	GROUP ENG	MODEL 2019MY Niro (DE P/HEV) Optima (Plug-in) Hybrid (JF P/HEV)
	NUMBER 195	DATE October 2018
TECHNICAL SERVICE BULLETIN		
SUBJECT: SERVICE ACTION: ECU FREEZE FRAME DATA LOGIC IMPROVEMENT (SA360)		

This bulletin provides the procedure to improve the logic of the Engine Control Unit (ECU) on some 2019MY Niro (DE P/HEV), produced from July 19, 2018 through September 17, 2018, and some 2019MY Optima (Plug-in) Hybrid (JF P/HEV) vehicles, produced from July 6, 2018 through September 12, 2018, to enhance the ECU's Freeze Frame Data logic. Follow the procedure outlined in this bulletin to apply the improved logic to the Engine system using the KDS ECU Upgrade function. 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 2 of this bulletin.

Kia is requesting the completion of this Service Action on all affected vehicles in dealer stock only, prior to delivery. 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 SA360.

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
389. DE HEV/PHEV KAPPA 1.6GDI ECU FREEZE FRAME DATA LOGIC IMPROVEMENT
390. JF HEV/PHEV NU 2.0GDI ECU FREEZE FRAME DATA 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 #389

Model	System	IMMO	ECU P/No.	ROM ID	
				Previous	New
DE HEV	ECU	Yes 	391A5-03DM0	DED9S6HE0SF1	DED9S6HE0SF2
DE PHEV			391A5-03DM5	DED9S6PE0SF1	DED9S6PE0SF2

Upgrade Event #390

Model	System	IMMO	ECU P/No.	ROM ID	
				Previous	New
JF HEV	ECU	Yes 	39161-2EJB2	JF9UPHMS6F0A JF9UPHMS6F2A JF9UPHMS6F2B	JF9UPHMS6F4A
JF PHEV			39161-2EJH2	JF9SPPMS6F0A JF9SPPMS6F2A	JF9SPPMS6F4A

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

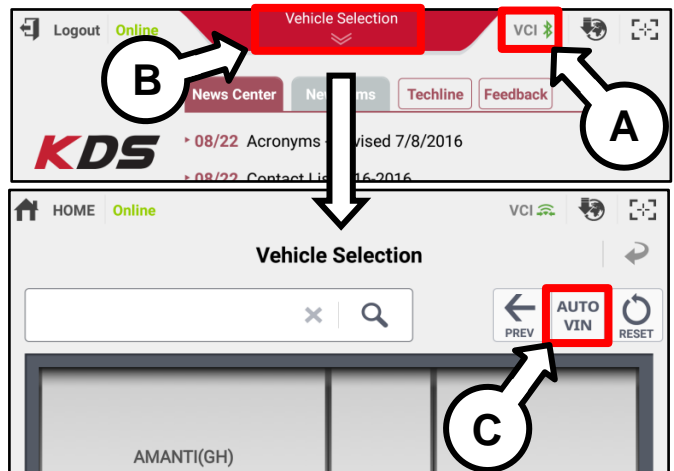
The ECU upgrade function on KDS operates wirelessly. It is not necessary to perform the upgrade via USB cable.



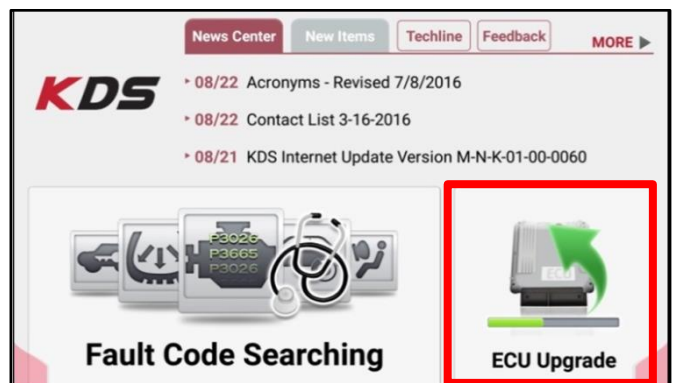
2. With the ignition ON, turn ON the KDS tablet. Select **KDS** from the home screen.



