	GROUP TRA	MODEL 2018MY Optima (JF, JFa) 2.0L T-GDI, 2.4L GDI
	NUMBER 088	DATE February 2020
TECHNICAL SERVICE BULLETIN		
SUBJECT: TRANSMISSION CONTROL UNIT (TCU) GEAR SHIFT LOGIC IMPROVEMENT		

This bulletin provides the procedure to improve the gear shift logic of the Transmission Control Unit (TCU) on some 2018MY Optima (JF, JFa) vehicles produced from April 18, 2017 through July 11, 2018, equipped with 2.0L T-GDI and 2.4L GDI engines, which may harsh downshifts (including 2-1 gear change). To correct this concern, apply the improved logic to the TCU 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 3 of this bulletin.



Kia Diagnostic System (KDS)

File Under: <Transmission>

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


ECU Upgrade Procedure:

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

Upgrade Event Name**351. JF/JFA 2.0/2.4 TCU GEAR SHIFT LOGIC IMPROVEMENT***** NOTICE**

- A fully charged battery is necessary before ECU upgrade can take place. It is recommended that a battery charger is used in ECU mode during reflashing or the use of a fully charged jump starter box connected to the battery.
- 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 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 TABLE:

Upgrade Event #351

Model	EM	TM	IMMO	ECU P/No.	ROM ID	
					Previous	New
JFA 2.0L T-GDI	ULEV	A/T	Yes	39108-2GTK2 39108-2GTK7	TJF0T20NSB TJF0T20NSC	TJF0T20NSD
JFA, JF 2.4L GDI				39108-2GGC2 39108-2GGC7	TJF0G24NSC TJF0G24NSD	TJF0G24NSE
				SULEV	39108-2GGD2 39108-2GGD7	TJF0G24SSC TJF0G24SSD

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.

★ 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

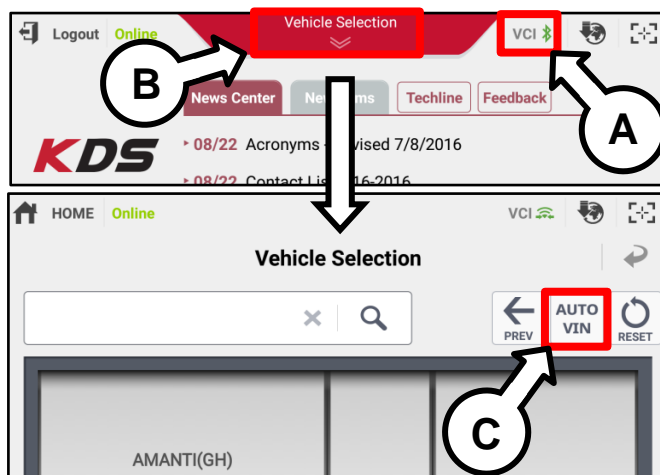
The ECU upgrade function on KDS operates wirelessly. It is not necessary to perform the upgrade via USB cable.



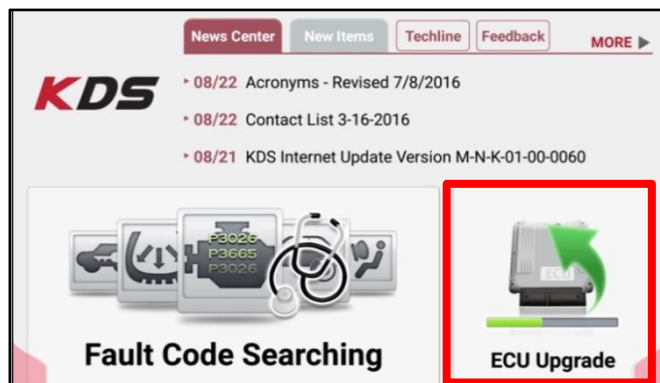
2. With the ignition ON, turn ON the KDS tablet. Select **KDS** from the home screen.



