	GROUP	MODEL
	ENG	**2012~2015MY Optima (QF)** **2012~2015MY Sorento (XMa)** **2011~2015MY Optima (TF)** **2014~2016MY Sportage (SL)** **w/2.4 GDI Engine**
	NUMBER	DATE
	160 (Rev 1, 11/15/2016)	**October 2016**

TECHNICAL SERVICE BULLETIN

SUBJECT: ECU UPGRADE – MIL ON WITH DTC(s) P0420/P0171

★ NOTICE

This bulletin has been revised to include additional information. New/revised sections of this bulletin are indicated by a black bar in the margin area.

This bulletin provides information related to the ECU software upgrade for some 2012~2015MY Optima (QF) vehicles, produced from August 12, 2011 to October 2, 2015, some 2012~2015MY Sorento (XMa) vehicles, produced from April 19, 2011 to December 11, 2014, some 2011~2015MY Optima (TF) vehicles, produced from August 12, 2010 to July 23, 2015, and some 2014~2016MY Sportage (SL) vehicles, produced from September 30, 2013 to November 16, 2015, which may experience a malfunction indicator lamp (MIL) illuminated with the Electronic Control Unit (ECU) system-related DTC(s): P0420 and possibly P0171. This concern occurs most commonly during prolonged engine braking while descending a steep grade.

To correct this condition, first inspect the warm-up catalytic converter function using GDS/KDS, as outlined in the procedure below. If inspection confirms warm-up catalytic converter (WCC) function is outside of normal operating parameters, replace the exhaust manifold, inspect, and if necessary, replace the under-floor catalytic converter (UCC), and reprogram the ECU using the GDS/KDS download, as described in this bulletin. If inspection reveals no abnormalities in the WCC or UCC, reprogram the ECU ONLY. 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.

P0420: Catalyst System Efficiency below Threshold (Bank 1)
P0171: System Too Lean (Bank 1)



Global Diagnostic System (GDS)



Kia Diagnostic System (KDS)

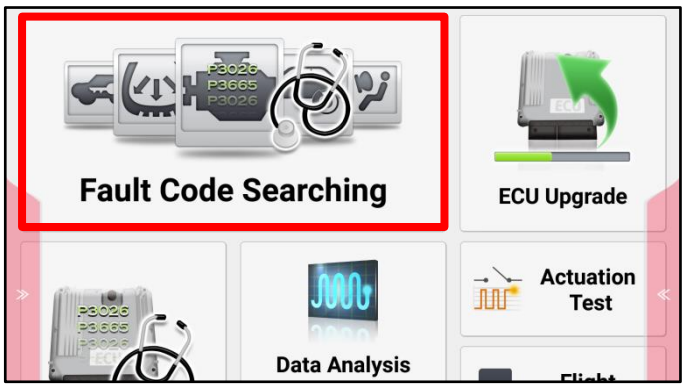
File Under: <Engine>

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

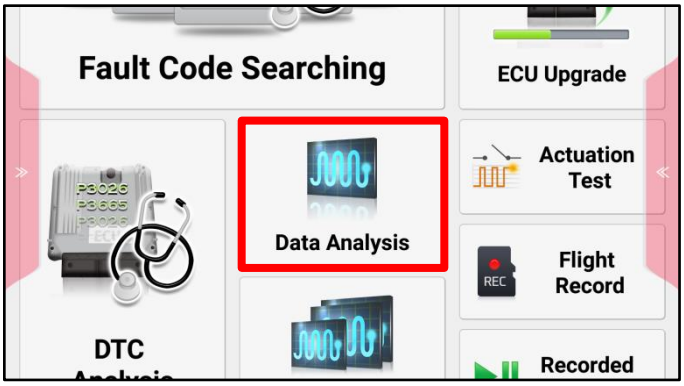
SUBJECT: ECU UPGRADE – MIL ON WITH DTCS P0420/P0171

Inspection/Replacement Procedure:

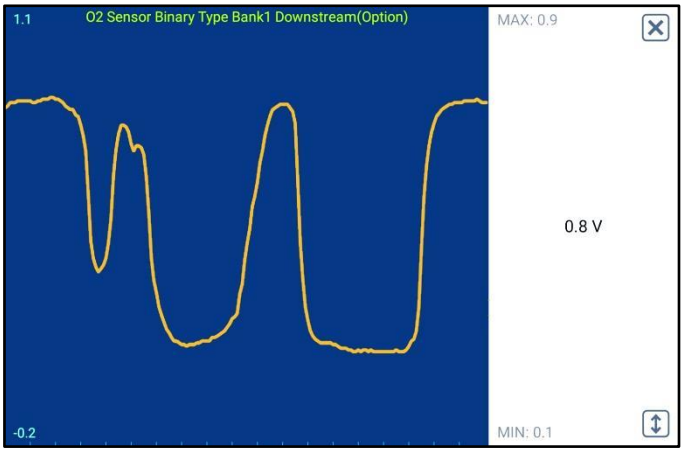
1. Scan and confirm DTC P0420 with possible DTC P0171 using GDS/KDS.



