



GROUP	MODEL
ELE	2024MY EV9 (MV)
NUMBER	DATE
330	January 2024

TECHNICAL SERVICE BULLETIN

SUBJECT: SERVICE ACTION: ICCU-VCU S/W UPGRADE FOR FOR EWP OPERATION (SA560)

This bulletin provides information to improve the electric water pump (EWP) operation logic when the EV battery is being charged with a Level 1 or Level 2 (120-240 volt) AC charger on certain 2024MY EV9 (MV) vehicles produced from September 24, 2023 through January 19, 2024. A deviation may develop between the internal temperature and sensing temperature of the ICCU (Integrated Charging Control Unit) during high-current AC charging and predominantly in cold weather environments. If this condition occurs, the ICCU may become damaged, resulting in a stopped charging session and inability to charge using Level 1 or 2 AC chargers; however, the EV battery can still be charged using Level 3 DC fast charging. Follow the procedure outlined in this publication to upgrade the ICCU software logic for the EWP on the applicable vehicle. 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 KDealer+ (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 SA560.

ECU Upgrade Procedure:

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

Upgrade Event Name

724.MV1 VCU Upgrade for AC Charging Logic Improvement

NOTICE

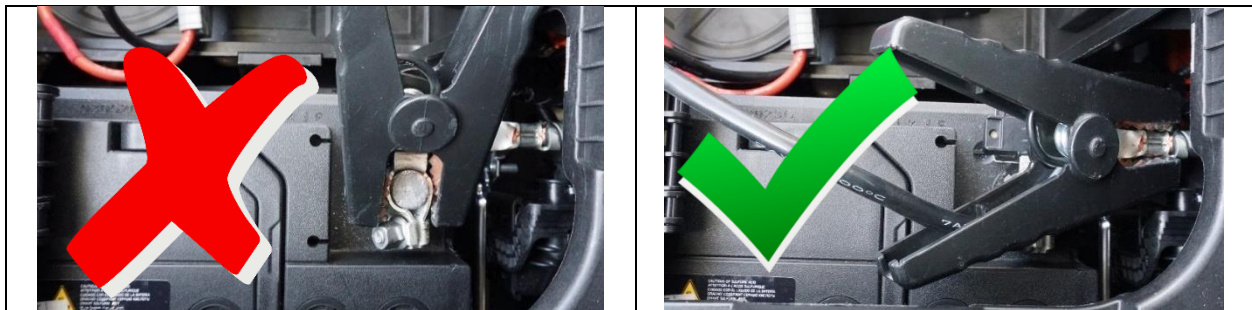
- Confirm a fully charged battery (12.3 volts or higher is necessary) is used or utilize a fully charged jump starter box connected to the battery.
- **Ensure the KDS GDS is sufficiently charged at 60% or higher prior to reflash.**
- All ECU upgrades must be performed with the ignition set to the 'ON' 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.

Note: When connecting the external battery pack, in-vehicle operation built-in CAM might be issued by impossible charging amount sensing of the battery sensor.


[Connect the negative \(-\) terminal to the battery as shown below.](#)



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ICCU-VCU S/W UPGRADE FOR EWP OPERATION (SA560)

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 #724

Model	Type	IMMO		ECU P/No.	ROM ID	
					Previous	New
EV9	AWD	Yes		39751 1XVN1	MV10-67H-N03-S00 MV10-67H-N03-S01 MV10-67H-N03-S02	MV10-67H-N03-S03
	RWD				39751 1XVN2	MV10-57H-N03-S00 MV10-57H-N03-S01 MV10-57H-N03-S02

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.

[NOTE]

- ECU upgrade function on KDS is basically operating in wireless communication as Wi-Fi direct. Also, it's possible to be performing via USB cable between Tablet PC and VCI-II.
- Before start ECU upgrade, must make certain that the battery of Tablet PC is sufficiently charged.

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

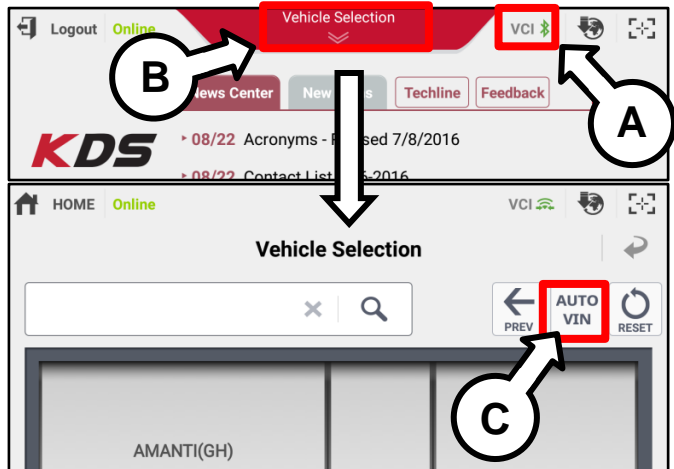
The ECU upgrade function on KDS operates wirelessly. It is not necessary to perform the upgrade via USB cable.



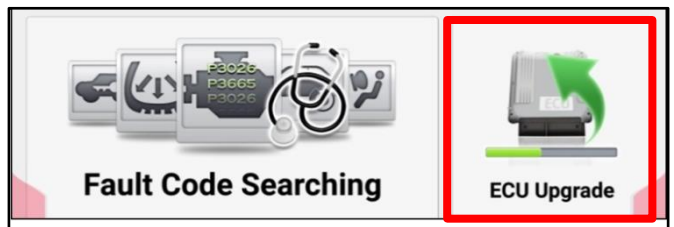
2. With the ignition ON, turn ON the KDS tablet. Select 'KDS' from the home screen.



