	GROUP	MODEL
	ELE	2023MY EV6 GT (CV GT)
	NUMBER	DATE
	305	August 2023

TECHNICAL SERVICE BULLETIN

SUBJECT:

VCU SOFTWARE LOGIC UPGRADE (SA541)

This bulletin provides information to upgrade the software logic of the Vehicle Control Unit (VCU) on certain 2023MY EV6 GT (CV GT) vehicles produced from August 25, 2022 through July 20, 2023, to optimize the brake lamp 'ON/OFF' logic to prevent momentary activation and deactivation of the brake lights when regenerative braking is in use while driving over uneven road surfaces (e.g. railroad crossings, raised pavement markers). This condition does not affect brake light activation when the brake pedal is depressed. 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

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 KDelaer+ (Service → Warranty Coverage → Warranty Coverage Inquiry → Campaign Information). Not completed Recall / Service Action reports are available on KDealer+ (Consumer Affairs → Not Completed Recall → Recall VIN → Select Report), which includes a list of affected vehicles.

This issue number is SA541.

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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
693.CV GT VCU S/W UPGRADE

📄 NOTICE

- Confirm a <u>fully charged battery</u> (12.3 volts or higher is necessary) is used <u>or</u> 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 <u>not</u> 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' <u>or</u> 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 #693

Model	EM	IMMO 🚗	ECU P/No.	ROM ID	
				Previous	New
EV6 (CV)	VCU	Yes	CV1A N7 S04 V400	CV1A N7 S00 V400 CV1A N7 S01 V400 CV1A N7 S02 V400 CV1A N7 S03 V400	CV1A N7 S04 V400

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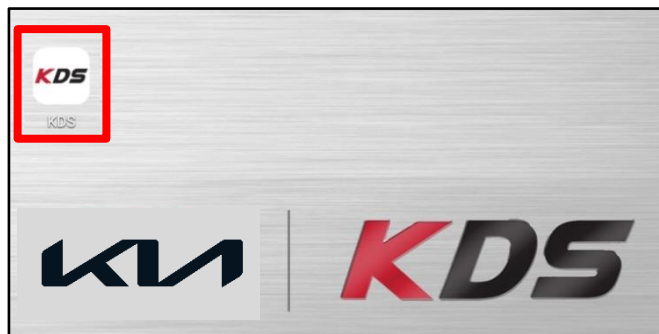
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1. Connect the VCI-II to the OBD-II connector, located under the driver's side of the instrument panel.

   📄 **NOTICE**

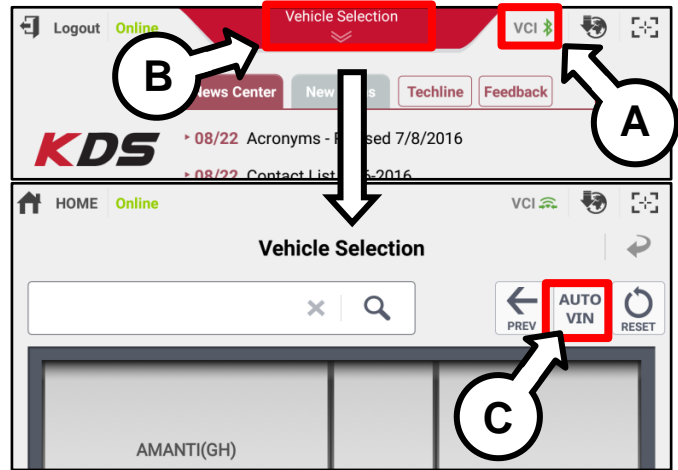   **The ECU upgrade function on KDS operates wirelessly. It is not necessary to perform the upgrade via USB cable.**

