	GROUP FUE	MODEL 2014-2017MY Rio (UB)
	NUMBER 043	DATE December 2019
TECHNICAL SERVICE BULLETIN		
SUBJECT: FUEL SMELL ECU LOGIC IMPROVEMENT AND CHARCOAL CANISTER REPLACEMENT		

This bulletin provides the procedure to improve the logic of the Engine Control Unit (ECU) and replace the evaporative system charcoal canister on some 2014-2017MY Rio (UB) vehicles with Gamma 1.6 GDI engines, produced from September 17, 2013 through March 31, 2017, which may exhibit fuel smell due to insufficient fuel purge under certain driving conditions. To correct this concern, apply the improved logic to the ECU using the KDS ECU Upgrade function and replace the charcoal canister 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 3 and 4 of this bulletin.



Kia Diagnostic System (KDS)

File Under: <Fuel>

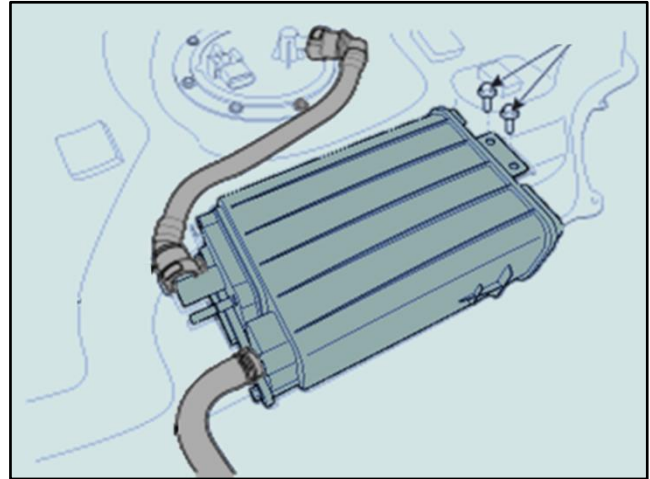
-
- Circulate To:** **General Manager** **Service Manager** **Parts Manager**
 Service Advisors **Technicians** **Body Shop Manager** **Fleet Repair**

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Evaporative System Canister Replacement Procedure:

1. Remove the charcoal canister by referring to the “Emission Control System → Evaporative Emission Control System → Canister → Repair procedures” chapter in the applicable Shop manual on KGIS.



ECU Upgrade Procedure:

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

Upgrade Event Name
440. UB Gamma 1.6 GDI Fuel Canister Operation Logic Improvement


★ NOTICE

- A fully charged battery is necessary before ECU upgrade can take place. It is recommended that the Midtronics GR8-1299 be used in ECU mode during reflashing or the use of a fully charged jump starter box.
- 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.

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* 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 #440

Model	TM	IMMO	ISG	ECU P/No.	ROM ID	
					Previous	New
Rio (UB) 14MY	MT	No	No	39110-2BDL0 39110-2BDN0 39110-2BDR0	GGUB-ENU6ES00600 GGUB-ENU6ES01600 GGUB-ENU6EF01600 GGUB-ENU6EF02600 GGUB-ENU6EF03600 GGUB-ENU6EF04600 GGUB-ENU6EF05600	GGUB-ENU6EF06600
		Yes		39110-2BDP0	GGUB-ENU6FS00600 GGUB-ENU6FS01600 GGUB-ENU6FF01600 GGUB-ENU6FF02600 GGUB-ENU6FF03600 GGUB-ENU6FF04600 GGUB-ENU6FF05600	GGUB-ENU6FF06600
Rio (UB) 14MY	AT	No	No	39110-2BDL5 39110-2BDA7 39110-2BDR5	GGUB-ENU6PS00C00 GGUB-ENU6PS01C00 GGUB-ENU6PF01C00 GGUB-ENU6PF02C00 GGUB-ENU6PF03C00 GGUB-ENU6PF04C00 GGUB-ENU6PF05C00	GGUB-ENU6PF06C00
		Yes		39110-2BDM5 39110-2BDB7 39110-2BDS5	GGUB-ENU6QS00C00 GGUB-ENU6QS01C00 GGUB-ENU6QF01C00 GGUB-ENU6QF02C00 GGUB-ENU6QF03C00 GGUB-ENU6QF04C00 GGUB-ENU6QF05C00	GGUB-ENU6QF06C00
		No	Yes	39110-2BDL8 39110-2BDC7 39110-2BDR6	GIUB-ENU6PS00C00 GIUB-ENU6PS01C00 GIUB-ENU6PF01C00 GIUB-ENU6PF02C00 GIUB-ENU6PF03C00 GIUB-ENU6PF04C00 GIUB-ENU6PF05C00	GIUB-ENU6PF06C00
		Yes		39110-2BDM8	GIUB-ENU6QS00C00 GIUB-ENU6QS01C00 GIUB-ENU6QF01C00 GIUB-ENU6QF02C00 GIUB-ENU6QF03C00 GIUB-ENU6QF04C00 GIUB-ENU6QF05C00	GIUB-ENU6QF06C00

