNESS TO BE TESTED FOR CONVENT OPEN, SHORTS, AND CONTINUITY.
6. CONNECTORS SHOWN FROM WIRE ENTRY SIDE, UNLESS OTHERWISE NOTED.
5. SPLICES TO BE AUTOMATED WITH HEAT SHRINK TUBING. HEAT SHRINK BUTT SPLICES ARE ACCEPTABLE FOR M-O FABRICATION IF NECESSARY.
4. TAPE [111098]: 6" AT BREAKOUTS AND 2" AT LOOM ENDS.
3. HARNESS TO HAVE A LABEL SHOWING MORGAN OLSON PART NUMBER, REVISION NUMBER AND DATE OF MANUFACTURE.
2. SPLIT POLY LOOM UNLESS OTHERWISE NOTED.
1. GXL WIRE.

NOTES:
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MORGAN OLSON	
GENERAL STANDARDS UNLESS OTHERWISE NOTED:	DATE: 1/4/09
1. WIRE: GXL .030	DATE: 1/4/09
2. TAPE: 111098	DATE: 1/4/09
3. FOR F.A.I. TESTING ALL HARNESS COMPONENTS MUST BE TESTED TO THE FOLLOWING SPECIFICATIONS:	DATE: 1/4/09
4. FOR F.A.I. TESTING ALL HARNESS COMPONENTS MUST BE TESTED TO THE FOLLOWING SPECIFICATIONS:	DATE: 1/4/09
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100. FOR F.A.I. TESTING ALL HARNESS COMPONENTS MUST BE TESTED TO THE FOLLOWING SPECIFICATIONS:	DATE: 1/4/09



HARNESS AND LOOM TOLERANCES

UP TO 60"	: -0/+2"
60" TO 100"	: -0/+4"
100" TO 200"	: -0/+5"
200" TO 400"	: -0/+6"
400" TO 600"	: -0/+7"
OVER 600"	: -0/+8"

BO TO BO : -0/+2"
 TOLERANCE IS NOT ACCUMULATIVE. LENGTH APPLIES TO OVERALL HARNESS LENGTH, BREAKOUT TO END, OR LOOM.

REV	DESCRIPTION	REV	DATE
093093205	B	1 of 1	

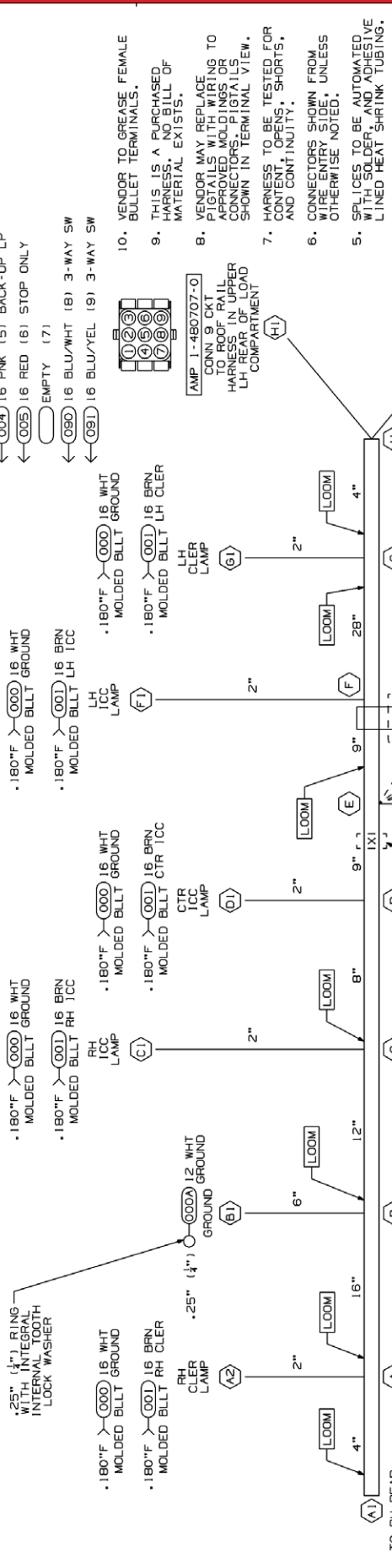
REV	DATE	BY	CHK

DESCRIPTION	DATE
RELEASE TO PRODUCTION	
REDRAWN & REVISED	
ADDED INTERNAL CARRIER CONNECTOR AT H2	

- 000A 12 WHT (1) GROUND
- 001 16 BRN (2) TAIL LP/SIDE MKR
- 002 16 GRN (3) RH TURN/COMBO LP
- 003 16 YEL (4) LH TURN/COMBO LP
- 004 16 PNK (5) BACK-UP LP
- 005 16 RED (6) STOP ONLY
- 000 EMPTY (7)
- 090 16 BLU/WHT (8) 3-WAY SW
- 091 16 BLU/YEL (9) 3-WAY SW

[SPLICE 1]
000A 12 WHT IS TO BE SPLICED TO THE 000 WHT CIRCUIT. VENDOR TO DETERMINE LOCATION(S)

CIRCUIT DESCRIPTION	END POINTS	FUNCTION
000A 12 WHT	A1, B1, H1, SPLICE 1	GROUND
000 14/16 WHT	A2, C1, D1, E1, F1, G1, H2, SPLICE 1	GROUND
001 16 BRN	A1, A2, C1, D1, F1, G1, H1, H2	CLER/ICC/MARKER LAMPS
002 16 GRN	A1, E1, H1, H2	RH TURN/COMBO LP
003 16 YEL	E1, H1, H2	LH TURN/COMBO LP
004 16 PNK	A1, H1, H2	BACK-UP LAMPS
005 16 RED	A1, E1, H1, H2	STOP ONLY LAMPS
090 16 BLU/WHT	A1, H1	3-WAY SWITCH
091 16 BLU/YEL	A1, H1	3-WAY SWITCH



- VENDOR TO GREASE FEMALE BULLET TERMINALS.
- THIS IS A PURCHASED HARNESS. NO BILL OF MATERIAL EXISTS.
- VENDOR MAY REPLACE PIGTAILS WITH WIRING TO APPROVED MOLDINGS OR CONNECTORS. PIGTAILS SHOWN IN TERMINAL VIEW.
- HARNESS TO BE TESTED FOR CONTENT, OPENS, SHORTS, AND CONTINUITY.
- CONNECTORS SHOWN FROM WIRE ENTRY SIDE UNLESS OTHERWISE NOTED.
- SPLICES TO BE AUTOMATED WITH SOLDER, AND ADHESIVE LINED HEAT SHRINK TUBING.
- TAPE [L111098]: 6" AT BREAKOUTS AND 2" AT LOOM ENDS.
- HARNESS TO HAVE A LABEL SHOWING MORGAN OLSON PART NUMBER, REVISION LEVEL, AND DATE OF MANUFACTURE.
- SPLIT POLY LOOM UNLESS OTHERWISE NOTED.
1. GXL WIRE.

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MORGAN OLSON <small>GENERAL STANDARDS UNLESS OTHERWISE NOTED</small> 1. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED. 2. DIMENSIONS IN PARENTHESES ARE PREFERRED DIMENSIONS. 3. DIMENSIONS IN SQUARE BRACKETS ARE PERMITS. 4. DIMENSIONS IN CIRCLES ARE DIMENSIONS OF HOLE. 5. DIMENSIONS IN SQUARE BRACKETS ARE DIMENSIONS OF HOLE. 6. DIMENSIONS IN CIRCLES ARE DIMENSIONS OF HOLE. 7. DIMENSIONS IN SQUARE BRACKETS ARE DIMENSIONS OF HOLE. 8. DIMENSIONS IN CIRCLES ARE DIMENSIONS OF HOLE.	
TJM	DATE 06APR09
DO NOT SCALE	DATE 06APR09
HARNESSTHRANSOM SEED TRUCK CHMSL READY -180F BLLT DRAWING NO. 093093205 SHEET NONE REV B	