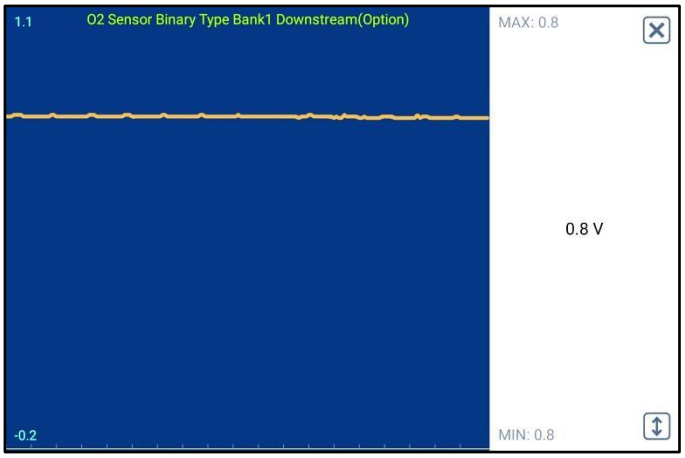
2. After the vehicle has reached normal operating temperature, with the engine at idle, access **Data Analysis** and view the downstream O_2 sensor signals.



3. If the O_2 sensor signals are abnormal or erratic, as shown, proceed to the Service Procedure on Page 3. **NOTE: After exhaust manifold replacement, proceed to ECU upgrade on Page 4.**



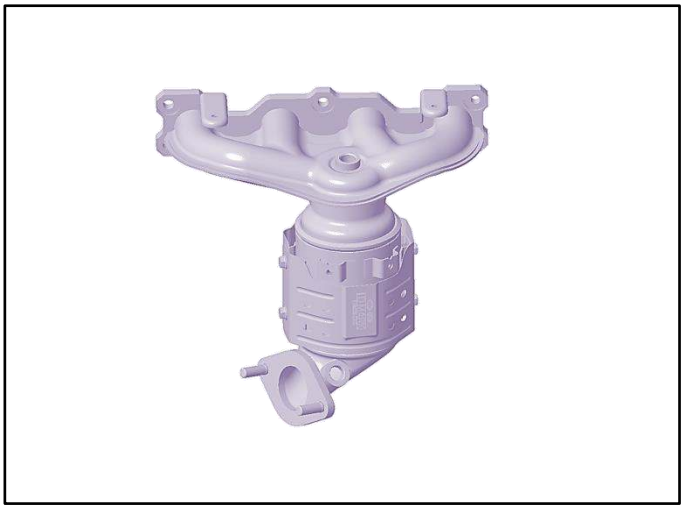
4. If the O_2 sensor signals are normal, as shown, proceed to the ECU Upgrade Procedure on Page 4.



SUBJECT: ECU UPGRADE – MIL ON WITH DTCs P0420/P0171

Service Procedure:

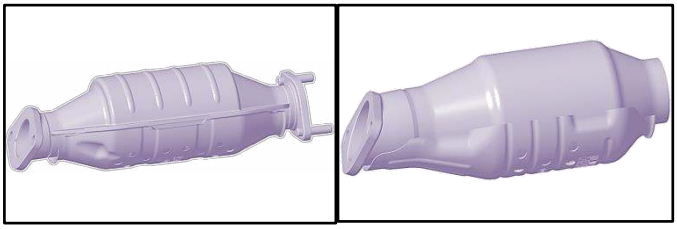
1. Refer to the "Exhaust Manifold → Removal" section in the applicable Workshop Manual on KGIS, to replace the exhaust manifold.



★ NOTICE

Before installing the new exhaust manifold, see step 2 below and inspect the under-floor catalytic converter for debris.

2. With exhaust manifold removed, inspect the under-floor catalytic converter.



★ NOTICE

If debris in the under-floor catalytic converter is excessive and cannot be removed, replacement of the under-floor catalytic converter is necessary to ensure proper operation of the catalytic converter.

If debris in the under-floor catalytic converter is minimal, remove debris and proceed to the ECU Upgrade Procedure on page 4.

SUBJECT: ECU UPGRADE – MIL ON WITH DTCS P0420/P0171

ECU Upgrade Procedure:

To correct this condition, the ECU should be reprogrammed using the GDS/KDS download, as described in this bulletin.