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



4. Select **ECU Upgrade**.



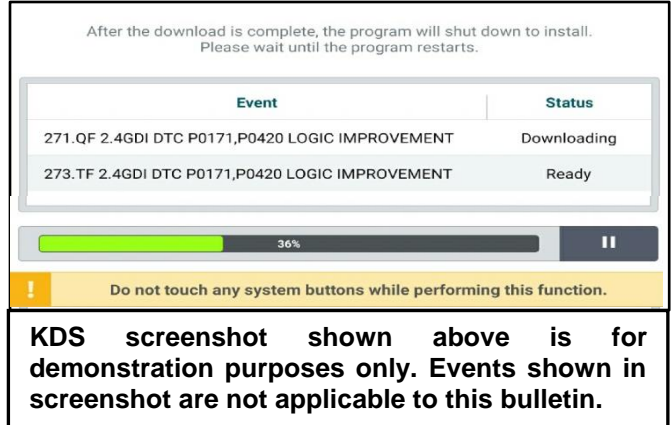
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- The KDS will check the server for recently uploaded Events and then automatically download **Upgrade Event #389 (Niro) or #390 (Optima)**.

* NOTICE

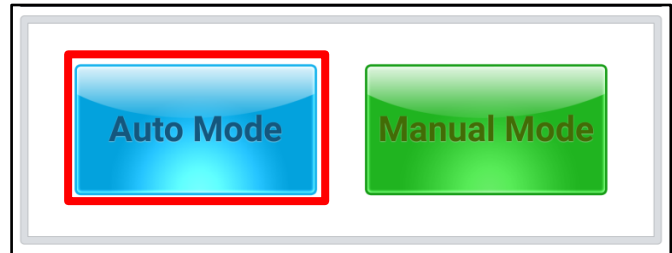
The vehicle must be identified in Vehicle Selection to download an Event for that vehicle.



- Select **Auto Mode**.

! CAUTION

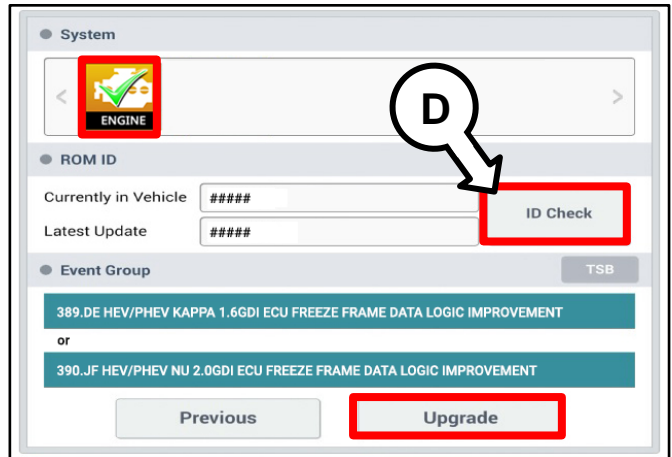
Do NOT attempt to perform a Manual Mode upgrade UNLESS Auto Mode fails. Always follow the instructions given on the KDS in either Auto or Manual mode.



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

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

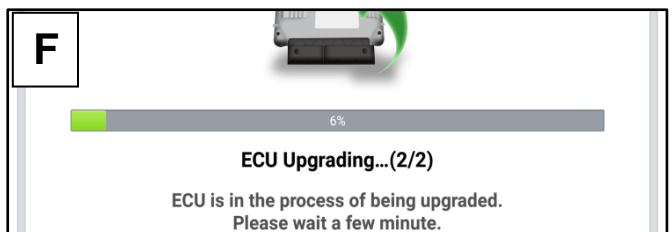
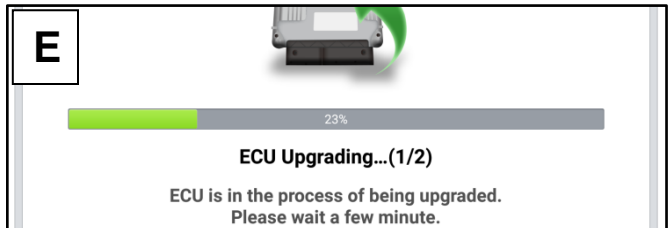
Select **Upgrade Event #389 (Niro) or #390 (Optima)** and select **Upgrade** to continue.



- 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.


