



GROUP	MODEL
Service Campaign	2022-2023MY EV6 (CV) All except GT model <u>and</u> 2023-2024MY Niro EV (SG2 EV)
NUMBER	DATE
SC273 (Rev 1, 08/17/2023)	July 2023

VOLUNTARY SERVICE CAMPAIGN

SUBJECT:

VCU SOFTWARE LOGIC UPGRADE (SC273)

NOTICE

This bulletin has been revised to include additional information. New/revised sections of this bulletin are indicated by a black bar in the margin area.

This bulletin provides information to upgrade the software logic of the Vehicle Control Unit (VCU) on certain 2022-2023MY EV6 (CV) vehicles produced from November 17, 2021 through May 30, 2023, and 2023-2024MY Niro EV (SG2 EV) vehicles produced from July 11, 2022 through June 30, 2023, in order to enhance the following two (2) functions:

1. Illumination of Brake lamp without depressing the brake pedal when the vehicle is quickly decelerating by way of regenerative braking in 'i-Pedal' mode.
2. Shift operation gear selection into Park (P) automatically when the auxiliary battery's (12V) voltage is critically low and the vehicle is stopped.

Follow the procedure outlined in this publication to upgrade the software logic of the VCU system using the KDS ECU Upgrade function as described in this bulletin on the applicable vehicle. 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. Before conducting the procedure, verify that the vehicle is included in the list of affected VINs.

NOTICE

To assure complete customer satisfaction, always remember to refer to KDealer+ Warranty Coverage (validation) Inquiry Screen (Service → Warranty Coverage → Warranty Coverage Inquiry) for a list of any additional campaigns that may need to be performed on the vehicle before returning it to the customer.

ECU Upgrade Procedure:

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

Upgrade Event Name
691.CV VCU S/W UPGRADE
699.SG2 EV VCU S/W UPGRADE

NOTICE

- Confirm a **fully charged battery** (12.3 volts or higher is necessary) is used or utilize 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 performed with the ignition set to the 'ON' position unless otherwise stated.
- **Damaged VCI II units should not be used and promptly replaced.**
- 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


If a 'Communication Fail' error notice appears 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.

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ROM ID INFORMATION TABLE:

Upgrade Event #691 or #699

Model	EM	IMMO 	ECU P/No.	ROM ID	
				Previous	New
EV6 (CV)	VCU	Yes	39751 1XCN1	CV1A-N0-SB0-V400 CV1A-N0-SB1-V400 CV1A-N0-SB2-V400 CV1A-N0-SB3-V400 CV1A-N0-SB4-V400 CV1A-N0-SD2-V400 CV1A-N0-SD3-V400	CV1A-N0-SB5-V400
			39751 1XCN4	CV1A-N0-KB0-V200 CV1A-N0-KB1-V200 CV1A-N0-KB2-V200 CV1A-N0-KB3-V200 CV1A-N0-KB4-V200 CV1A-N0-KD2-V200 CV1A-N0-KD3-V400	CV1A-N0-KB5-V200
Niro EV (SG2 EV)	VCU	Yes	39751 0ESN1	SG2B-N0-K00-V200 SG2B-N0-K01-V200 SG2B-N0-K02-V200 SG2B-N0-K03-V200	SG2B-N0-K04-V200

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.

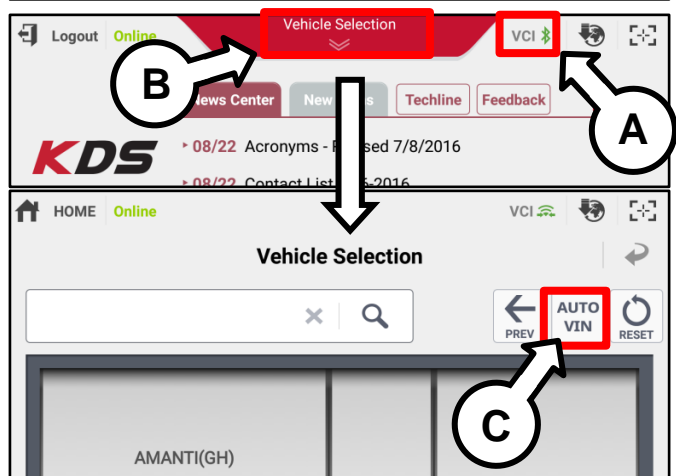


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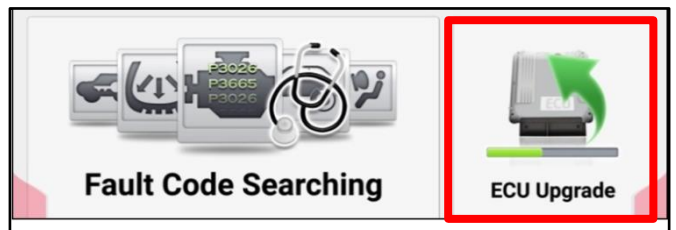
- With the ignition **ON**, turn **ON** the KDS tablet.
Select '**KDS**' from the home screen.