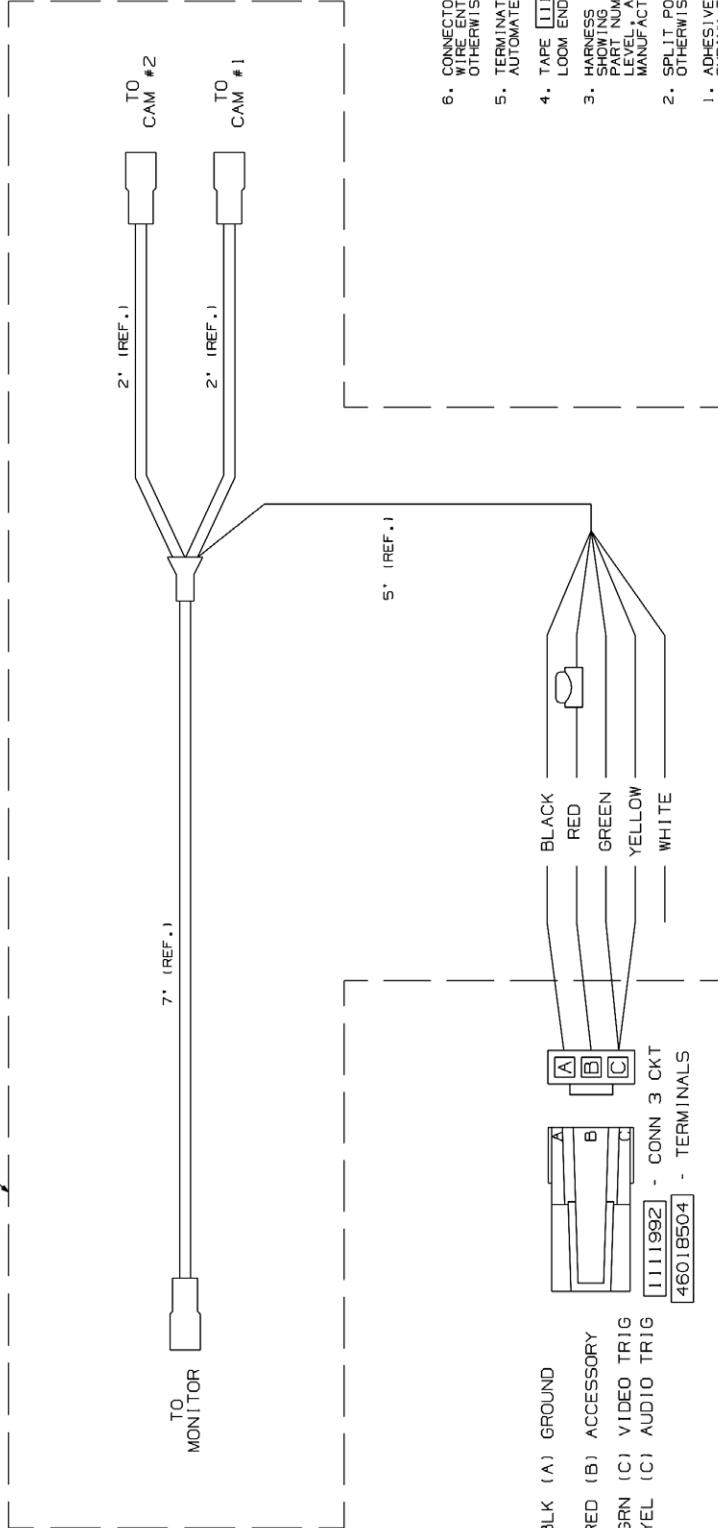
HARNESSTHRANSOM SEED TRUCK
 LENGTHS APPLY FROM BREAKOUT TO WIRE ENTRY SIDE OF CONNECTOR, OR END OF COVER.

HARNESSTHRANSOM SEED TRUCK TOLERANCES	
UP TO 60"	± 0/+2"
60" TO 100"	± 0/+4"
100" TO 200"	± 0/+5"
200" TO 400"	± 0/+6"
400" TO 600"	± 0/+7"
OVER 600"	± 0/+8"
BO TO BO	± 0/+2"

BASED ON: 008393205

DRAWING NO.	REV	SHT
110094201		1 OF 1
DESCRIPTION	BY	DATE
RELEASE TO PRODUCTION	CHK.	

SUBJECT MATTER SHOWN WITHIN DOTTED LINES COMPRISES THE INTERFACE CABLE ASSEMBLY SUPPLIED WITHIN THE #48200107 MONITOR KIT



- ← 000 16 BLK (A) GROUND
- ← 405 16 RED (B) ACCESSORY
- ← 004 16 GRN (C) VIDEO TRIG
- ← 004 16 YEL (C) AUDIO TRIG

THIS CONNECTOR WILL MATE TO THE M-100 ROOF NOSE HARNESS

- INSULATE BLUNT CUT END OF WHITE POWER LEAD, USING #46032502 HEAT SHRINK TUBING.
- TERMINATE THE REMAINING COLORED POWER LEADS, AND POPULATE INTO CONNECTOR BODY AS SHOWN.
- COVER POWER LEADS WITH #46020200 LOOM, TAPE ENDS AND ELSEWHERE AS NECESSARY, TO CLOSE LOOM.
- COVER MONITOR LEAD WITH #46020201 LOOM, TAPE ENDS AND ELSEWHERE AS NECESSARY, TO CLOSE LOOM.
- COVER CAMERA #1 LEAD WITH #46020201 LOOM AND TAPE ENDS.
- FOLD BACK, AND SECURE CAMERA #2 LEAD TO MONITOR LEAD, USING #46026310 TYWRAPS.

- CONNECTORS SHOWN FROM WIRE ENTRY SIDE, UNLESS OTHERWISE NOTED.
- TERMINATIONS TO BE AUTOMATED.
- TAPE [1111096]: 2" AT LOOM ENDS.
- SHOWING TO HAVE A LABEL SHOWING MORGAN OLSON SERIAL NUMBER, DATE OF LEVEL AND DATE OF MANUFACTURE.
- SPLIT POLY LOOM UNLESS OTHERWISE NOTED.
- ADHESIVE LINED HEAT SHRINK TUBING.

NOTES:

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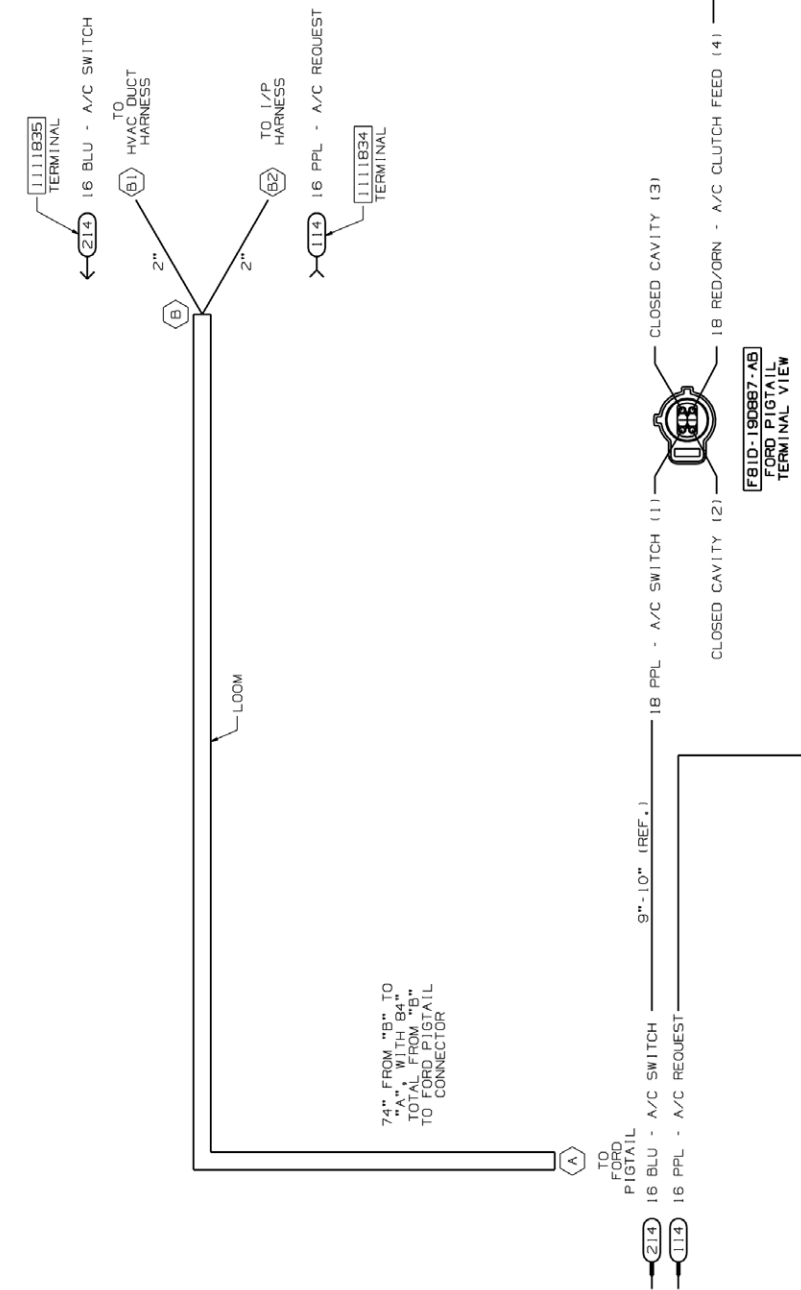


GENERAL STATUSES UNLESS OTHERWISE NOTED:	
1. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES.	DATE
2. FINISHES ARE TO BE AS NOTED.	DATE
3. DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.	DATE
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HARNESS AND LOOM TOLERANCES	
UP TO 60" = -0/+2"	
60" TO 100" = -0/+4"	
100" TO 200" = -0/+5"	
200" TO 400" = -0/+6"	
400" TO 600" = -0/+7"	
OVER 600" = -0/+8"	
BO TO BO = -0/+2"	
BO TO BO = -0/+2"	
TOLERANCE IS NOT ACCUMULATIVE. LENGTH APPLIES TO OVERALL HARNESS LENGTH, BREAKOUT TO END, OR LOOM.	

