	GROUP	MODEL
	TRA	**2018MY** **Optima (JFa) 2.0T** **Sorento (UMa) 3.3L**
	NUMBER	DATE
	071A	**November 2017**

TECHNICAL SERVICE BULLETIN

SUBJECT:	SERVICE ACTION: SHIFT QUALITY LOGIC IMPROVEMENT (SA315A)

This bulletin provides the procedure to improve the logic of the Transmission Control Unit (TCU) on some 2018MY Optima (JFa) 2.0T, produced from April 19, 2017 through July 10, 2017, and some 2018MY Sorento (UMa) 3.3L vehicles, produced from March 31, 2017 through July 25, 2017, which may experience a shift quality concern, such as a hard downshift, upshift, and/or shift delay. 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 pages 2-3 of this bulletin. Kia is requesting the completion of this Service Action on all affected vehicles in <u>dealer stock</u>, prior to delivery. Before conducting the procedure, verify that the vehicle is included in the list of affected VINs.

Kia Diagnostic System (KDS)

★ 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 <u>SA315A</u>.

File Under: <Transmission>

SUBJECT: SERVICE ACTION: SHIFT QUALITY LOGIC IMPROVEMENT (SA315A)

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.JFA 2.0/2.4 TCU GEAR SHIFT LOGIC IMPROVEMENT
354.UMA 3.3 TCU GEAR SHIFT 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 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, 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.

ROM ID INFORMATION TABLE:

Upgrade Event #351

Model	EM	TM	TCU P/No.	ROM ID	
				Previous	New
JFa	2.0T	AT	39108-2GTK2 39108-2GTK7	TJF0T20NSB TJF0T20NSC	TJF0T20NSD

Upgrade Event ##354

Model	EM	TM	TCU P/No.	ROM ID	
				Previous	New
UMa	3.3L	AT	39111-3CWN2 39101-3CWN2	TUM0Z33NS8	TUM0Z33N******S9

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.

SUBJECT: SERVICE ACTION: SHIFT QUALITY LOGIC IMPROVEMENT (SA315A)

✶ 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.
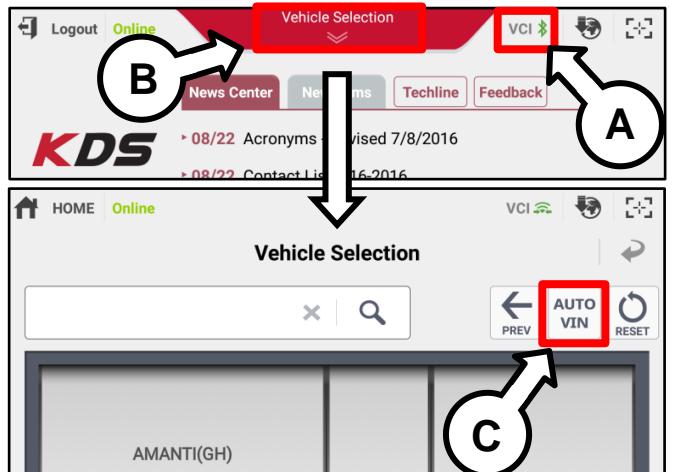
   ### ✶ NOTICE

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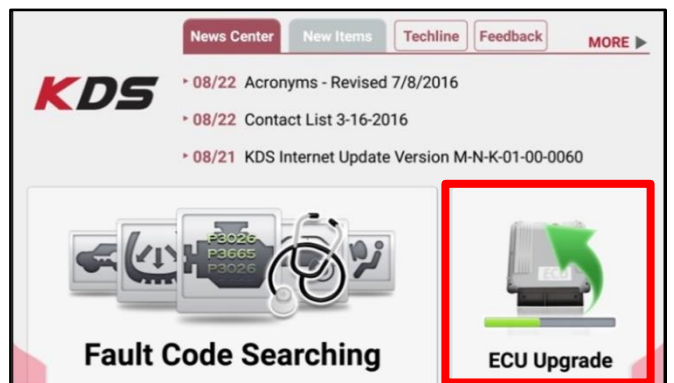