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



- Select '**ECU Upgrade**'.



- The KDS will check the server for recently uploaded Events and then automatically download **Upgrade Event #691 or #699**.

NOTICE

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

After the download is complete, the program will shut down to install. Please wait until the program restarts.

Event	Status
271.QF 2.4GDI DTC P0171,P0420 LOGIC IMPROVEMENT	Downloading
273.TF 2.4GDI DTC P0171,P0420 LOGIC IMPROVEMENT	Ready

36%

Do not touch any system buttons while performing this function.

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



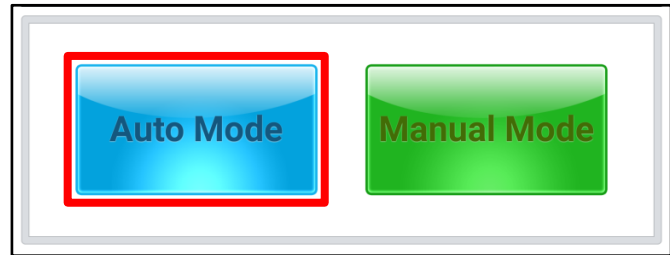
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6. Select Auto Mode.

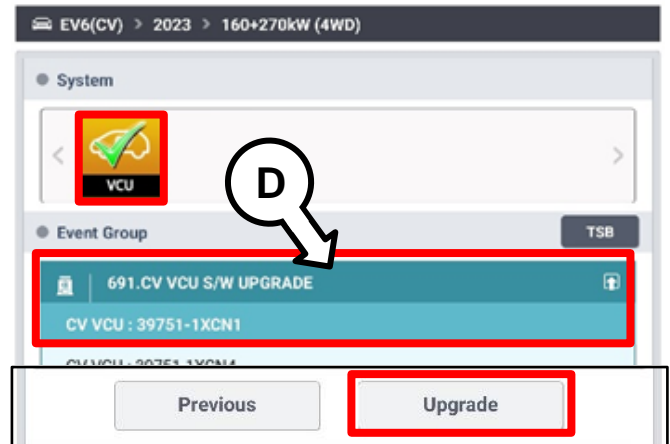
CAUTION

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.



7a. Select the 'VCU' system under the System selection menu.

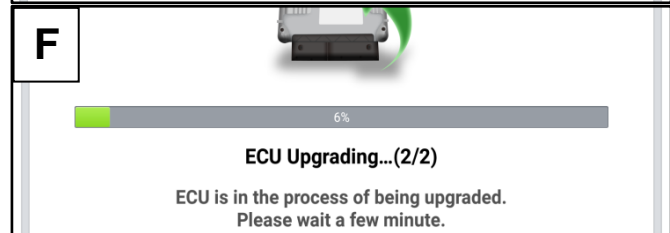
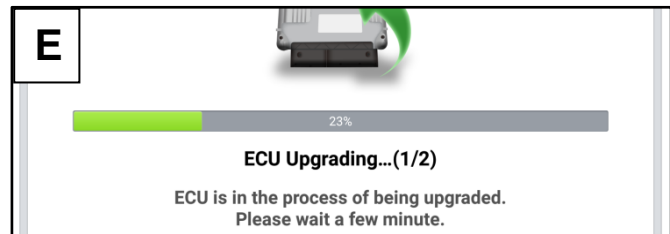
7b. Select the applicable Upgrade Event #691.CV VCU S/W UPGRADE or Event #699.SG2EV VCU S/W UPGRADE and select 'Upgrade' to continue.



