	GROUP Fuel System	MODEL 2011-2012MY Optima (TF/QF) Turbo 2011-2012MY Sportage (SL) Turbo
	NUMBER 025	DATE September 2013

TECHNICAL SERVICE BULLETIN

SUBJECT: SERVICE ACTION: ECM UPGRADE – MIL ON WITH DTC P0300 AND/OR P0301, P0302, P0303 AND P0304 (SA151)

This bulletin provides information related to the ECM software upgrade for some 2011-2012MY Optima (TF), produced from July 16, 2010 to January 11, 2012, Optima (QF), produced from August 8, 2011 to January 23, 2012 and 2011-2012MY Sportage (SL), produced from September 3, 2010 to January 7, 2012 vehicles, equipped with a 2.0L Turbo engine, which may experience a malfunction indicator lamp illuminated (MIL) with the ECM (Electronic Control Module) system-related DTCs; P0300 and/or P0301, P0302, P0303 and P0304. To prevent and/or 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.

- P0300 (Random/Multiple Cylinder Misfire Detected)
- P0301 (Cylinder 1-Misfire Detected)
- P0302 (Cylinder 2-Misfire Detected)
- P0303 (Cylinder 3-Misfire Detected)
- P0304 (Cylinder 4-Misfire Detected)



Global Diagnostic System (GDS)

*** NOTICE**

A Service Action is a repair program without customer notification that is performed during the warranty period. Any dealer requesting to perform this repair outside the warranty period will require DPSM approval.

Repair status for a VIN is provided on WebDCS (Service> Warranty Coverage> Warranty Coverage Inquiry> Campaign Information). Not completed Recall / Service Action reports are available on WebDCS (Consumer Affairs> Not Completed Recall> Recall VIN> Select Report), which includes a list of affected vehicles.

This issue number is SA151.

File Under: <FUEL>

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

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*** 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.


ECM Upgrade Procedure:

UPGRADE EVENT NAME
214.TF/QF 2.0 T GDI ECU LOGIC IMPROVEMENT
215.SL 2.0 T GDI ECU LOGIC IMPROVEMENT

*** NOTICE**

- A fully charged battery is necessary before ECM/PCM 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/PCM upgrade.
- All ECM/PCM upgrades must be done with the ignition in the ‘ON’ position.
- Be careful not to disconnect any cables connected to the vehicle or GDS during the ECM/PCM upgrade procedure.
- **DO NOT** start the engine during ECM/PCM upgrade.
- **DO NOT** turn the ignition ‘OFF’ or interrupt the power supply during ECM/PCM upgrade.
- When the ECM/PCM upgrade is completed, turn the ignition ‘OFF’ and wait 20 seconds before starting the engine.



 **CAUTION**

Before attempting an ECM/PCM 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. 

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ROM ID INFORMATION TABLES :

Upgrade event #214

MODEL	MY	IMMO	ECM P/N	ROM ID		Comment
				PREVIOUS	NEW	
TF 2.0L T-GDI	11MY	Yes (+) 	39111-2G894	TBC0R95C TBC0R96A TBC0R97A TBC0R97B TBC0RB3A TBC0RC0A	TDC0RF3K	
	12MY			TCC0MC0K TCC0RC0L TCC0RC0M		
	11MY	No (-)	39111-2G884	TBC0M95C TBC0M96A TBC0M97A TBC0M97B TBC0MB3A TBC0MC0A	TDC0MF3K	
	12MY			TCC0MC0L TCC0MC0K TCC0MC0M		
QF 2.0L T-GDI	12MY	Yes (+) 	39111-2G893	TCC0RC0A TCC0RC0B TCC0RC0C	TDC0RF3A	
		No (-)	39111-2G883	TCC0MC0A TCC0MC0B TCC0MC0C	TDC0MF3A	

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Upgrade event #215

MODEL	MY	IMMO	ECM P/N	ROM ID		Comment	
				PREVIOUS	NEW		
SL 2.0L T-GDI	11MY	Yes (+) 	39111-2G894	SBC0R96A SBC0R97A SBC0R97B	SDC0RF3A	2WD	
	12MY			SCC0RB1A SCC0RB3A SCC0RC0A SCC0RC0B			
	11MY	No (-)	39111-2G884	SBC0M96A SBC0M97A SBC0M97B	SDC0MF3A		
	12MY			SCC0MB1A SCC0MB3A SCC0MC0A SCC0MC0B			
	11MY	Yes (+) 	39111-2G893	SBC0R96A SBC0R97A SBC0R97B	SDC0RF3A		
	12MY			SCC0RB1A			
	11MY	No (-)	39111-2G883	SBC0M96A SBC0M97A SBC0M97B	SDC0MF3A		4WD
	12MY			SCC0MB1A SCC0MB3A SCC0MC0A SCC0MC0B			

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 connector be connected to the GDS tool.

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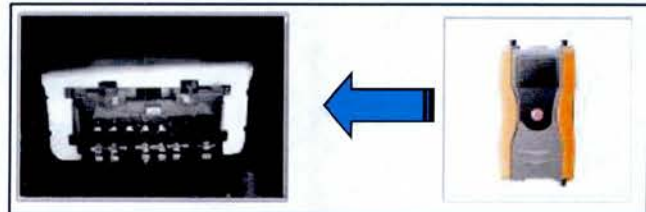
2. Connect the USB cable between the VCI and the GDS tool.

* 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.



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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. 🚗

★ 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.

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*** MANUAL MODE ECM UPGRADE PASSWORDS:**

*** Do NOT perform Manual Mode ECM upgrade unless Auto Mode fails.**

Upgrade event #214(TF/QF) / #215(SL)

MODEL	MENU	PASSWORD
Optima (TF)	TF T GDI 6AT ULEV +IMMO: 39111-2G894	2894 
	TF T GDI 6AT ULEV -IMMO: 39111-2G884	2884
Optima (QF)	QF T GDI 6AT ULEV +IMMO : 39111-2G893	2893 
	QF T GDI 6AT ULEV -IMMO: 39111-2G883	2883
Sportage (SL)	SL T GDI 6AT ULEV +IMMO : 39113/14-2G872	2872 
	SL T GDI 6AT ULEV -IMMO: 39113/14-2G862	2862

7. When the GDS tool reports that the ECM upgrade has been successfully completed, click OK, turn OFF the ignition key, and wait at least 10 seconds before attempting to start the engine.
8. 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 maybe set during reprogramming.
9. Start the engine and confirm proper operation of the vehicle.

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AFFECTED VEHICLE PRODUCTION RANGE:

Model	Production Date Range
Optima (TF)	From July 16, 2010 to January 11, 2012
Optima (QF)	From April 7, 2011 to January 23, 2012
Sportage (SL)	From September 3, 2010 to January 7, 2012

SERVICE ACTION WARRANTY CLAIM INFORMATION:

Claim Type	Causal P/N	Qty	N Code	C Code	Repair Description	Labor Op Code	Time	Related Parts	Qty
V	39111 2G891 (TF)	0	N69	C40	(SA 151) ECM Upgrade	130082R0	0.3 M/H	N/A	0
	39114 2G872 (SL)					130082R1			
	39111 2G893 (QF)					130A07R0			

*** NOTICE**

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference SA151 when accessing the WebDCS system.