



GROUP	MODEL
ELE	2022MY EV6 (CV)
NUMBER	DATE
257 (Rev 1, 08/18/2022)	June 2022

TECHNICAL SERVICE BULLETIN

SUBJECT: **SERVICE ACTION: AMP LOGIC UPDATE/REPLACEMENT
FOR NOISE/NO SOUND ISSUES (SA494A)**

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.

NOTICE

This Service Action (SA494A) supersedes SA494, which is now closed. Please follow the updated information in this bulletin.

This bulletin provides the procedure to inspect the audio sound system in different modes and update the 'AMP' software logic to improve noise and mute prevention logic, or to replace the AMP on some 2022MY EV6 (CV) vehicles produced from November 17, 2021 through February 15, 2022. Depending on the inspection results, the external AMP system software may need to be updated or the AMP may need to be replaced. Follow the procedure outlined in this publication to perform a sound inspection on the external amplifier and either apply the improved logic to the 'AMP' system, using the KDS ECU Upgrade function as described in this bulletin, or replace the external amplifier. 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 4 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 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 SA494A.

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Inspection Procedure:

- 1a. Check for sound issues by listening for **at least one minute** in each of the following modes:
 - Radio (AM & FM)
 - Bluetooth music
 - Voice recognition
 - Phone call
 - Nature Sound
 - USB device

- 1b. Listen to identify if any of the following conditions are present:
 - Noise (clicking/popping/static)
 - No sound (brief, or for 30 seconds after switching to a Radio station)
 - Intermittent noise
 - Intermittent no sound



NOTICE

When listening to the radio, make sure sound issue is not due to weak signal or poor radio reception.

2. Were any of the sound conditions described above present in any mode?

YES: One or more of the above conditions are present.

- **NG: Proceed to the 'Replacement Procedure' to replace the External AMP.**

NOTICE

Do not replace the External AMP unless it is exhibiting the "noise", "no sound", "intermittent noise", and/or "intermittent no sound" issue. Any claims for replacement parts are subject to Warranty review and chargeback.

NO: Sound is normal in all modes.

- **OK: Proceed to the 'Software Update Procedure' to update the External AMP software.**

Replacement Procedure:

1. Replace the External AMP (A) by referring to the "Body Electrical System → Audio/AVNT System → External AMP → Removal and Installation" the applicable Shop Manual on KGIS.



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Software Upgrade Procedure:

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

Upgrade Event Name

605. CV AMP NOISE/MUTE PREVENTION 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 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 press the EV Start Stop Button (SSB) 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.

ROM ID INFORMATION TABLE:

Upgrade Event #605

Model	System	ECU P/No.	ROM ID	
			Previous	New
CV	AMP (External Amplifier)	96370 CV100	0100	0130
			0110	
			0120	

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

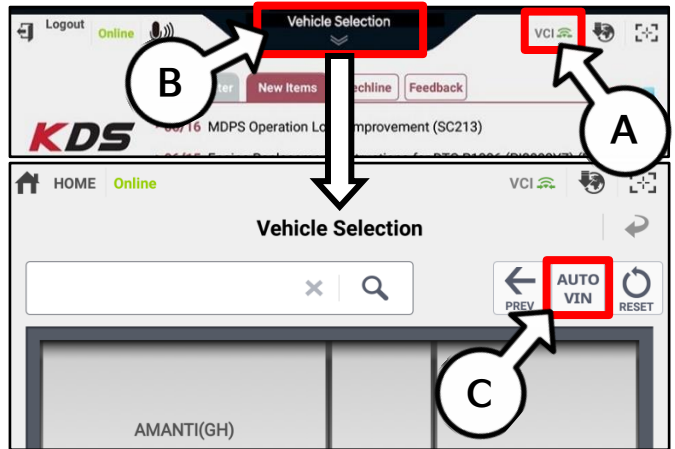
The ECU upgrade function on KDS operates wirelessly. It is not necessary to perform the upgrade via USB cable.



