 <h1 style="text-align: center;">TSB Local</h1>	Model	SORENTO(XM) (2013, 2014)
	Group	Fuel System (14)
	TSB No.	KCE13-14-E400-XM
Subject ECM Upgrade - XM FL Cold Idle RPM Stability Improvement	TSB Type	Service Action
	Published	2014-01-02

Description

This bulletin provides information related to the Engine Control Module (ECM) software upgrade for some 2013~2014MY Sorento (XM) R2.2L Diesel vehicles to improve Idle rpm stability after cold starting below 20°C

Applicable Vehicle

- Model: 2013~2014MY Sorento (XM) R2.2L Diesel vehicles (See attached UK VIN list)
- Area: West Europe, East Europe

NOTE:

- Make sure your GDS / G-Scan software is up to date and the latest Internet update have been downloaded / installed. Failure to do this may result in the ECU upgrade not being installed on your GDS / G-Scan and not being visible being in the event table.

- Make a note on the repair order of the current ECU part number ROM ID prior to starting the upgrade.

- Verify the vehicle is affected, be sure to check the version of the vehicle's control unit ROM ID with reference to the ROM ID Information Table mentioned below before attempting to upgrade the control unit software.

Parts Information

MODEL	IMMO	T/M	ECM P/NO	ROM ID	
				PREVIOUS	NEW
XM FL R2.2L VGT	O	2WD AT	39101-2F800	E1XF502ACVERI1R2 E1XF502ACVERI2R2 E1XF502ACVERI3R2 E1XF502ACVERI4R2	F0XF502ACVERITR2
		4WD AT		E1XF504ACVERI1R2 E1XF504ACVERI2R2 E1XF504ACVERI3R2 E1XF504ACVERI4R2	F0XF504ACVERITR2
		2WD MT	39101-2F850	E1XF502MCVERI1R2 E1XF502MCVERI2R2 E1XF502MCVERI3R2	F0XF502MCVERITR2
		4WD MT		E1XF504MCVERI1R2 E1XF504MCVERI2R2 E1XF504MCVERI3R2	F0XF504MCVERITR2

Operation Code And time

OP CODE	OP NAME	OP TIME	NATURE	CAUSE
130105R0	ECM UPGRADE	0.3 M/H	N96	C40

Service Procedure

PREPARATION & CAUTIONS DURING CONTROL UNIT UPGRADE

- 1) Make sure the vehicle's battery has reasonable charge. Connect the Midtronics battery charger that was supplied with your GDS and set to power supply mode / ECU upgrade function.
- 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.) Do not to allow the battery to be discharged during upgrade.
- 3) Perform upgrade with the ignition switch in the ON position.
- 4) Be careful not to disconnect any cables connected to the vehicle or GDS during upgrade.
- 5) Do not start the engine during upgrade.
- 6) Do not turn off the ignition switch during upgrade. After completing the upgrade ensure all other system control units are checked for DTC and any erased. Please advise the customer that after the upgrade the ECU adaption values may take up to 1000miles to be re-learnt.

■ CONTROL UNIT UPGRADE PROCEDURE

1. GDS (Global Diagnostic System) INSTALLATION PROCEDURE



A: Diagnostic terminal / B: VCI (Vehicle Communication Interface) / C: USB (Universal Serial Bus) cable
D: DLC cable (16-pin) / E: Power supply cable

- 1) Connect the power supply connector to the diagnostic terminal.

[NOTE]

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

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

[NOTE]

- When performing the upgrade 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 DLC connector under the driver side instrument panel.
- 4) Turn on the VCI and diagnostic terminal with the ignition key in the ON position.

[NOTE] Do not start the engine.

2. AUTOMATIC UPGRADE PROCEDURE USING GDS

- 1) Choose **VIN** or **ECU Upgrade** on the initial screen.
- 2) Enter the vehicle information by entering the vehicle's VIN or selecting the vehicle model, model year, engine/fuel type and **ENGINE** as the system and then click **OK**.



- 3) Select **ECU Upgrade** on the initial screen after entering the vehicle information.
- 4) Select **Auto Mode** then **ENGINE** in the left **ECU Upgrade** column.
- 5) Read **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**, "**330.XM FL COLD IDLE RPM STABILITY IMPROVEMENT.**" 8) After clicking the **Upgrade** button, read **Information** then click **OK**.
- 9) The vehicle battery voltage is checked to make sure it is at least 12 volts to assure reliable upgrade 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 assure an adequate battery charge state for reliable upgrade results.