FIRST USE: CUT100899 BASED ON: 097094203

DRAWING NO.	REV	SHT
115080201		1 of 1
DESCRIPTION	REV	DATE
RELEASE FOR PRODUCTION		



- THIS IS A PURCHASED HARNESS. NO BILL OF MATERIAL EXISTS.
- VENDOR MAY REPLACE PIGTAILS WITH WIRING TO APPROVED MOLDINGS OR CONNECTORS. PIGTAILS SHOWN IN TERMINAL VIEW.
- HARNESS TO BE TESTED FOR CONTENT OPENS, SHORTS, AND CONTINUITY.
- CONNECTORS SHOWN FROM WIRE ENTRY SIDE, UNLESS OTHERWISE NOTED.
- SPLICES TO BE AUTOMATED WITH SOLDER, AND ADHESIVE LINED HEAT SHRINK TUBING.
- TAPE (1111096): 6" AT BREAKOUTS, 2" AT 18" TERMINALS FOR MINIMUM 180 DEG LENGTH, GREATER THAN 24", AND 25" AT LOOM ENDS.
- HARNESS TO HAVE A LABEL WITH THE FOLLOWING PART NUMBER, REVISION LEVEL, AND DATE OF MANUFACTURE.
- SPLIT NYLON LOOM, BLACK SPLIT NYLON STRIPS, UNLESS OTHERWISE NOTED.
- GXL WIRE.

NOTES:

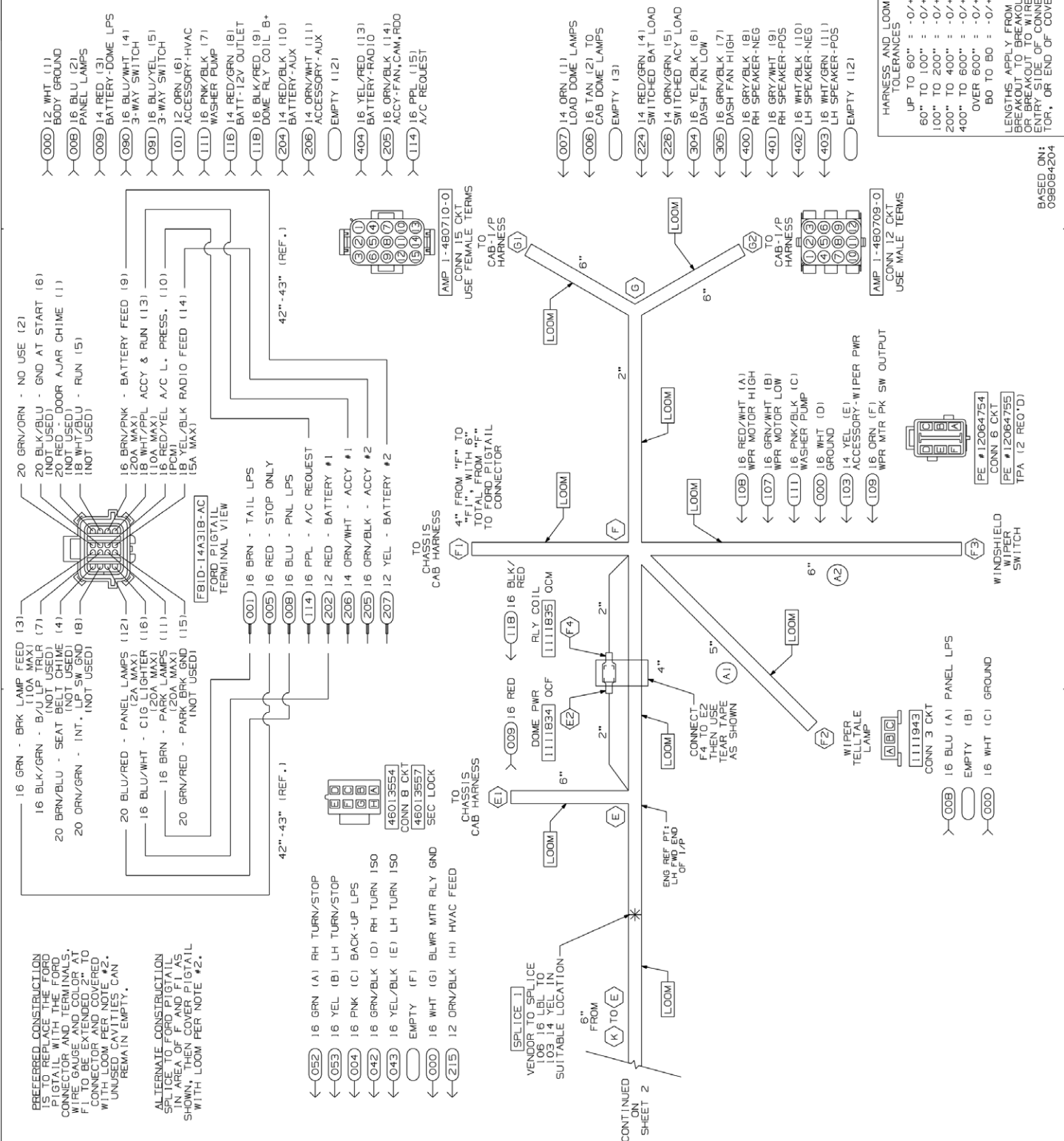
PROPRIETARY	
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MORGAN OLSON	
GENERAL STANDARDS UNLESS OTHERWISE NOTED:	
1. WIRE: AWG #18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100	2. WIRE COLOR: AS SHOWN
3. WIRE STRIP LENGTH: 1/2" UNLESS OTHERWISE NOTED	4. WIRE STRIP LENGTH: 1/2" UNLESS OTHERWISE NOTED
5. WIRE STRIP LENGTH: 1/2" UNLESS OTHERWISE NOTED	6. WIRE STRIP LENGTH: 1/2" UNLESS OTHERWISE NOTED
DATE	DATE
17NOV10	17NOV10
DFW	33085
DO NOT SCALE	
HARN A/C LOW PRESS SW F-59	
DRAWING NO.	REV
115080201	NONE
SHT	REV
1 of 1	

PREFERRED CONSTRUCTION IS TO REPLACE THE FORD PIGTAIL WITH THE FORD CONNECTOR AND TERMINAL. IF EXTENDED 10" TO AT A, TO BE EXTENDED 10" TO CONNECTOR AND COVERED WITH LOOM PER NOTE #2. PLUGS TO BE ADDED TO UNUSED CAVITIES.

ALTERNATE CONSTRUCTION SPLICE TO FORD PIGTAIL AT A AS SHOWN, THEN COVER PIGTAIL WITH LOOM PER NOTE #2.

BASED ON:
095080201

REV	A	SHT	1 of 3
DESCRIPTION			
RELEASE FOR PRODUCTION			
1) UNLOADED WAS 2"			
2) 6" WAS 4"			



- THIS IS A PURCHASED HARNESS. NO BILL OF MATERIAL EXISTS.
- VENDOR MAY REPLACE APPROVED WIRING TO CONNECTORS. PIGTAILS SHOWN IN TERMINAL VIEW.
- HARNESS TO BE TESTED FOR CONTINUITY, SHORTS, AND OPEN CIRCUITS.
- CONNECTORS SHOWN FROM WIRE ENTRY SIDE, UNLESS OTHERWISE NOTED.
- SPLICES TO BE AUTOMATED WITH SOLDER, AND ADHESIVE LINED HEAT SHRINK TUBING.
- TAPE [1111096]: 6" AT BREAKOUTS, 2" AT 18" INTERVALS FOR UNINTERRUPTED LOOM LENGTHS GREATER THAN 24", AND 2" AT LOOM ENDS.
- HARNESS TO HAVE A LABEL SHOWING MORGAN OLSON PART NUMBER, REVISION NUMBER, AND DATE OF MANUFACTURE.
- SPLIT POLY LOOM UNLESS OTHERWISE NOTED.
- 6XL WIRE.

PROPRIETARY
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MORGAN OLSON

GENERAL STANDARDS UNLESS OTHERWISE NOTED:
 1. ALL DIMENSIONS ARE IN INCHES.
 2. DIMENSIONS IN PARENTHESES ARE FOR INFORMATION ONLY.
 3. DIMENSIONS IN PARENTHESES ARE FOR INFORMATION ONLY.
 4. DIMENSIONS IN PARENTHESES ARE FOR INFORMATION ONLY.
 5. DIMENSIONS IN PARENTHESES ARE FOR INFORMATION ONLY.