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 #724.

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 'VCU' system under the System selection menu.

Select 'TSB' (D) to confirm that the latest update is available (if applicable).

Select upgrade Event #724 and select 'Upgrade' to continue.

ECU Upgrade

EV9(MV) > 2024 > 160kW (2WD) / 160kW+160kW (4WD)

System

- ADAS_PRK_MCU
- ADAS_PRK_VPU
- PSM
- VCU**

Event Group

TSB

724.MV1 VCU upgrade for AC charging logic improvement

MV1 VCU (4WD) : 39751-1XVN1

MV1 VCU (2WD) : 39751-1XVN2

- 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)

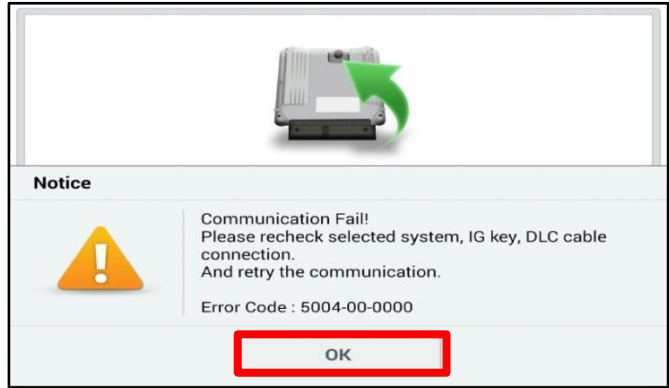
ECU is in the process of being upgraded. Please wait a few minute.

SUBJECT: **ICCU-VCU S/W UPGRADE FOR EWP OPERATION (SA560)**

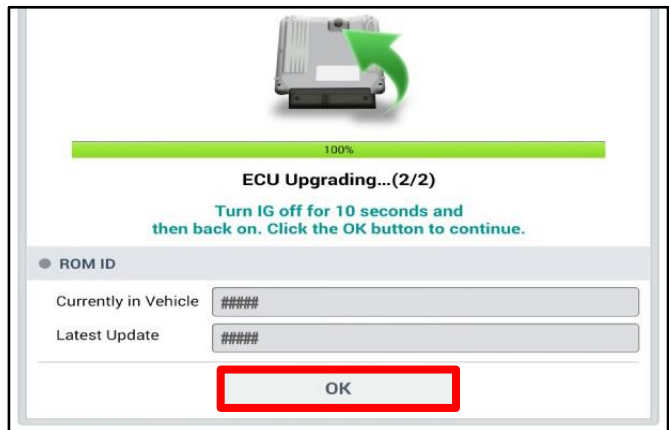
- If a "Communication Fail" screen appears, verify that the VCI-II and KDS are communicating properly. Select 'OK' and restart the from step 4.

NOTICE

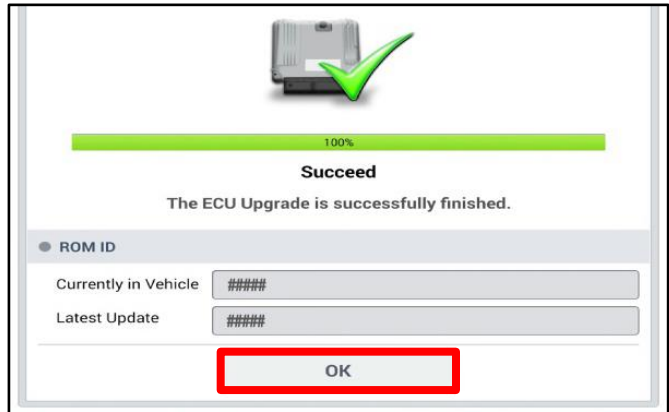
If an error notice continues to appear or if the upgrade cannot be performed, DO NOT disconnect the KDS/VCI-II. Contact GIT America Help Desk at (888) 542-4371 or Techline.



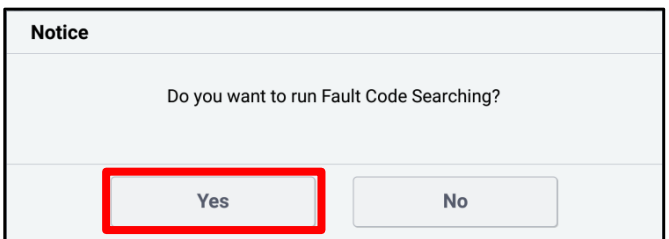
- When instructed on the KDS, turn the ignition OFF for ten (10) seconds then back on. Select 'OK' to continue.



- 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
MV1 VCU (AWD): 39751-1XVN1	9532
MV1 VCU (RWD): 39751-1XVN2	4583

1. Within the ECU Upgrade screen displayed, select **Manual Mode**.
2. Select the '**VCU**' system under the System selection menu. Select **Upgrade Event #724** 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: **ICCU-VCU S/W UPGRADE FOR EWP OPERATION (SA560)**

AFFECTED VEHICLE RANGE:

Model	Production Date Range
EV9 (MV)	September 24, 2023 to January 19, 2024

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	36400 1XHA0	0	(SA560) ICCU-VCU S/W Upgrade for EWP Operation	240020R0	0.3 M/H	N/A	0

NOTICE

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference SA560 when accessing the KDealer+ system.