UPGRADE EVENT NAME
271.QF 2.4GDI DTC P0171,P0420 LOGIC IMPROVEMENT
272.XMA 2.4GDI DTC P0171,P0420 LOGIC IMPROVEMENT
273.TF 2.4GDI DTC P0171,P0420 LOGIC IMPROVEMENT
274.SL 2.4GDI DTC P0171,P0420 LOGIC IMPROVEMENT

* NOTICE

- **A fully charged battery is necessary before ECU upgrade can take place. It is recommended that the Midtronics GR8-1299 system be used in ECU mode during charging. DO NOT connect any other battery charger to the vehicle during ECU upgrade.**
- **All ECU 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 ECU upgrade procedure.**
- **DO NOT start the engine during ECU upgrade.**
- **DO NOT turn the ignition key 'OFF' or interrupt the power supply during ECU upgrade.**
- **When the ECU upgrade is completed, turn the ignition 'OFF' and wait 10 seconds before starting the engine.**
- **ONLY use approved ECU upgrade software designated for the correct model, year.**

CAUTION

Before attempting an ECU 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: ECU UPGRADE – MIL ON WITH DTCs P0420/P0171

Upgrade event #271 (QF)

Model	MY	IMMO	ECU P/N		ROM ID	
			6AT	6MT	OLD	NEW
QF 2.4 GDI	12MY(ULEV)	IMMO	39111-2G872	39112-2G872	TCC4RB3A TCC4REAA TCC4REAB	TCC4REAC
		NON IMMO	39111-2G862	39112-2G862	TCC4MB3A TCC4MEAA TCC4MEAB	TCC4MEAC
	12MY(SULEV)	IMMO	39111-2G877	-	TCS4RB3A TCS4REAA TCS4REAB	TCS4REAC
		NON IMMO	39111-2G867	-	TCS4MB3A TCS4MEAA TCS4MEAB	TCS4MEAC
	13MY(ULEV)	IMMO	39111-2G874	39112-2G874	TDC4REAA TDC4RF0A TDC4RF3A TDC4RF3B	TDC4RF3C
		NON IMMO	39111-2G864	39112-2G864	TDC4MEAA TDC4MF0A TDC4MF3A TDC4MF3B	TDC4MF3C
	13MY(SULEV)	IMMO	39111-2G879	-	TDS4REAA TDS4RF0A TDS4RF3A TDS4RF3B	TDS4RF3C
		NON IMMO	39111-2G869	-	TDS4MEAA TDS4MF0A TDS4MF3A TDS4MF3B	TDS4MF3C
	14MY(ULEV)	IMMO	39108-2GBJ0	39118-2GBJ0	TEC4RH2A	TEC4RH2B
		NON IMMO	39108-2GBH0	39118-2GBH0	TEC4MH2A	TEC4MH2B
	14MY(SULEV)	IMMO	39108-2GBJ5	-	TES4RH2A	TES4RH2B
		NON IMMO	39108-2GBH5	-	TES4MH2A	TES4MH2B
	15MY(ULEV)	IMMO	39108-2GBJ1 39108-2GBJ2	39118-2GBJ1	TFC4RH4A	TFC4RH4B
		NON IMMO	39108-2GBH1 39108-2GBH2	39118-2GBH1	TFC4MH4A	TFC4MH4B
	15MY(SULEV)	IMMO	39108-2GBJ6 39108-2GBJ7	-	TFS4RH4A	TFS4RH4B
		NON IMMO	39108-2GBH6 39108-2GBH7	-	TFS4MH4A	TFS4MH4B

SUBJECT: ECU UPGRADE – MIL ON WITH DTCS P0420/P0171

Upgrade event #272 (XMa)

Model	MY	IMMO	ECU P/N		Rom ID	
			6AT	6MT	OLD	NEW
XMa 2.4GDI	12MY	IMMO	39113-2G770	-	XCC4RB3A	XCC4RB3F
					XCC4RB3C	
			39114-2G770		XCC4RB3D	
					XCC4RB3E	
		NON IMMO	39113-2G760	-	XCC4MB3A	XCC4MB3F
					XCC4MB3C	
			39114-2G760		XCC4MB3D	
					XCC4MB3E	
	13MY	IMMO	39113-2G771	-	XDC4RE0A	XDC4REAG
					XDC4REAA	
					XDC4REAB	
					XDC4REAC	
			39114-2G771		XDC4REAE	
					XDC4READ	XDC4REAH
					XDC4REAF	
		NON IMMO	39113-2G761	-	XDC4ME0A	XDC4MEAG
					XDC4MEAA	
					XDC4MEAB	
					XDC4MEAC	
			39114-2G761		XDC4MEAE	
					XDC4MEAD	XDC4MEAH
					XDC4MEAF	
	14MY	IMMO	39113-2GBK5	-	FDC4RF3A	FEC4RG0C
					FDC4RG0A	
			39113-2GBL5		FDC4RG0B	
					FEC4RH2A	FEC4RH2B
		NON IMMO	39113-2GBK0	-	FDC4MF3A	FEC4MG0C
					FDC4MG0A	
			39113-2GBL0		FDC4MG0B	
					FEC4MH2A	FEC4MH2B
	15MY	IMMO	39113-2GBK6	-	FFC4RH2A	FFC4RHAB
			39113-2GBK7		FFC4RH2A	
			39113-2GBL6		FFC4RHAA	
			39113-2GBL7			
		NON IMMO	39113-2GBK1	-	FFC4MH2A	FFC4MHAB
			39113-2GBK2		FFC4MH2A	
			39113-2GBL1		FFC4MHAA	
			39113-2GBL2			

