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|--|-----------------------------------|------------------------------|
|  | GROUP TRA | MODEL 2015MY K900 (KH) |
| | NUMBER 054 (REV 1, 11/04/2014) | DATE September 2014 |
| TECHNICAL SERVICE BULLETIN | | |
| SUBJECT: COMBINED TSB/SERVICE ACTION: K900 (KH) SHIFT LOGIC IMPROVEMENT - TCM UPGRADE (SA174) | | |

*** NOTICE**

This bulletin has been revised to include additional information. New/revised sections of this bulletin are indicated by a black bar in the margin area.

This bulletin provides information related to an upgrade of the TCM software for 2015MY K900 vehicles, produced prior to April 30, 2014, which may exhibit a "rough shift feeling" concern, particularly when downshifting from third to second gear. To prevent and/or correct this condition, reflash the TCM (Transmission Control Module) as described in this TSB. Kia is requesting the completion of this Service Action on all affected vehicles in dealer stock. For confirmation that the latest reflash has been done to a vehicle you are working on, verify ROM ID using the tables in this TSB.

For vehicles not on the Affected Vehicles list, but with a customer concern as described above, perform the following procedure outlined in this bulletin and submit a warranty claim per "customer concern" (Standard TSB) claim information on page 6.

*** NOTICE**

A Service Action is a repair program without customer notification that is performed during the warranty period. Any dealer requesting to perform this repair outside the warranty period will require DPSM approval.

Repair status for a VIN is provided on WebDCS (Service> Warranty Coverage> Warranty Coverage Inquiry> Campaign Information). Not completed Recall / Service Action reports are available on WebDCS (Consumer Affairs> Not Completed Recall> Recall VIN> Select Report), which includes a list of affected vehicles.

This issue number is SA174.

File Under: <TRANSMISSION>

Circulate To: General Manager Service Manager Parts Manager

Service Advisor(s) Technician(s) Body Shop Manager Fleet Repair

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*** NOTICE**

After performing the software upgrade, make sure to reset/relearn the TCM Adaptive Learning Values. Access KGIS and follow the path shown below:

K900(KH) > 2015 > G 5.0 GDI-TAU > Automatic Transmission System (A8TR1-SBW).

TCM Upgrade Procedure:

To correct this condition, the TCM should be reprogrammed using the GDS Download, as described in this bulletin.


| UPGRADE EVENT NAME |
|---|
| 233.KH 5.0GDI 3-2 SHIFT LOGIC IMPROVEMENT |

*** NOTICE**

- A fully charged battery is necessary before ECM upgrade can take place. It is recommended that the Midtronics GR8-1299 system be used in ECM mode during charging. DO NOT connect any other battery charger to the vehicle during ECM upgrade.
- All ECM upgrades must be done with the ignition key in the 'ON' position.
- Be careful not to disconnect any cables connected to the vehicle or GDS during the ECM upgrade procedure
- DO NOT start the engine during ECM upgrade.
- DO NOT turn the ignition key 'OFF' or interrupt the power supply during ECM upgrade.
- When the ECM upgrade is completed, turn the ignition 'OFF' and wait 20 seconds before starting the engine.
- ONLY use approved ECM upgrade software designated for the correct model, year.



CAUTION

Before attempting an ECM upgrade on any Kia model, make sure to first determine whether the particular model is equipped with an immobilizer security system. Failure to follow proper procedures may cause the PCM to become inoperative after the upgrade and any claims associated with this repair may be subject to chargeback. 

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ROM ID INFORMATION TABLES :

Upgrade event #233 K900 (KH)

| MODEL | T/M | TCM P/N | ROM ID | |
|------------------------|-----|-------------|--|------------|
| | | | PREVIOUS | NEW |
| K900(KH) 5.0 GDI | A/T | 95440-4EDB0 | SKH0G50NB1 SKH0G50NB2 SKH0G50NB3 SKH0G50NB4 | SKHFG50NB5 |

To verify the vehicle is affected, be sure to check the Calibration Identification of the vehicle's ECM ROM ID and reference the Information Table as necessary.

1. Connect the power supply cable to the GDS.

*** NOTICE**

If attempting to perform the ECM upgrade with the power supply cable disconnected from the GDS, be sure to check that the GDS is fully charged before ECM upgrade. If the GDS is not fully charged, failure to perform the ECM upgrade may occur. Therefore, it is strongly recommended that the power supply connector be connected to the GDS.

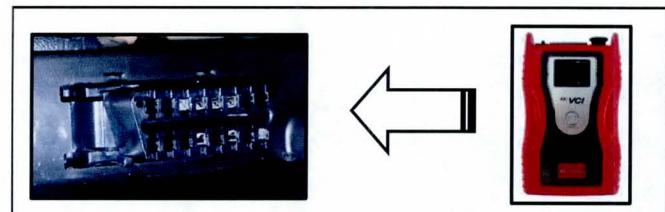
2. Connect the USB cable between the VCI and the GDS.

