	GROUP TRA	MODEL 2016MY Optima (JFa) 2.0T Sorento (UMa) 2.0T, 3.3L
	NUMBER 069	DATE May 2017
<b>TECHNICAL SERVICE BULLETIN</b>		
SUBJECT: COMBINATION TSB / SERVICE ACTION: SHIFT QUALITY IMPROVEMENT (SA292)		

This bulletin provides the procedure to improve the logic of the Transmission Control Unit (TCU) on some 2016MY Optima (JFa) 2.0T, produced from August 28, 2015 through October 7, 2016, Sorento (UMa) 2.0T, produced from October 29, 2014 through December 9, 2016, and Sorento (UMa) 3.3L vehicles, produced from October 27, 2014 through December 22, 2016, which may experience a shift quality concern, such as a harsh downshift, upshift, and/or shift delay. To correct this concern, apply the improved logic to the TCU using the KDS download 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. Before conducting the procedure, verify that the vehicle is included in the list of affected VINs.



Kia Diagnostic System

**\* NOTICE**

VINs that start with 5XX are designated Optima (JFa) and produced in the United States. This TSB applies to Optima (JFa) that is produced in United States only.

**\* 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 SA292.

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
326. JFA 16MY 2.0T-GDI GEAR SHIFT LOGIC IMPROVEMENT (TCU)
329. UMA 16MY 2.0T-GDI GEAR SHIFT LOGIC IMPROVEMENT (TCU)
333. UMA 16MY 3.3GDI GEAR SHIFT LOGIC IMPROVEMENT (TCU)

**\* 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 326 (JFa TCU)**

Model	ENG	TM	PCU P/No.	ROM ID	
				Previous	New
JFa	2.0T	A/T	39108-2GTK0 39108-2GTK5 39108-2GTN5	TJF0T20NS0 TJF0T20NSA	TJF0T20NSB

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## Upgrade Event 329, 333 (UMa TCU)

Model	ENG	TM	PCU P/No.	ROM ID		
				Previous	New	
UMa	2.0T	A/T	39100-2GTC1	TUM2T20NB3	TUM2T20NB4	
			39100-2GTC6	TUM2T20NB2		
			39100-2GTC0	TUM2T20NB1		
			39100-2GTC5	TUM2T20NB0		
			39100-2GTD1	TUM4T20NB3	TUM4T20NB4	
			39100-2GTD6	TUM4T20NB2		
	39100-2GTD0	TUM4T20NB1				
	3.3L			39100-2GTD5	TUM4T20NB0	
				39111-3CWN0	TUM0Z33N*****S3	TUM0Z33N*****S8
				39101-3CWN0	TUM0Z33N*****S2	
				TUM0Z33N*****S1		
	TUM0Z33N*****S0					

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 is operating wirelessly. It is not necessary to perform the upgrade via USB cable.