DATE	06NOV10	DATE	06NOV10
DFW		DFW	32990
DO NOT SCALE	2011 F-59 M-100		

HARN CMD CTR F59 2011

DRAWING NO. 115084202

SHT 1 of 3

REV NONE

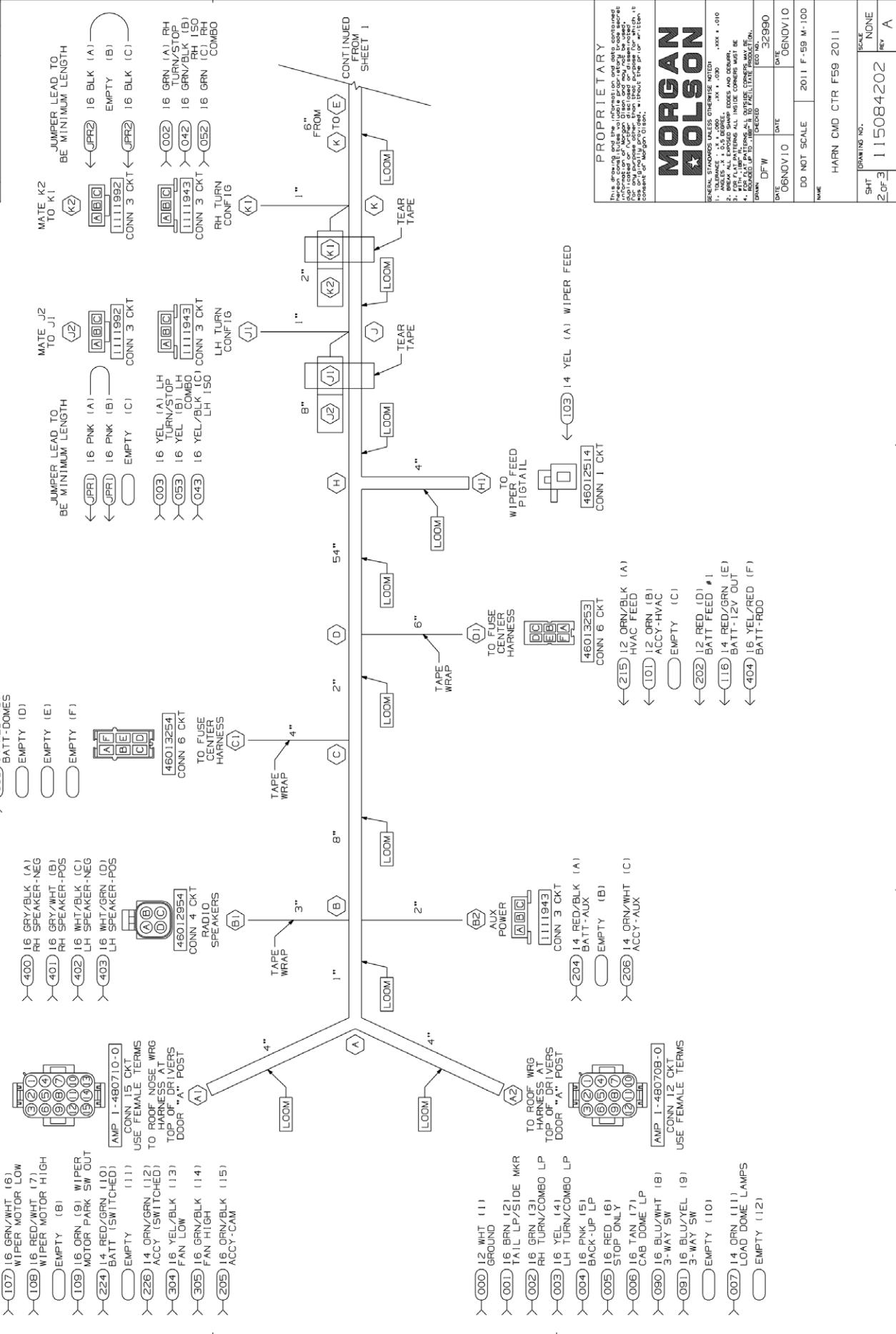
HARNESS AND LOOM TOLERANCES

UP TO 60" = -0/+2"
 60" TO 100" = -0/+4"
 100" TO 200" = -0/+5"
 200" TO 400" = -0/+6"
 400" TO 600" = -0/+7"
 OVER 600" = -0/+8"
 80 TO 90 = -0/+2"
 90 TO 100 = -0/+4"
 100 TO 110 = -0/+5"
 110 TO 120 = -0/+6"
 120 TO 130 = -0/+7"
 130 TO 140 = -0/+8"

LENGTHS APPLY FROM WIRE BREAKOUT TO WIRE ENTRY SIDE OF CONNECTOR, OR END OF COVER.

BASED ON: 986664204

DRAWING NO.	REV	SHT
115084202	A	2 of 3
DESCRIPTION	REV	ECO NO
RELEASE FOR PRODUCTION	CHK.	DATE
A 1) UNLOOKED WAS 2"	DEM	20093
2) 6" WAS 4"	DFW	07FEB11



PROPRIETARY	
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MORGAN OLSON	
GENERAL STANDARDS UNLESS OTHERWISE NOTED	
1. WIRE GAUGE: 16 AWG (16), 18 AWG (18), 20 AWG (20)	2. WIRE COLOR: 16 AWG (16), 18 AWG (18), 20 AWG (20)
3. WIRE TYPE: ALL WIRING SHALL BE TYPE 100% COPPER UNLESS OTHERWISE SPECIFIED	4. WIRE ENDING: ALL WIRE ENDINGS SHALL BE TYPE 100% COPPER UNLESS OTHERWISE SPECIFIED
5. WIRE ENDING: ALL WIRE ENDINGS SHALL BE TYPE 100% COPPER UNLESS OTHERWISE SPECIFIED	6. WIRE ENDING: ALL WIRE ENDINGS SHALL BE TYPE 100% COPPER UNLESS OTHERWISE SPECIFIED
DATE	06NOV10
DATE	06NOV10
DO NOT SCALE	2011 F-59 M-100
NAME	
HARN CMD CTR F59 2011	
DRAWING NO.	115084202
SHT	2 of 3
SCALE	NONE
REV	A

DRAWING NO.	REV	SHT
115084202	A	3 of 3
DESCRIPTION	BY	REG. NO.
RELEASE FOR PRODUCTION	CHK.	DATE
A 1) 6" LONGED WAS 2"	DFW	30803
2) 6" WAS 4"		09FEB11

CIRCUIT	DESCRIPTION	END POINTS	FUNCTION
000	12/16 WHT	A1,A2,E1,F2,F3,G1	GROUND
001	16 BRN	A1,A2,F1	TAIL/CLER/MRKR LAMPS
002	16 GRN	A2,K1	RIGHT HAND TURN/STOP LAMP
003	16 YEL	A2,J1	LEFT HAND TURN/STOP LAMP
004	16 PNK	A1,A2,E1	BACK-UP LP SIGNAL
005	16 RED	A2,F1	STOP ONLY LAMP
006	16 TAN	A2,G2	CAB DOME LAMP
007	14 ORN	A2,G2	LOAD DOME LAMP(S)
008	16 BLU	F1,F2,G1	DASH ILLUM
009	14/16 RED	C1,E2,G1	BATTERY-DOME LAMP
042	16 GRN/BLK	E1,K1	RH TURN ISO
043	16 YEL/BLK	E1,J1	LH TURN ISO
052	16 GRN	E1,K1	RH TURN/STOP
053	16 YEL	E1,J1	LH TURN/STOP
090	16 BLU/WHT	A2,G1	LOAD DM 3W SW
091	16 BLU/YEL	A2,G1	LOAD DM 3W SW
101	12 ORN	D1,G1	ACCESSORY-ELECTRIC HVAC POWER
103	14 YEL	H1,F3,SPLICE 1	ACCESSORY WIPER POWER
106	16 LBL	A1,SPLICE 1	WIPER PARK (B+)
107	16 GRN/WHT	A1,F3	WIPER MOTOR LOW
108	16 RED/WHT	A1,F3	WIPER MOTOR HIGH
109	16 ORN	A1,F3	WPR MOTOR PARK SWITCH OUTPUT
111	16 PNK/BLK	F3,G1	WASHER PUMP
114	16 PPL	F1,G1	A/C REQUEST
116	14 RED/GRN	D1,G1	BATTERY-12V OUTLET/LTR
118	16 BLK/RED	F4,G1	LOAD DOME RELAY COIL (B+)
202	12 RED	D1,F1	BATTERY FEED #1
204	14 RED/BLK	B2,C1,G1	BATTERY-AUXILIARY
205	16 ORN/BLK	A1,F1,G1	ACCESSORY-FAN,CAM,RDD
206	14 ORN/WHT	B2,F1,G1	ACCESSORY-AUXILIARY
207	12 YEL	C1,F1	BATTERY FEED #2
215	12 ORN/BLK	D1,E1	ACCESSORY-HVAC FEED
224	14 RED/GRN	A1,G2	BATTERY-AUXILIARY SWITCHED
226	14 ORN/GRN	A1,G2	ACCESSORY-AUXILIARY SWITCHED
304	16 YEL/BLK	A1,G2	DASH FAN LOW
305	16 GRN/BLK	A1,G2	DASH FAN HIGH
*400	16 GRY/BLK	B1,G2	RH SPEAKER (-)
*401	16 GRY/WHT	B1,G2	RH SPEAKER (+)
*402	16 WHT/BLK	B1,G2	LH SPEAKER (-)
*403	16 WHT/GRN	B1,G2	LH SPEAKER (+)
404	16 YEL/RED	D1,G1	BATTERY-RADIO
JPR1	16 PNK	J2,J2	LH TURN JUMPER
JPR2	16 BLK	K2,K2	RH TURN JUMPER

- OPTIONAL: CIRCUITS 400 & 401 MAY BE SUPPLIED AS STANDARD SPEAKER "ZIP CORD" PAIRS. CIRCUIT NUMBER AND CONNECTOR INDEXING MUST BE MAINTAINED AS SHOWN.
- OPTIONAL: CIRCUITS 402 & 403 MAY BE SUPPLIED AS STANDARD SPEAKER "ZIP CORD" PAIRS. CIRCUIT NUMBER AND CONNECTOR INDEXING MUST BE MAINTAINED AS SHOWN.