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Model	TM	IMMO	ISG	ECU P/No.	ROM ID	
					Previous	New
Rio (UB) 15MY	MT	No	No	39110-2BDT0	GGUB-FNU6ES00600 GGUB-FNU6ES01600 GGUB-FNU6ES02600 GGUB-FNU6EF02600 GGUB-FNU6EF03600 GGUB-FNU6EF04600 GGUB-FNU6EF05600 GGUB-FNU6EF06600	GGUB-FNU6EF07600
Rio (UB) 15MY	AT	No	No	39110-2BDT6 39110-2BDT2	GGUB-FNU6PS00C00 GGUB-FNU6PS01C00 GGUB-FNU6PF01C00 GGUB-FNU6PF02C00 GGUB-FNU6PF03C00 GGUB-FNU6PF04C00 GGUB-FNU6PF05C00	GGUB-FNU6PF06C00
		Yes		39110-2BDT7 39110-2BDT3	GGUB-FNU6QS00C00 GGUB-FNU6QS01C00 GGUB-FNU6QF01C00 GGUB-FNU6QF02C00 GGUB-FNU6QF03C00 GGUB-FNU6QF04C00 GGUB-FNU6QF05C00	GGUB-FNU6QF06C00
	No	Yes	39110-2BDT8 39110-2BDT4	GIUB-FNU6PS00C00 GIUB-FNU6PS01C00 GIUB-FNU6PF01C00 GIUB-FNU6PF02C00 GIUB-FNU6PF03C00 GIUB-FNU6PF04C00 GIUB-FNU6PF05C00	GIUB-FNU6PF06C00	
Rio (UB) 16-17MY	MT	No	No	39114-2BVD0	GGUB-GNU6ES00600 GGUB-GNU6ES01600 GGUB-GNU6EF01600 GGUB-GNU6ES03600	GGUB-GNU6EF03600
	AT	No		39110-2BVF0	GGUB-GNU6PS00C00 GGUB-GNU6PS01C00 GGUB-GNU6PF01C00 GGUB-GNU6PS03C00	GGUB-GNU6PF03C00
		No	Yes	39110-2BVE0	GGUB-GNU6QS00C00 GGUB-GNU6QS01C00 GGUB-GNU6QF01C00 GGUB-GNU6QS03C00	GGUB-GNU6QF03C00
		Yes	No	39110-2BVH0	GIUB-GNU6PS00C00 GIUB-GNU6PS01C00 GIUB-GNU6PF01C00 GIUB-GNU6PS03C00	GIUB-GNU6PF03C00

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.

