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GROUP	NUMBER
CAMPAIGN	13-01-002-1
DATE	MODEL(S)
MARCH 2013	SANTA FE (AN)

Technical Service Bulletin

SUBJECT	
	SANTA FE MDPS UPDATE **(SERVICE CAMPAIGN TN8)**

THIS TSB SUPERSEDES TSB 13-01-002 TO INCLUDE RETAIL VEHICLES.

★ IMPORTANT

*** Dealer Stock and Retail Vehicles ***

Dealers must perform this Service Campaign on all affected vehicles prior to customer retail delivery and whenever an affected vehicle is in the shop for any maintenance or repair.

When a vehicle arrives at the Service Department, access Hyundai Motor America's "Warranty Vehicle Information" screen via WEBDCS to identify open Campaigns.

Description: This bulletin describes the procedure to update the MDPS (motor driven power steering) software on some 2013MY Santa Fe (AN) vehicles.

Applicable Vehicles: Santa Fe (AN) vehicles produced from June 28, 2012 through December 13, 2012

GDS Information:

EVENT #	DESCRIPTION
301	DMA EPS ECU UPDATE

ROM ID Information Table:

Model	System	EPS ECU P/N	ROM ID	
			Previous	New
SANTA FE (AN)	EPS(MDPS)	56300-4Z000	56300-4Z0001.05	56300-4Z0001.06

Circulate To: General Manager, Service Manager, Parts Manager, Warranty Manager, Service Advisors, Technicians, Body Shop Manager, Fleet Repair

Warranty Information:

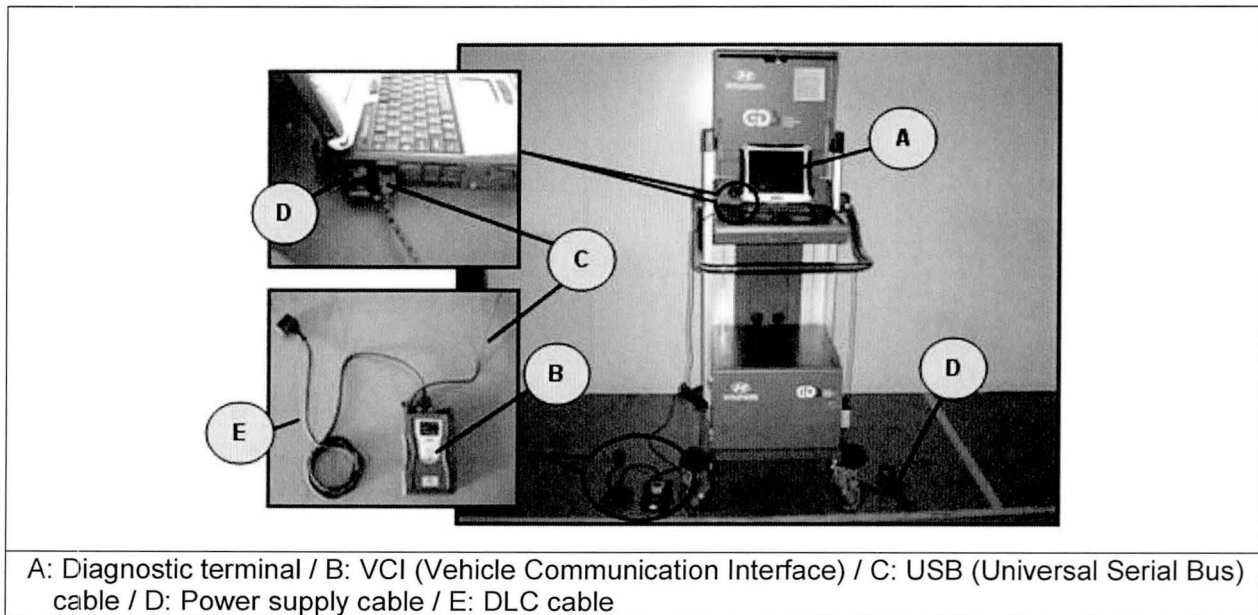| OP CODE	OPERATION	OP TIME
20CG06R0	EPS ECU UPGRADE	0.3 M/H

