	GROUP	MODEL
![KIA]	ENG	2016-2017MY Optima (JFa) 1.6T GDI
	NUMBER	DATE
	206	July 2019

TECHNICAL SERVICE BULLETIN

SUBJECT:

1.6T GDI ULEV MIL ON
LOGIC IMPROVEMENT FOR P0128

This bulletin provides the procedure to improve the logic of the ECU (Electronic Control Unit) on some 2016-2017MY Optima (JFa) 1.6T GDI ULEV DCT vehicles, produced from September 28, 2015 through September 03, 2016, <u>which exhibit a MIL (Malfunction Indicator Lamp) illuminated with DTC P0128, even though there are no system faults.</u> To correct this concern, apply the improved logic to the ECU using the KDS ECU Upgrade function as described in this bulletin. For confirmation that the latest reflash has been applied to a vehicle you are working on, verify the ROM ID using the table on page 2 of this bulletin.

DTC: P0128 : Coolant Thermostat (Coolant Temp. below Thermostat Regulating Temp.)

Kia Diagnostic System (KDS)

File Under: <Engine>

Circulate To:	☒ General Manager	☒ Service Manager	☒ Parts Manager
☒ **Service Advisors**	☒ **Technicians**	☒ **Body Shop Manager**	☐ **Fleet Repair**

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ECU Upgrade Procedure:

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

Upgrade Event Name
304. JFA GAMMA 1.6TGDI DCT ULEV MIL ON DTC (P0128) LOGIC IMPROVEMENT

★ NOTICE

- **A fully charged battery is necessary before ECU upgrade can take place. It is recommended that the Midtronics GR8-1299 be used in ECU mode during reflashing or the use of a fully charged jump starter box.**
- **DO NOT connect any other battery charger to the vehicle during ECU upgrade.**
- **Ensure the KDS or GDS is sufficiently charged prior to reflash.**
- **All ECU upgrades must be done with the ignition key in the 'ON' position.**
- **Be careful not to disconnect the VCI-II connected to the vehicle 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 and model year.**

★ NOTICE

Before attempting an ECU upgrade on any Kia model, make sure to first determine whether the particular model is equipped with an immobilizer (IMMO) 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. 👈

ROM ID INFORMATION TABLE:

Upgrade Event #304

Model	EM	TM	IMMO	ECU P/No.	ROM ID	
					Previous	New
JFa	1.6T GDI ULEV	7DCT	Yes	39131 2BJA0	GTJF FNU6FS00H00 GTJF FNU6FS01H00 GTJF FNU6FS02H00	GTJF FNU6FS03H00
			No	39133 2BJA0	GTJF FNU6ES00H00 GTJF FNU6ES01H00 GTJF FNU6ES02H00	GTJF FNU6ES03H00

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.

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✱ NOTICE

Prior to performing the ECU upgrade, be sure to check that the KDS is fully charged.

1. Connect the VCI-II to the OBD-II connector, located under the driver's side of the instrument panel.
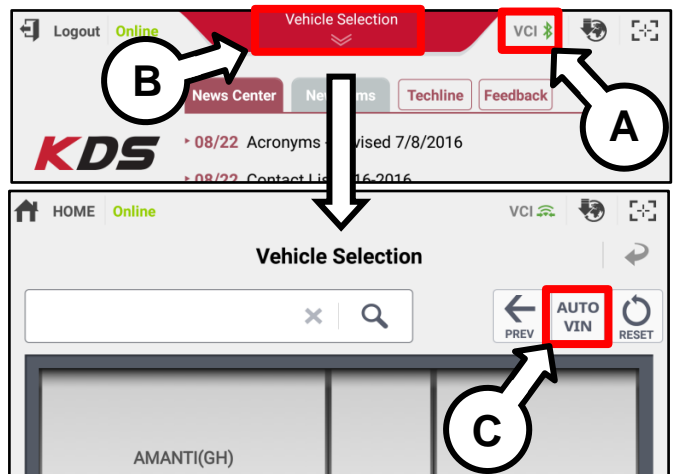
   ### ✱ NOTICE

