

SB-10056048-7630

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|  <b style="font-size: 1.2em;">HYUNDAI NEW THINKING. NEW POSSIBILITIES. <b style="font-size: 1.1em;">Technical Service Bulletin | GROUP AUTOMATIC TRANSMISSION | NUMBER 14-AT-009 |
| | DATE JUNE 2014 | MODEL SANTA FE (CM) |
| SUBJECT AUTOMATIC TRANSAXLE 4WD ECU UPDATE AND INHIBITOR SWITCH BRACKET REPLACEMENT | | |

ECU Update

Description: This bulletin provides a procedure to:

- Update the 4WD software for 2010~12 Santa Fe 4WD with revised logic for the following DTC:
 - C1627 - CAN Time-out 4WD (ABS/ESC)
 - P1782 - Invalid Transmission Gear (4WD)
- Install the inhibitor switch bracket

Applicable Vehicles: 2010~12 Santa Fe (CM) 2.4L/3.5L with automatic transaxles and 4WD/AWD
Applicable Production Date Range: From September 05, 2009 to July 03, 2012

Parts Information:

| Part Name | Part Number | Qty. |
|--------------------------|-----------------|------|
| Inhibitor switch bracket | 42700-3B900-FFF | 1 |

GDS Information:

| Event# | Description |
|--------|---|
| Event | #321 CM 2.4/3.5 4WD P1782/C1627 DTC Logic Improvement |

Warranty Information:

| Model | Op Code | Operation | Op Time | Causal Part # | Nature | Cause |
|---|----------|---|---------|---------------|--------|-------|
| 2010~12 Santa Fe (CM) 2.4L & 3.5L | 42700F00 | Inhibitor switch bracket and 4WD ECU Update. | 0.6 | 95447-3B260 | N26 | C40 |

ROM ID Table: Verify the 4WD ECU ROM ID before updating vehicle software.

| Model | 4WD (ECU) Part Number | 4WD ECU ROM ID | |
|---|-----------------------|----------------|-------|
| | | Previous | New |
| 2010~12 Santa Fe (CM) 2.4L & 3.5L | 95447-3B260 | 03_00 | 03_01 |

I. 4WD ECU Update

GENERAL PRECAUTIONS

- Connect the USB cable between the GDS and the VCI.
- Connect the 16-pin DLC connector from the VCI into the DLC located under the driver's side dash.



NOTICE

Make sure the battery icon at the bottom right of the GDS laptop shows at least 50%; if not, charge the GDS or attach a battery charger.

- Turn off all lights (Do not leave the headlight switch in auto mode) and all accessories (including heater/air conditioner/fan, audio, heated seats, rear defroster, etc.) to ensure the battery will not be discharged during the update.
- Perform the update with the ignition key in the ON position.
- Do not disconnect any cables connected to the vehicle or the GDS during the update.
- Do not start the engine or turn the ignition switch OFF during the update.