SUBJECT: ECU UPGRADE – MIL ON WITH DTCs P0420/P0171

Upgrade event #273 (TF)

Model	MY	IMMO	ECU P/N		ROM ID	
			6AT	6MT	OLD	NEW
TF 2.4 GDI	11MY(ULEV)	IMMO	39111-2G870	39112-2G870	TBC4R85A	TBC4R86D
					TBC4R86A	
					TBC4R86B	
			39111-2G871	39112-2G871	TBC4R86C	TBC4RB3C
					TBC4R88A	
					TBC4R88B	
					TBC4RB3A	
					TBC4RB3B	
		NON IMMO	39111-2G860	39112-2G860	TBC4M85A	TBC4M86D
					TBC4M86A	
					TBC4M86B	
			39111-2G861	39112-2G861	TBC4M86C	TBC4MB3C
					TBC4M88A	
					TBC4M88B	
					TBC4MB3A	
					TBC4MB3B	
	11MY(SULEV)	IMMO	39111-2G875	-	TBS4R85A	TBS4RF3G
					TBS4R86A	
					TBS4R86B	
					TBS4RF3E	
			39111-2G876	-	TBS4R86C	TBS4RF3H
					TBS4R88A	
					TBS4R88B	
					TBS4RB3A	
					TBS4RB3B	
					TBS4RF3F	
		NON IMMO	39111-2G865	-	TBS4M85A	TBS4MF3G
					TBS4M86A	
					TBS4M86B	
					TBS4MF3E	
			39111-2G866	-	TBS4M86C	TBS4MF3H
					TBS4M88A	
					TBS4M88B	
					TBS4MB3A	
					TBS4MB3B	
					TBS4MF3F	
	12MY(ULEV)	IMMO	39111-2G873	39112-2G873	TCC4RB3K	TCC4REAM
					TCC4REAK	
					TCC4REAL	
		NON IMMO	39111-2G863	39112-2G863	TCC4MB3K	TCC4MEAM
					TCC4MEAK	
					TCC4MEAL	

SUBJECT: ECU UPGRADE – MIL ON WITH DTCS P0420/P0171

Upgrade event #273 (TF) Continued

Model	MY	IMMO	ECU P/N		ROM ID	
			6AT	6MT	OLD	NEW
TF 2.4 GDI	12MY(SULEV)	IMMO	39111-2G878	-	TCS4RB3K	TCS4REAM
					TCS4REAK	
					TCS4REAL	
		NON IMMO	39111-2G868	-	TCS4MB3K	TCS4MEAM
					TCS4MEAK	
					TCS4MEAL	
	13MY(ULEV)	IMMO	39111-2G902	39112-2G902	TDC4REAK	TDC4RG1M
					TDC4RF0K	
					TDC4RF3K	
					TDC4RG1K	
					TDC4RG1L	
		NON IMMO	39111-2G900	39112-2G900	TDC4MEAK	TDC4MG1M
					TDC4MF0K	
					TDC4MF3K	
					TDC4MG1K	
					TDC4MG1L	
	13MY(SULEV)	IMMO	39101-2G903	-	TDS4REAK	TDS4RG1M
					TDS4RF0K	
					TDS4RF3K	
					TDS4RG1K	
					TDS4RG1L	
		NON IMMO	39111-2G901	-	TDS4MEAK	TDS4MG1M
					TDS4MF0K	
					TDS4MF3K	
					TDS4MG1K	
					TDS4MG1L	
TF F/L 2.4 GDI	14MY(ULEV)	IMMO	39108-2GBF0	39118-2GBF0	TEC4RH2K	TEC4RH2L
		NON IMMO	39108-2GBE0	39118-2GBE0	TEC4MH2K	TEC4MH2L
	14MY(SULEV)	IMMO	39108-2GBF5	-	TES4RH2K	TES4RH2L
		NON IMMO	39108-2GBE5	-	TES4MH2K	TES4MH2L
	15MY(ULEV)	IMMO	39108-2GBF1	-	TFC4RH4K	TFC4RH4L
		NON IMMO	39108-2GBE1	39118-2GBE1	TFC4MH4K	TFC4MH4L
	15MY(SULEV)	NON IMMO	39108-2GBE6	-	TFS4MH4K	TFS4MH4L