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* 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

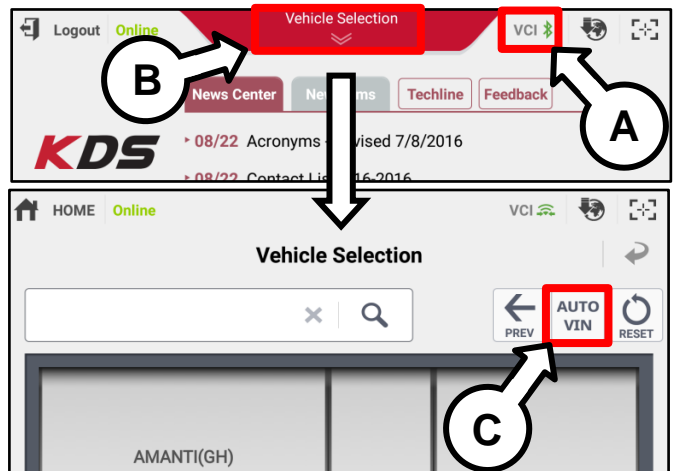
The ECU upgrade function on KDS operates wirelessly. It is not necessary to perform the upgrade via USB cable.



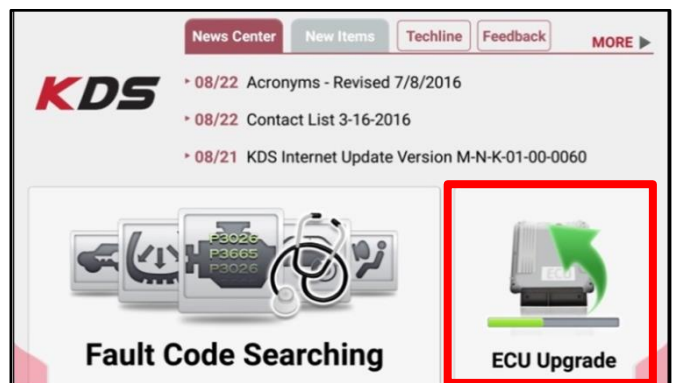
2. With the ignition ON, turn ON the KDS tablet. Select **KDS** from the home screen.



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



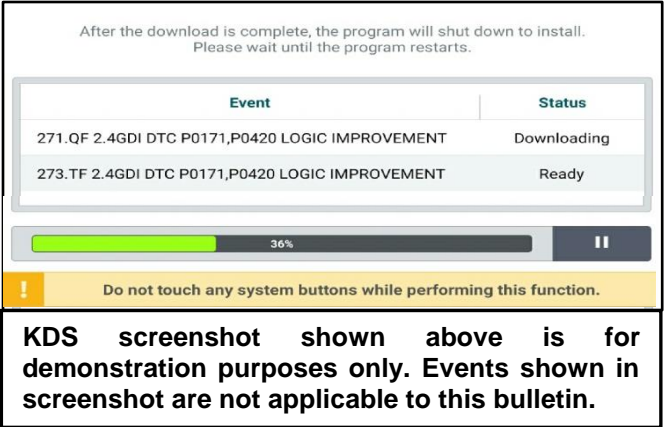
4. Select **ECU Upgrade**.



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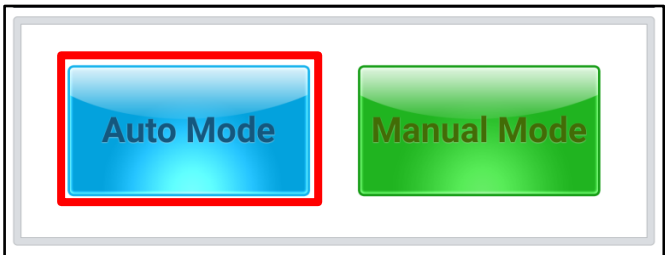
- The KDS will check the server for recently uploaded Events and then automatically download **Upgrade Event #440**.

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



- Select **Auto Mode**.

