



GROUP
Fuel

MODEL
2012-13MY Sorento (XM)
& 2012MY Sedona (VQ)

NUMBER
023

DATE
May 2013

TECHNICAL SERVICE BULLETIN

SUBJECT: ECM UPGRADE - CYLINDER CONTRIBUTION / BALANCE

This bulletin provides information related to the ECM software upgrade for some 2012-2013MY Sorento(XM) and 2012MY Sedona(VQ) vehicles which may experience a malfunction indicator lamp illuminated (MIL) with the ECM (Electronic Control Module) system-related Cylinder Contribution/Balance DTC(s), (P0263, P0266, P0269, P0272, P0275, P0278).

To correct this condition, the ECM should be reprogrammed using the GDS download as described in this bulletin. For confirmation that the latest reflash has been done to a vehicle you are working on, verify ROM ID using the tables in this TSB.

- **P0263:** Cylinder1 Contribution/Balance
- **P0266:** Cylinder2 Contribution/Balance
- **P0269:** Cylinder3 Contribution/Balance
- **P0272:** Cylinder4 Contribution/Balance
- **P0275:** Cylinder5 Contribution/Balance
- **P0278:** Cylinder6 Contribution/Balance



Global Diagnostic System (GDS)

*NOTICE

DO NOT replace any parts related to the DTCs mentioned above unless proven to be the cause for the DTC **AFTER** the reflash has been performed. First perform the reflash as described in this bulletin, and verify that no DTC(s) will re-set. Should a DTC re-set after the reflash, diagnose according to KGIS. Parts replacement in conjunction with this TSB may be subject to Mandatory Parts Return and returned parts will be tested by KMA. Unnecessarily replaced parts will be subject to chargeback.

File Under: <Fuel>

Circulate To: General Manager Service Manager Parts Manager
 Service Advisor(s) Technician(s) Body Shop Manager Fleet Repair

SUBJECT:

ECM UPGRADE - CYLINDER CONTRIBUTION / BALANCE


ECM Upgrade Procedure:

UPGRADE EVENT NAME
196. XMA 3.5 CYLINDER IMBALANCE DTC LOGIC IMPROVEMENT
197. VQ 3.5 CYLINDER IMBALANCE DTC LOGIC IMPROVEMENT


 **NOTICE**


- A fully charged battery is necessary before ECM upgrade can take place. It is recommended that the Midtronics GR8-1299 system be used in ECM mode during charging. **DO NOT** connect any other battery charger to the vehicle during ECM upgrade.
- All ECM upgrades must be done with the ignition key in the 'ON' position.
- Be careful not to disconnect any cables connected to the vehicle or GDS during the ECM upgrade procedure.
- **DO NOT** start the engine during ECM upgrade.
- **DO NOT** turn the ignition key 'OFF' or interrupt the power supply during ECM upgrade.
- When the ECM upgrade is completed, turn the ignition 'OFF' and wait 20 seconds before starting the engine.
- **ONLY** use approved ECM upgrade software designated for the correct model, year.

 **CAUTION**


Before attempting an ECM upgrade on any Kia model, make sure to first determine whether the particular model is equipped with an immobilizer security system . Failure to follow proper procedures may cause the PCM to become inoperative after the upgrade and any claims associated with this repair may be subject to chargeback.

SUBJECT:**ECM UPGRADE - CYLINDER CONTRIBUTION / BALANCE****ROM ID Information Tables:****Upgrade event #196:**

MODEL	MODEL YEAR	IMMO	ECM P/N	ROM ID	
				PREVIOUS	NEW
XMA 3.5L	2012MY	No (-)	39108-3C061	XMBN35*S2**AC3A* XMBN35*S2**AC4A*	XMCN35*S2**AC6B*
		Yes (+) 	39108-3C011	XMBN35*M2**AC3A* XMBN35*M2**AC4A* XMBN35*M2**AC4B*	XMCN35*M2**AC6B*

MODEL	MODEL YEAR	IMMO	ECM P/N	ROM ID	
				PREVIOUS	NEW
XMA 3.5L	2013MY	No (-)	39108-3C062	XMCN35*S2**AC4A*	XMCN35*S2**AC6A*
		Yes (+) 	39108-3C012	XMCN35*M2**AC4A*	XMCN35*M2**AC6A*

Upgrade event #197:

MODEL	MODEL YEAR	IMMO	ECM P/N	ROM ID	
				PREVIOUS	NEW
VQ 3.5L	2012MY	No (-)	39109-3C661	VQBN35*S2**AC3A* VQBN35*S2**AC4A* VQBN35*S2**AC4B*	VQCN35*S2**AC6A**
		Yes (+) 	39109-3C611	VQBN35*M2**AC3A* VQBN35*M2**AC4A* VQBN35*M2**AC4B*	VQCN35*M2**AC6A**

To verify the vehicle is affected, be sure to check the Calibration Identification of the vehicle's ECM ROM ID and reference the Information Table as necessary.

1. Connect the power supply cable to the GDS tool.

***NOTICE**

If attempting to perform the ECM upgrade with the power supply cable disconnected from the GDS tool, be sure to check that the GDS tool is fully charged before ECM upgrade. If the GDS tool is not fully charged, failure to perform the ECM upgrade may occur. Therefore, it is strongly recommended that the power supply be connected to the GDS tool.