NOTE: Submit Claim on Campaign Claim Entry Screen

Service Procedure:

⚠ Cautions during ECM update

1) Make sure the vehicle's battery has reasonable charge. If the vehicle has been in storage for days, run the engine to ensure an adequate battery charge state for reliable update results.
2) Turn off all lamps (do not leave head lamp switch in auto mode) and all accessories (including heater, A/C, blower, radio, seat warmer, defroster, etc.) so that the battery will not be discharged during update.
3) Perform update with the ignition switch in the ON position.
4) Connect the USB cable between the VCI and the GDS when performing the update.
5) Be careful not to disconnect any cables connected to the vehicle or scan tool during update.
6) Do not start the engine during update.
7) Do not turn off the ignition switch during update.

1. GDS INSTALLATION PROCEDURE

A: Diagnostic terminal / B: VCI (Vehicle Communication Interface) / C: USB (Universal Serial Bus) cable / D: Power supply cable / E: DLC cable

1. Connect the power supply cable to the diagnostic terminal.

> **★ NOTE**
>
> *If attempting to perform the update with the power supply cable disconnected from the diagnostic terminal, make certain that the diagnostic terminal is charged enough for the update. If not, the update may fail in progress. Therefore, it is strongly recommended to connect the power supply cable to the diagnostic terminal during the update procedure.*

2. Connect the USB cable between the VCI and the diagnostic terminal.

> **★ NOTE**
>
> *When performing the update using the GDS, wireless communication between the VCI and the diagnostic terminal is NOT available. Therefore, be sure to connect the USB cable between the VCI and the diagnostic terminal.*

3. Connect the 16-pin DLC cable from the VCI into the vehicle's 16-pin connector under the driver side instrument panel.

4. Set the ignition to the ON position.

> **★ NOTE**
>
> *For push-button start vehicles, <u>without depressing the brake pedal</u> push the start button twice.*
>
> *For standard start vehicles, insert the key into the ignition and turn to the ON position.*
>
> ***For all vehicles, do not start the engine.***

Turn the VCI and diagnostic terminal ON.

2. AUTOMATIC UPDATE PROCEDURE USING THE GDS

1.   Choose **VIN** or **ECU Upgrade** on the initial screen.

2.   Enter the vehicle information by pressing the **VIN Auto Detect** button, entering the vehicle's VIN or selecting the vehicle model, model year, engine/fuel type and **EPS (MDPS, Motor Driven Power Steering)** as the system and then click **OK**.
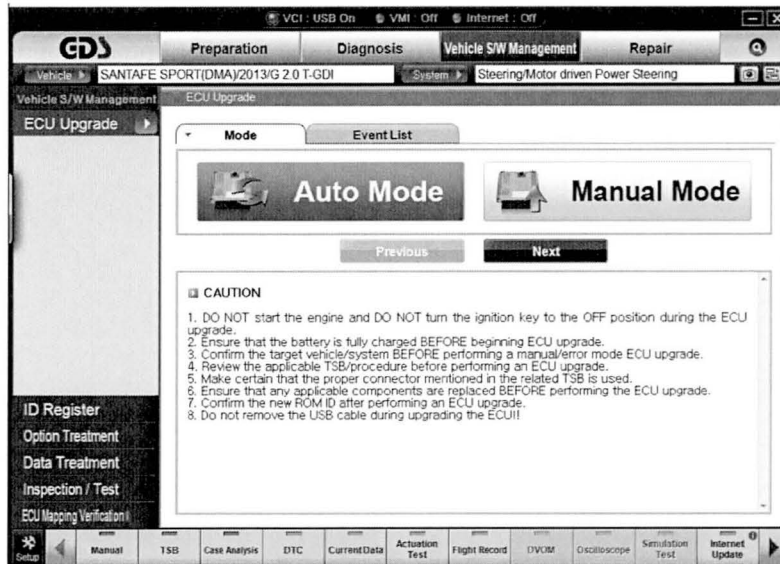