PROPRIETARY

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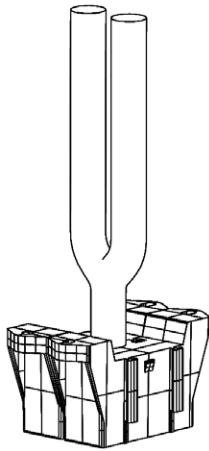
REG. PAT. OFFICE
 1. DIMENSIONS UNLESS OTHERWISE NOTED
 2. TOLERANCES UNLESS OTHERWISE NOTED
 3. ANGLES \pm 0.2 DEGREE
 4. FOR PLAT PATTERNS ALL INSIDE CORNERS MUST BE ROUNDED TO FACILITATE FABRICATION
 5. FOR PLAT PATTERNS ALL OUTSIDE CORNERS MUST BE ROUNDED UP TO FACILITATE FABRICATION

DATE: 06NOV10 DATE: 06NOV10
 DO NOT SCALE 2011 F-59 M-100
 NAME: HARN CMD CTR F59 2011

DRAWING NO. 115084202
 SHT 3 of 3
 SCALE NONE
 REV A

REV	DESCRIPTION	BY	CHKD	DATE
1	115084203			
RELEASE FOR PRODUCTION				

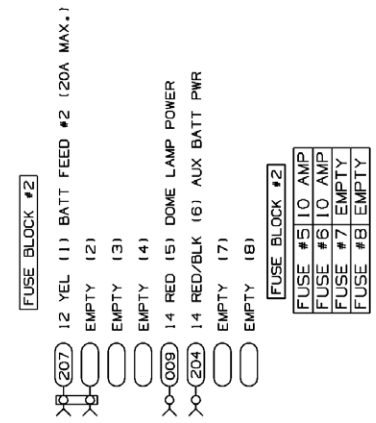
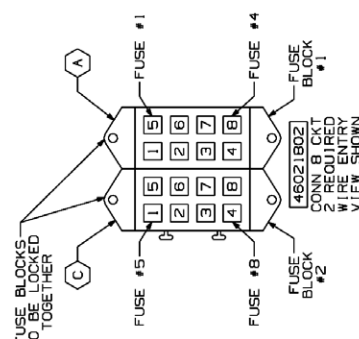
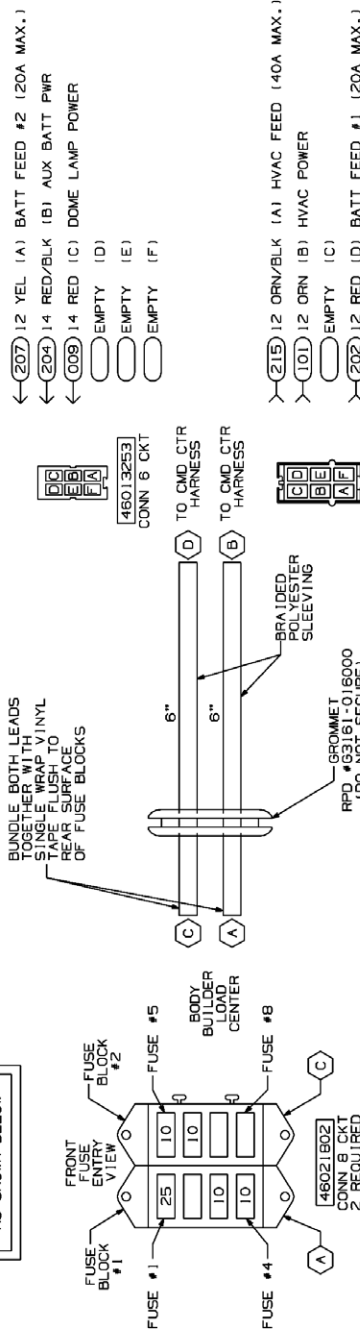
REV	DESCRIPTION	BY	CHKD	DATE
1	115084203			
RELEASE FOR PRODUCTION				



LAY OF WIRE TO BE SUCH THAT WIRING EXTENDS OFF SET FROM CENTER OF FUSE BLOCK ASSEMBLY, AS SHOWN

CIRCUIT	DESCRIPTION	END POINTS	FUNCTION
009	14 RED	C,D	DOME LAMP POWER
101	12 GRN	A,B	HVAC POWER
116	14 RED/GRN	A,B	LTR/12V POWER
202	12 RED	A,B	BATT FEED #1
204	14 RED/BLK	C,D	AUX BATT POWER
207	12 YEL	C,D	BATT FEED #2
215	12 ORN/BLK	A,B	HVAC FEED
404	16 YEL/RED	A,B	RADIO BATT POWER

NOTE: FUSES AND FUSEBLOCKS MUST BE ORIENTED AS SHOWN BELOW



- THIS IS A PURCHASED HARNESS. MOST ALL OF MATERIAL EXISTS.
- BRAIDED POLYESTER SLEEVING TO BE CLOSED AT BOTH ENDS WITH HEAT SHRINKING TUBING, AND TAPED [1111098] 6" AT BREAKOUTS.
- VENDOR MAY REPLACE PIGTAILS WITH WIRING TO APPROVED MOLDINGS OR CONNECTORS. PIGTAILS SHOWN IN TERMINAL VIEW.
- HARNESS TO BE TESTED FOR CONTENT, OPENS, SHORTS, AND CONTINUITY.
- CONNECTORS SHOWN FROM WIRE ENTRY SIDE UNLESS OTHERWISE NOTED.
- SPLICES TO BE AUTOMATED WITH SOLDER, AND ADHESIVE LINED HEAT SHRINK TUBING.
- TAPE [1111098] 6" AT BREAKOUTS AND 2" AT LOOM ENDS.
- HARNESS TO HAVE A LABEL SHOWING MORGAN OLSON PART NUMBER, REVISION NUMBER, AND DATE OF MANUFACTURE.
- SPLIT POLY LOOM UNLESS OTHERWISE NOTED.
- 6XL WIRE.

PROPRIETARY

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MORGAN OLSON

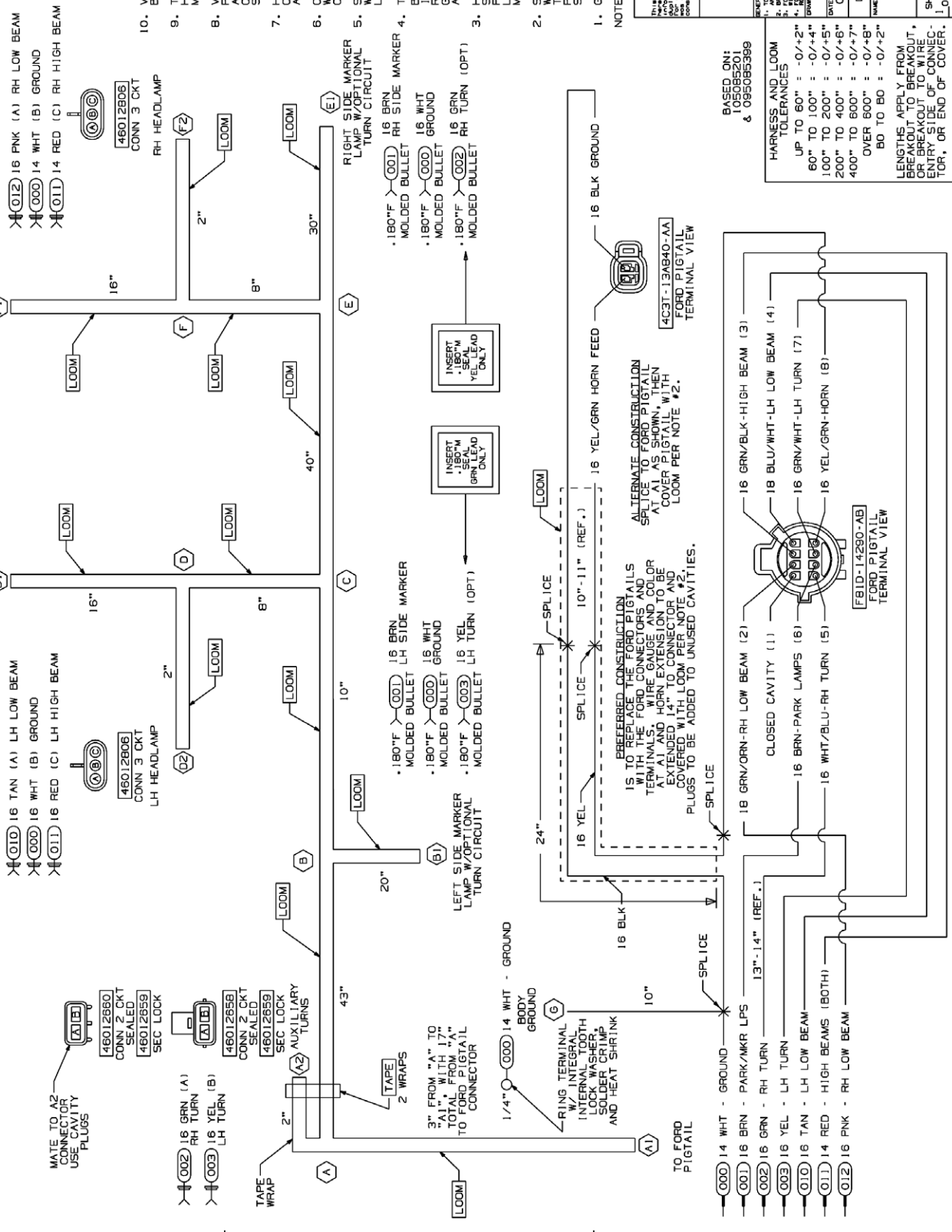
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 98. FINISH: UNLESS OTHERWISE NOTED
 99. FINISH: UNLESS OTHERWISE NOTED
 100. FINISH: UNLESS OTHERWISE NOTED

