



GROUP	MODEL
ELE	2022 - 2023MY EV6 (CV)
NUMBER	DATE
283	January 2023

## TECHNICAL SERVICE BULLETIN

SUBJECT: **VCMS BATTERY CHARGING LOGIC IMPROVEMENT**

This bulletin provides the procedure to update the software logic of the Vehicle Charging Management System (VCMS) system on some 2022-2023MY EV6 vehicles produced from November 17, 2021 through December 20, 2022, which might experience inoperable High Voltage Battery (HVB) charging issues due to excessive high temperatures at the combo charger inlet module assembly. Follow the procedure outlined in this publication to apply the improved logic to the 'VCMS' 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.



Kia Diagnostic System (KDS)

### **ⓘ IMPORTANT**

**This upgrade must be conducted based on a customer's complaint.**

**ECU Upgrade Procedure:**

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

Upgrade Event Name

643. CV VCMS BATTERY CHARGING LOGIC IMPROVEMENT

**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.

SUBJECT:

## VCMS BATTERY CHARGING LOGIC IMPROVEMENT

**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.

**ROM ID INFORMATION TABLE:****Upgrade Event #643**

Model	System	ECU P/No.	ROM ID	
			Previous	New
CV	VCMS (Vehicle Charging Management System)	35001-1XFA0	ECVE1NM-CS1-D000	ECVE3NM-CS1-D000
			ECVE1NM-CS2-D000	

*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**

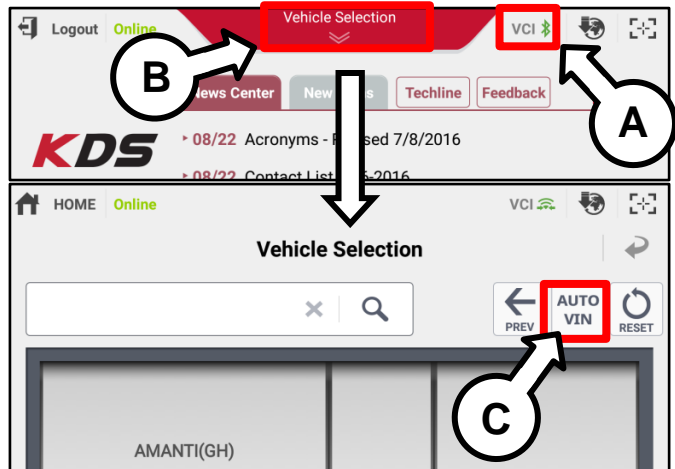
The ECU upgrade function on KDS operates wirelessly. It is not necessary to perform the upgrade via USB cable.



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



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



4. Select 'ECU Upgrade'.



SUBJECT:

# VCMS BATTERY CHARGING LOGIC IMPROVEMENT

- The KDS will check the server for recently uploaded Events and then automatically download Upgrade Event #643.

**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.

- 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.

Auto Mode Manual Mode

- Select the VCSM system under the System selection menu. Touch ID Check (D) and confirm that the latest update is available. Select Upgrade Event #643 and select Upgrade to continue.

System

VCSM

ROM ID

Currently in Vehicle ##### ID Check

Latest Update #####

Event Group TSB

###.XX ----

Previous Upgrade

- 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.

**E**

23%

ECU Upgrading...(1/2)

ECU is in the process of being upgraded. Please wait a few minute.

**F**

6%

ECU Upgrading...(2/2)

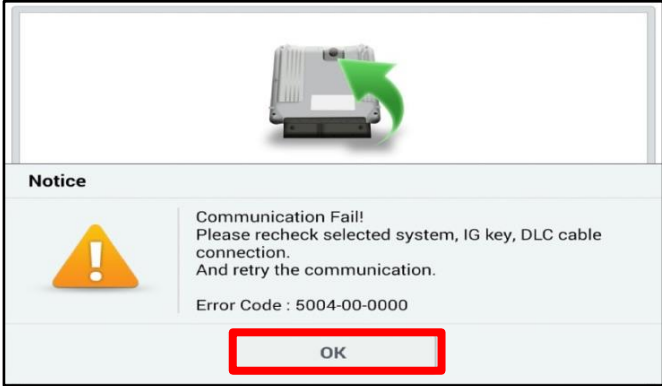
ECU is in the process of being upgraded. Please wait a few minute.