   The ECU upgrade function on KDS operates wirelessly. It is not necessary to perform the upgrade via USB cable.
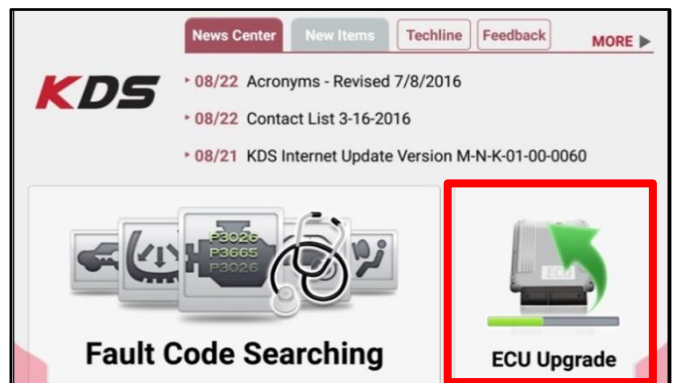
2. With the ignition ON, turn ON the KDS tablet. Select **KDS** from the home screen.

3. Confirm communication with VCI (A) and then configure the vehicle (B) using the **AUTO VIN** (C) feature.
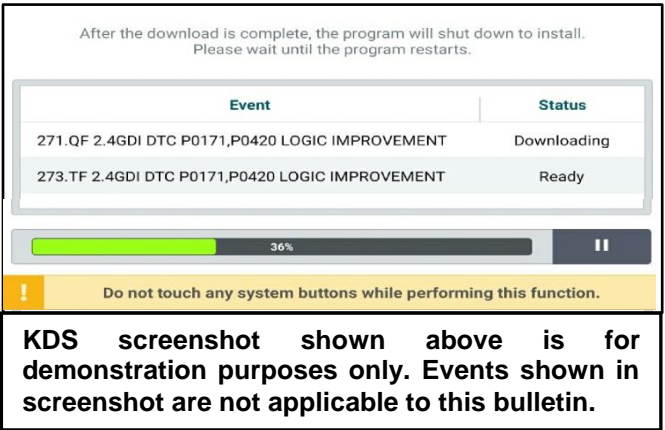
4. Select **ECU Upgrade**.

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5. The KDS will check the server for recently uploaded Events and then automatically download **Upgrade Event #304.**

> ★ **NOTICE**
>
> **The vehicle must be identified in Vehicle Selection to download an Event for that vehicle.**

After the download is complete, the program will shut down to install. Please wait until the program restarts.

Event	Status
271.QF 2.4GDI DTC P0171,P0420 LOGIC IMPROVEMENT	Downloading
273.TF 2.4GDI DTC P0171,P0420 LOGIC IMPROVEMENT	Ready

36%

⚠ Do not touch any system buttons while performing this function.

KDS screenshot shown above is for demonstration purposes only. Events shown in screenshot are not applicable to this bulletin.
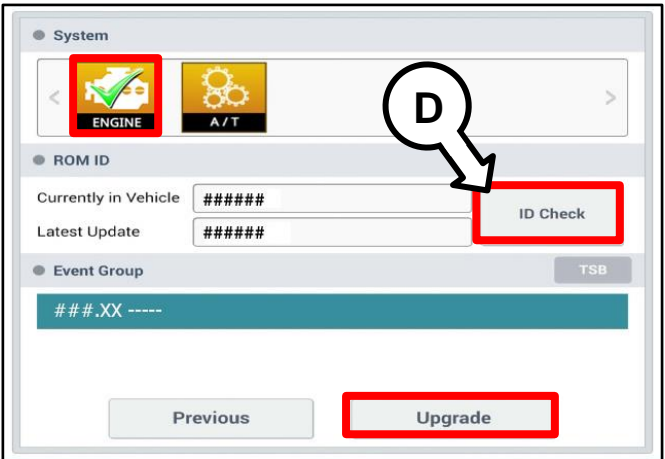
6. Select **Auto Mode**.