DATE: 07NOV10
 TIME: 15:00
 DRAWN BY: F59 2011
 CHECKED BY: F59 2011
 SCALE: NONE
 SHEET NO.: 115084203
 REV: L of 1

DRAWING NO.	REV	SHT
115085202	-	1 OF 1
DESCRIPTION	REV	DATE
RELEASE FOR PRODUCTION	REL	
	REV	DATE
	REV	DATE

CIRCUIT	DESCRIPTION	END POINTS	FUNCTION
000	14/16 WHT	A1,B1,D1,D2,E1,F1,F2,G	GROUND
001	16 BRN	A1,B1,D1,E1,F1	PARK/MARKER
002	16 GRN	A1,A2,E1,F1	RH TURN
003	16 YEL	A1,A2,B1,D1	LH TURN
010	16 TAN	A1,D2	LH LOW BEAM
011	14/16 RED	A1,D2,F2	HIGH BEAMS (BOTH)
012	16 PNK	A1,F2	RH LOW BEAM

COMPONENT	DESCRIPTION	END POINTS	FUNCTION
AMP	2820B7-1	CONN 3 CKT	LH PARK/TURN
AMP	2820B7-1	CONN 3 CKT	RH PARK/TURN
CONN	46012656	CONN 2 CKT	SCALED
CONN	46012659	CONN 2 CKT	SCALED
CONN	46012659	CONN 2 CKT	SEC LOCK
CONN	46012656	CONN 2 CKT	SCALED
CONN	46012659	CONN 2 CKT	SEC LOCK



PROPRIETARY

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GENERAL STANDARDS UNLESS OTHERWISE NOTED:
 1. WIRING: 16 AWG, 18 AWG, 20 AWG, 22 AWG, 24 AWG, 26 AWG, 28 AWG, 30 AWG, 32 AWG, 34 AWG, 36 AWG, 38 AWG, 40 AWG, 42 AWG, 44 AWG, 46 AWG, 48 AWG, 50 AWG, 52 AWG, 54 AWG, 56 AWG, 58 AWG, 60 AWG, 62 AWG, 64 AWG, 66 AWG, 68 AWG, 70 AWG, 72 AWG, 74 AWG, 76 AWG, 78 AWG, 80 AWG, 82 AWG, 84 AWG, 86 AWG, 88 AWG, 90 AWG, 92 AWG, 94 AWG, 96 AWG, 98 AWG, 100 AWG.
 2. WIRE COLOR: AS SHOWN ON DRAWING.
 3. WIRE GAUGE: AS SHOWN ON DRAWING.
 4. WIRE LENGTH: TO BE DETERMINED BY THE FABRICATOR.
 5. WIRE END FINISH: TO BE DETERMINED BY THE FABRICATOR.

DATE: 03/29/20
 DFW
 O3/29/10
 DO NOT SCALE
 HARN HD 2011 F59
 RECT H0LP MDL60
 LED F/P/T

DRAWING NO.: 115085202
 SHEET NO.: 1 OF 1

BASED ON:
 105085201
 & 095085369

HARNESS AND LOOM TOLERANCES

UP TO 80" = -0/+2"
 80" TO 100" = -0/+4"
 100" TO 200" = -0/+5"
 200" TO 400" = -0/+7"
 400" TO 600" = -0/+8"
 OVER 600" = -0/+8"
 80 TO 80 = -0/+2"

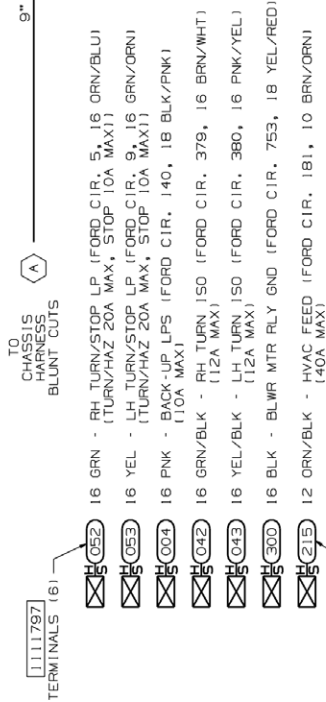
LENGTHS APPLY FROM TERMINAL TO TERMINAL, OR BREAKOUT TO WIRE ENTRY SIDE OF CONNECTOR, OR END OF COVER.

REV	REV	SHT
115088201		1 of 1
DESCRIPTION		
RELEASE FOR PRODUCTION		
REV.	DATE	BY

- 052 16 GRN (A) RH TURN/STOP LP
- 053 16 YEL (B) LH TURN/STOP LP
- 004 16 PNK (C) BACK-UP LPS
- 042 16 GRN/BLK (D) RH TURN ISO
- 043 16 YEL/BLK (E) LH TURN ISO
- EMPTY (F)
- 300 16 BLK (G) BLWR MTR RLY GND
- 215 12 ORN/BLK (H) HVAC FEED



16013558
CONN - B CKT
2 - 16013558
SECONDARY LOCK



9. THIS IS A PURCHASED HARNESS. NO BILL OF MATERIAL EXISTS.
 8. VENDOR MAY REPLACE PIGTAILS WITH WIRING TO APPROVED MOLDS OR CONNECTORS. PIGTAILS SHOWN IN TERMINAL VIEW.
 7. HARNESS TO BE TESTED FOR CONTENT, OPENES, SHORTS, AND CONT INJITY.
 6. CONNECTORS SHOWN FROM WIRE ENTRY SIDE, UNLESS OTHERWISE NOTED.
 5. SPLICES TO BE AUTOMATED WITH SOLDER AND ADHESIVE LINED HEAT SHRINK TUBING.
 4. TAPE (1111098); 6" AT BREAKOUTS AND 2" AT LOOM ENDS.
 3. HARNESS TO HAVE A LABEL SHOWING MORGAN OLSON PART NUMBER, REVISION NUMBER, DATE OF MANUFACTURE.
 2. SPLIT POLY LOOM UNLESS OTHERWISE NOTED.
 1. 6XL WIRE.
- NOTES:

MORGAN OLSON

GENERAL STANDARDS UNLESS OTHERWISE NOTED:
 1. ALL DIMENSIONS ARE IN INCHES.
 2. DIMENSIONS IN PARENTHESES INDICATE DIMENSIONS MAY VARY.
 3. DIMENSIONS IN SQUARE BRACKETS INDICATE DIMENSIONS MAY VARY.
 4. DIMENSIONS IN CIRCLES INDICATE DIMENSIONS MAY VARY.
 5. DIMENSIONS IN SQUARE BRACKETS INDICATE DIMENSIONS MAY VARY.
 6. DIMENSIONS IN CIRCLES INDICATE DIMENSIONS MAY VARY.

DFW	DATE	DATE
		08NOV10
DFW	DATE	DATE
		08NOV10

DO NOT SCALE

HARN JBR 1/2 BLUNT CUT F59 2011

DRAWING NO. 115088201

SHT 1 of 1

HARNESS AND LOOM TOLERANCES

UP TO 60" : -0/+2"
 60" TO 100" : -0/+4"
 100" TO 200" : -0/+5"
 200" TO 400" : -0/+6"
 400" TO 600" : -0/+7"
 OVER 600" : -0/+8"

BO TO BO : -0/+2"

LENGTHS APPLY FROM BREAKOUT TO BREAKOUT, OR BREAKOUT TO WIRE ENTRY SIDE OF CONNECTOR, OR END OF COVER.