*** NOTICE**

When performing the ECM upgrade using the GDS, wireless communication between the VCI and GDS is not available. Therefore, be sure to connect the USB cable between the VCI and the GDS.

3. Connect the Main 16-pin DLC cable (GHDM – 241000) to the VCI.

4. Connect the Main 16-pin DLC cable (GHDM – 241000) to the OBD-II connector, located under the driver's side of the instrument panel.



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5. With the ignition key ON, turn ON the VCI and GDS. Access the GDS vehicle identification number (VIN) screen and configure the vehicle using the **VIN AUTO DETECT** Function.
6. Select **A/T** system and click **OK**.



7. Select **ECU Upgrade** from the bottom right-hand corner. Next select **Auto Mode**, and then **Engine**. Perform the ECM upgrade in accordance with normal GDS ECM upgrade procedures.



8. When the GDS reports that the ECM upgrade has been successfully completed, click **OK**, turn OFF the ignition key, and wait at least 10 seconds before attempting to start the engine.
9. Check if any incidental Diagnostic Trouble Codes DTC(s) have been created by the upgrade process; clear any DTC(s) that may be present.
10. After the upgrade is complete, reset/relearn the TCM Adaptive Learning Values. The procedure can be found at: KGIS > K900(KH) > 2015 > G 5.0 GDI-TAU > Automatic Transmission System (A8TR1-SBW).
11. Confirm proper operation of the vehicle.

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⚠ CAUTION

Before attempting an ECM upgrade on any Kia model, make sure to first determine whether the particular model is equipped with an immobilizer security system. Failure to follow proper procedures may cause the PCM to become inoperative after the upgrade and any claims associated with this repair may be subject to chargeback. 🚗

*** NOTICE**

Do NOT attempt to perform a Manual Mode upgrade unless Auto Mode fails. Always follow the instructions given on the GDS in either Auto or Manual mode. See table for Manual Mode passwords.

*** MANUAL MODE ECM UPGRADE PASSWORDS:**

*** Do NOT perform Manual Mode ECM upgrade unless Auto Mode fails.**

Upgrade event #233 K900 (KH)

| MY | MENU | PASSWORD |
|----------------|--------------------------------|----------|
| K900 (KH) 15MY | KH 5.0GDI NAS AT : 95440-4EDB0 | 4040 |

1. Within the **ECM Upgrade** screen, select **Manual Mode** in the left column, select **Engine** and then select **Upgrade Event 233**. Select the appropriate control unit part number by referring to the ROM ID Information Table on Page 3, and click **OK**.
2. Enter the appropriate password from the table above, and click **OK**.
3. Upgrade will begin and the progress of the upgrade will appear on the bar graph.
4. Following the guidelines displayed on the screen during upgrade procedure, cycle the ignition OFF ↔ ON for ten (10) seconds.
5. Check if any incidental Diagnostic Trouble Codes DTC(s) have been created by the upgrade process; clear any DTC(s) that may be present.
6. After the upgrade is complete, reset/relearn the TCM Adaptive Learning Values. The procedure can be found at: KGIS > K900(KH) > 2015 > G 5.0 GDI-TAU > Automatic Transmission System (A8TR1-SBW).
7. Confirm proper operation of the vehicle.

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AFFECTED VEHICLE PRODUCTION RANGE:

| Model | MY | Production Date Range |
|-----------|------|----------------------------------|
| K900 (KH) | 2015 | Produced prior to April 30, 2014 |

SERVICE ACTION CLAIM INFORMATION:

| Claim Type | Causal P/N | Qty | N Code | C Code | Repair Description | Labor Op Code | Time | Related Parts | Qty |
|------------|-------------|-----|--------|--------|----------------------------|---------------|------------|---------------|-----|
| V | 95440 4EDB0 | 0 | N99 | C99 | (SA 174) TCM Upgrade | 140071R0 | 0.3 M/H | N/A | 0 |

STANDARD WARRANTY CLAIM INFORMATION:

Use this information only to file a warranty claim for vehicles for which:

1. A customer complains of the same concern, as described on Page 1.
2. The VIN does not appear on the Affected Vehicles list for Service Action 174.
3. The vehicle model year and production date range are as identified in this bulletin.

| Claim Type | Causal P/N | Qty | N Code | C Code | Repair Description | Labor Op Code | Time | Related Parts | Qty |
|------------|-------------|-----|--------|--------|-----------------------------|---------------|------------|---------------|-----|
| W | 95440 4EDB0 | 0 | T73 | ZZ5 | (TRA 054) TCM Upgrade | 95440F31 | 0.3 M/H | N/A | 0 |

*** NOTICE**

For adaptive value reset operation, add Op Code 95440A00 (0.6 M/H) to the reflash claim.

*** NOTICE**

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference SA174 when accessing the WebDCS system.