> ⚠ **CAUTION**
>
> **Do NOT attempt to perform a Manual Mode upgrade UNLESS Auto Mode fails. Always follow the instructions given on the KDS in either Auto or Manual mode.**

Auto Mode   Manual Mode

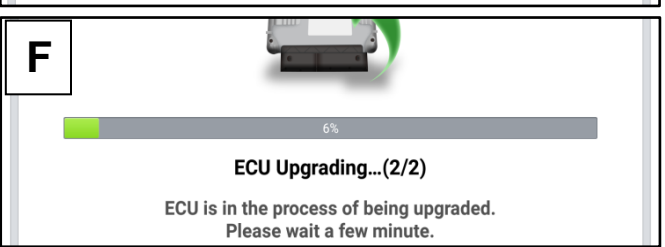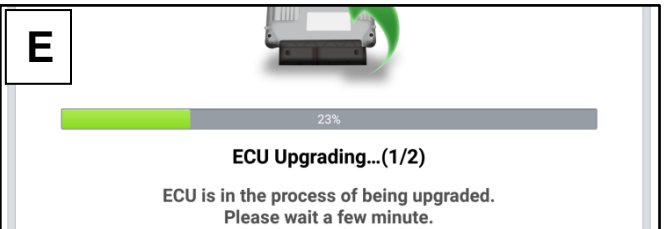7. Select the ENGINE system under the System selection menu.

   Touch **ID Check** (D) and confirm that the latest update is available.

   Select **Upgrade Event #304** and select **Upgrade** to continue.

● System

ENGINE   A/T   **D**

● ROM ID

Currently in Vehicle ######
Latest Update ######   ID Check

● Event Group   TSB

###.XX -----

Previous   Upgrade

8. The ECU upgrade will begin and the progress of the upgrade will appear on the bar graph. Upgrade part (1/2) (E) will download the upgrade event to the VCI-II. Upgrade part (2/2) (F) will upgrade the ECU.

> ⚠ **CAUTION**
>
> **Do not touch the system buttons (like 'Back', 'Home', 'etc.') while performing ECU Upgrade.**
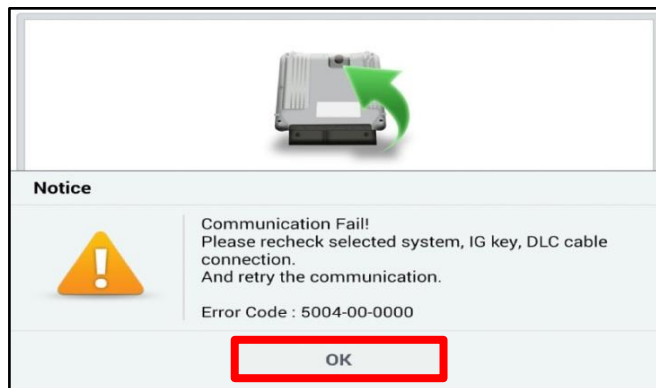
E

23%

ECU Upgrading...(1/2)

ECU is in the process of being upgraded.
Please wait a few minute.

F

6%

ECU Upgrading...(2/2)

ECU is in the process of being upgraded.
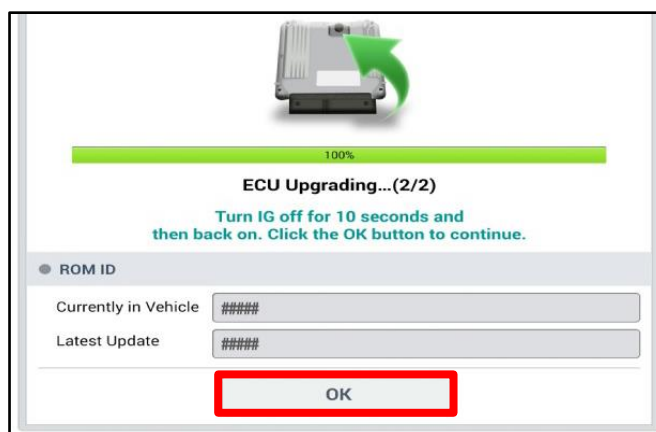Please wait a few minute.

