



# HYUNDAI Technical Service Bulletin

Group	AUTOMATIC TRANSAXLE
Number	08-AT-012
Date	NOVEMBER, 2008
Model	2009 SONATA 3.3L

Subject  
**TCM CALIBRATION UPDATE  
(UPSHIFT AND DOWNSHIFT)**

<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:

This TSB provides the procedure to update the Powertrain Control Module with the most recent shift schedule calibration for 2009 Sonata 3.3L vehicles with automatic transaxles.

## APPLICABLE VEHICLES:

**Model:** 2009 Sonata 3.3L (NFA) vehicles with automatic transaxle

**Applicable vehicle production date range:** From beginning of production through August 26, 2008.

Verify the version of the ECM ROM ID before attempting to update the software.

## ROM ID INFORMATION TABLE:

ECM PART NUMBER	ECM ROM ID	
	PREVIOUS	NEW
39110-3C765	NF8N33*S2AS8J9AA NF8N33*S2AS8JAAA NF8N33*S2AS8JACA NF8N33*S2AS8JADA NF8N33*S2AS8JFBA	NF8N33*S2AS8JHBA

## SERVICE PROCEDURE:

- Turn off all lights (Do not leave headlight switch in auto mode) and all accessories (including heater/air conditioner/blower, radio, heated seats, rear defroster, etc.).
- 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 during reprogramming.
- Do not turn the ignition switch OFF during reprogramming.

## INTERNET UPDATE

Confirm your GDS has Local Version 1.53 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](http://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 laptop for at least ½ hour or leave it connected during the reprogramming procedure if possible.

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.

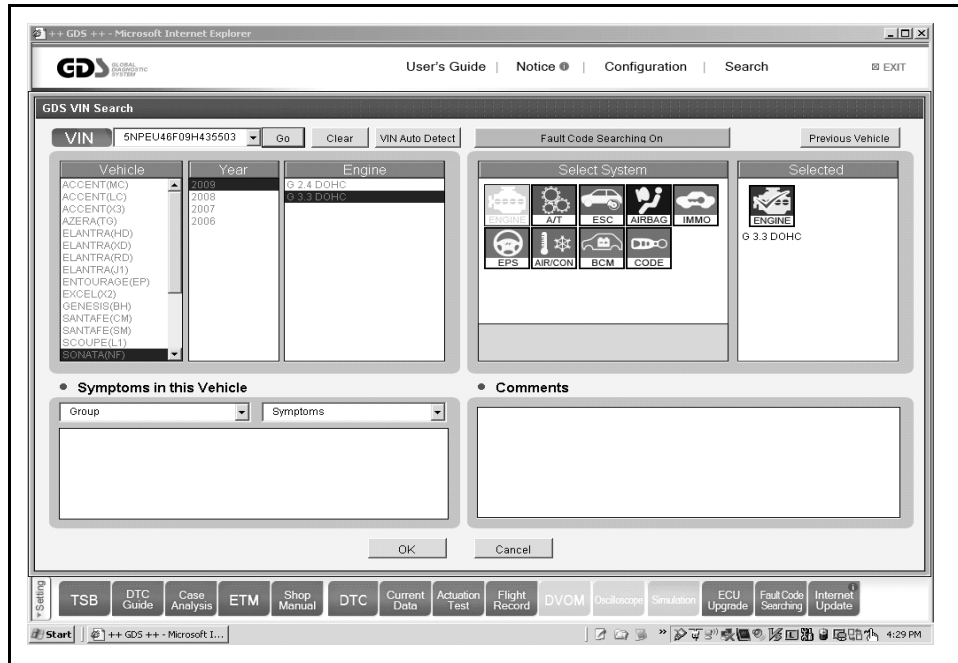
2. Connect the 16-pin DLC connector from the VCI to the DLC located under the driver’s side dash.
3. Turn the ignition key on and the VCI on.





## 1-1. AUTOMATIC TCM UPDATE PROCEDURE USING GDS

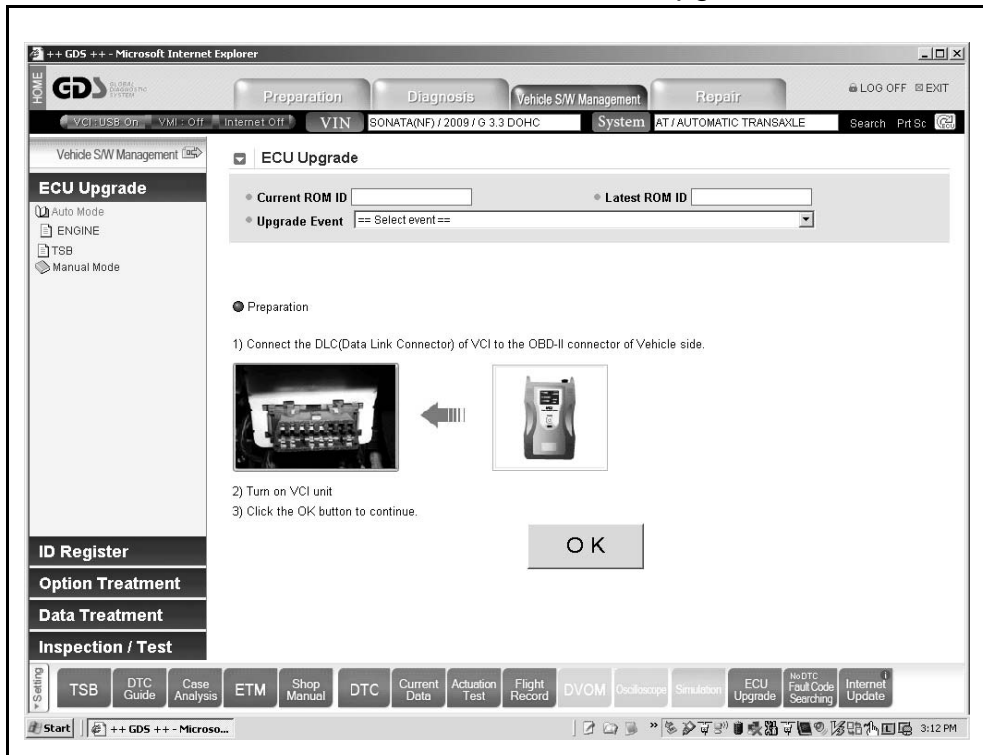
1. Select the vehicle information and **ENGINE** as the system and then click **OK**.



