	GROUP <b>ENG</b>	MODEL <b>2020MY Telluride (ON)</b>
	NUMBER <b>228</b>	DATE <b>January 2021</b>
<b>TECHNICAL SERVICE BULLETIN</b>		
<b>SUBJECT: 3.8L GDI MISFIRE DTC JUDGMENT LOGIC IMPROVEMENT</b>		

This bulletin provides the procedure to improve the logic of the Engine Control Module (ECM) on some 2020MY Telluride (ON) vehicles with 3.8 GDI Atkinson ULEV engines, produced from January 9, 2019 through May 19, 2020, which may exhibit a cold start misfire with MIL ON for the misfire related DTC(s) listed below. To correct this concern, apply the improved logic to the Engine system 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 page 3 of this bulletin.

**DTC Description:**

**P0300 – Random/Multiple Cylinder Misfire Detected**

**P0301, P0302, P0303, P0304, P0305, P0306 – Cylinder (1-6) Misfire Detected**

**\* NOTICE**

**A Vehicle Diagnosis Number (VDN) must be created with DTC(s) P0300-P0306, prior to performing the ECM Logic Improvement. If a VDN is not created, Warranty claim submission issues WILL occur.**



Kia Diagnostic System (KDS)

Printed TSB copy is for reference only; information may be updated at any time.  
Always refer to KGIS for the latest information.

- 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

518. ON 3.8GDI ATKINSON ULEV AT MISFIRE DTC JUDGMENT LOGIC IMPROVEMENT

**\* NOTICE**

- **Confirm a fully charged battery with 12.3 volts or higher is necessary or the use of a fully charged jump starter box connected to the battery.**
- **Ensure the KDS GDS is sufficiently charged at 60% or higher prior to reflash.**
- All ECU upgrades must be done with the ignition key in the 'ON' position unless otherwise stated.
- 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 application.**

**ⓘ IMPORTANT**

It is recommended to ALWAYS check the Electronic Parts Catalog (EPC) to locate the ECU Part Number respective to Auto/Manual Mode ROM IDs. DO NOT reference the parts label affixed to the ECU.

**\* NOTICE**


Before attempting an ECU upgrade on any Kia model, make sure to first determine whether the applicable 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.

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## ROM ID INFORMATION TABLE:

## Upgrade Event #518

Model	EM	TM	IMMO 	ECU P/No.	ROM ID	
					Previous	New
ON (3.8GDI Atkinson)	ULEV	AT	Yes	39122 3LNN0	ONLN8GMS_J0B ONLN8GMS_J0C ONLN8GMS_K0A	ONLN8GMS_K0B
			No	39132 3LNN0	ONLN8GSS_J0B ONLN8GSS_J0C ONLN8GSS_K0A	ONLN8GSS_K0B

*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.