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



4. Select **ECU Upgrade**.



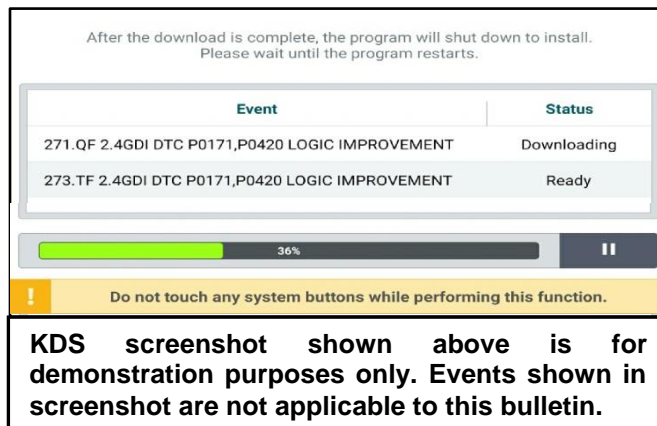
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5. The KDS will check the server for recently uploaded Events and then automatically download **Upgrade Event #351**.

* NOTICE

The vehicle must be identified in Vehicle Selection to download an Event for that vehicle.

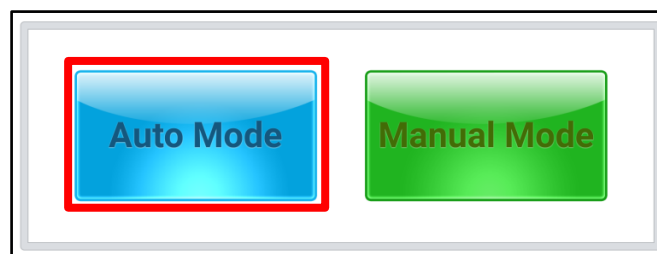


6. Select **Auto Mode**.



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.



7. Select the **A/T** system under the System selection menu.

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

Select **Upgrade Event #351** and select **Upgrade** to continue.

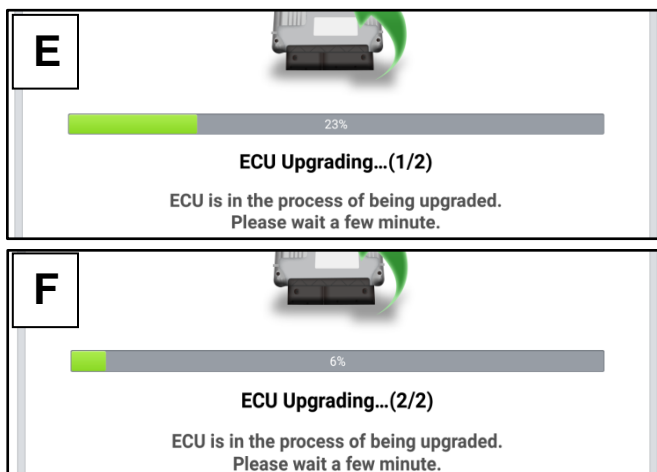


8. The ECU upgrade will begin and the progress of the upgrade will appear on the bar graph. Upgrade part (1/2) (E) will download the upgrade event to the VCI-II. Upgrade part (2/2) (F) will upgrade the ECU.



CAUTION

Do not touch the system buttons (like 'Back', 'Home', 'etc.') while performing ECU Upgrade.