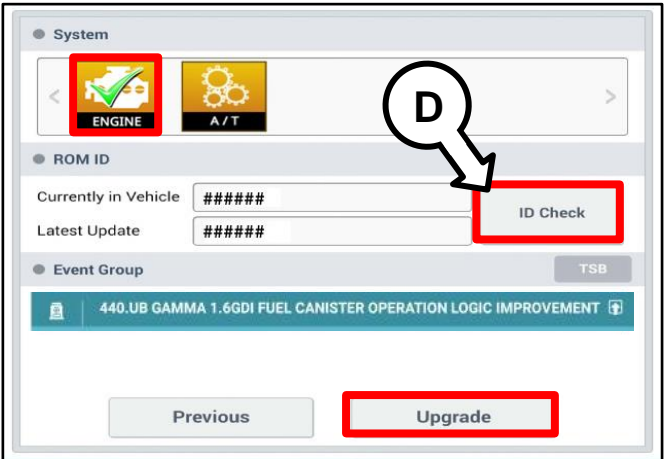
CAUTION
 Do NOT attempt to perform a Manual Mode upgrade **UNLESS Auto Mode fails**. Always follow the instructions given on the KDS in either Auto or Manual mode.



- Select the **ENGINE** system under the System selection menu.

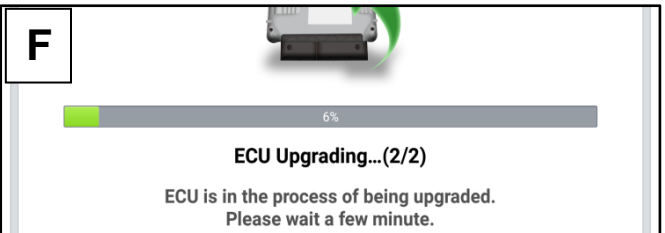
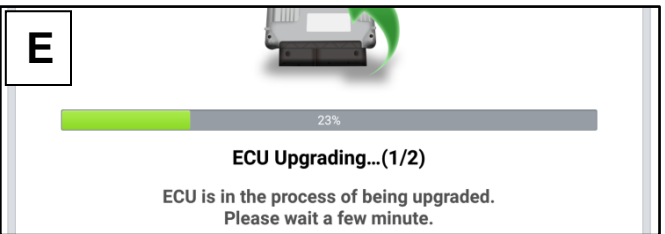
Touch **ID Check** (D) and confirm that the latest update is available.

Select **Upgrade Event #440** and select **Upgrade** to continue.



- 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.



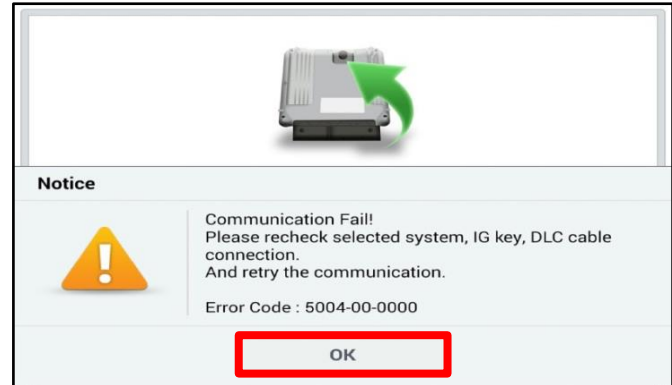
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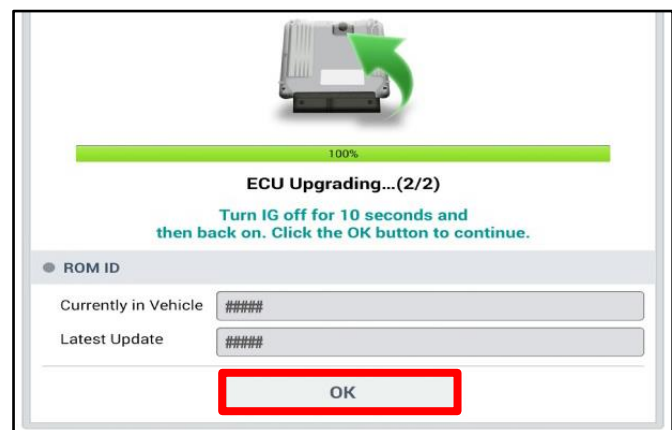
9. If a “Communication Fail” screen appears, verify that the VCI-II and KDS are communicating properly. Touch **OK** and restart the procedure from step 4.