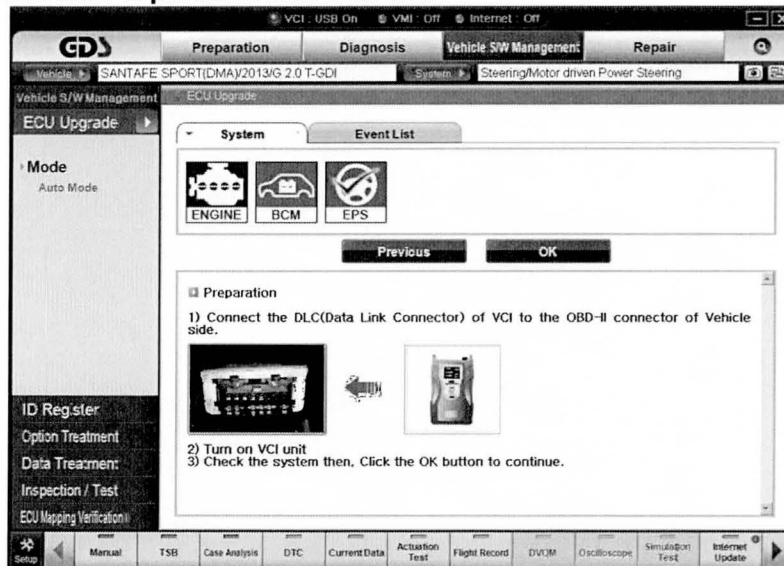3.   Select **ECU Upgrade** on the initial screen after entering the vehicle information.

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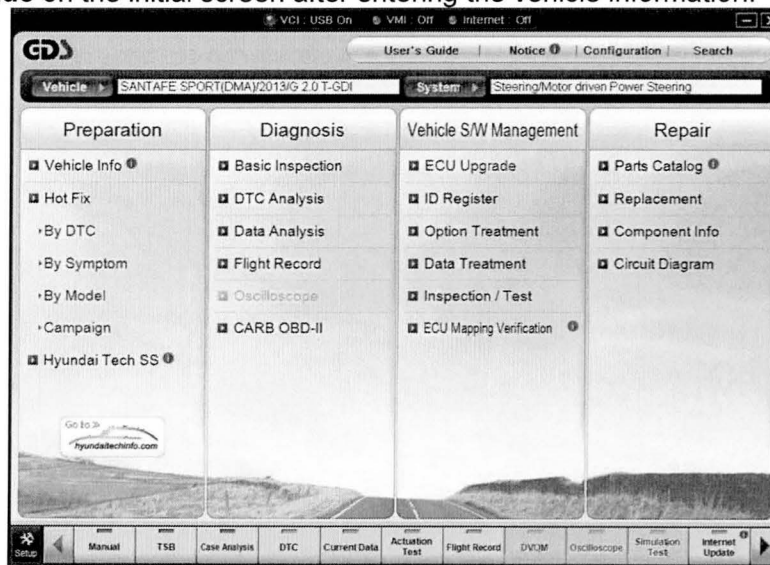
4. Select **Auto Mode** then click **Next.**

5. Select **EPS,** then read the **Preparation** and click **OK.**

6. The GDS will read the vehicle's ROM ID.

7. After the **Current ROM ID** is displayed, select the upgrade event, **"301.DMA EPS ECU UPDATE."**

    Click **Upgrade**.