2. With the ignition ON, turn ON the KDS tablet. Select **KDS** from the home screen.

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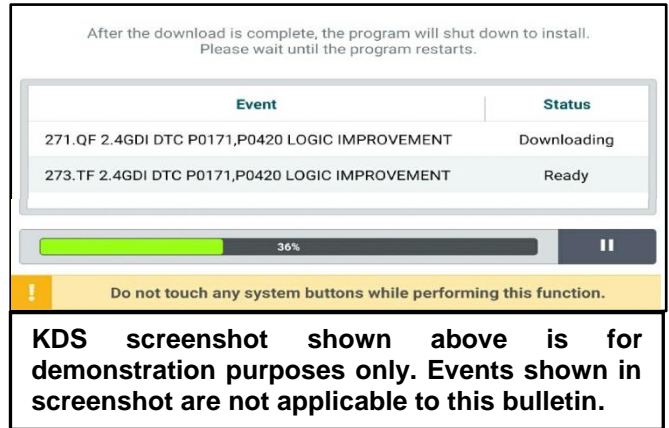

4. Select **ECU Upgrade**.

TSB: SA315A Optima (JFa), Sorento (UMa) November 2017

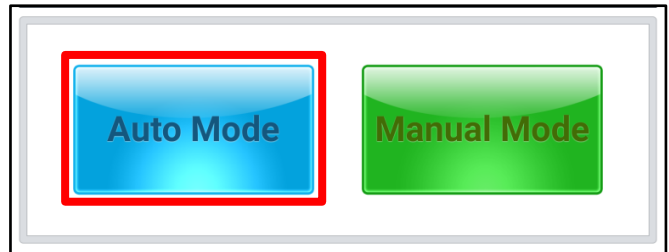**SUBJECT:** SERVICE ACTION: SHIFT QUALITY LOGIC IMPROVEMENT (SA315A)

5. The KDS will check the server for recently uploaded Events and then automatically download **Upgrade Event #351 or #354.**

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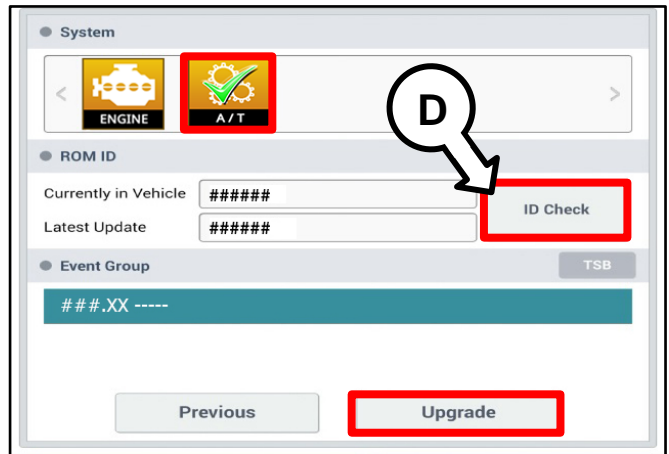> **Do NOT attempt to perform a Manual Mode upgrade UNLESS Auto Mode fails. Always follow the instructions given on the KDS in either Auto or Manual mode.**

Auto Mode   Manual Mode

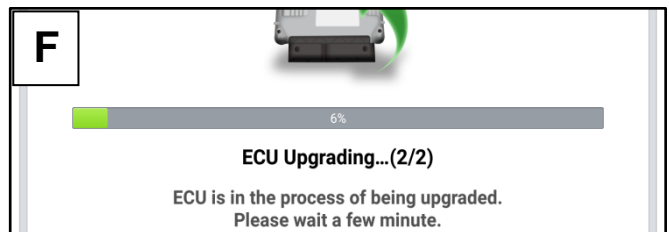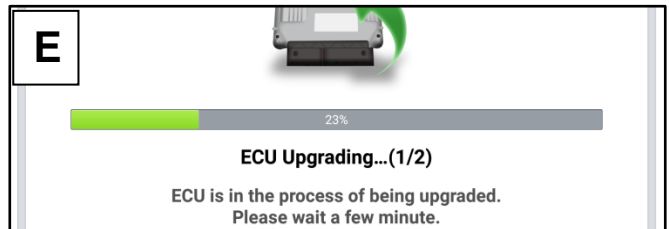7. Select the **A/T** system under the System selection menu.