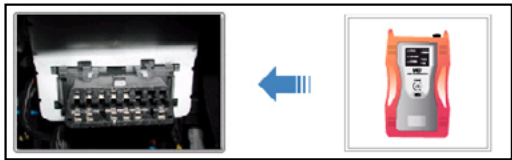
SUBJECT: ECM UPGRADE - CYLINDER CONTRIBUTION / BALANCE

- 2. Connect the USB cable between the VCI and the GDS tool.

***NOTICE**

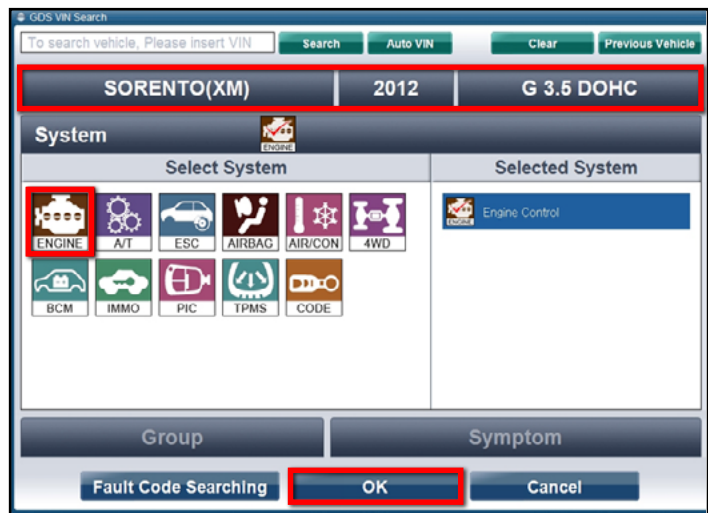
When performing the ECM upgrade using the GDS tool, wireless communication between the VCI and GDS tool is not available. Therefore, be sure to connect the USB cable between the VCI and the GDS tool.

- 3. Connect the Main 16-pin DLC cable (GHDM – 241000) to the VCI.
- 4. Connect the Main 16-pin DLC cable (GHDM – 241000) to the OBD-II connector, located under the driver's side of the instrument panel.

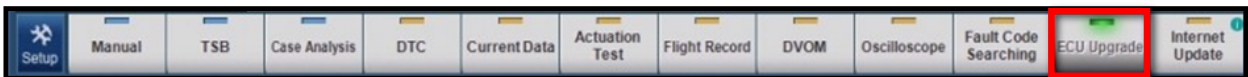


- 5. With the ignition key **ON**, turn on the VCI and GDS tool. Access the GDS vehicle identification number (VIN) screen and configure the vehicle using the VIN Auto Detect function.


Note: Screen image to the right is for demonstration purpose only.



- 6. Once back at the GDS Main Screen, select **ECU Upgrade** from the bottom right-hand corner. Next select **Auto Mode**, and then **Engine**. Perform the ECM upgrade in accordance with normal GDS tool ECM upgrade procedures.



CAUTION

Before attempting an ECM upgrade on any Kia model, make sure to first determine whether the particular model is equipped with an immobilizer security system . Failure to follow proper procedures may cause the PCM to become inoperative after the upgrade and any claims associated with this repair may be subject to chargeback.




SUBJECT:**ECM UPGRADE - CYLINDER CONTRIBUTION / BALANCE*****NOTICE**

Do NOT attempt to perform a Manual Mode upgrade unless Auto Mode fails. Always follow the instructions given on the GDS tool in either Auto or Manual mode. See table for Manual Mode passwords.

MANUAL MODE ECM UPGRADE PASSWORDS:

DO NOT perform Manual Mode ECM upgrade unless Auto Mode fails.

Upgrade event #196 (XMA) / #197 (VQ)

MODEL	MENU	PASSWORD	COMMUNICATION TYPE
2012MY SORENTO (XM)	XMA 3.5 +IMMO : 39108-3C011	3011 	CAN-Line
	XMA 3.5 -IMMO : 39108-3C061	3061	
2013MY SORENTO (XM)	XMA 3.5 +IMMO : 39108-3C012	3012 	
	XMA 3.5 -IMMO : 39108-3C062	3062	
2012MY SEDONA (VQ)	VQ 3.5 +IMMO : 39109-3C611	3611 	
	VQ 3.5 -IMMO : 39109-3C661	3661	

- When the GDS tool reports that the ECM upgrade has been successfully completed, click **OK**, turn the ignition key to the **OFF** position, and wait at least 10 seconds before attempting to start the engine.
- Check for Diagnostic Trouble Codes using the GDS and erase any DTCs stored such as EPS, ESC, and TPMS. Due to CAN BUS multiple DTCs may be set during reprogramming.
- Start the engine to confirm proper operation of the vehicle.

AFFECTED VEHICLE PRODUCTION RANGE:

Model	Production Date Range
Sorento (XM)	April 18th, 2011 to October 31st, 2012
Sedona (VQ)	February 7th, 2011 to August 14th, 2012

WARRANTY CLAIM INFORMATION:

Claim Type	Causal P/N	Qty.	N Code	C Code	Repair Description	Labor Op Code	Op Time	Related Parts	Qty.
W	39108 3C011 (XM)	0	N96	C40	(FUE 023) ECM Upgrade	39110F6L	0.3 M/H	N/A	0
	39109 3C611 (VQ)								