8. The vehicle battery voltage is checked to make sure it is at least 12 volts to ensure reliable update results. Click **OK** if the results indicate **Voltage is OK**.
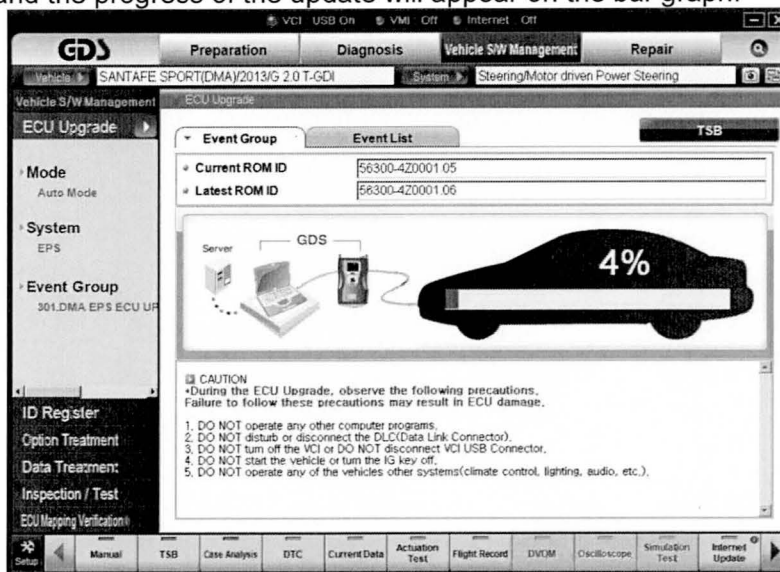
> **★ NOTE**
>
> *If voltage is below 12 volts, click Cancel and then run the engine to ensure an adequate battery charge state for reliable update results.*

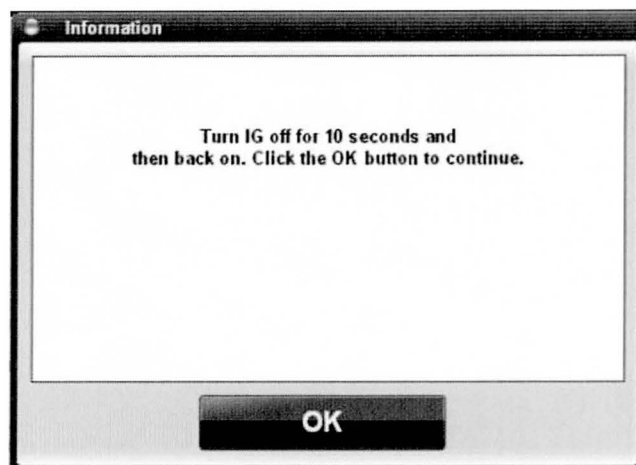9. Cycle the ignition OFF, then ON again to begin the update.

Information

Check the GDS connection
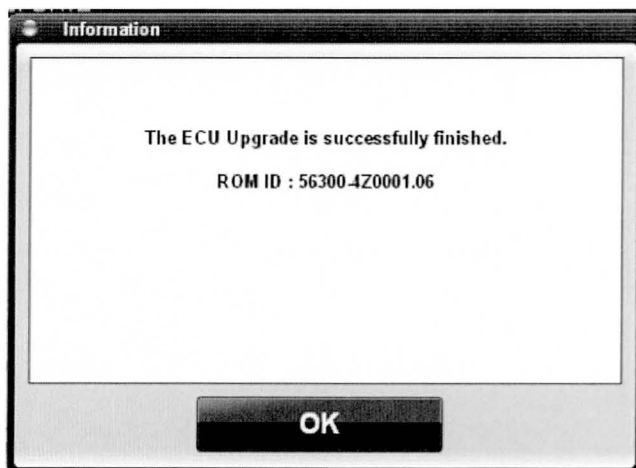and turn OFF and ON the ignition key.