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

Printed TSB copy is for reference only; information may be updated at any time. Always refer to KGIS for the latest information.
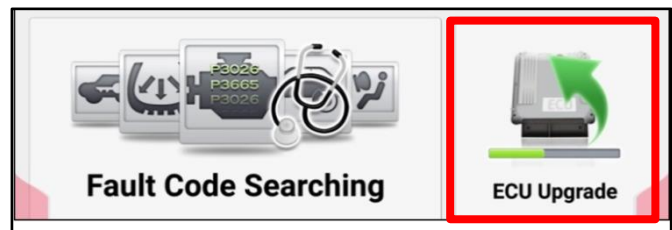
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3. Confirm communication with VCI (A) and then configure the vehicle (B) using the 'AUTO VIN' (C) feature.
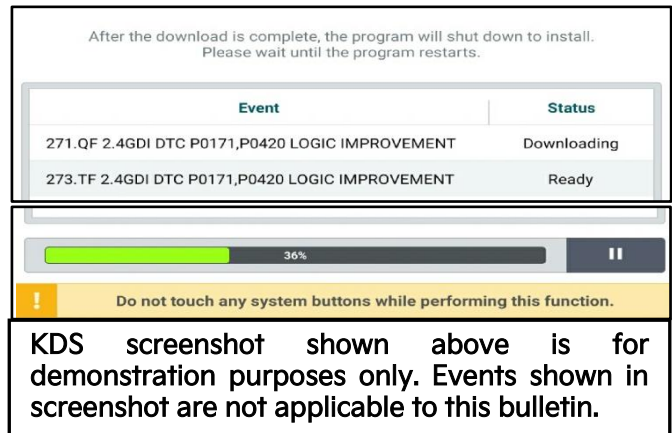
4. Select 'ECU Upgrade'.

5. The KDS will check the server for recently uploaded Events and then automatically download **Upgrade Event #693**.
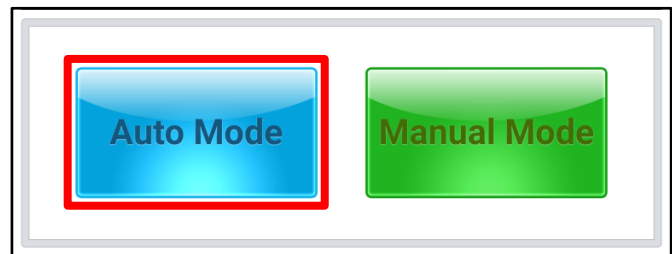
📄 **NOTICE**

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.

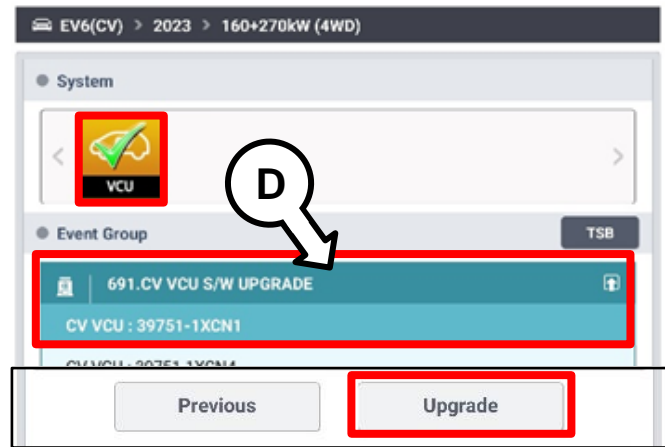6. Select **Auto Mode**.

⚠ **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.

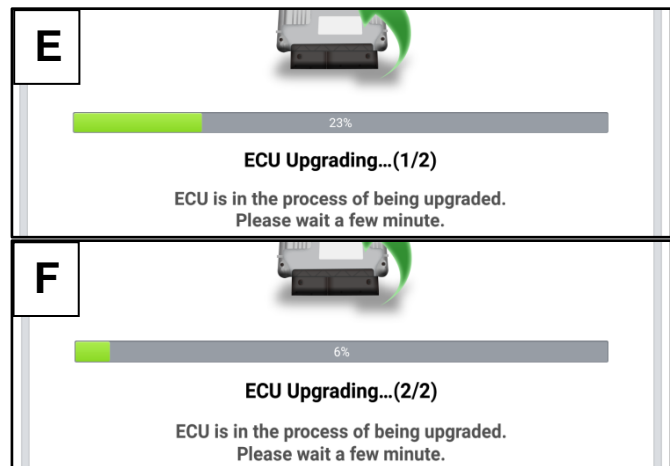**SUBJECT:** **VCU SOFTWARE LOGIC UPGRADE (SA541)**