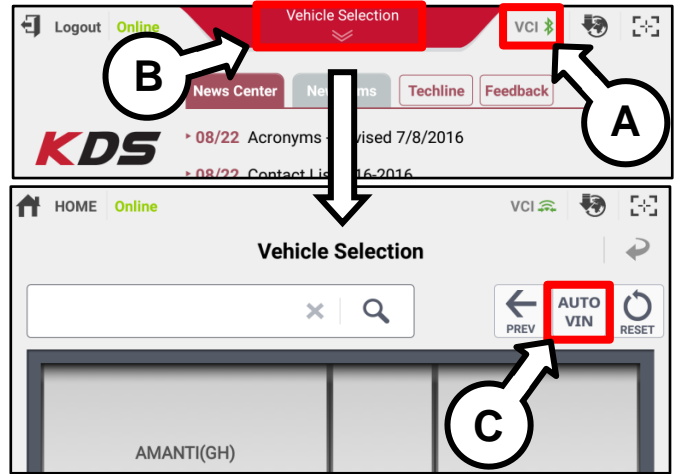


2. With the ignition ON, turn ON the KDS tablet. Select **KDS** from the home screen.

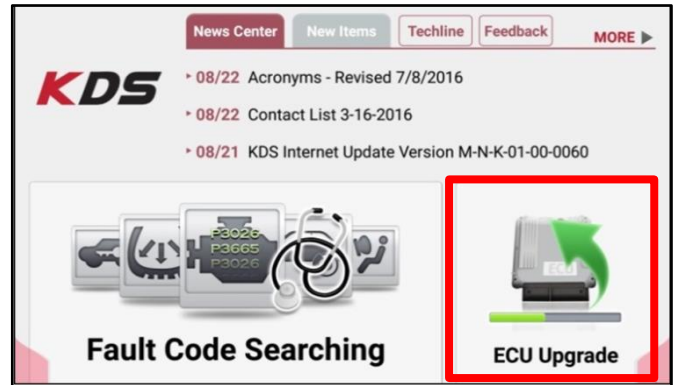


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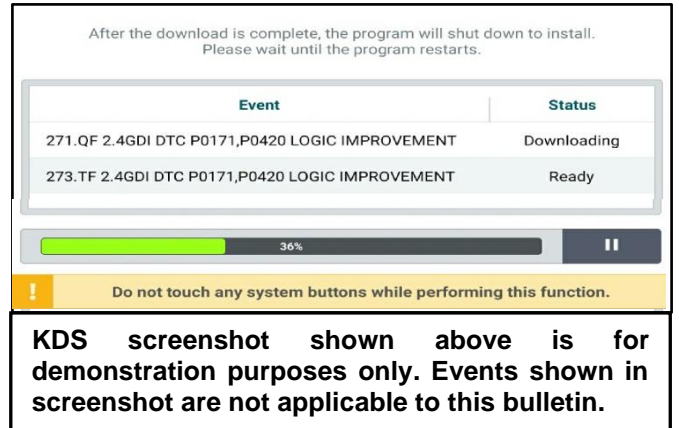
3. Confirm communication with VCI (A) and then configure the vehicle (B) using the **AUTO VIN (C)** feature.



4. Select **ECU Upgrade**.



5. The KDS will check the server for recently uploaded Events and then automatically download **Upgrade Event #518**.

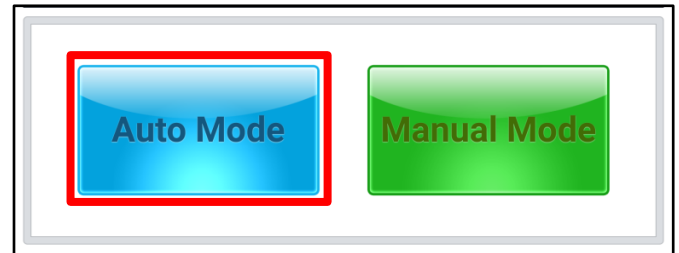


**\* NOTICE**  
 The vehicle must be identified in Vehicle Selection to download an Event for that vehicle.

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 UNLESS Auto Mode fails. Always follow the instructions given on the KDS in either Auto or Manual mode.



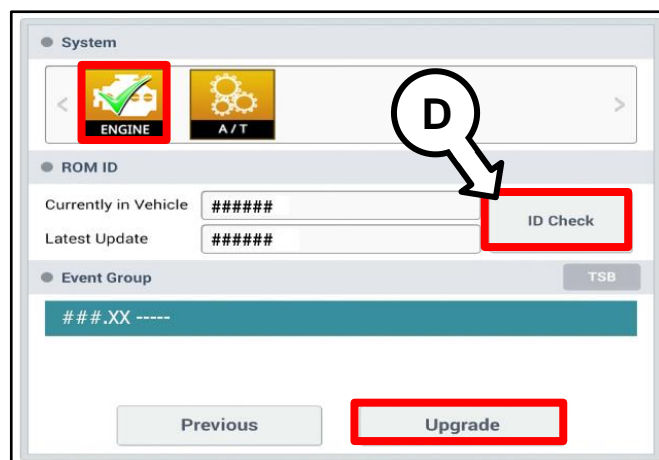
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7. Select the **Engine** system under the System selection menu.

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

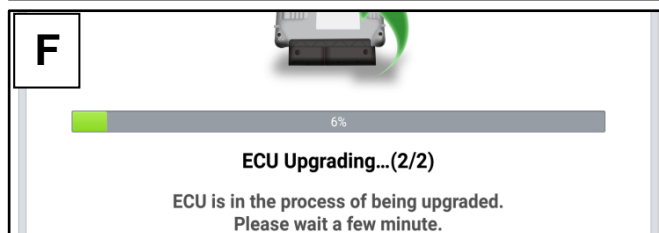
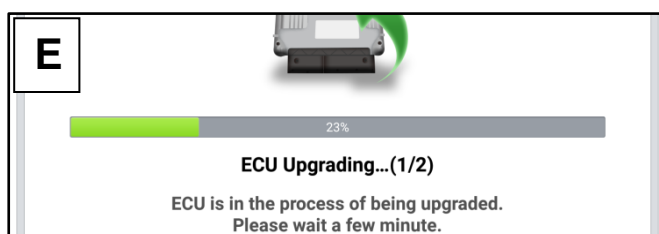
Select **Upgrade Event #518** and select **Upgrade** to continue.