- 10) Upgrade will begin and the progress of the upgrade will appear on the bar graph.

- 11) Upgrade will occur until 100% is reached on the bar graph. Turn the ignition key OFF for 20 seconds, place it back in the ON position and then click **OK** to continue according to **Information** displayed on the screen.



- 12) Click **OK** on the final screen, which indicates upgrade is complete.
- 13) Check if any incidental Diagnostic Trouble Codes (DTC) have been created by the upgrade and clear the DTC (s) present.
- 14) Start the engine to confirm proper operation of the vehicle.

3. MANUAL UPGRADE PROCEDURE

[CAUTION]

- Manual upgrade should be performed only when automatic upgrade fails.
- If automatic upgrade fails, turn the ignition key OFF for about 20 seconds, place it back in the ON position to reset the control unit before performing manual upgrade.

- 1) Within the **ECU Upgrade** screen, select **Manual Mode** in the left column, then select **Upgrade Event #264**. Select the appropriate control unit part number with reference to the above ROM ID Information Table and click **OK**.



- 2) Enter the appropriate password from the below table then click **OK**.

MENU	Password
XM FL 2.2 VGT AT +IMMO : 39101-2F800	2800
XM FL 2.2 VGT MT +IMMO : 39101-2F850	2850

3) The vehicle battery voltage is checked to make sure it is at least 12 volts to assure reliable upgrade 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 assure an adequate battery charge state for reliable upgrade results.




- 4) Upgrade will begin and the progress of the upgrade will appear on the bar graph.
- 5) Upgrade will occur until 100% is reached on the bar graph. Turn the ignition key OFF for 20 seconds, place it back in the ON position and then click **OK** to continue according to **Information** displayed on the screen.
- 6) Click **OK** on the final screen, which indicates upgrade is complete.
- 7) Check if any incidental Diagnostic Trouble Codes (DTC) have been created by the upgrade and clear the DTC (s) present.
- 8) Start the engine to confirm proper operation of the vehicle.

2. CONTROL UNIT UPGRADE PROCEDURE USING THE G-SCAN

2-1. G-SCAN INSTALLATION PROCEDURE

<p>1) Connect the 16-pin Data Link Connector (DLC) cable to the G-Scan and securely tighten the three bolts.</p>	
<p>2) Insert the updated SD memory card into the G-Scan bottom slot.</p>	
<p>3) Connect the 16-pin DLC cable from the G-Scan into the OBD-II connector, located under the driver's side of the instrument panel.</p>	

2-2. AUTOMATIC UPGRADE PROCEDURE USING THE G-SCAN

<p>1) Select ECM Upgrade. Select the vehicle model, model year, ENGINE as the system and engine displacement, and then touch OK.</p>	
<p>2) Select the upgrade event, "330.XM FL COLD IDLE RPM STABILITY IMPROVEMENT. " and touch AUTO.</p>	
<p>3) Perform the ECM upgrade in accordance with the instructions given on the G-Scan screen.</p>	
<p>4) Turn the ignition key OFF for 20 seconds and place it back in the ON position, then touch OK to continue.</p>	


- 5) Check for any diagnostic trouble codes (DTC) and erase the DTC (s) present.
- 6) Start the engine to confirm proper operation of the vehicle.

1-3. MANUAL UPGRADE PROCEDURE USING THE G-SCAN

NOTE)

- **The manual upgrade should be performed only when the automatic upgrade fails.**
- **If automatic upgrade fails, turn the ignition key OFF for about 20 seconds, place it back in the ON position and then perform manual upgrade.**


- 1) Select **ECU Upgrade**. Select the vehicle model, model year, **ENGINE** as the system and engine displacement, and then touch **OK**.
- 2) Select the upgrade event, “**330.XM FL COLD IDLE RPM STABILITY IMPROVEMENT.**” and touch **MANUAL**.

3) Select the appropriate control unit part number with reference to the ROM ID Information Table and touch MANUAL .	
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- 4) Enter the appropriate password from the below table then click **OK**.

MENU	Password
XM FL 2.2 VGT AT +IMMO : 39101-2F800	2800
XM FL 2.2 VGT MT +IMMO : 39101-2F850	2850

- 5) Perform the ECM upgrade in accordance with the instructions given on the G-Scan screen.

6) Turn the ignition key OFF for 20 seconds and place it back in the ON position, then touch OK to continue.	
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- 7) Check for any diagnostic trouble codes (DTC) and erase the DTC (s) present.
- 8) Start the engine to confirm proper operation of the vehicle.

