	GROUP **ENG**	MODEL **2018MY Sportage (QL)**
	NUMBER **180**	DATE **December 2017**

TECHNICAL SERVICE BULLETIN

SUBJECT: SERVICE ACTION: 2.4L ENGINE START LOGIC IMPROVEMENT (SA320)

This bulletin provides the procedure to improve the logic of the Electronic Control Unit (ECU) on some 2018MY Sportage (QL) vehicles, produced from April 3, 2017 to August 9, 2017, which may intermittently experience an extended cranking condition. 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 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 (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 SA320.

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
356. QL 2.4 ECU ENGINE START 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 #356

Model	EM	TM	IMMO	ECU P/No.	ROM ID	
					Previous	New
QL 2.4L	ULEV	A/T	Yes (+)	39100 2GHR6	QLDINC4ERC3A QLDINC4ERCAA QLDINC4ERCAB	QLDINC4ERD5A
				39100 2GHS6	QLDINC4ERC3K QLDINC4ERCAK QLDINC4ERCAM	QLDINC4ERD5K
			No (-)	39100 2GHS1	QLDINC4EMC3A QLDINC4EMCAA QLDINC4EMCAB	QLDINC4EMD5A
				39100 2GHT1	QLDINC4EMC3K QLDINC4EMCAK QLDINC4EMCAM	QLDINC4EMD5K

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Model	EM	TM	IMMO	ECU P/No.	ROM ID	
					Previous	New
QL 2.4L	SULEV	A/T	Yes (+)	39100-2GHT6	QLDINS4ERC3A QLDINS4ERCAA QLDINS4ERCAB	QLDINS4ERD5A
				39100-2GHV6	QLDINS4ERC3K QLDINS4ERCAK QLDINS4ERCAM	QLDINS4ERD5K
			No (-)	39100-2GHV1	QLDINS4EMC3A QLDINS4EMCAA QLDINS4EMCAB	QLDINS4EMD5A
				39100-2GHW1	QLDINS4EMC3K QLDINS4EMCAK QLDINS4EMCAM	QLDINS4EMD5K

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.

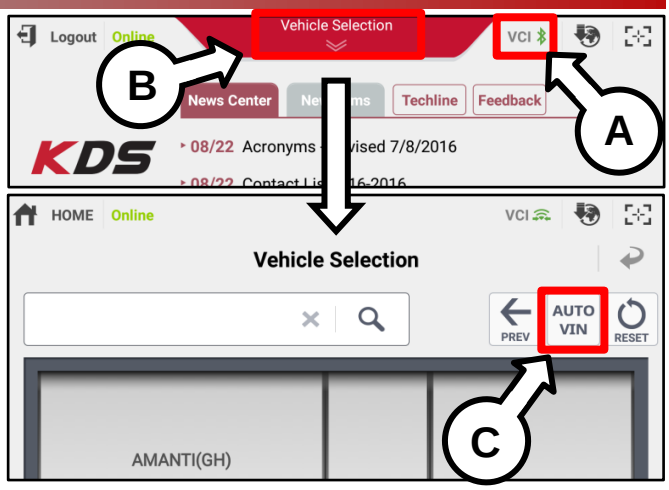
1. Connect the VCI-II to the OBD-II connector, located under the driver's side of the instrument panel.

★ NOTICE

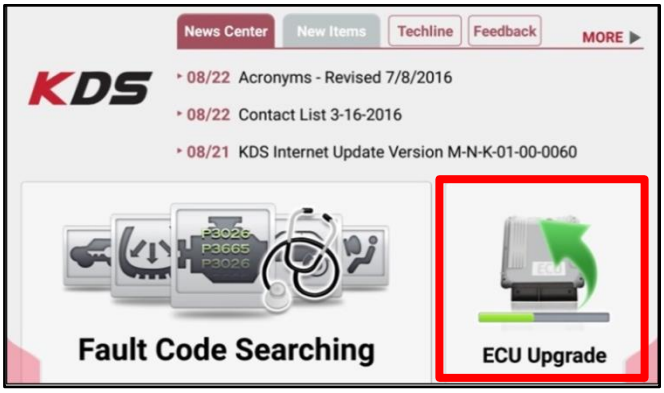
The ECU upgrade function on KDS operates wirelessly. It is not necessary to perform the upgrade via USB cable.

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.