SUBJECT: ECU UPGRADE – MIL ON WITH DTCs P0420/P0171

Upgrade event #274 (SL)

Model	MY	IMMO	ECU P/N		ROM ID	
			6AT	6MT	OLD	NEW
SL 2.4 GDI	14MY(ULEV)	IMMO	39107-2GCD0	39117-2GCD0	SEC4RH2A	SEC4RH2D
					SEC4RH2B	
			39107-2GCE0	39117-2GCE0	SEC4RH2C	
		NON IMMO	39107-2GCD5	39117-2GCD5	SEC4MH2A	SEC4MH2D
					SEC4MH2B	
			39107-2GCE5	39117-2GCE5	SEC4MH2C	
	14MY(SULEV)	IMMO	39107-2GCG0	-	SES4RH2A	SES4RH2D
					SES4RH2B	
					SES4RH2C	
		NON IMMO	39107-2GCG5	-	SES4MH2A	SES4MH2D
					SES4MH2B	
					SES4MH2C	
	15MY(ULEV)	IMMO	39107-2GCD1	39117-2GCD1	SFC4RH4A	SFC4RH4B
			39107-2GCD2			
			39107-2GCE1	39117-2GCE1		
			39107-2GCE2			
		NON IMMO	39107-2GCD6	39117-2GCD6	SFC4MH4A	SFC4MH4B
			39107-2GCD7			
			39107-2GCE6	39117-2GCE6		
			39107-2GCE7			
	15MY(SULEV)	IMMO	39107-2GCG1	-	SFS4RH4A	SFS4RH4B
			39107-2GCG2			
		NON IMMO	39107-2GCG6	-	SFS4MH4A	SFS4MH4B
			39107-2GCG7			
	16MY(ULEV)	IMMO	39107-2GCD3	39117-2GCD3	SGC4RH4A	SGC4RH4B
			39107-2GCE3	39117-2GCE3		
		NON IMMO	39107-2GCD8	39117-2GCD8	SGC4MH4A	SGC4MH4B
			39107-2GCE8	39117-2GCE8		
	16MY(SULEV)	IMMO	39107-2GCG3	-	SGS4RH4A	SGS4RH4B
		NON IMMO	39107-2GCG8	-	SGS4MH4A	SGS4MH4B

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

★ NOTICE

If performing this TSB using KDS, refer to TSB SST 037 for detailed information.

SUBJECT: ECU UPGRADE – MIL ON WITH DTCS P0420/P0171

1. Connect the power supply cable to the GDS.

★ NOTICE

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

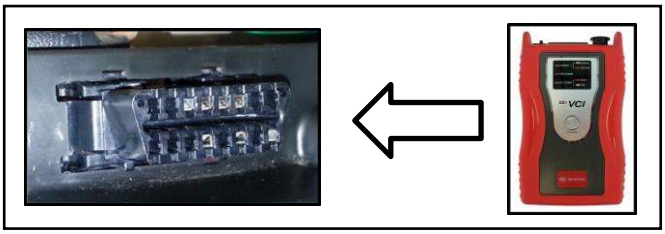
2. Connect the USB cable between the VCI and the GDS.

★ NOTICE

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

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. Access the GDS vehicle identification number (VIN) screen and configure the vehicle using the **VIN AUTO DETECT** Function.