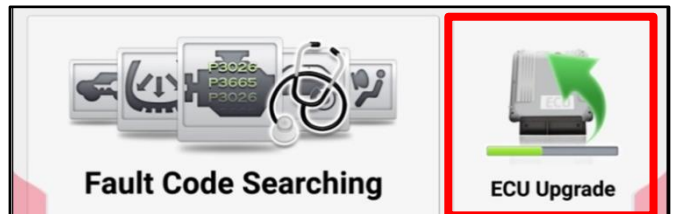
2. With the ignition ON, turn ON the KDS tablet. Select 'KDS' from the home screen.



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 #605.

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

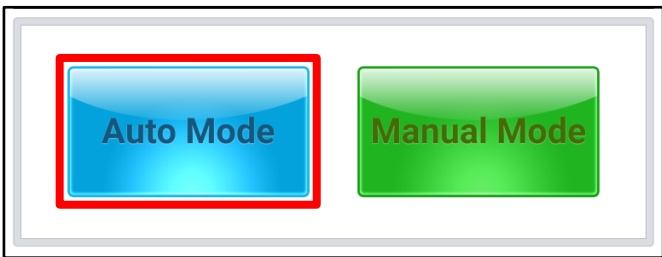
36%

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.



- Select the AMP system under the System selection menu.
 Touch ID Check (D) and confirm that the latest update is available.
 Select Upgrade Event #605, and select Upgrade to continue.

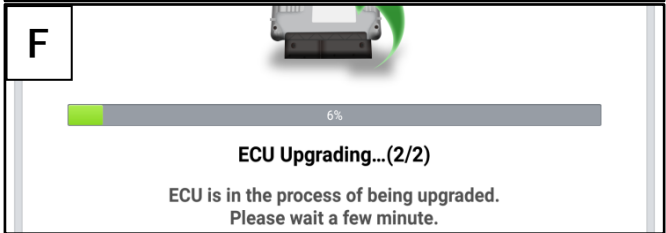
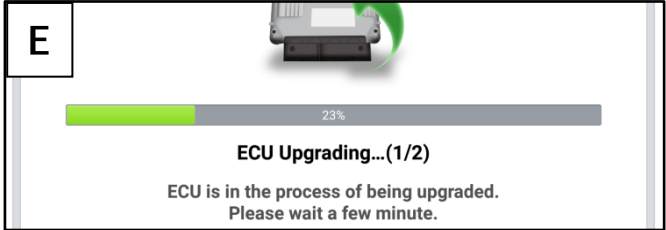
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- The ECU upgrade will begin and the progress of the upgrade will appear on the bar graph. Upgrade part (1/2) (E) will download the upgrade event to the VCI-II. Upgrade part (2/2) (F) will upgrade the ECU.

CAUTION

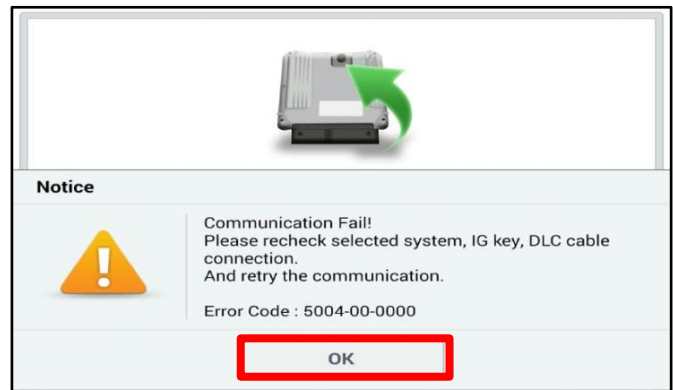
Do not touch the system buttons (like 'Back', 'Home', 'etc.') while performing ECU Upgrade.