9. If a "Communication Fail" screen appears, verify that the VCI-II and KDS are communicating properly. Touch **OK** and restart the procedure from step 4.
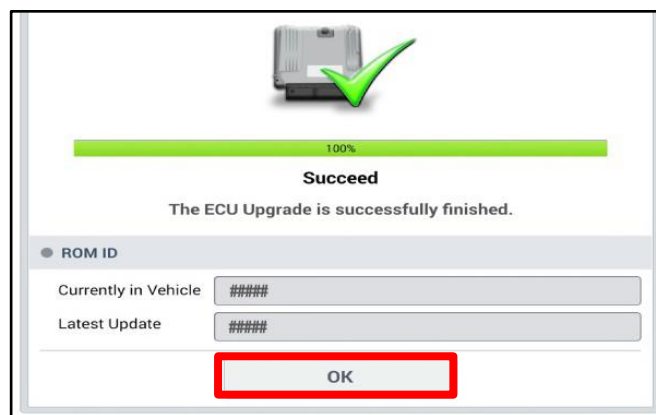
> ★ **NOTICE**
>
> **If an error notice continues to appear or if the upgrade cannot be performed, DO NOT disconnect the KDS/VCI-II. Contact GIT America Help Desk at (888) 542-4371 or Techline.**
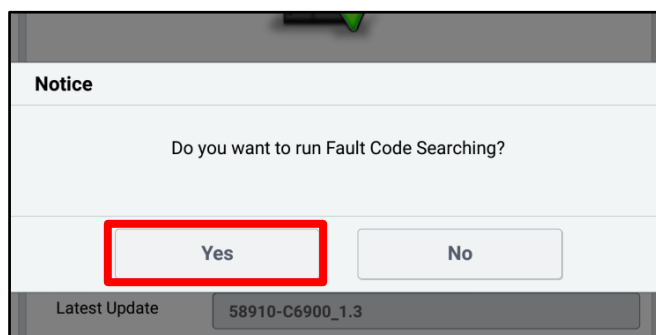

Notice

Communication Fail!
Please recheck selected system, IG key, DLC cable connection.
And retry the communication.

Error Code : 5004-00-0000

OK

10. When instructed on the KDS, turn the ignition **OFF** for ten (10) seconds then back on. Touch **OK** to continue.

100%

ECU Upgrading...(2/2)

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

ROM ID

Currently in Vehicle   ####
Latest Update   ####

OK

11. Once the upgrade is complete, touch **OK** to finalize the procedure.

100%

Succeed

The ECU Upgrade is successfully finished.

ROM ID

Currently in Vehicle   ####
Latest Update   ####

OK

12. When prompted, select **YES** to check for Diagnostic Trouble Codes (DTC) and erase any DTCs stored such as EPS, ESC, and TPMS that may have been set during the upgrade.

Notice

Do you want to run Fault Code Searching?

Yes   No

Latest Update   58910-C6900_1.3

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

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Manual Upgrade Procedure:

★ **NOTICE**

The manual upgrade should ONLY be performed if the automatic upgrade fails.

If the automatic upgrade fails, turn the ignition OFF for about 10 seconds then place it back in the ON position to reset the control unit BEFORE performing manual upgrade.

See table below for Manual Mode passwords.

Manual Mode ECU Upgrade Passwords

Menu	Password
JFA 1.6T-GDI 7DCT ULEV +IMMO/SMK : 39131 2BJA0	3120
JFA 1.6T-GDI 7DCT ULEV -IMMO : 39133 2BJA0	3320

1. Within the ECU Upgrade screen displayed, select **Manual Mode**.

2. Select the **ECU** system under the System selection menu. Select **Upgrade Event #304** and select **Upgrade** to continue.

3. Select the appropriate control unit part number with reference to the ROM ID Information Table on page 2, and select **OK**.

4. Enter the appropriate password from the Manual Mode password table above and select **OK**.

5. The upgrade will begin and the progress of the upgrade will appear on the bar graph.

6. When instructed on the KDS, turn the ignition **OFF** for ten (10) seconds then back on. Touch **OK** to continue.

7. Once the upgrade is complete, touch **OK** to finalize the procedure.

8. When prompted, select **YES** to check for Diagnostic Trouble Codes (DTC) and erase any DTCs stored such as EPS, ESC, and TPMS that may have been set during the upgrade.

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

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AFFECTED VEHICLE RANGE:

Model	Production Date Range
Optima (JFa)	September 28, 2015 to September 03, 2016

WARRANTY INFORMATION:
N Code: I3A   C Code: ZZ3

Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
W	Refer to EPC	0	1.6T GDI /DTC ECM Upgrade Logic Improvement	39110FJ2	0.3 M/H	N/A	0