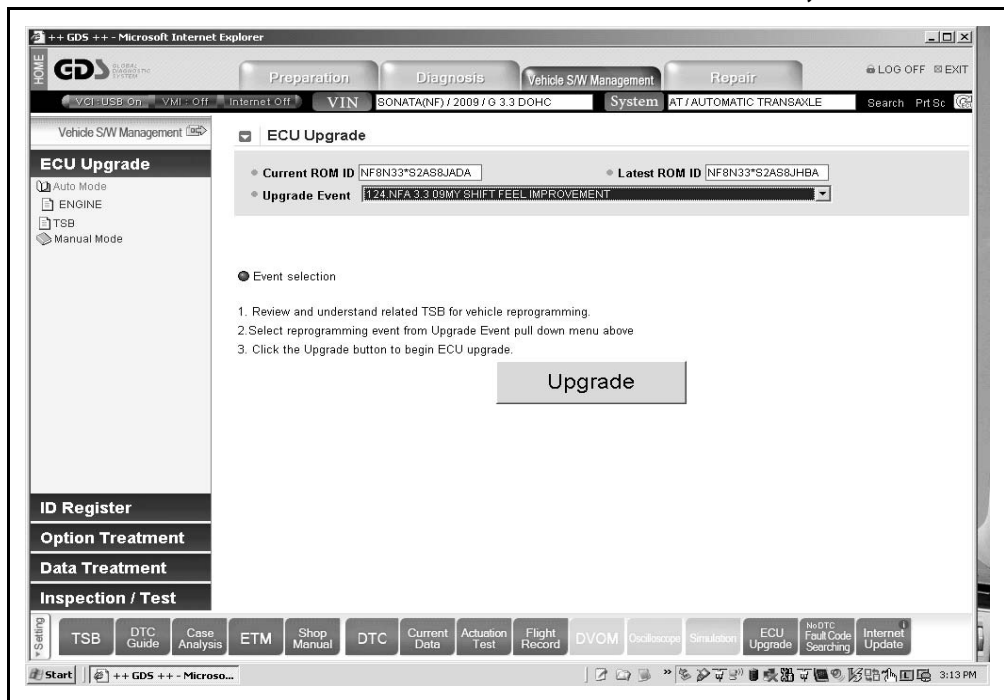
2. At the GDS main screen, select **ECU Upgrade**.



3. Select **“Auto Mode”** and **ENGINE** under the ECU Upgrade column. Click **OK**.



4. After selecting **OK**, the GDS will read the ROM ID. Select upgrade event **124 NFA 3.3 09MY SHIFT FEEL IMPROVEMENT**. Select **UPGRADE**, then **OK**.





# HYUNDAI Technical Service Bulletin

Group

AUTOMATIC TRANSAXLE

Number

08-AT-012

5. If the screen indicates “**Voltage is OK**”, select **OK**. If not, select **CANCEL** and run the engine for 5 minutes to charge the battery.
6. The progress bar will indicate when reprogramming reaches 100%. **Wait until the next screen indicates reprogramming is complete.**
7. Turn the ignition switch off for at least 10 seconds and turn back on and select **OK**.
8. The GDS will confirm that TCU reprogramming is successfully finished.
9. After the update is completed, reset the TCU adaptive learning values with GDS using the **System option** menu and **Resetting Adaptive Values**.
10. Check for any DTC in the **Engine** and **Auto Transmission** menus and erase any DTC present.
11. Start the engine to confirm proper operation of the vehicle.

## 1-2. MANUAL TCM UPDATE PROCEDURE:

**WARNING:** Manual update should be performed only when the automatic update fails. If automatic update fails, turn the ignition key OFF for about 10 seconds and turn it back in the ON position to reset the ECM before performing manual update.

1. From the GDS home screen, select **ECU Upgrade**.



- From the ECU Upgrade window, select **Manual Mode** and **ENGINE**. Select **Upgrade Event 124 NFA 3.3 09MY SHIFT FEELING IMPROVEMENT**. Select **NF 3.3 09MY NON-IMMO 39110-3C765** as the system and select **OK**.



- Enter **3765** as the password for manual upgrade and select **OK**.
- If the results indicate **“Voltage is OK”**, select **OK**. If not, select **CANCEL** and run the engine for 5 minutes to charge the battery.
- The progress bar will indicate when reprogramming reaches 100%. Wait until the next screen indicates reprogramming is complete.
- Turn the ignition key OFF for 10 seconds, place it back in the ON position and then select **OK**.
- The GDS will confirm that ECU reprogramming is successfully finished.
- After the update is completed, reset the TCU adaptive learning values with GDS using the **System option** menu and **Resetting Adaptive Values**.
- Check for any diagnostic trouble codes (DTCs) in the **Engine** and **Auto Transmission** menus and erase the DTC (s) present.
- Start the engine to confirm proper operation of the vehicle.

**WARRANTY INFORMATION:**

OP CODE	OPERATION	OP TIME	CAUSAL P/N	NATURE CODE	CAUSE CODE
95440F41	TCM UPDATE	0.3	39110-3C765	N26	C15