Cancel
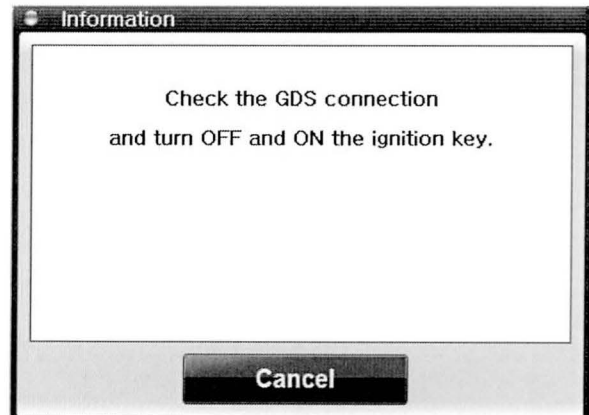
10. Update will begin and the progress of the update will appear on the bar graph.

11. Update will occur until 100% is reached on the bar graph. Turn the ignition OFF for 10 seconds, and then back ON again. Click **OK** to continue.

> **Information**
>
> Turn IG off for 10 seconds and then back on. Click the OK button to continue.
>
> OK

12. Click **OK** on the final screen, which indicates update is complete.

> **Information**
>
> The ECU Upgrade is successfully finished.
>
> ROM ID : 56300-4Z0001.06
>
> OK

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13. Check if any incidental Diagnostic Trouble Codes (DTC) has been created by the update and clear the DTC (s) present.

14. Start the engine to confirm proper operation of the vehicle.

3. MANUAL UPDATE PROCEDURE USING THE GDS

⚠ **CAUTION**

- Manual update should be performed only when automatic update fails.
- If automatic update fails, cycle the ignition OFF for 10 seconds, then back ON again to reset the control unit before performing manual update.

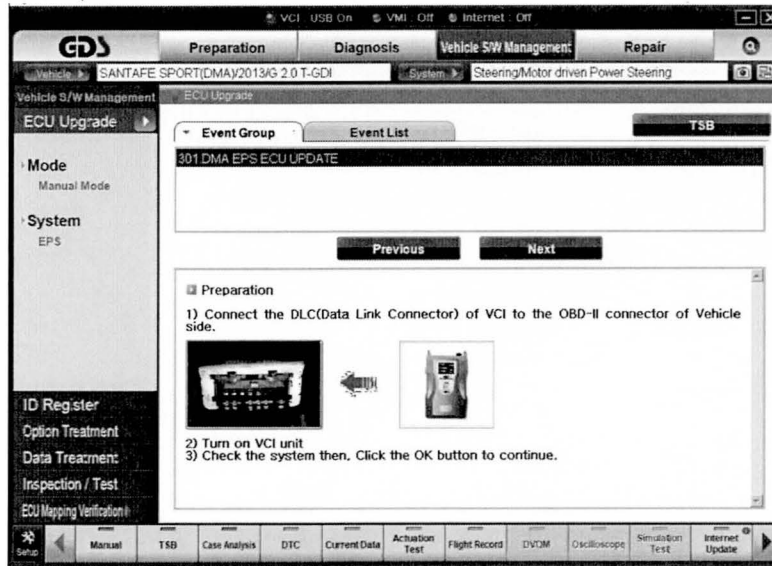1. Within the **ECU Upgrade** screen, select **Manual Mode**, and then click **Next.**