* NOTICE

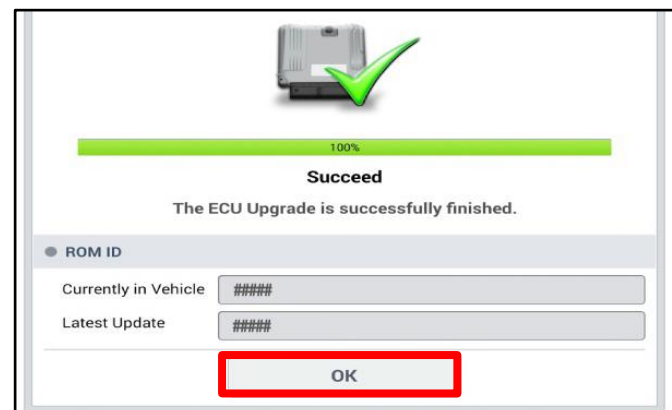
If an error notice continues to appear or if the upgrade cannot be performed, DO NOT disconnect the KDS/VCI-II. Contact GIT America Help Desk at (888) 542-4371 or Techline.



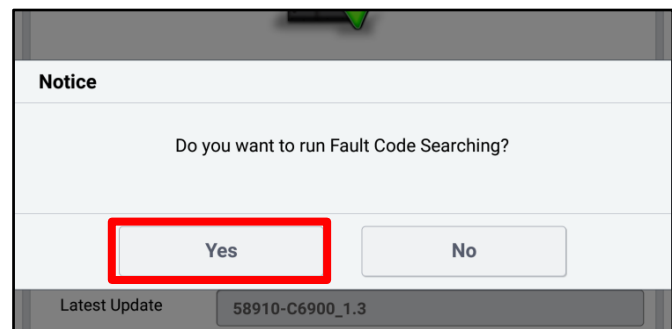
10. When instructed on the KDS, turn the ignition **OFF** for ten (10) seconds then back on. Touch **OK** to continue.



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
UB 1.6GDI MT -ISG -IMMO : 39110-2BDL0/N0/R0	2000
UB 1.6GDI MT -ISG +IMMO/SMK : 39110-2BDP0	2001
UB 1.6GDI AT -ISG -IMMO : 39110-2BDL5/A7/R5	2575
UB 1.6GDI AT -ISG +IMMO/SMK : 39110-2BDM5/B7/S5	2576
UB 1.6GDI AT +ISG -IMMO : 39110-2BDL8/C7/R6	2876
UB 1.6GDI AT +ISG +IMMO/SMK : 39110-2BDM8/D7/S6	2877
UB 1.6GDI MT -ISG -IMMO : 39110-2BDT0	1020
UB 1.6GDI AT -ISG -IMMO : 39110-2BDT6/T2	0262
UB 1.6GDI AT -ISG +IMMO/SMK : 39110-2BDT7/T3	0273
UB 1.6GDI AT +ISG -IMMO : 39110-2BDT8/T4	0284
UB 1.6GDI MT -ISG -IMMO : 39114-2BVD0	1420
UB 1.6GDI AT -ISG -IMMO : 39110-2BVF0	1020
UB 1.6GDI AT -ISG +IMMO/SMK : 39110-2BVE0	1021
UB 1.6GDI AT +ISG -IMMO : 39110-2BVH0	1022

1. Within the ECU Upgrade screen displayed, select **Manual Mode**.
2. Select the **ENGINE** system under the System selection menu. Select **Upgrade Event #440** and select **Upgrade** to continue.
3. Select the appropriate control unit part number with reference to the ROM ID Information Table on pages 3 and 4, 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
Rio (UB)	September 17, 2013 through March 31, 2017

REQUIRED PART:

Part Name	Part Number	Figure
Charcoal Canister	31420 1W600FFF	

WARRANTY INFORMATION:

N Code: S21 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	ECU Logic Improvement and Evaporative Canister Replacement	31420F01	1.1 M/H	31420 1W600FFF	1