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

7b. Select the applicable **Upgrade Event #693.CV GT 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.
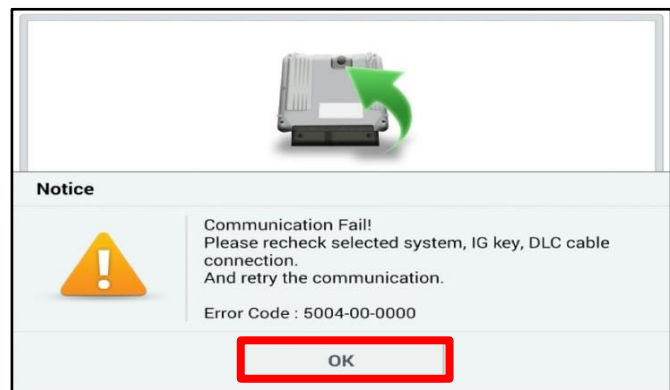
> ⚠ **CAUTION**
>
> **Do not touch the system buttons (like 'Back', 'Home', 'etc.') while performing ECU Upgrade.**

ECU Upgrading...(1/2)
ECU is in the process of being upgraded.
Please wait a few minute.

ECU Upgrading...(2/2)
ECU is in the process of being upgraded.
Please wait a few minute.

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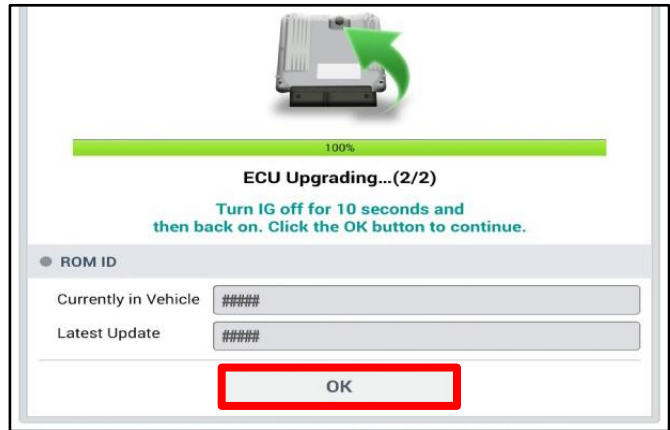
> 📄 **NOTICE**
>
> **If an error notice continues to appear or if the upgrade cannot be performed, DO NOT disconnect the KDS/VCI-II. Contact GIT America Help Desk at (888) 542-4371 or Techline.**

Notice

Communication Fail!
Please recheck selected system, IG key, DLC cable connection.
And retry the communication.

Error Code : 5004-00-0000

OK

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

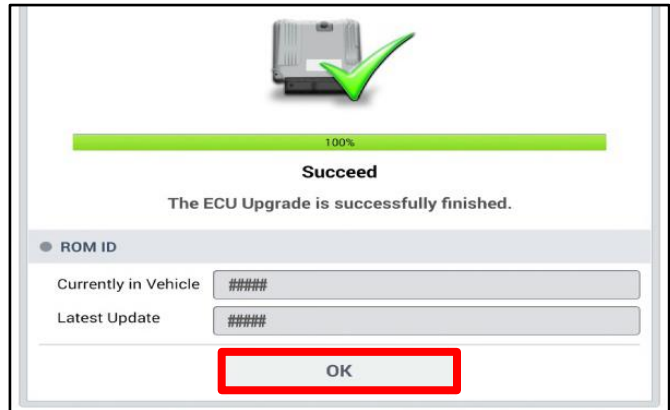TSB: SA541 EV6 GT (CV GT) August 2023

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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.

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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
CV eGT VCU : 39751-1XGN1	7393

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

2. Select the **'VCU'** system under the System selection menu. Select **Upgrade Event #693** 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.

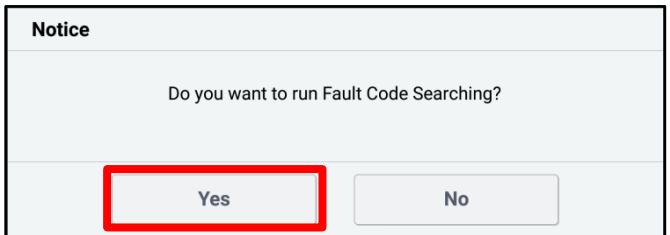6. When instructed on the KDS, turn the ignition **OFF** for ten (10) seconds then back on. Select **OK**.

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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SUBJECT:

AFFECTED VEHICLE RANGE:

Model	Production Date Range
EV6 GT (CV GT)	August 25, 2022 to July 20, 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.
V	39751 1XCN4	0	(SA541) VCU S/W Logic Upgrade	230065R0	0.7 M/H	N/A	0

> 📄 **NOTICE**
>
> **VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference SA541 when accessing the KDealer+ system.**