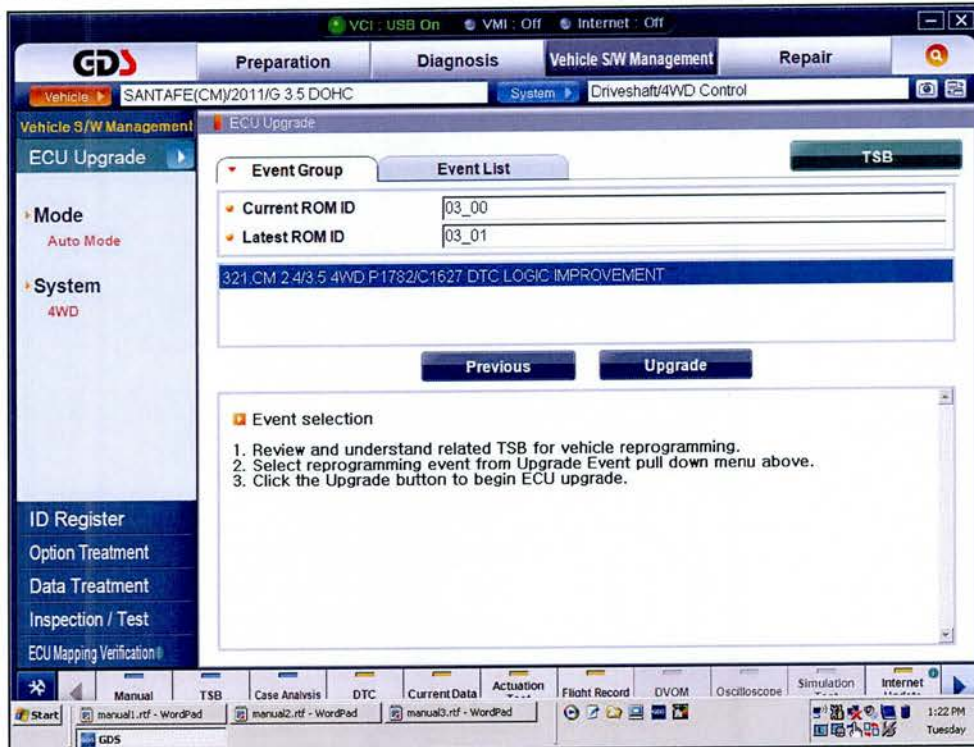
NOTICE

Confirm your GDS has the most recent version. If not, connect the GDS to an Internet port, open the GDS home page and select "Update". Refer to instructions on hmaservice.com if necessary.

If you encounter GDS related problems, call the GIT Helpline at 888-437-0308.

GDS Auto Mode 4WD ECU Update Procedure

1. From the GDS home page, select **ECU Upgrade**. If necessary, select the VIN.
2. Select **4WD** as the system and then select **OK**.
3. Select **Auto Mode** and then select **Next**.
4. From the **System** tab, select **4WD** and then select **OK**. The GDS will read the ROM ID. Confirm the ROM ID is applicable as shown on Page 1, "ROM ID Information".
5. Update event #321.CM 2.4/3.5 4WD P1782/C1627 DTC LOGIC IMPROVEMENT will display. Select **Upgrade**.



6. If the screen indicates "**Voltage is OK**", select **OK**. If not, select **CANCEL** and charge the vehicle battery by running the engine for 10 minutes.
7. Updating will occur until 100% is reached on the bar graph. At the prompt, turn the ignition key OFF for 10 seconds and then turn it ON and select **OK**.
8. The GDS will confirm that 4WD ECU reprogramming is successfully finished. Select **OK**.
9. If the 4WD ECU update was not successful, go to **GDS Manual Mode 4WD ECU Update Procedure**.
10. Check for Diagnostic Trouble Codes and erase any DTC.
11. Drive the vehicle to confirm proper operation.

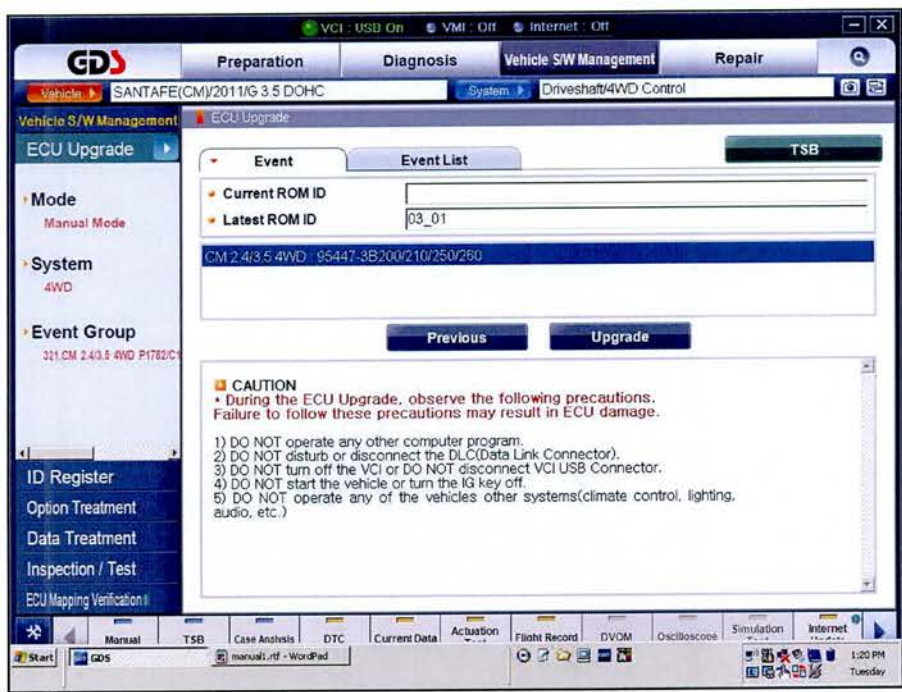
GDS Manual Mode 4WD ECU Update Procedure