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**

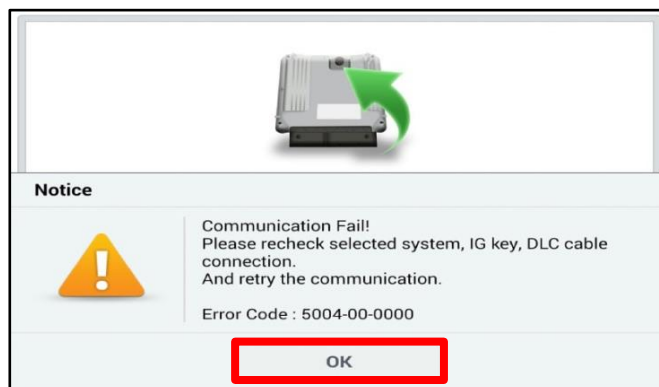
Do not touch the system buttons (like 'Back', 'Home', 'etc.')

 while performing ECU Upgrade.


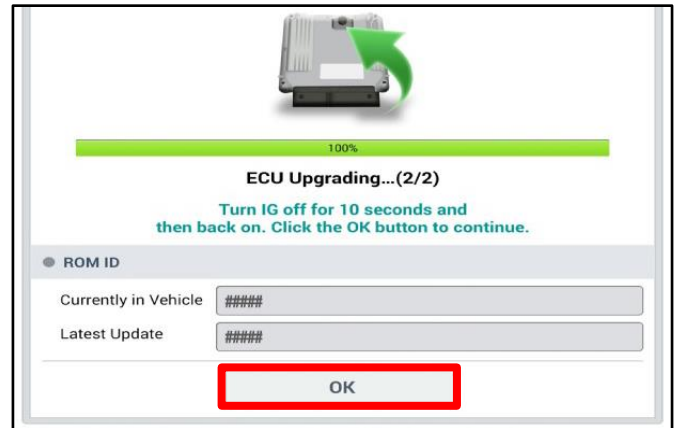
9. If a "Communication Fail" screen appears, verify that the VCI-II and KDS are communicating properly. Touch **OK** and restart the procedure from step 4.

**\* NOTICE**

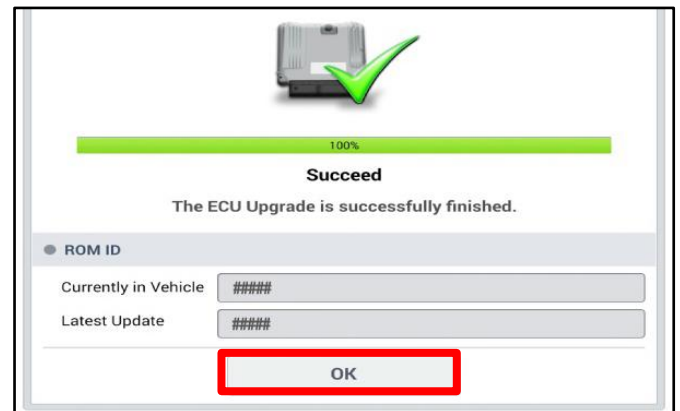
If an error notice continues to appear or if the upgrade cannot be performed, DO NOT disconnect the KDS/VCI-II. Contact GIT America Help Desk at (888) 542-4371 or Techline.



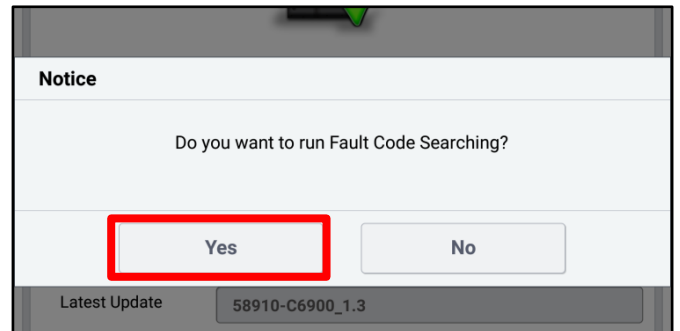
10. When instructed on the KDS, turn the ignition **OFF** for ten (10) seconds then back on. Touch **OK** to continue.



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.

**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
ON 3.8GDI ATKINSON ULEV AT -IMMO: 39132-3LNN0	2230
ON 3.8GDI ATKINSON ULEV AT +IMMO/SMK: 39122-3LNN0	3230

1. Within the ECU Upgrade screen displayed, select **Manual Mode**.
2. Select the **Engine** system under the System selection menu. Select **Upgrade Event #518** 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.

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## AFFECTED VEHICLE RANGE:

Model	Production Date Range
Telluride (ON)	January 9, 2019 through May 19, 2020

## WARRANTY INFORMATION:

**N Code: I3A C Code: ZZ3**

Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
W	39122 3LNN0	0	ECM Logic Improvement	39102F01	0.3 M/H	N/A	0