6. Select **ENGINE** system and click **OK**.

SUBJECT: ECU UPGRADE – MIL ON WITH DTCs P0420/P0171

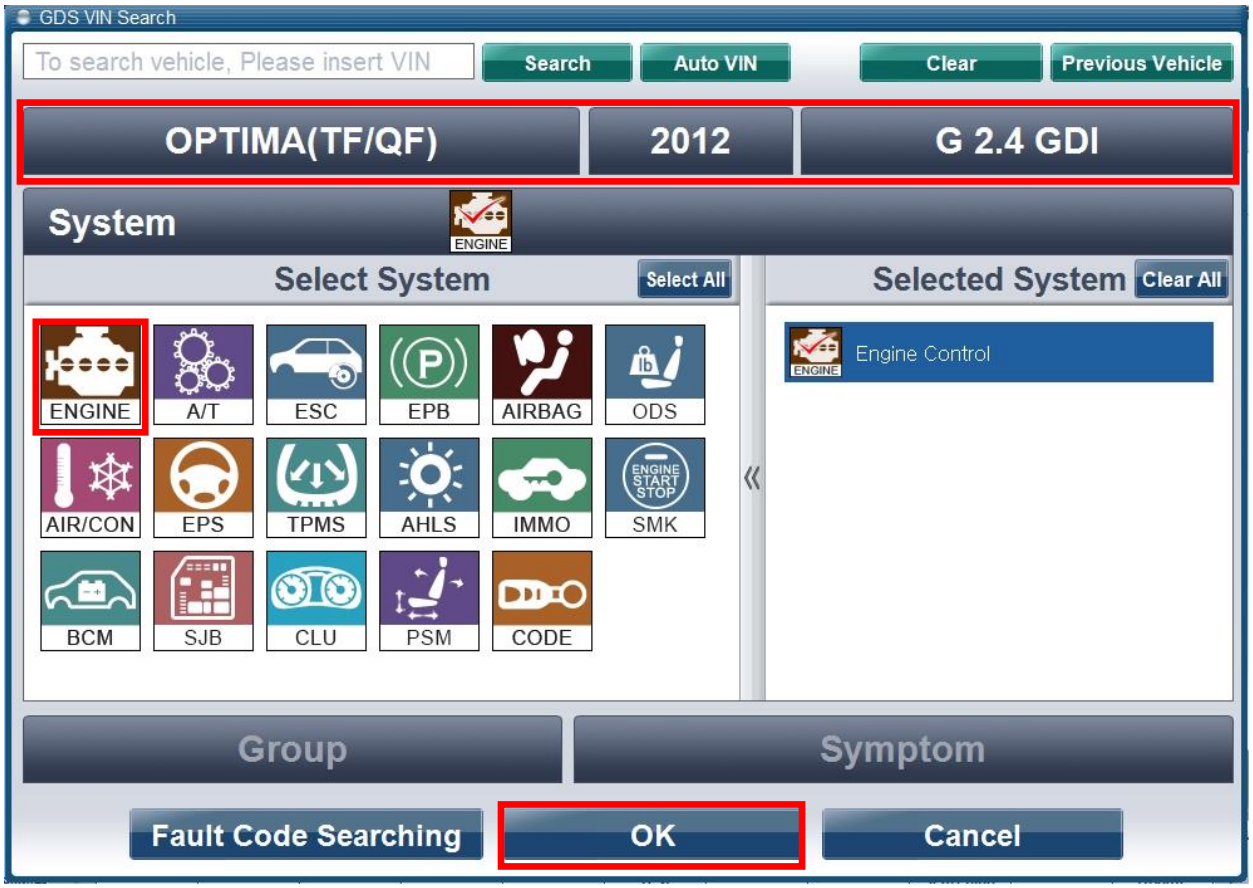
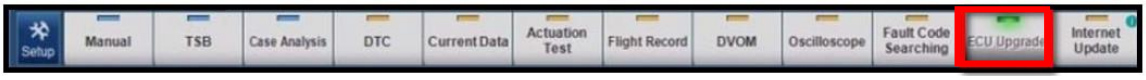


Image shown is for reference only purposes and will vary by model.

7. Select **ECU Upgrade** from the bottom right-hand corner. Next select **Auto Mode**, and then **Engine**. Perform the ECU upgrade in accordance with normal GDS ECU upgrade procedure.



8. Check for Diagnostic Trouble Codes using the GDS and erase any DTCs stored such as EPS, ESC, and TPMS that may have been set during reprogramming.

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

⚠ CAUTION

Before attempting an ECU 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: ECU UPGRADE – MIL ON WITH DTCS P0420/P0171

Manual Mode ECU Upgrade Procedure:

✶ NOTICE

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

MANUAL MODE ECU UPGRADE PASSWORDS:

Model	Menu	Password
QF 2.4 GDI	QF 12MY 2.4GDI ULEV -IMMO : 39111-2G862	2862
	QF 12MY 2.4 GDI ULEV +IMMO/SMK : 39111/2-2G872	2872
	QF 12MY 2.4GDI SULEV -IMMO : 39111-2G867	2867
	QF 12MY 2.4GDI SULEV +IMMO/SMK : 39111-2G877	2877
	QF 13MY 2.4GDI ULEV -IMMO : 39111/2-2G864	2864
	QF 13MY 2.4GDI ULEV +IMMO/SMK : 39111/2-2G874	2874
	QF 13MY 2.4GDI SULEV -IMMO : 39111-2G869	2869
	QF 13MY 2.4GDI SULEV +IMMO/SMK : 39111-2G879	2879
	QF 14MY 2.4GDI ULEV -IMMO : 39108/18-2GBH0	0820
	QF 14MY 2.4GDI ULEV +IMMO/SMK : 39108/18-2GBJ0	0821
	QF 14MY 2.4GDI SULEV -IMMO : 39108-2GBH5	0825
	QF 14MY 2.4GDI SULEV +IMMO/SMK : 39108-2GBJ5	0826
	QF 15MY 2.4GDI ULEV -IMMO : 39108-2GBH1/2,39118-2GBH1	1821
	QF 15MY 2.4GDI ULEV +IMMO/SMK : 39108-2GBJ1/2,39118-2GBJ1	1822
	QF 15MY 2.4GDI SULEV -IMMO : 39108-2GBH6/7	0827
	QF 15MY 2.4GDI SULEV +IMMO/SMK : 39108-2GBJ6/7	0828