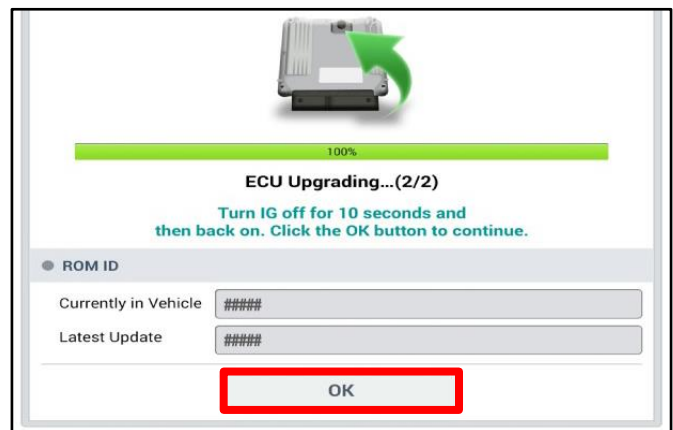
- If a "Communication Fail" screen appears, verify that the VCI-II and KDS are communicating properly. Select 'OK' and restart the procedure from step 4.

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.



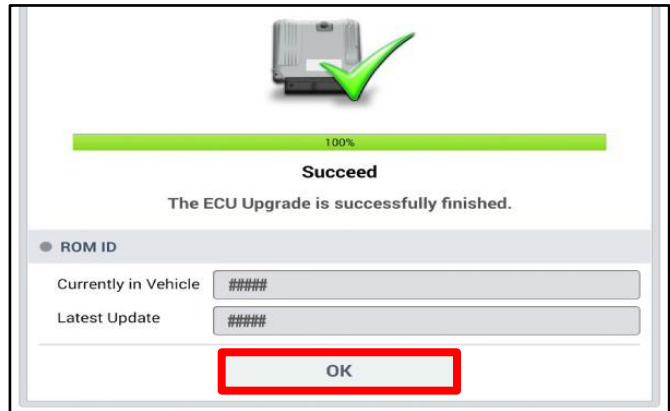
- When instructed on the KDS, turn the ignition OFF for ten (10) seconds then back on. Select 'OK' to continue.



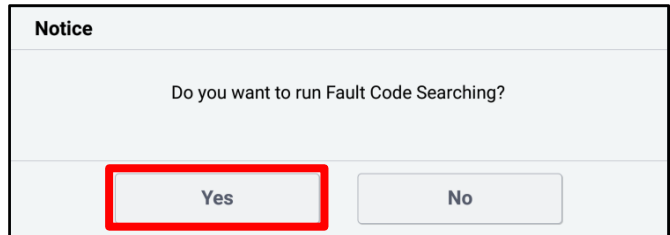
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11. Once the upgrade is complete, select 'OK' to finalize the procedure.



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 AMP: 96370-CV100	8500

1. Within the ECU Upgrade screen displayed, select **Manual Mode**.
2. Select the **AMP** system under the System selection menu. Select **Upgrade Event #605** and select **Upgrade** to continue.
3. Select the appropriate control unit part number with reference to the ROM ID Information Table on page 4, 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.

NOTICE

If the Manual upgrade fails, disconnect then reconnect the AMP fuse in the fuse box. Then conduct the manual upgrade again.

Refer to image at right for location of AMP fuse (5th down in first column).




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AFFECTED VEHICLE RANGE:

Model	Production Date Range
EV6 (CV)	November 17, 2021 to February 15, 2022

REQUIRED PART:

Part Name	Part Number	Figure	Qty.
External AMP	96370 CV100QQK		1

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	96370 CV100	0	(SA494A) Sound Inspection and External AMP Software Upgrade	220045R2	0.3 M/H	N/A	0
			(SA494A) Sound Inspection and External AMP Replacement	220045R1	0.5 M/H	96370 CV100QQK	1

NOTICE

Do not replace the External AMP unless it is exhibiting the "noise", "no sound", "intermittent noise", and/or "intermittent no sound" issue. Any claims for replacement parts are subject to Warranty review and chargeback.

NOTICE

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference SA494A when accessing the WebDCS system.