NOTICE

In event of Auto Mode ECU Update failure:

- You must attempt **Manual Mode**.
- Replacing a 4WD ECU without carefully documenting that a **Manual Mode** update attempt was made will result in claims charge back.

1. From the GDS home page, select **ECU Upgrade**. If necessary, select the VIN.
2. Select **4WD** as the system and then select **OK**.
3. **Select Manual Mode and then select NEXT.**
4. **From the System tab, select 4WD and then select NEXT.**
5. Update event #321.CM 2.4/3.5 4WD P1782/C1627 DTC LOGIC IMPROVEMENT will display. Select **Next**.
6. Select **Upgrade**.



7. Enter the Password and click **OK**. The part number can be found on the ECU label.

| MENU | PASSWORD |
|--|----------|
| CM 2.4/3.5 4WD : 95447-3B200/210/250/260 | 3260 |

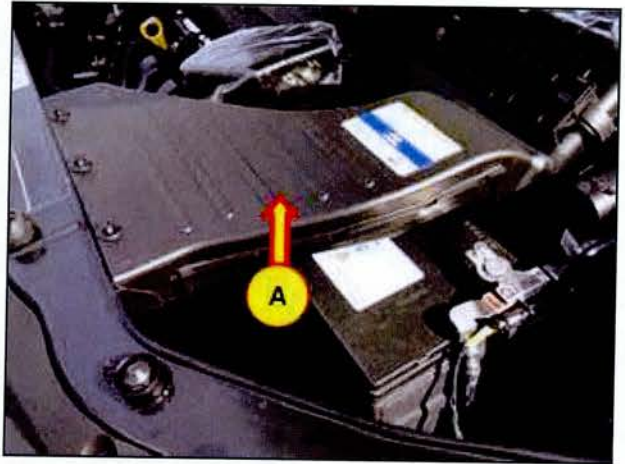
8. If the **“Voltage is OK”**, select **OK**. If not, select **CANCEL** and charge the vehicle battery.
9. The remaining steps are the same as Step 7~11 of the Auto Procedure.
10. Check for Diagnostic Trouble Codes and erase any DTC.

II. Inhibitor switch bracket installation

1. Set the parking brake and move the shift lever to the "Neutral (N)" position.

Turn the ignition switch to the OFF position.

Remove the air duct (A).



2. Remove the battery.

Battery bracket mounting bolt:
7.2~8.7 lb-ft (1.0~1.2kgf.m, 9.9~11.7 N.m)

NOTICE

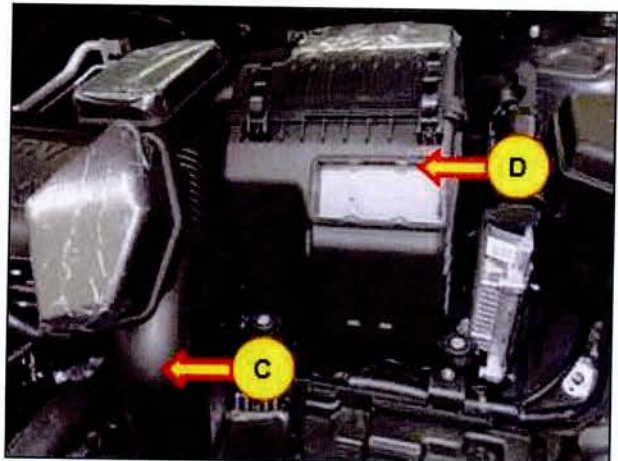
Record the AM/FM/XM preset stations.