SUBJECT: **VCMS BATTERY CHARGING LOGIC IMPROVEMENT**

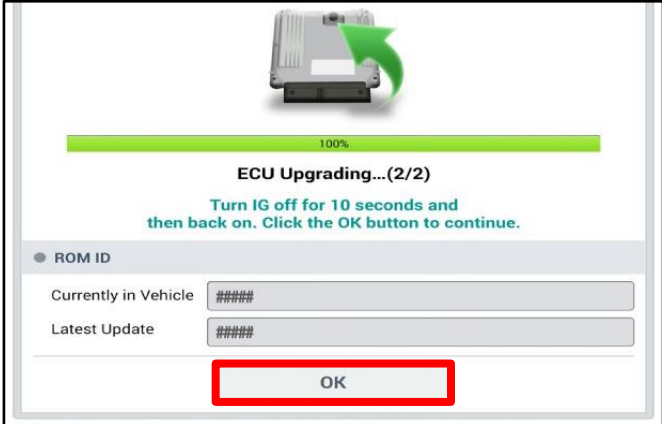
- If a "Communication Fail" screen appears, verify that the VCI-II and KDS are communicating properly. Select 'OK' and restart the from step 4.

**NOTICE**

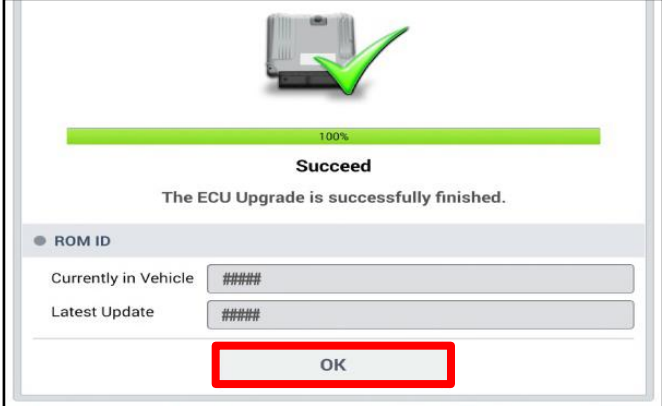
**If an error notice continues to appear or if the upgrade cannot be performed, DO NOT disconnect the KDS/VCI-II. Contact GIT America Help Desk at (888) 542-4371 or Techline.**



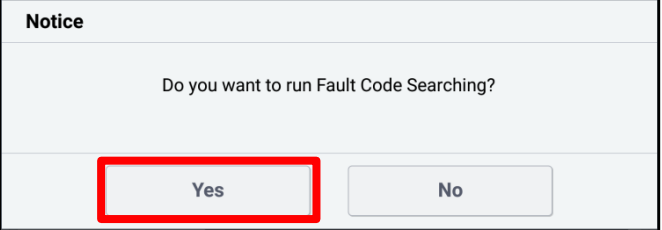
- When instructed on the KDS, turn the ignition OFF for ten (10) seconds then back on. Select 'OK' to continue.



- Once the upgrade is complete, select 'OK' to finalize the procedure.



- 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.



- 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 VCMS: 35001-1XFA0	0110

1. Within the ECU Upgrade screen displayed, select **Manual Mode**.
2. Select the '**VCMS**' system under the System selection menu. Select **Upgrade Event # 643** 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.

SUBJECT:

**VCMS BATTERY CHARGING LOGIC IMPROVEMENT****AFFECTED VEHICLE RANGE:**

Model	Production Date Range
EV6 (CV)	November 17, 2021 to December 20, 2022

**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.
W	35001 1XFA0	0	VCMS Upgrade	35001Q0B	0.3 M/H	N/A	0