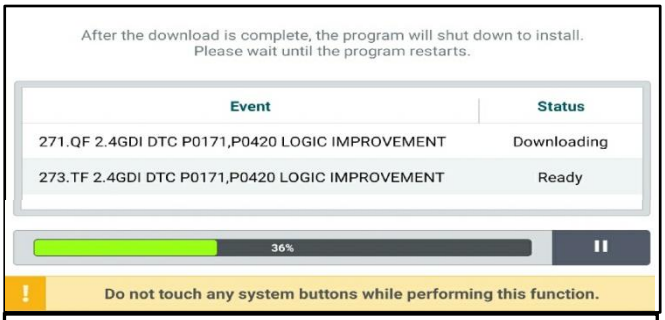
4. Select **ECU Upgrade**.



5. The KDS will check the server for recently uploaded Events and then automatically download **Upgrade Event #356.**

★ NOTICE

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

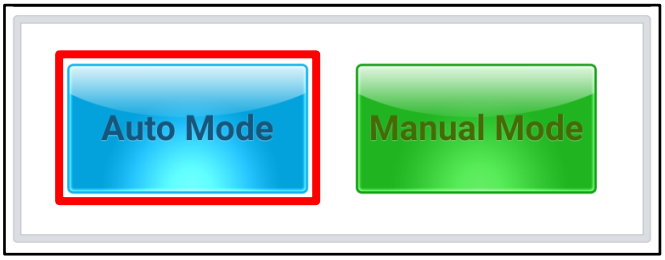


KDS screenshot shown above is for demonstration purposes only. Events shown in screenshot are not applicable to this bulletin.

6. Select **Auto Mode**.

⚠ CAUTION

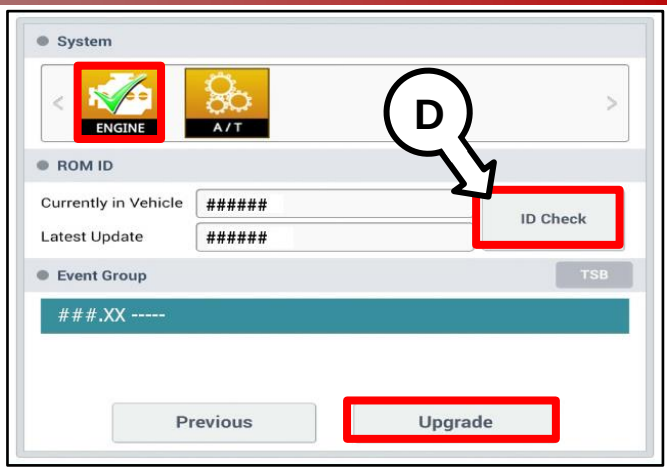
Do NOT attempt to perform a Manual Mode upgrade <u>UNLESS Auto Mode fails</u>. Always follow the instructions given on the KDS in either Auto or Manual mode.



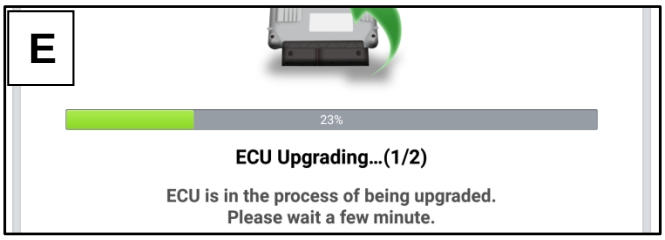
7. Select the **Engine** system under the System selection menu.

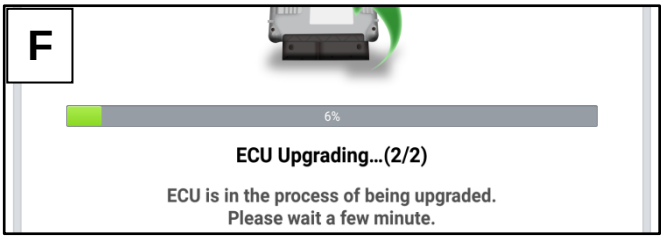
   Touch **ID Check** (D) and confirm that the latest update is available.

   Select **Upgrade Event #356** 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.