3. Remove the air intake hose (C) and the air cleaner assembly (D).

Air intake hose clamp bolt:
2.2~3.6 lb-ft (0.3~0.5 kgf.m, 2.9~4.9 N.m)

Air cleaner assembly mounting bolts:
7.2~8.7 lb-ft (1.0~1.2 kgf.m, 9.9~11.7 N.m)

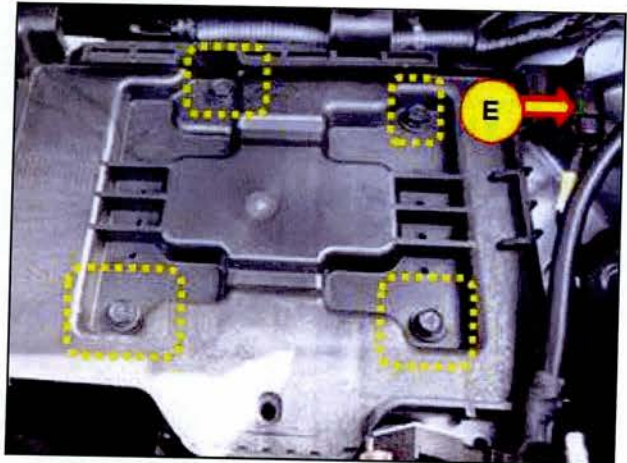


SUBJECT: AUTOMATIC TRANSAXLE 4WD ECU UPDATE & INHIBITOR SWITCH BRACKET

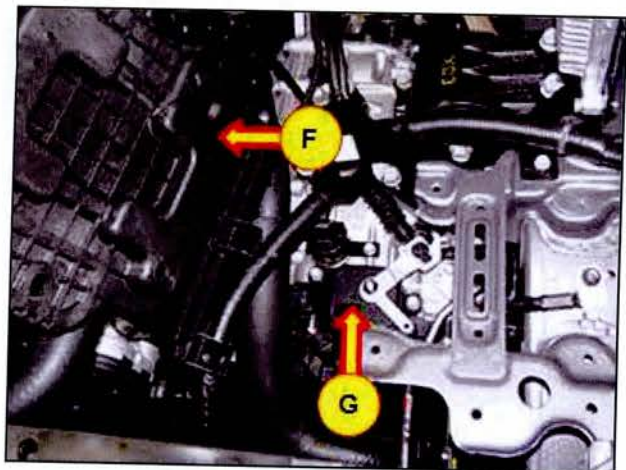
- 4. Remove the mounting bolts, and then remove the battery tray.

Tightening Torque:
7.2~8.7 lb-ft (1.0~1.2 kgf.m, 9.9~11.7 N.m)

Disconnect the connector (E) from the battery tray.



- 5. Put the battery tray (F) aside to gain access to the inhibitor switch (G).

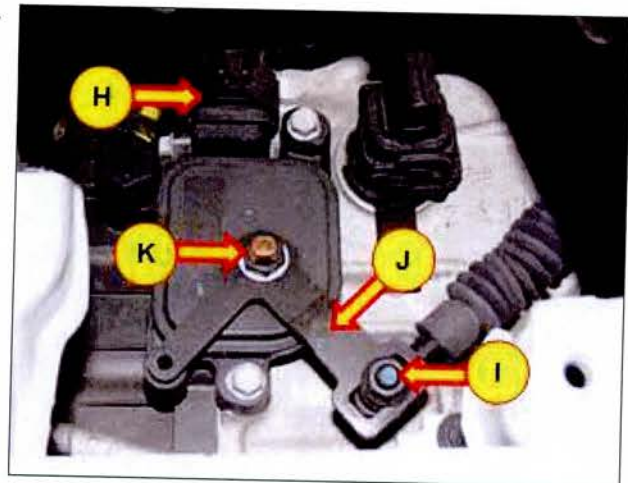


- 6. Disconnect the inhibitor switch connector (H).

Remove the shift cable fixing nut (I).