BASED ON: 085088397

DRAWING NO.	REV	SHT
115088202	A	1 of 1
DESCRIPTION	DATE	BY
RELEASE FOR PRODUCTION		
A. 3" WIRES ADDED TO CORN WASH BLANK		ALL
		ATL
		(DATE)

9. THIS IS A PURCHASED HARNESS. IF ALL OF MATERIAL EXISTS.
8. VENDOR MAY REPLACE PIGTAILS WITH WIRING APPROVED BY MORGAN OLSON. PIGTAILS OR CONNECTORS SHOWN IN TERMINAL VIEW.
7. HARNESS TO BE TESTED FOR CONTENT, OPENS, SHORTS, AND CONTINUITY.
6. CONNECTORS SHOWN FROM WIRE ENTRY SIDE. UNLESS OTHERWISE NOTED.
5. SPLICES TO BE AUTOMATED WITH SOLDER AND ADHESIVE LINED HEAT SHRINK TUBING.
4. TAPE [1111096]: 6" AT BREAKOUTS, 2" AT 18" INTERVALS FOR UNINTERRUPTED LOOM LENGTHS GREATER THAN 24", AND 2" AT LOOM ENDS.
3. HARNESS TO HAVE A LABEL SHOWING MORGAN OLSON PART NUMBER, REVISION LEVEL, AND DATE OF MANUFACTURE.
2. SPLIT NYLON LOOM, BLACK WITH GRAY STRIPE. UNLESS OTHERWISE NOTED.
1. GXL WIRE.

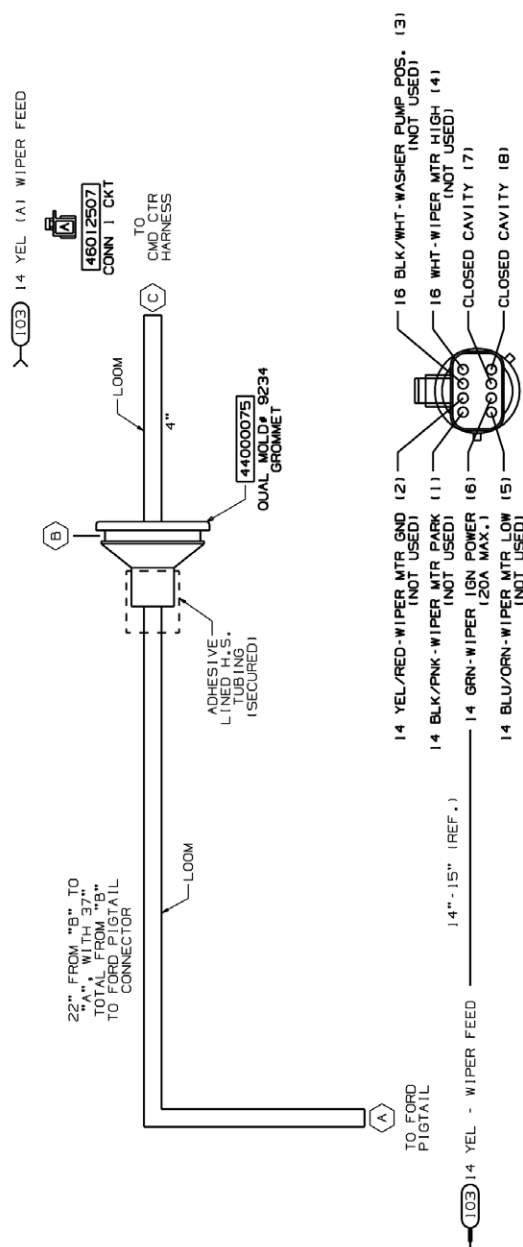
PROPRIETARY
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DATE	DFW	DATE	32990
DATE	04NOV10	DATE	04NOV10
DO NOT SCALE			
HARN JPR 1/2 WPR F59 2011			
DRAWING NO.	REV	SHT	NONE
115088202		1 of 1	A

HARNESS AND LOOM TOLERANCES
UP TO 60" : -0/+2"
60" TO 100" : -0/+4"
100" TO 200" : -0/+5"
200" TO 400" : -0/+6"
400" TO 600" : -0/+7"
OVER 600" : -0/+8"
BO TO BO : -0/+2"

LENGTHS APPLY FROM BREAKOUT TO BREAKOUT, OR BREAKOUT TO WIRE ENTRY SIDE OF CONNECTOR, OR END OF COVER.



ADDED NOTE:
 INSTALL 3" OF INSULATED WIRE W/7 TERMINALS INTO UNUSED CAVITIES 1-5 OF FORD PIGTAIL AT END A OF HARNESS. HEAT SHRINK ENDS OF BLUNT CUT WIRES. MAKE SURE WIRES ARE BUNDLED AND LACED WITH THE YELLOW WIPER FEED WIRE.

ALTERNATE CONSTRUCTION:
 IS TO BE USED FOR CONSTRUCTION OF FORD PIGTAIL AND COVER PIGTAIL WITH LOOM PER NOTE #2.

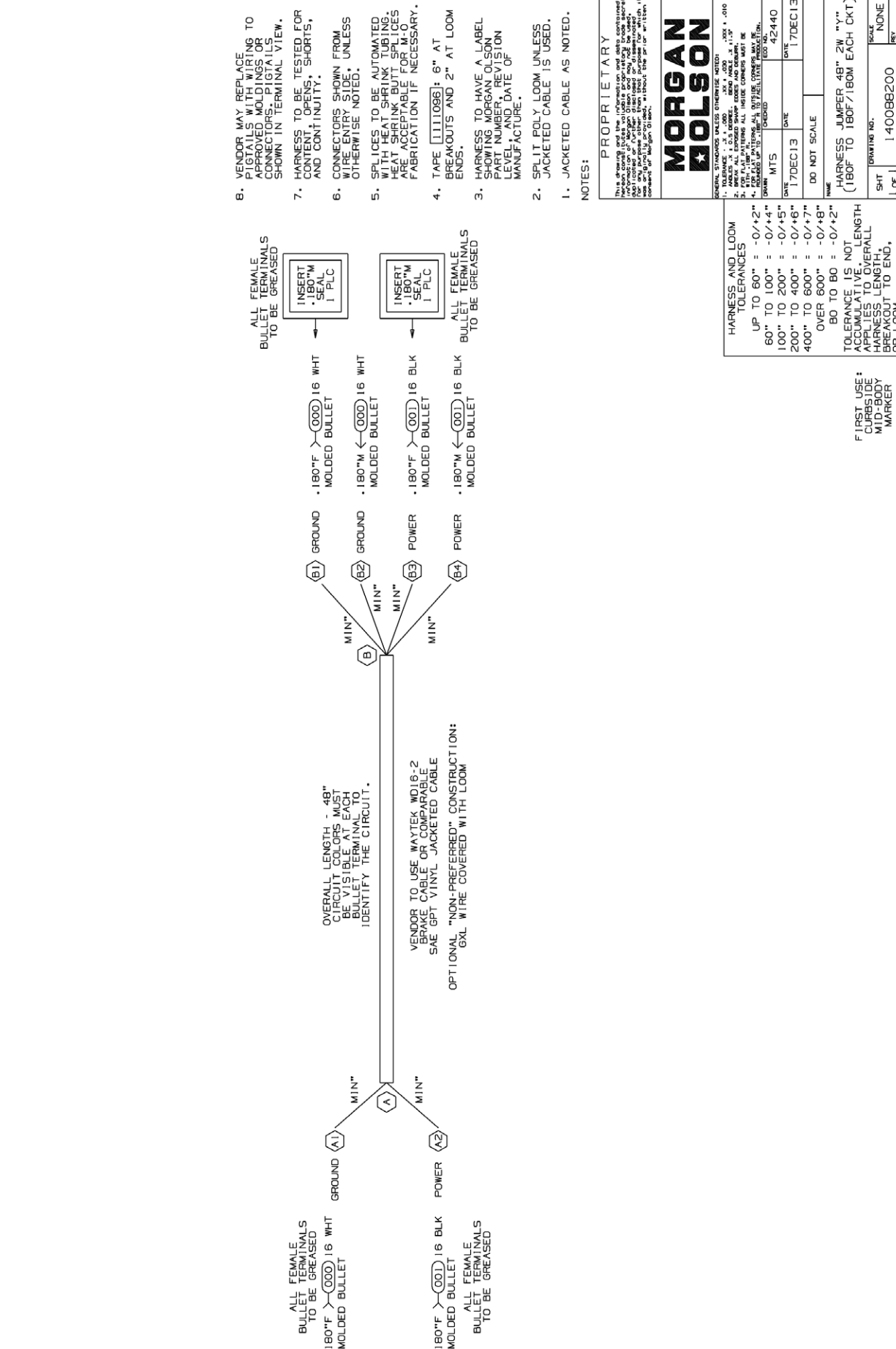
ALTERNATE CONSTRUCTION:
 IS TO BE USED FOR CONSTRUCTION OF FORD PIGTAIL AND COVER PIGTAIL WITH LOOM PER NOTE #2.