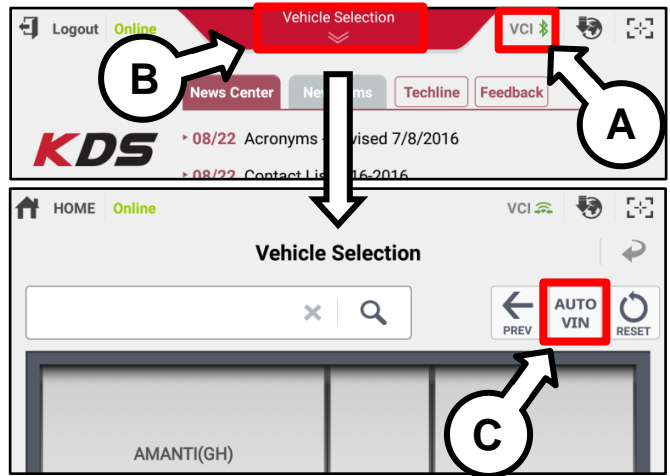


2. With the ignition ON, turn ON the KDS tablet. Select **KDS** from the home screen.

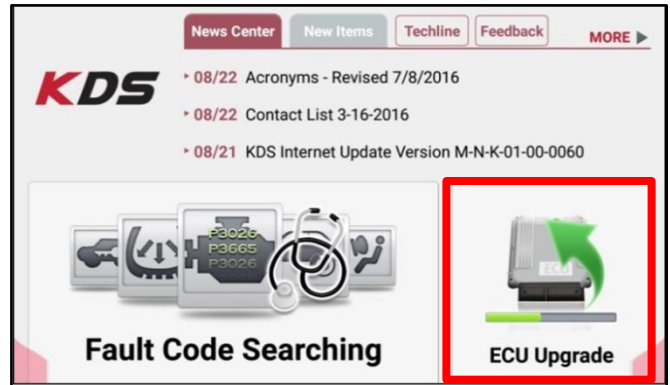


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3. Confirm communication with VCI (A) and then configure the vehicle (B) using the **AUTO VIN** (C) feature.

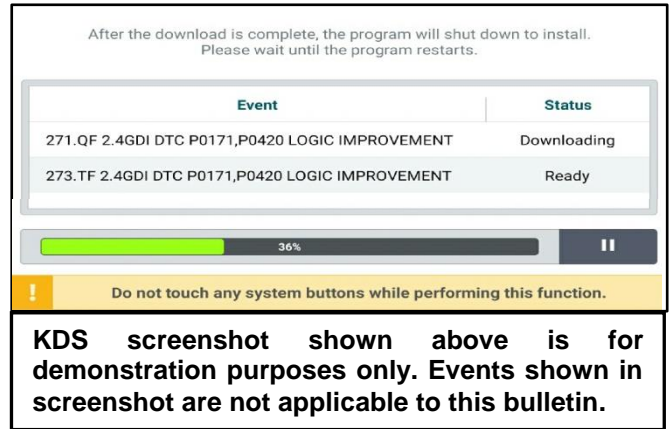


4. Select **ECU Upgrade**.



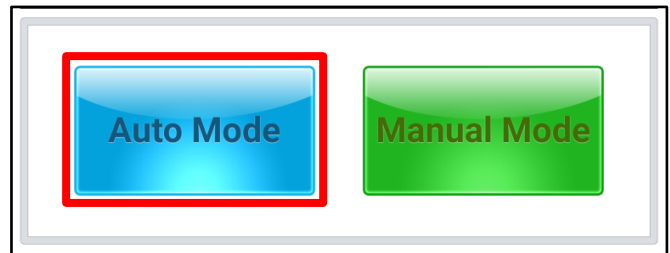
5. The KDS will check the server for recently uploaded Events and then automatically download **Upgrade Event (326, 329, and 333)**.

**\* 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.



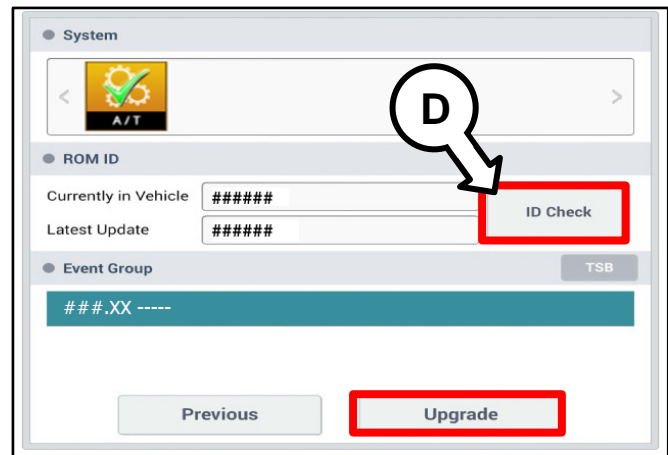
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7. Select **A/T** system under the System selection menu.

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

Select **Upgrade Event (326, 329, or 333)** and select **Upgrade** to continue.