Tightening Torque:
7.2~8.7 lb-ft (1.0~1.2kgf.m, 9.9~11.7 N.m)

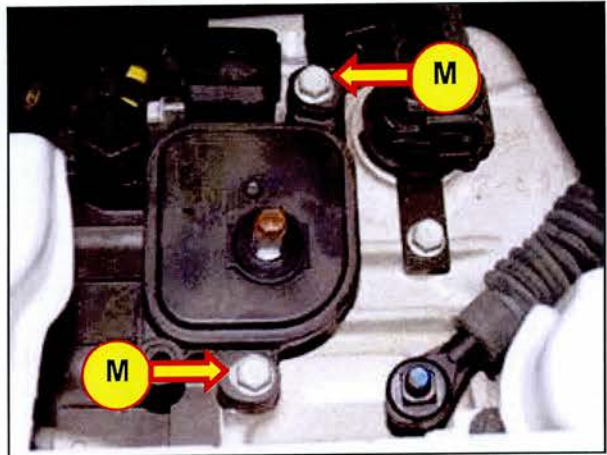
Remove the nut & washer (K) and remove the manual control lever (J).



7. Remove the mounting bolts (M) and discard.

NOTICE

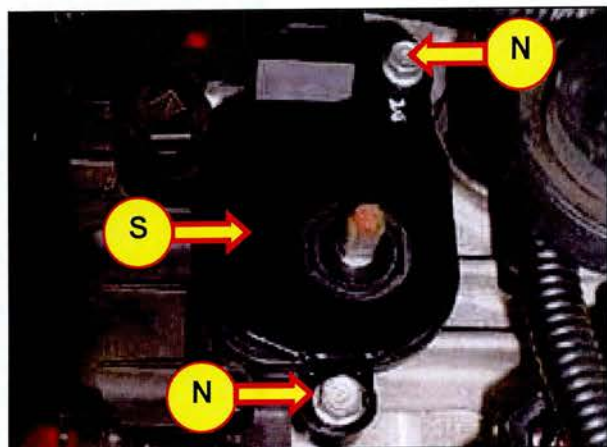
Discard the old mounting bolts (M).



8. Install the inhibitor switch bracket (S) to the inhibitor switch using the new flange bolts (N).

Tightening Torque:

7.2~8.7 lb-ft (1.0~1.2kgf.m, 9.9~11.7 N.m)



9. Reinstall the manual control lever (O) to the inhibitor switch.

CAUTION

Insert a 5mm bolt or screwdriver in the alignment hole (P) before tightening the nut.

Tightening Torque:

13.0~18.1 lb-ft (1.8~2.5 kgf.m, 17~24 N.m)



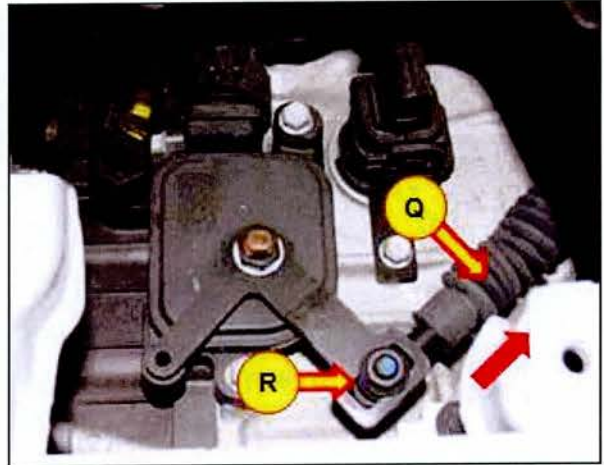
10. Attach the nut (R) and leave loose. Lightly push the cable (Q) in the direction of the arrow to eliminate free play of the cable. Completely tighten the fixing nut (R).

Tightening Torque:

5.8~8.7 lb-ft (0.8~1.2 kgf.m, 7.8~11.7 N.m)

Reinstall all the removed parts in reverse order of removal.

Confirm the shift lever shifts correctly and engages P, R, N and D.



NOTIC

Reprogram the customer's preset stations.