

This bulletin provides information related to the TCU (Transmission Control Unit) software upgrade of some 2017MY Sportage (QL) 2.0T-GDI/2.4GDI vehicles produced from December 10, 2015 through October 27, 2016 to improve the gear shift and acceleration performance logic. To apply the improved logic, the TCU should be reprogrammed using the GDS/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 tables in this TSB. Kia is requesting the completion of this Service Action on all affected vehicles in dealer stock, prior to delivery. Before conducting the procedure, verify that the vehicle is included in the list of affected VINs.



Global Diagnostic System (GDS)



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  $\rightarrow$  Warranty Coverage  $\rightarrow$  Warranty Coverage Inquiry  $\rightarrow$  Campaign Information). Not completed Recall / Service Action reports are available on WebDCS (Consumer Affairs  $\rightarrow$  Not Completed Recall  $\rightarrow$  Recall VIN  $\rightarrow$  Select Report), which includes a list of affected vehicles.

This issue number is SA257.

File Under: <Transmission>

Circulate To:	🗵 Ge	eneral Manager	☑ Service Manager	X Parts Manager
Service Adviso	r(s)	I Technician(s)	🗵 Body Shop Manager	Fleet Repair

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SUBJECT:

## SERVICE ACTION: TCU UPGRADE – DRIVING PERFORMANCE IMPROVEMENT (SA257)

### TCU Upgrade Procedure:

To apply the improved logic, the TCU should be reprogrammed using the GDS/KDS download, as described in this bulletin.

### UPGRADE EVENT NAME

#### 306.QL 2.0T-GDI/2.4GDI 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 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.

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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.

## **\*** NOTICE

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

### ROM ID INFORMATION TABLE:

### Upgrade Events – Sportage (QL)

T/M	Event #	Model	TCU P/N	ROM ID		
1/11	Event #	Model		Previous	New	
		2.0T GDI	39100-2GHJ0 39100-2GHJ5	TQL2T20NS0	TQL2T20NS1	
			39100-2GHK0 39100-2GHK5	TQL4T20NS0	TQL4T20NS1	
6AT	306	2.4 GDI	39100-2GHR5 39100-2GHS0 39100-2GHT5 39100-2GHV0	TQL2G24NS0 TQL2G24NS1	TQL2G24NS2	
		2.4 GDI	2.4 GDI	39100-2GHV5 39100-2GHS5 39100-2GHT0 39100-2GHW0	TQL4G24NS0 TQL4G24NS1	TQL4G24NS2

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.

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.

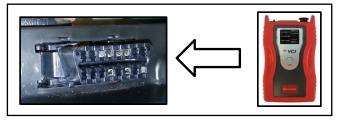
3. Connect the Main 16-pin DLC cable (GHDM – 241000) to the VCI.

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 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 **A/T** system and click **OK**.

GDS VIN Search	Please insert VIN Searc	h Auto VIN	Clear Previous Vehicle
SPOR	RTAGE(QL)	2017	G 2.0 T-GDI THETA2
System	<b>S</b>		
	Select System	Select All	Selected System Clear All
ENGINE ATT	AEB       AEB       AIRBAG         AEB       AEB       AIRBAG         Image: AEB       Image: AEB       Image: AEB         AFLS       Image: AEB       Image: AEB		Automatic Transaxle
(	Group	_	Symptom
Fault C	Code Searching	ок	Cancel

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

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

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		_			_	_		_		-		- 0
* Setup	Manual	TSB	Case Analysis	DTC	Current Data	Actuation Test	Flight Record	DVOM	Oscilloscope	Fault Code Searching	ECU Upgrade	Internet Update
ociup							1			-		

- 8. Check for Diagnostic Trouble Codes using the GDS and erase any DTCs stored that may have been set during reprogramming.
- 9. Confirm proper operation of the vehicle.

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### SERVICE ACTION: TCU UPGRADE – DRIVING PERFORMANCE IMPROVEMENT (SA257)

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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.

# \* 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 Upgrade

### MANUAL MODE UPGRADE PASSWORD:

Upgrade Event – Sportage (QL)

EVENT #	SYS	MENU	PASSWORD
	2.0T GDI	QL 2.0T-GDI : 39100-2GHJ0/J5	0205
306	2.01 GDI	QL 2.0T-GDI : 39100-2GHK0/K5	0206
	2.4 GDI	QL 2.4GDI : 39100-2GHR5/S0/T5/V0	5050
		QL 2.4GDI : 39100-2GHS5/T0/V5/W0	5051

1. Within the ECU Upgrade screen, select **Manual Mode** in the left column, select **A/T** and then select **Upgrade Event #306**. Select the appropriate control unit part number by referring to the ROM ID Information Table on Page 3, and click **OK**.

GD	Preparation	Diagnosis	Vehicle S/W Management	Repair	0
Vehicle SPORTAG	E(QL)/2017/G 2.0 T-GDI TI	HETA2 Syst	em 🕨 Transmission/Autor	natic Transaxle	0 2
Vehicle S/W Management	ECU Upgrade				
ECU Upgrade 🏾 🕑	<ul> <li>Event Group</li> </ul>	Event List		TSE	
Mode Manual Mode	306.QL 2.0T-GDI/2.40	GDI TCU GEAR SHIFT LO	DGIC IMPROVEMENT		
System					
AT		Previous	Next		

- 2. Enter the password from the table above, and click **OK**.
- 3. Upgrade will begin and the progress of the upgrade will appear on the bar graph.

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- 4. When the GDS reports that the TCU 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 that may have been set during reprogramming.
- 6. Confirm proper operation of the vehicle.

### AFFECTED VEHICLE PRODUCTION RANGE:

MODEL	PRODUCTION DATE
Sportage (QL)	December 10, 2015 through October 27, 2016

### WARRANTY CLAIM INFORMATION:

Claim Type	Causal P/N	Qty.	N Code	C Code	Repair Description	Labor Op Code	Time	Replacement Parts	Qty.
V	39100 2GHJ0	0	N99	C99	(SA257) QL 2.0T- GDI/2.4GDI TCU Gear Shift Logic Improvement	160113R0	0.3 M/H	N/A	N/A

### **\*** NOTICE

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference <u>SA257</u> when accessing the WebDCS system.