



# HYUNDAI Technical Service Bulletin

Group	AUTOMATIC TRANSMISSION
Number	08-AT-004
Date	MAY, 2008
Model	2008 SONATA 2.4L (NFA)

Subject  
**ECM & TCM UPDATE -  
 VIBRATION, SHUDDER OR BOOM NOISE AT 38-42 MPH**

<b>CIRCULATE TO:</b>	<input type="checkbox"/> GENERAL MANAGER	<input checked="" type="checkbox"/> PARTS MANAGER	<input checked="" type="checkbox"/> TECHNICIAN
<input checked="" type="checkbox"/> SERVICE ADVISOR	<input checked="" type="checkbox"/> SERVICE MANAGER	<input checked="" type="checkbox"/> WARRANTY MGR	<input type="checkbox"/> SALES MANAGER

**DESCRIPTION:**

Some Sonata 2.4L vehicles with automatic transaxles may experience a vibration, shudder or booming noise at 38-42 mph in 4th gear. If so, follow the procedure to update the ECM and TCM.

**APPLICABLE VEHICLES:**

**Model:** 2008 Sonata 2.4L (NFA) vehicles with automatic transaxles

**Applicable vehicle production date range:** From February 8, 2007 to October 4, 2007.

Verify the version of the ECM and TCM ROM ID before attempting to update the vehicles' software. Refer to the ROM ID Information Table.

**ROM ID INFORMATION TABLE:**

PCM PART NUMBER	ROM ID			
	ECM		TCM	
	PREVIOUS	NEW	PREVIOUS	NEW
39100-25135	N8C4MMIA	N8C4MMKA	N4N5C2T0	N4N5C3T0

**SERVICE PROCEDURE:**

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

## INTERNET UPDATE

Confirm your GDS has Local Version 1.44 or higher. If not, connect the GDS to an internet port, open the GDS home page and select “**Internet Update**”. See the instructions on hmaservice.com, if necessary.

## GDS INSTALLATION PROCEDURE

**WARNING:** Make sure that the battery symbol indicator at the bottom right tray of the GDS laptop shows at least 25%; if not, charge the GDS.

1. Connect the USB cable (A) between the GDS and the VCI.

**NOTE:** The USB cable is necessary because wireless communication is not available for the update.

2. Connect the 16-pin DLC connector from the VCI into the DLC located under the driver’s side dash.
3. Turn the ignition key on and the VCI on.



## ECM UPDATE PROCEDURE

### 1-1. AUTOMATIC **ECM** UPDATE PROCEDURE USING GDS

1. At the GDS main screen, select **ECU Upgrade**.





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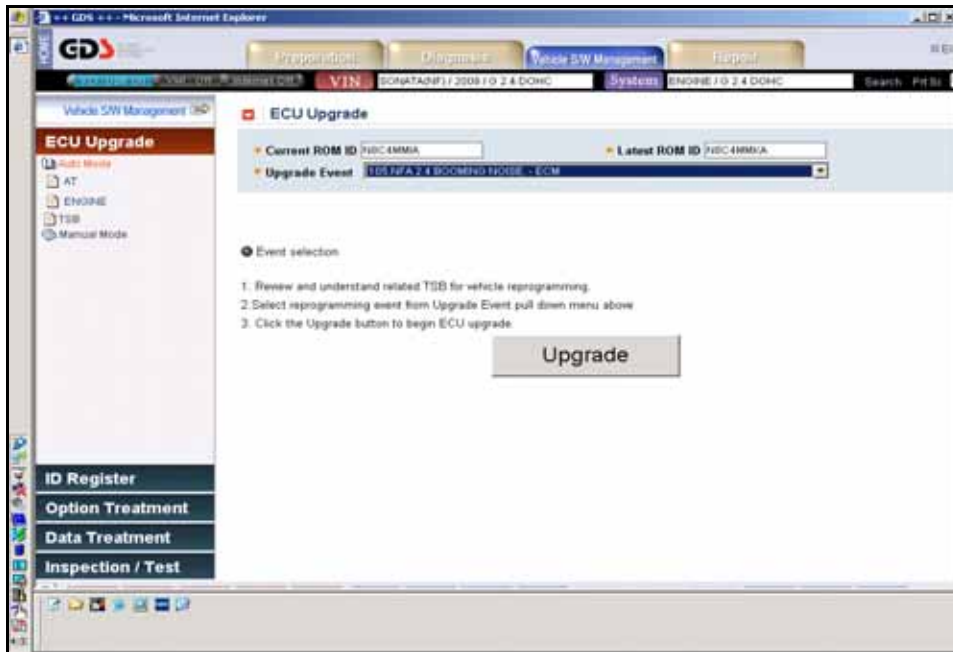
2. Select the vehicle information and **ENGINE** as the system and then click **OK**.



3. Select “**Auto Mode**” and “**ENGINE**” under the ECU Upgrade column on the left and click **OK**. The GDS will read the ROM ID.



4. Confirm the Current ROM ID is correct as shown on Page 1. Select upgrade event **105. NFA 2.4 BOOMING NOISE - ECM** and click on the **Upgrade** button.



5. To begin the update, click **OK**.
6. If the screen indicates “**Voltage is OK**”, select **OK**. If not, select **CANCEL** and charge the GDS battery.
7. The progress bar will indicate when reprogramming reaches 100%. Wait until the next screen indicates reprogramming is complete.
8. The GDS will confirm that ECU reprogramming is successfully finished. Click **OK**. If not successful, go to MANUAL **ECM** UPDATE PROCEDURE, Page 5.
9. Go to “AUTOMATIC **TCM** UPDATE PROCEDURE”, Page 6.