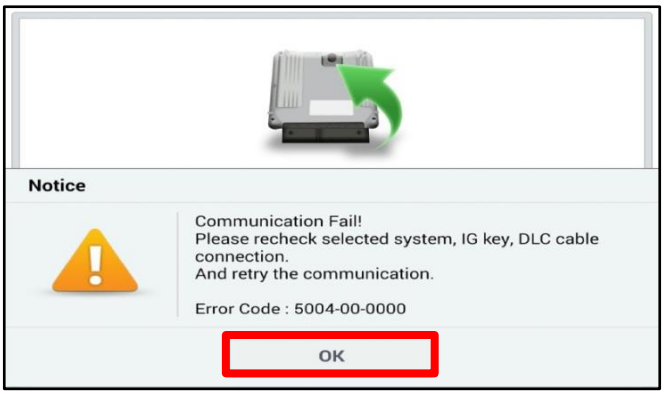




⚠ CAUTION

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

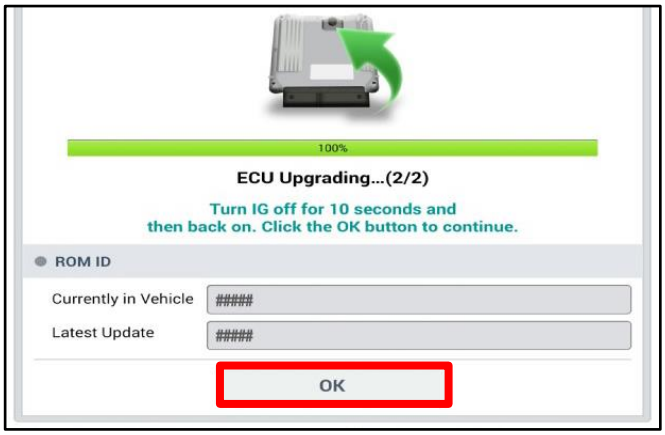
9. If a "Communication Fail" screen appears, verify that the VCI-II and KDS are communicating properly. Touch **OK** and restart the procedure from step 4.



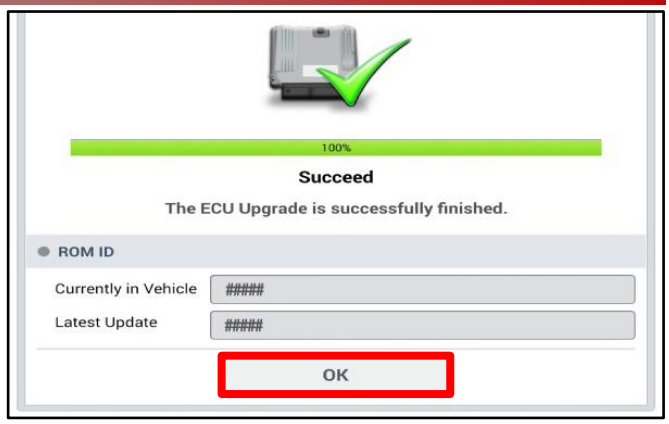
★ NOTICE

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

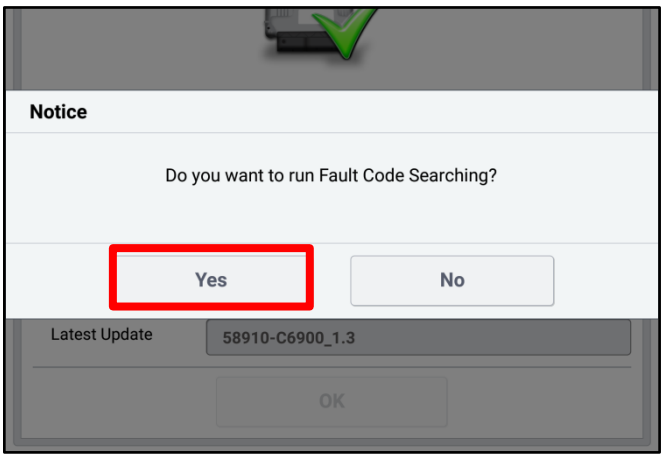
10. When instructed on the KDS, turn the ignition **OFF** for ten (10) seconds then back on. Touch **OK** to continue.



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.

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
QL 2.4GDI ULEV -IMMO : 39100-2GHS1	0021
QL 2.4GDI ULEV -IMMO : 39100-2GHT1	0022
QL 2.4GDI ULEV +IMMO/SMK : 39100-2GHR6	0026
QL 2.4GDI ULEV +IMMO/SMK : 39100-2GHS6	0027
QL 2.4GDI SULEV -IMMO : 39100-2GHV1	0023
QL 2.4GDI SULEV -IMMO : 39100-2GHW1	0024
QL 2.4GDI SULEV +IMMO/SMK : 39100-2GHT6	0028
QL 2.4GDI SULEV +IMMO/SMK : 39100-2GHV6	0029

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

2. Select the **Engine** system under the System selection menu. Select **Upgrade Event #356** and select **Upgrade** to continue.

3. Select the appropriate control unit part number with reference to the ROM ID Information Table on pages 2-3, 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: 2.4L ENGINE START LOGIC IMPROVEMENT (SA320)

AFFECTED VEHICLE RANGE:

Model	Production Date Range
Sportage (QL)	April 3, 2017 to August 9, 2017

WARRANTY INFORMATION:

N Code: N99 C Code: C99

Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
V	39100 2GHR6	0	(SA320) 2.4L Engine Start Logic Improvement	170110R0	0.3 M/H	N/A	0

★ NOTICE

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference SA320 when accessing the WebDCS system.