BASED ON:
 095088399

REV.	DESCRIPTION	BY	ECO	NO.
001	RELEASE TO PRODUCTION			
002				
003				
004				
005				
006				
007				
008				
009				
010				

DRAWING NO.	REV.	SHT
14008B200		1 OF 1

CIRCUIT	DESCRIPTION	END POINTS	FUNCTION
000	16 WHT	A1, B1, B2	GROUND
001	16 BLK	A2, B3, B4	POWER



1. JACKETED CABLE AS NOTED.
2. SPLIT POLY LOOM UNLESS JACKETED CABLE IS USED.
3. HARNESS TO HAVE A LABEL TO IDENTIFY ORGANIZATION, PART NUMBER, REVISION LEVEL, AND DATE OF MANUFACTURE.
4. TAPE (1111096): 6" AT BREAKOUTS AND 2" AT LOOM ENDS.
5. SPLICES TO BE AUTOMATED WITH HEAT SHRINK TUBING. HARNESS SHALL BE TESTED FOR ACCEPTABLE FOR MDCS FABRICATION IF NECESSARY.
6. CONNECTORS SHOWN FROM WIRE ENTRY SIDE, UNLESS OTHERWISE NOTED.
7. HARNESS TO BE TESTED FOR CONTENT, OPENS, SHORTS, AND CONTINUITY.
8. VENDOR MAY REPLACE PIGTAILS WITH WIRING TO APPROVED MOLDINGS OR CONNECTORS. PIGTAILS SHOWN IN TERMINAL VIEW.

NOTES:

PROPRIETARY

This drawing is the property of Morgan Olson Service Parts. It is to be used for the production of parts only. It is not to be used for any other purpose without the written consent of Morgan Olson Service Parts. If this drawing is used for any other purpose, the user assumes all liability for any and all damages, including consequential damages, that may result therefrom.

GENERAL STANDARDS UNLESS OTHERWISE NOTED:
 1. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
 2. DIMENSIONS ARE TO BE TAKEN TO THE CENTER UNLESS OTHERWISE NOTED.
 3. ALL DIMENSIONS ARE TO BE TAKEN TO THE CENTER UNLESS OTHERWISE NOTED.
 4. ALL DIMENSIONS ARE TO BE TAKEN TO THE CENTER UNLESS OTHERWISE NOTED.

DATE: 17DEC13
 TIME: 42440
 DRAWN: MTS
 CHECKED: []
 APPROVED: []

DO NOT SCALE

HARNES NUMBER: 48" 3IN "V"
 (180" TO 180"/180M EACH CKT)

SHT: 1 OF 1
 REV: NONE

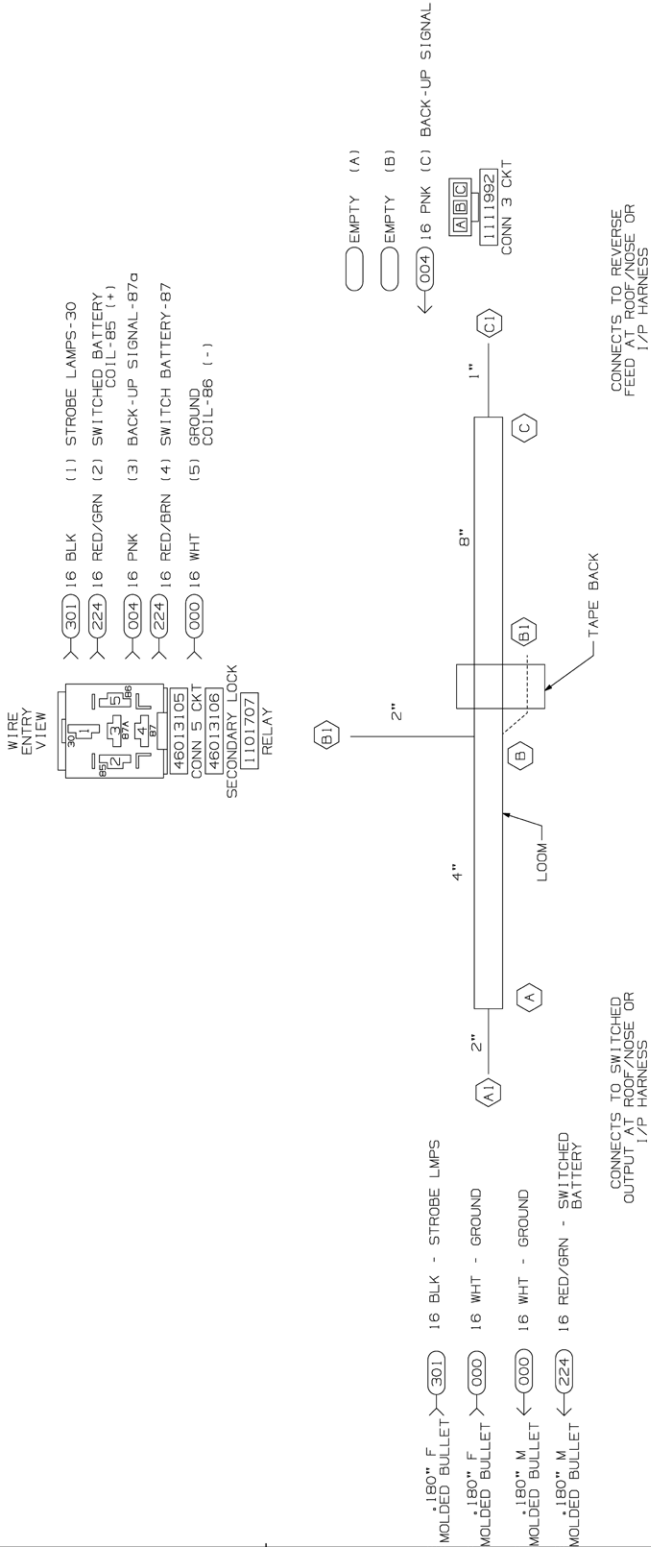
HARNES AND LOOM TOLERANCES
UP TO 60" = -0/+2"
60" TO 100" = -0/+4"
100" TO 200" = -0/+5"
200" TO 400" = -0/+6"
400" TO 600" = -0/+7"
OVER 600" = -0/+8"
BO TO BO = -0/+2"

TOLERANCE IS NOT ACCUMULATIVE. LENGTH APPLIES TO OVERALL HARNESS LENGTH, BREAKOUT TO END, OR LOOM.

FIRST USE: CURBSIDE MID-BODY MARKER

DRAWING NO.	REV	SHT
152081206	REL	1 of 1
DESCRIPTION	BY	DATE
RELEASE FOR PRODUCTION		

CIRCUIT	DESCRIPTION	END POINTS	FUNCTION
000	16 WHT	A1, B1	GROUND
004	16 PNK	B1, C1	BACK-UP SIGNAL
224	16 RED/GRN	A1, B1	SWITCHED BATTERY
301	16 BLK	A1, B1	STROBE LAMPS



- THIS IS A PURCHASED HARNESS. NO BILL OF MATERIAL EXISTS.
 - VENDOR MAY REPLACE PIGTAILS WITH WIRING TO APPROVED MOLDINGS OR CONNECTORS. PIGTAILS SHOWN IN TERMINAL VIEW.
 - HARNESS TO BE TESTED FOR CONTENT, OPENS, SHORTS, AND CONTINUITY.
 - CONNECTORS SHOWN FROM WIRE ENTRY SIDE. UNLESS OTHERWISE NOTED.
 - SPLICES TO BE AUTOMATED WITH SOLDER, AND ADHESIVE LINED HEAT SHRINK TUBING.
 - TAPE [1111992]: 6" AT BREAKOUTS, 2" AT 16" INTERVALS, FOR UNINTERRUPTED LOOM LENGTHS GREATER THAN 24", AND 2" AT LOOM ENDS.
 - HARNESS TO HAVE A LABEL SHOWING MORGAN OLSON PART NUMBER, REVISION LEVEL, AND DATE OF MANUFACTURE.
 - SPLIT POLY LOOM UNLESS OTHERWISE NOTED.
 - GXL WIRE.
- NOTES:

PROPRIETARY

MORGAN OLSON

GENERAL STANDARDS UNLESS OTHERWISE NOTED:
 1. WIRE GAUGE: 16 AWG (1.024mm) UNLESS OTHERWISE SPECIFIED.
 2. WIRE TYPE: POLYURETHANE INSULATED (PUL) UNLESS OTHERWISE SPECIFIED.
 3. WIRE COLOR: AS SHOWN IN THIS DRAWING.
 4. ALL WIRING SHALL BE IN ACCORDANCE WITH THE WIRING MANUAL.
 5. ALL WIRING SHALL BE IN ACCORDANCE WITH THE WIRING MANUAL.
 6. ALL WIRING SHALL BE IN ACCORDANCE WITH THE WIRING MANUAL.

DATE	28AUG15	DATE	28AUG15
BY	ALL	DATE	45924

SCALE: DO NOT SCALE

HARN SW & REV TRIG W/ RLY

DRAWING NO.	152081206
SCALE	NONE
SHT	1 of 1
REL	REL