Model	Menu	Password
XMa 2.4 GDI	XMA 12MY 2.4GDI -IMMO : 39113/4-2G760,39113-2G765	2765
	XMA 12MY 2.4GDI +IMMO/SMK : 39113/4-2G770,39113-2G775	2775
	XMA 13MY 2.4GDI -IMMO : 39113/4-2G761[XDC4ME0A/AA/AB/AC/AE]	2761
	XMA 13MY 2.4GDI -IMMO : 39113/4-2G761[XDC4MEAD/AF]	2762
	XMA 13MY 2.4GDI +IMMO/SMK : 39113/4-2G771[XDC4RE0A/AA/AB/AC/AE]	2771
	XMA 13MY 2.4GDI +IMMO/SMK : 39113/4-2G771[XDC4READ/AF]	2772
	XMA 14MY 2.4GDI -IMMO : 39113-2GBK0/L0,39114- 2GBK0[FDC4MF3A/G0A/G0B]	1420
	XMA 14MY 2.4GDI -IMMO : 39113-2GBK0/L0,39114-2GBK0[FEC4MH2A]	1421
	XMA 14MY 2.4GDI +IMMO/SMK : 39113-2GBK5/L5,39114-2GBK5[FDC4RF3A/G0A/G0B]	1425
	XMA 14MY 2.4GDI +IMMO/SMK : 39113-2GBK5/L5,39114-2GBK5[FEC4RH2A]	1426
	XMA 15MY 2.4GDI -IMMO : 39113-2GBK1/K2/L1/L2	1322
	XMA 15MY 2.4GDI +IMMO/SMK : 39113-2GBK6/K7/L6/L7	1327

SUBJECT: ECU UPGRADE – MIL ON WITH DTCs P0420/P0171

Model	Menu	Password
TF 2.4 GDI	TF 11MY 2.4GDI ULEV -IMMO : 39111/2-2G860	2860
	TF 11MY 2.4GDI ULEV +IMMO/SMK : 39111/2-2G870	2870
	TF 11MY 2.4GDI ULEV -IMMO : 39111/2-2G861	2861
	TF 11MY 2.4GDI ULEV +IMMO/SMK : 39111/2-2G871	2871
	TF 11MY 2.4GDI SULEV -IMMO : 39111-2G865	2865
	TF 11MY 2.4GDI SULEV +IMMO/SMK : 39111-2G875	2875
	TF 11MY 2.4GDI SULEV -IMMO : 39111-2G866	2866
	TF 11MY 2.4GDI SULEV +IMMO/SMK : 39111-2G876	2876
	TF 12MY 2.4GDI ULEV -IMMO : 39111/2-2G863	2863
	TF 12MY 2.4GDI ULEV +IMMO/SMK : 39111/2-2G873	2873
	TF 12MY 2.4GDI SULEV -IMMO : 39111-2G868	2868
	TF 12MY 2.4GDI SULEV +IMMO/SMK : 39111-2G878	2878
	TF 13MY 2.4GDI ULEV -IMMO : 39111/2-2G900	2900
	TF 13MY 2.4GDI ULEV +IMMO/SMK : 39111/2-2G902	2902
	TF 13MY 2.4GDI SULEV -IMMO : 39111-2G901	2901
	TF 13MY 2.4GDI SULEV +IMMO/SMK : 39101-2G903	2903
	TF F/L 14MY 2.4GDI ULEV -IMMO : 39108/18-2GBE0	0820
	TF F/L 14MY 2.4GDI ULEV +IMMO/SMK : 39108/18-2GBF0	0821
	TF F/L 14MY 2.4GDI SULEV -IMMO : 39108-2GBE5	0825
	TF F/L 14MY 2.4GDI SULEV +IMMO/SMK : 39108-2GBF5	0826
	TF F/L 15MY 2.4GDI ULEV -IMMO : 39108/18-2GBE1	0822
	TF F/L 15MY 2.4GDI ULEV +IMMO/SMK : 39108-2GBF1	0823
	TF F/L 15MY 2.4GDI SULEV -IMMO : 39108-2GBE6	0827