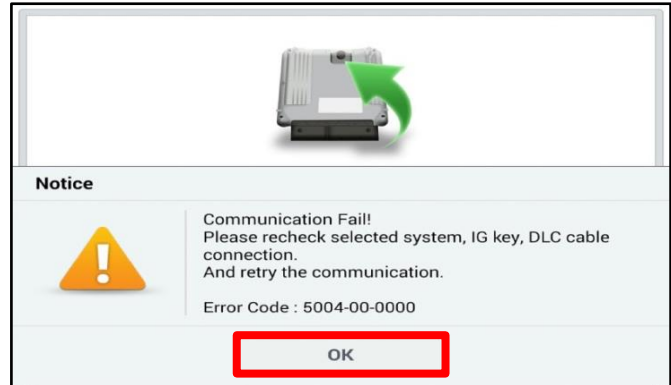
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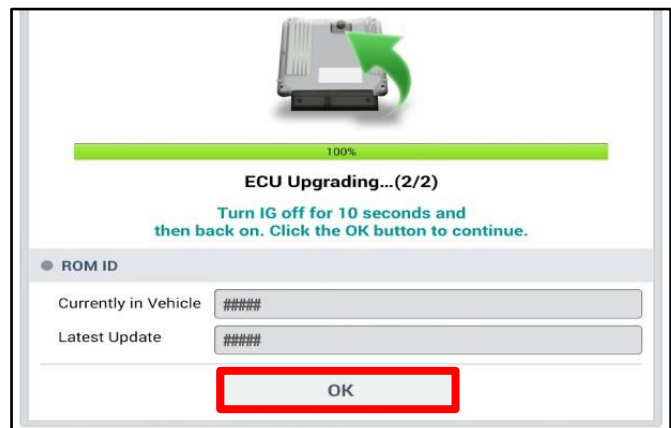
9. If a “Communication Fail” screen appears, verify that the VCI-II and KDS are communicating properly. Touch **OK** and restart the procedure from step 4.

* NOTICE

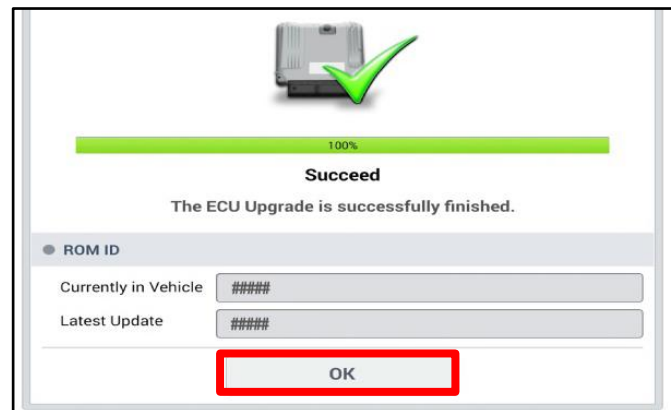
If an error notice continues to appear or if the upgrade cannot be performed, DO NOT disconnect the KDS/VCI-II. Contact GIT America Help Desk at (888) 542-4371 or Techline.



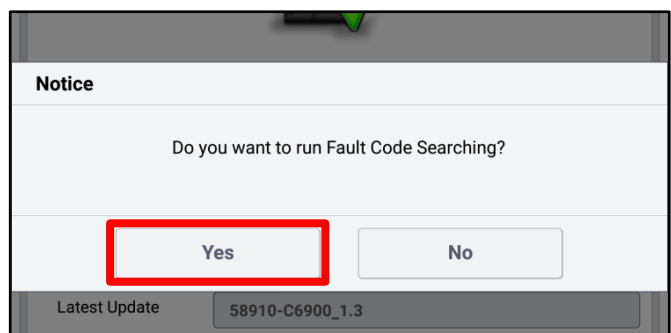
10. When instructed on the KDS, turn the ignition **OFF** for ten (10) seconds then back on. Touch **OK** to continue.



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.

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
DE HEV	DE HEV KAPPA 1.6GDI +IMMO/SMK : 391A5-03DM0	0530
DE PHEV	DE PHEV KAPPA 1.6GDI +IMMO/SMK : 391A5-03DM5	0535
JF HEV	JF HEV NU 2.0GDI +IMMO/SMK : 39161-2EJB2	6022
JF PHEV	JF PHEV NU 2.0GDI +IMMO/SMK : 39161-2EJH2	6023

1. Within the ECU Upgrade screen displayed, select **Manual Mode**.
2. Select the **Engine** system under the System selection menu. Select **Upgrade Event #389 (Niro) or #390 (Optima)** and select **Upgrade** to continue.
3. Select the appropriate control unit part number with reference to the ROM ID Information Table on page 2, 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
Niro (DE P/HEV)	July 19, 2018 through September 17, 2018
Optima (Plug-in) Hybrid (JF P/HEV)	July 6, 2018 through September 12, 2018

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.
DE P/HEV, JF P/HEV	V	39161 2EJB2	0	(SA360) ECU Freeze Frame Data Logic Improvement	180131R0	0.3 M/H	N/A	0

*** NOTICE**

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference SA360 when accessing the WebDCS system.