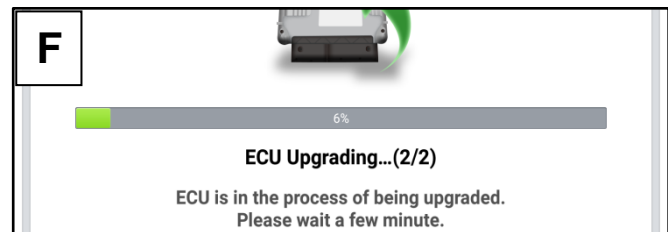
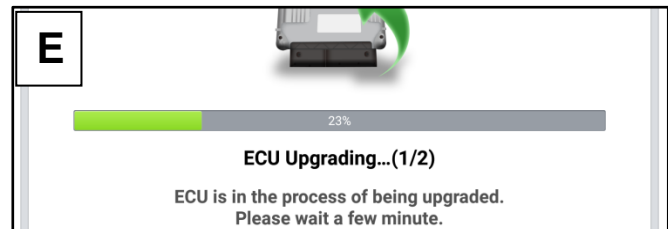


8. The TCU upgrade will begin and the progress of the upgrade will appear on the bar graph. Upgrade part (1/2) (E) will download the upgrade event to the VCI-II. Upgrade part (2/2) (F) will upgrade the TCU.

**CAUTION**

Do not touch the system buttons (like 'Back', 'Home', 'etc.')

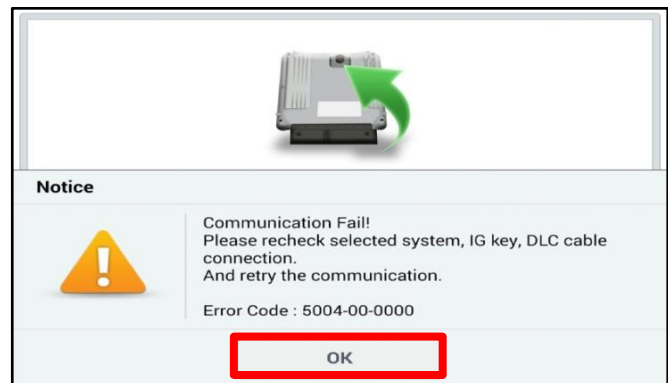
while performing TCU Upgrade.



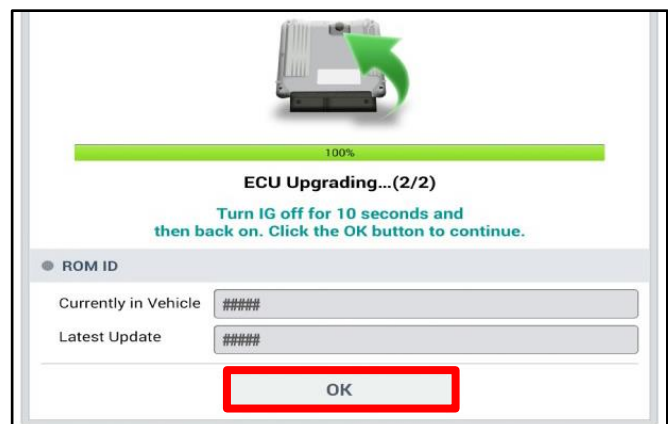
9. If a "Communication Fail" screen appears, verify that the VCI-II and KDS are communicating properly. Touch **OK** and restart the procedure from step 4.