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

   Select **Upgrade Event #351 or #354** 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.
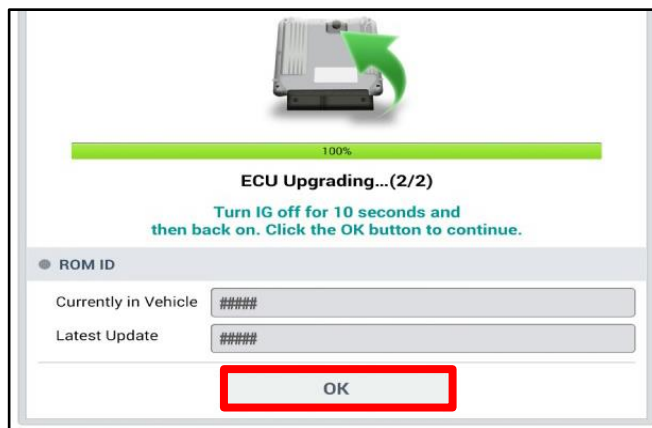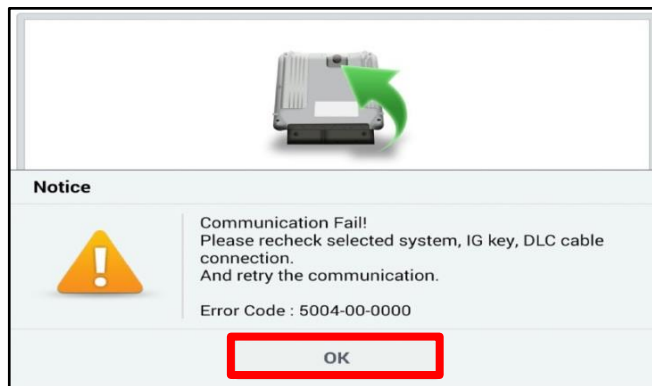Please wait a few minute.

SUBJECT: SERVICE ACTION: SHIFT QUALITY LOGIC IMPROVEMENT (SA315A)

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.
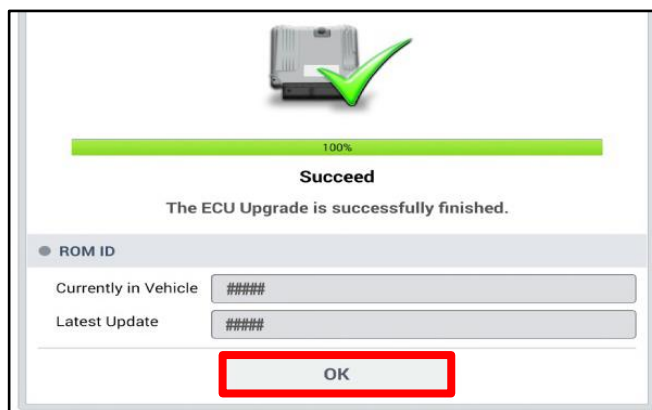
> **★ NOTICE**
>
> **If an error notice continues to appear or if the upgrade cannot be performed, contact Techline or GIT America Help Desk.**
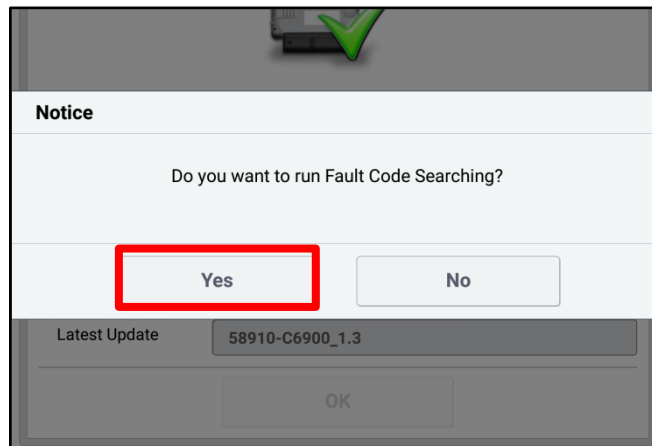
Notice

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 |

OK

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

SUBJECT: SERVICE ACTION: SHIFT QUALITY LOGIC IMPROVEMENT (SA315A)

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

Event	Model	System	Menu	Password
351	JFa 2.0T	TCU	JFA 2.0TGDI ULEV : 39108-2GTK2/K7	8229
354	UMa 3.3L		UMA 3.3GDI : 39111/39101-3CWN2	0131

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

2. Select the **AT** system under the System selection menu. Select **Upgrade Event #351 or #354** 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.

SUBJECT: SERVICE ACTION: SHIFT QUALITY LOGIC IMPROVEMENT (SA315A)

AFFECTED VEHICLE RANGE:

Model	Production Date Range
Optima (JFa) 2.0T	April 19, 2017 through July 10, 2017
Sorento (UMa) 3.3L	March 31, 2017 through July 25, 2017

WARRANTY INFORMATION:
N Code: N99   C Code: C99

Model	Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
JFa 2.0T / UMa 3.3L	V	39100 2GTC8	0	(SA315A) 2.0T & 3.3L TCU Logic Improvement	170A52R0	0.3 M/H	N/A	0

```
★ NOTICE
```

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference <u>SA315A</u> when accessing the WebDCS system.