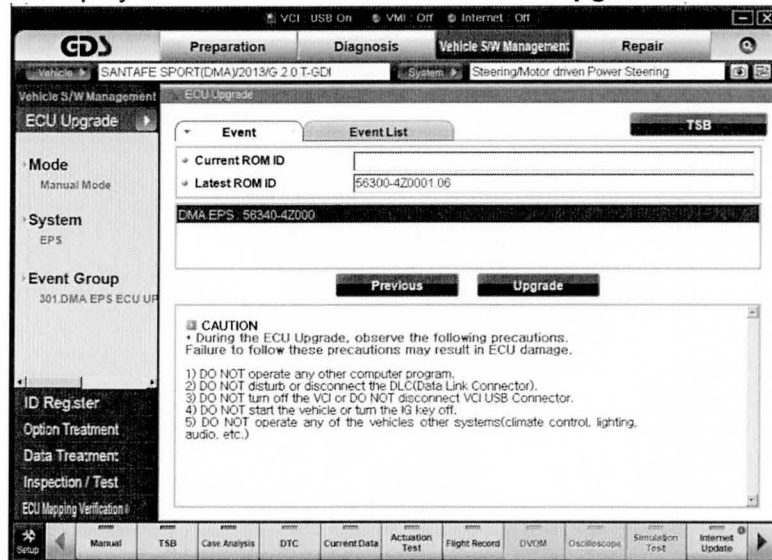2. Select **EPS,** then read the **Preparation** and click **Next.**
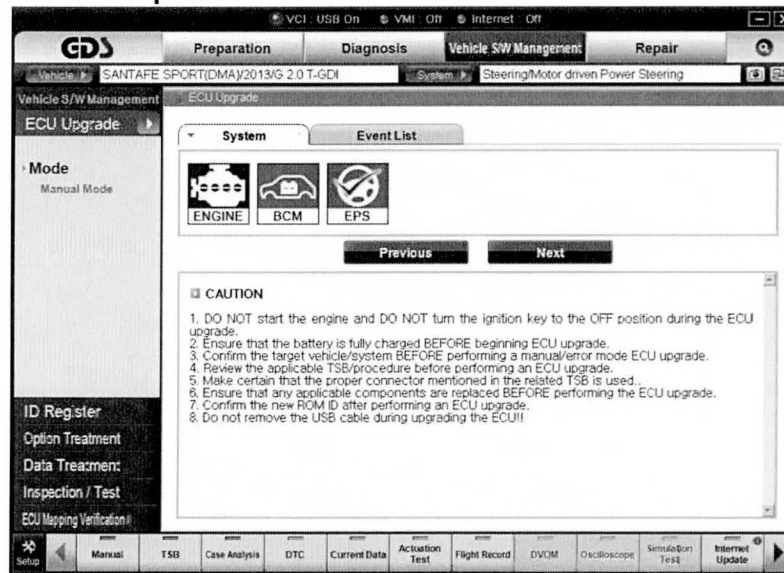
3. Select the upgrade event, **"301.DMA EPS ECU UPDATE"** and click **Next.**

4. Latest ROM ID will be displayed as **"56300-4Z0001.06."** Click **Upgrade** to continue.

5. Enter the appropriate password from the below table then click **OK.**

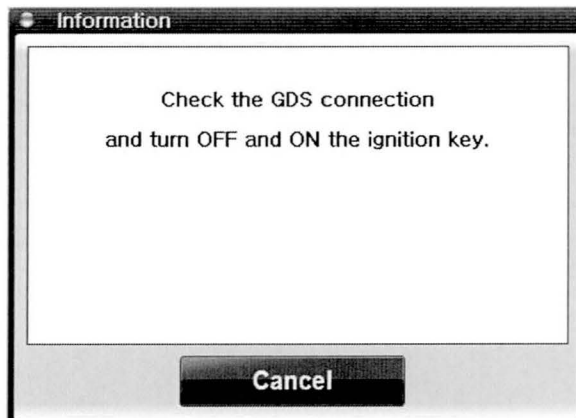| MENU	PASSWORD
DMA EPS : 56300-4Z000	4000