**\* NOTICE**

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

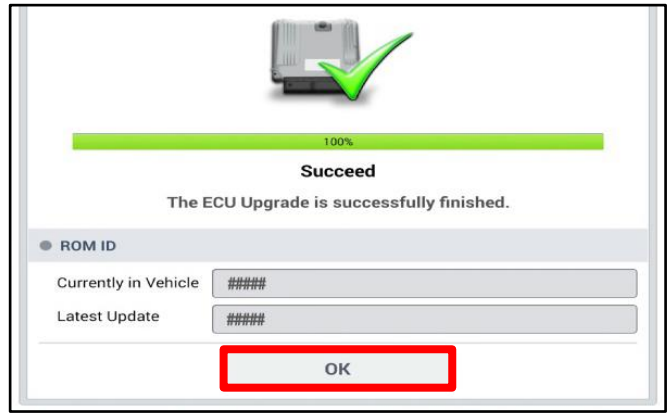


10. When instructed on the KDS, turn the ignition **OFF** for ten (10) seconds then back on. Touch **OK** to continue.

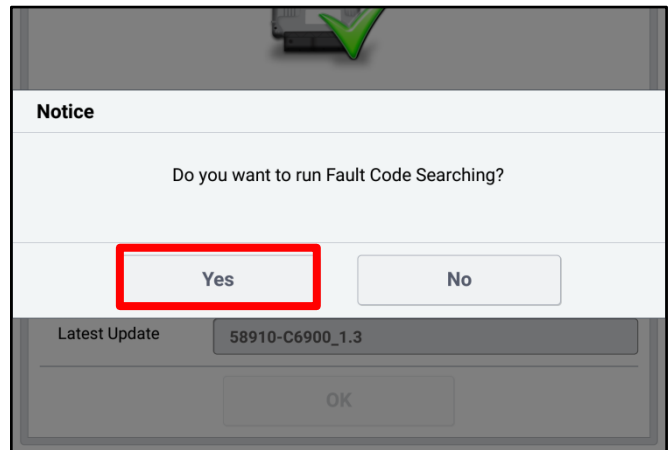


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- 11. Once the upgrade is complete, touch **OK** to finalize the procedure.



- 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 TCU Upgrade Passwords

Event	Model	Menu	Password
326	JFa 2.0T	JFA 16MY 2.0T-GDI (TCU) : 39108-2GTK0/K5/N5	<b>0825</b>
329	UMa 2.0T	UMA 16MY 2.0T-GDI (TCU) : 39100-2GTC0/C1/C5/C6	<b>0026</b>
		UMA 16MY 2.0T-GDI (TCU) : 39100-2GTD0/D1/D5/D6	<b>0027</b>
333	UMa 3.3L	UMA 16MY 3.3GDI (TCU) : 39101-3CWN0/39111-3CWN0 :	<b>1130</b>

1. Within the ECU Upgrade screen displayed, select **Manual Mode** and then select **Upgrade Event (326, 329, or 333)**.
2. Select the appropriate control unit part number with reference to the ROM ID Information Table on pages 3-4, and select **OK**.
3. Enter the appropriate password from the Manual Mode password table above and select **OK**.
4. The upgrade will begin and the progress of the upgrade will appear on the bar graph.
5. When instructed on the KDS, turn the ignition **OFF** for ten (10) seconds then back on. Touch **OK** to continue.
6. Once the upgrade is complete, touch **OK** to finalize the procedure.
7. 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.
8. Start the engine to confirm proper operation of the vehicle.

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## AFFECTED VEHICLE RANGE:

Model	Production Date Range
Optima (JFa) 2.0T	August 28, 2015 through October 7, 2016
Sorento (UMa) 2.0T	October 29, 2014 through December 9, 2016
Sorento (UMa) 3.3L	October 27, 2014 through December 22, 2016

## 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	V	39108 2GTK5	0	(SA292) Shift Quality Improvement	170A20R0	0.3 M/H	N/A	0
UMa 2.0T		39100 2GTC1			170A15R1	0.3 M/H		
UMa 3.3L		39111 3CWN0			170A15R2	0.3 M/H		

**\* NOTICE**

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference SA292 when accessing the WebDCS system.

## STANDARD WARRANTY CLAIM INFORMATION:

Use this information only to file a warranty claim for vehicles for which:

1. A customer complains of the same concern, as described on page 1.
2. The VIN does not appear on the affected vehicles list for Service Action 292.
3. The vehicle model year and production date range are as identified in this bulletin.

N Code: D34 C Code: ZZ3

Model	Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
JFa 2.0T	W	39108 2GTK5	0	Shift Quality Improvement	39100FD5	0.3 M/H	N/A	0
UMa 2.0T		39100 2GTC1			39110FD5	0.3 M/H		
UMa 3.3L		39111 3CWN0			39110FD5	0.3 M/H		