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

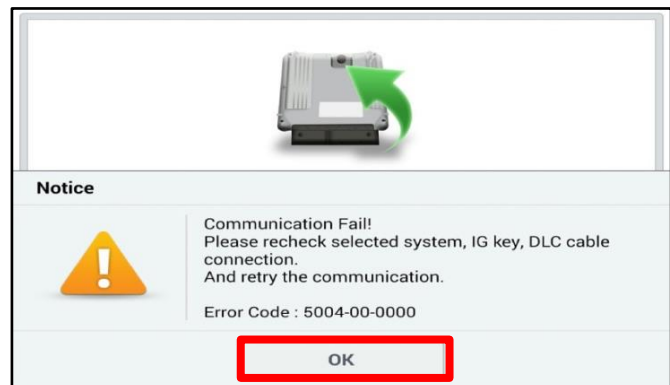
Do not touch the system buttons (like 'Back', 'Home', 'etc.') while performing ECU Upgrade.



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

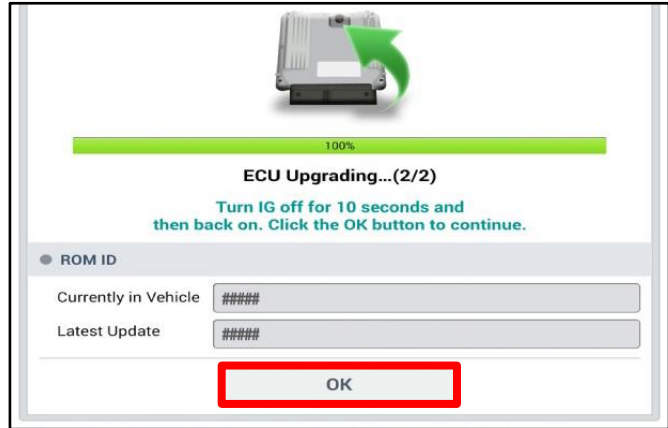
NOTICE

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.

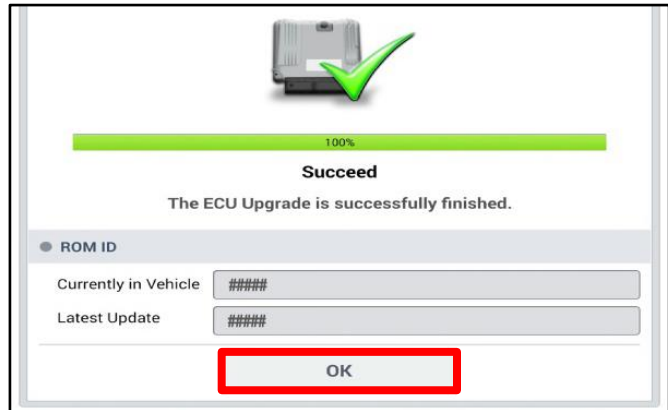


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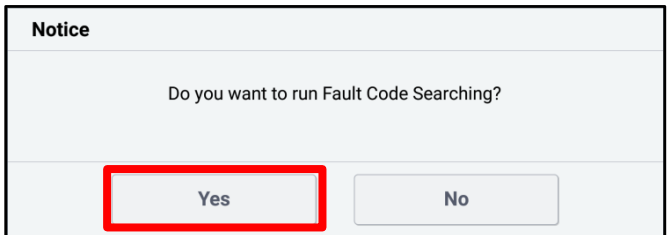
- 10. When instructed on the KDS, turn the ignition **OFF** for ten (10) seconds then back on. Select **'OK'** to continue.



- 11. Once the upgrade is complete, select **'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 normal 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
CV VCU: 39751-1XCN1	5401
CV VCU: 39751-1XCN4	5201
SG2 EV VCU : 39751-OESN1	1015

1. Within the ECU Upgrade screen displayed, select **Manual Mode**.
2. Select the '**VCU**' system under the System selection menu. Select **Upgrade Event #691** or **#699** 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. Select **OK**.
7. Once the upgrade is complete, select **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
EV6 (CV)	November 17, 2021 to May 30, 2023
Niro EV (SG2 EV)	July 11, 2022 to June 30, 2023

REQUIRED TOOL:

Tool Name	Figure	Comments
KDS		Kia Diagnostic System

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.
R	39751 1XCN4	0	(SC273A) VCU S/W Logic Upgrade EV6 (CV)	230063R0	0.7 M/H	N/A	0
	39751 0ESN1		(SC273B) VCU S/W Logic Upgrade Niro EV (SG2 EV)	230068R0	0.6 M/H		

 NOTICE

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference **SC273** when accessing the KDealer+ system.