Model	Menu	Password
SL 2.4 GDI	SL 14MY 2.4GDI ULEV -IMMO : 39107/17-2GCD5/E5	0725
	SL 14MY 2.4GDI ULEV +IMMO/SMK : 39107/17-2GCD0/E0	0720
	SL 14MY 2.4GDI SULEV -IMMO : 39107-2GCG5	0726
	SL 14MY 2.4GDI SULEV +IMMO/SMK : 39107-2GCG0	0721
	SL 15MY 2.4GDI ULEV -IMMO : 39107-2GCD6/D7/E6/E7,39117-2GCD6/E6	1726
	SL 15MY 2.4GDI ULEV +IMMO/SMK : 39107-2GCD1/D2/E1/E2,39117-2GCD1/E1	1721
	SL 15MY 2.4GDI SULEV -IMMO : 39107-2GCG6/7	0727
	SL 15MY 2.4GDI SULEV +IMMO/SMK : 39107-2GCG1/2	0722
	SL 16MY 2.4GDI ULEV -IMMO : 39107/17-2GCD8/E8	0728
	SL 16MY 2.4GDI ULEV +IMMO/SMK : 39107/17-2GCD3/E3	0723
	SL 16MY 2.4GDI SULEV -IMMO : 39107-2GCG8	0729
	SL 16MY 2.4GDI SULEV +IMMO/SMK : 39107-2GCG3	0724

1. Within the ECU Upgrade screen, select **Manual Mode** in the left column, select **Engine** and then select **Upgrade Event #271, 272, 273, or 274**. Select the appropriate control unit part number by referring to the ROM ID Information Table on Page 5~9, and click **OK**.
2. Enter the appropriate password from the table above, and click **OK**.
3. Upgrade will begin and the progress of the upgrade will appear on the bar graph.
4. When the GDS reports that the ECU upgrade has been successfully completed, click **OK**, turn OFF the ignition key, and wait at least 10 seconds before attempting to start the engine.
5. Check for Diagnostic Trouble Codes using the GDS and erase any DTCs stored such as EPS, ESC, and TPMS that may have been set during reprogramming.
6. Start the engine to confirm proper operation of the vehicle.

SUBJECT: ECU UPGRADE – MIL ON WITH DTCS P0420/P0171

PARTS INFORMATION:

Model	Part Name	Part Number	Qty.
Optima (QF)	Warm-Up Catalytic Converter	Refer to EPC	1
	Under-Floor Catalytic Converter		
	Coupled Catalytic Converter		
Sorento (XMa)	Warm-Up Catalytic Converter		1
	Under- Floor Catalytic Converter		
Optima (TF)	Warm-Up Catalytic Converter		1
	Under- Floor Catalytic Converter		
	Coupled Catalytic Converter		
Sportage (SL)	Warm-Up Catalytic Converter		1
	Under- Floor Catalytic Converter		

★ NOTICE

Refer to EPC for part numbers of related components requiring replacement.

AFFECTED VEHICLE PRODUCTION RANGE:

Model	Production Date Range
Optima (QF)	From August 12, 2011 to October 2, 2015
Sorento (XMa)	From April 19, 2011 to December 11, 2014
Optima (TF)	From August 12, 2010 to July 23, 2015
Sportage (SL)	From September 30, 2013 to November 16, 2015

SUBJECT: ECU UPGRADE – MIL ON WITH DTCs P0420/P0171

WARRANTY CLAIM INFORMATION:

N CODE: 13T C CODE: ZZ5

Model	Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Time	Replacement P/N	Qty.
Optima (QF)	W	39108 2GBK8	0	Inspection and ECU Upgrade	28510F01	0.6 M/H	N/A	0
				Inspection, Replacement of WCC, and ECU Upgrade	28510F02	1.2 M/H	Refer to EPC	1
				Inspection, Replacement of WCC and UCC, and ECU Upgrade	39100F60	1.3 M/H	Refer to EPC	1

Model	Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Time	Replacement P/N	Qty.
Sorento (XMa)	W	39113 2GBM5	0	Inspection and ECU Upgrade	28510F07	0.6 M/H	N/A	0
				Inspection, Replacement of WCC, and ECU Upgrade	28510F08	1.2 M/H	Refer to EPC	1
				Inspection, Replacement of WCC and UCC, and ECU Upgrade	39100F50	1.3 M/H	Refer to EPC	1

Model	Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Time	Replacement P/N	Qty.
Optima (TF)	W	39108 2GBE6	0	Inspection and ECU Upgrade	28510F05	0.6 M/H	N/A	0
				Inspection, Replacement of WCC, and ECU Upgrade	28510F06	1.2 M/H	Refer to EPC	1
				Inspection, Replacement of WCC and UCC, and ECU Upgrade	39100F80	1.3 M/H	Refer to EPC	1

Model	Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Time	Replacement P/N	Qty.
Sportage (SL)	W	39107 2GCG8	0	Inspection and ECU Upgrade	28510F03	0.6 M/H	N/A	0
				Inspection, Replacement of WCC, and ECU Upgrade	28510F04	1.2 M/H	Refer to EPC	1
				Inspection, Replacement of WCC and UCC, and ECU Upgrade	39100F70	1.3 M/H	Refer to EPC	1