6. The vehicle battery voltage is checked to make sure it is at least 12 volts to ensure reliable update results. Click **OK** if the results indicate **Voltage is OK**.
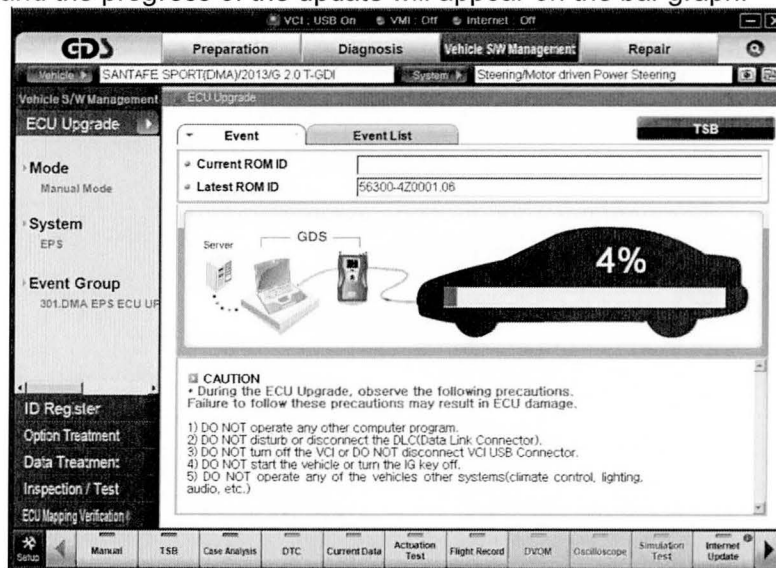
> ★ **NOTE**
>
> *If voltage is below 12 volts, click Cancel and then run the engine to ensure an adequate battery charge state for reliable update results.*

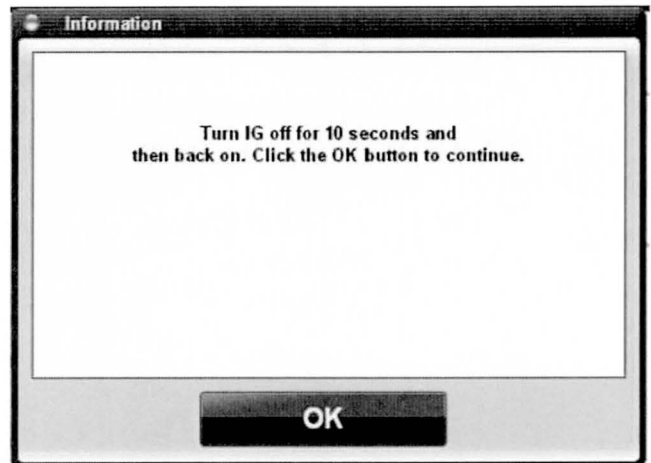7. Cycle the ignition OFF, then ON again to begin the update.

8. Update will begin and the progress of the update will appear on the bar graph.
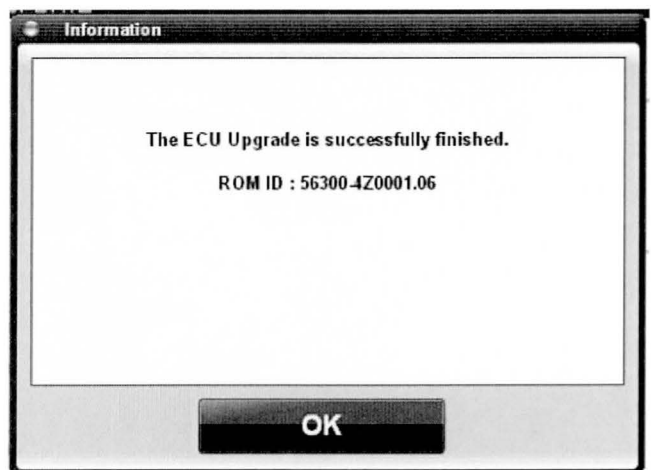

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9. Update will occur until 100% is reached on the bar graph. Turn the ignition OFF for 10 seconds, and then back ON again. Click **OK** to continue.

> **Information**
>
> Turn IG off for 10 seconds and
> then back on. Click the OK button to continue.
>
> **OK**

10. Click **OK** on the final screen, which indicates update is complete.

> **Information**
>
> The ECU Upgrade is successfully finished.
>
> ROM ID : 56300-4Z0001.06
>
> **OK**

11. Check if any incidental Diagnostic Trouble Codes (DTC) has been created by the update and clear the DTC (s) present.

12. Start the engine to confirm proper operation of the vehicle.