## 1-2. MANUAL ECM UPDATE PROCEDURE:

### CAUTION:

- *The manual update should be performed only when the automatic upgrade fails.*
- *If automatic update fails, turn the ignition key OFF for about 10 seconds and place it back in the ON position to reset the ECM.*

1. From the GDS home screen, select **ECU Upgrade**.
2. Enter the vehicle information and "**ENGINE**", then click **OK**.
3. From the ECU Upgrade window on the left, select **Manual Mode** and **ENGINE**. Select **Upgrade Event #105**" and "**NF 2.4 NAS: 39100-25135**" and click **OK**.

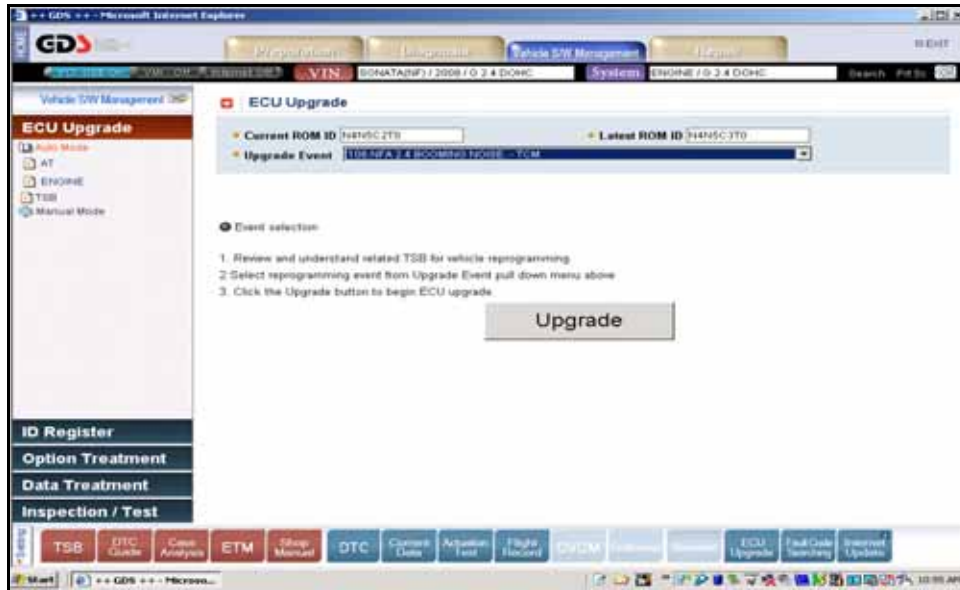


4. Enter "**5135**" as the password for manual update and click **OK**.
5. If the results indicate "**Voltage is OK**", select **OK**. If not, select **CANCEL** and charge the GDS battery.
6. The progress bar will indicate when reprogramming reaches 100%. Wait until the next screen indicates reprogramming is complete.
7. The GDS will confirm that ECM reprogramming is successfully finished. Click **OK**.
8. Go to "AUTOMATIC TCM UPDATE PROCEDURE", Page 6.

## **TCM UPDATE PROCEDURE:**

### **2-1. AUTOMATIC TCM UPDATE PROCEDURE**

1. Select **Auto Mode** and **AT** under the left ECU Upgrade column. Select **OK**.
2. The GDS will display the ROM ID. Confirm the ROM is applicable as shown on Page 1, “ROM ID INFORMATION.”
3. After the current ROM ID is displayed, select update event “**106. NFA 2.4 BOOMING NOISE - TCM**” and click **Upgrade**.



4. To begin the update, click **OK**
5. If the screen indicates “**Voltage is OK**”, select **OK**. If not, select **CANCEL** and charge the GDS battery.
6. The progress bar will indicate when reprogramming reaches 100%. Wait until the next screen indicates reprogramming is complete.
7. The GDS will confirm that TCM reprogramming is successfully finished. Click **OK**. If not, go to Page 7, “MANUAL TCM UPDATE PROCEDURE”.
8. Turn the ignition switch off for at least 10 seconds then turn back ON and start the engine to confirm proper operation.
9. Check for any Diagnostic Trouble Codes and erase any DTC present.
10. Reset the TCM adaptive learning values using the GDS “System Option” menu on the main screen.



## 2-2. MANUAL TCM UPDATE PROCEDURE:

- *The manual update should be performed only when the automatic update fails.*
- *If automatic update fails, turn the ignition key OFF for about 10 seconds, place it back in the ON position and then perform manual update.*

1. From the GDS home screen, select **ECU Upgrade**.
2. Enter the vehicle information and “**ENGINE**”, then click **OK**.
3. From the ECU Upgrade window on the left, select **Manual Mode** and **AT**.
4. Select **Upgrade Event #106. NF BOOMING NOISE - TCM**. Select **2.4 NAS: 39100-25135** and click **OK**.



5. Enter "**5135**" as the password for manual upgrade then click **OK**.
6. If the results indicate “**Voltage is OK**”, select **OK**. If not, select **CANCEL** and charge the GDS battery.
7. The progress bar will indicate when reprogramming reaches 100%. Wait until the next screen indicates reprogramming is complete.

8. The GDS will confirm that TCU reprogramming is successfully finished. Click **OK**.
9. Turn the ignition key OFF for 10 seconds and then start the engine to confirm proper operation of the vehicle.
10. Check for any Diagnostic Trouble Codes (DTCs) and erase the DTC (s) present.
11. Reset the TCM adaptive learning values using the GDS "System Option" menu.

**WARRANTY INFORMATION:**

<b>OP CODE</b>	<b>OPERATION</b>	<b>OP TIME</b>	<b>CAUSAL P/N</b>	<b>NATURE CODE</b>	<b>CAUSE CODE</b>
95440F36	ECM & TCM UPGRADE	0.3	39100-25135	N21	C40