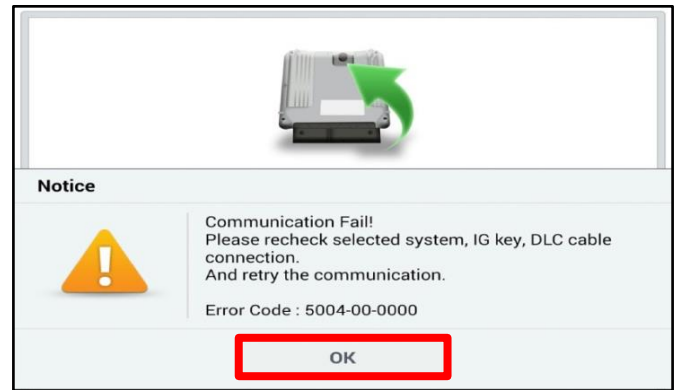
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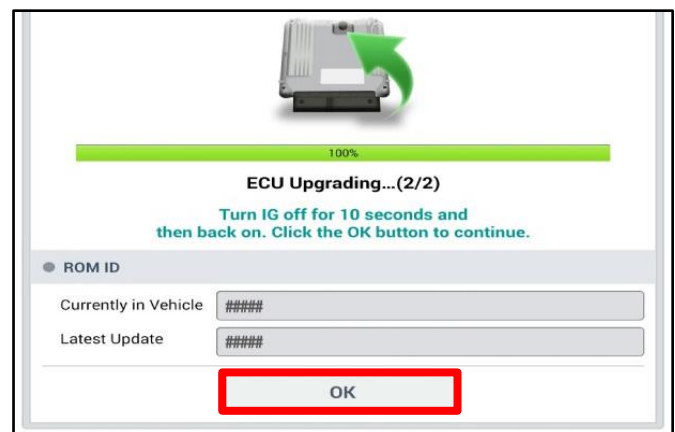
9. If a “Communication Fail” screen appears, verify that the VCI-II and KDS are communicating properly. Touch **OK** and restart the procedure from step 4.

★ NOTICE

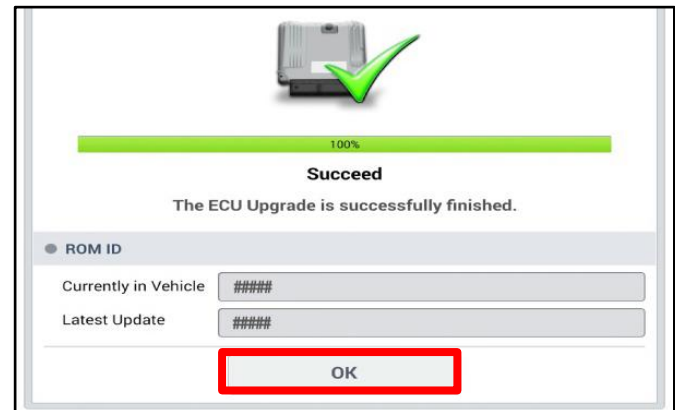
If an error notice continues to appear or if the upgrade cannot be performed, **DO NOT** disconnect the KDS/VCI-II. Contact GIT America Help Desk at (888) 542-4371 or Techline.



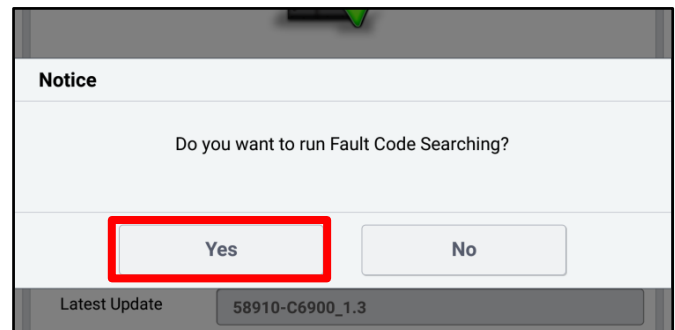
10. When instructed on the KDS, turn the ignition **OFF** for ten (10) seconds then back on. Touch **OK** to continue.



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



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.



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/JF 2.4GDI ULEV : 39108-2GGC2/C7	8227
JFA/JF 2.4GDI SULEV : 39108-2GGD2/D7	8228
JFA 2.0TGDI ULEV : 39108-2GTK2/K7	8229

1. Within the ECU Upgrade screen displayed, select **Manual Mode**.
2. Select the **A/T** system under the System selection menu. Select **Upgrade Event #351** and select **Upgrade** to continue.
3. Select the appropriate control unit part number with reference to the ROM ID Information Table on page 3, 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 (JF)	May 30, 2017 to April 5, 2018
Optima (JFa)	April 18, 2017 to July 11, 2018

WARRANTY INFORMATION:

N Code: D34 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	JF/JFa 2.0L T-GDI/2.4L GDI TCU Shift Logic Improvement	39108F08	0.3 M/H	N/A	0