



GROUP	MODEL
ELE	2024-2025MY EV9 (MV1, MV1a)
NUMBER	DATE
369 (Rev 1, 2/25/2025)	January 2025

TECHNICAL SERVICE BULLETIN

SERVICE ACTION: REAR MOTOR CONTROL UNIT SOFTWARE UPGRADE (SA601)

SUBJECT:

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 rear motor control unit 'MCU-R' software on certain 2024-2025MY EV9 (MV1, MV1a) vehicles produced from September 24, 2023 through January 2, 2025, which may unexpectedly end an EV charging session when using a Tesla Supercharger station due to signal interference with the vehicle's inverter. Follow the procedure outlined in this publication to upgrade the software of the 'MCU_R' system. Refer to [SST081](#) for software upgrade instructions using Kia Diagnostic System (KDS) tablet and VCI-II. 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 SA601.

Refer to [TSB SST081](#) for instructions to upgrade the 'MCU_R' system:

① IMPORTANT

The software update may also be available via **Over-The-Air (OTA)** upgrade feature through an 'active' Kia Connect account for customers. An OTA software upgrade may not be available at the time a TSB publication is released. Dealers can confirm OTA availability by checking for OTA release notes on the Kia [Owners Portal](#): [OTA Software Update Release Notes](#). If the affected vehicle had the latest software installed via OTA, no further action is required by the dealer.

Note: An OTA installed software is time-stamped for each VIN.

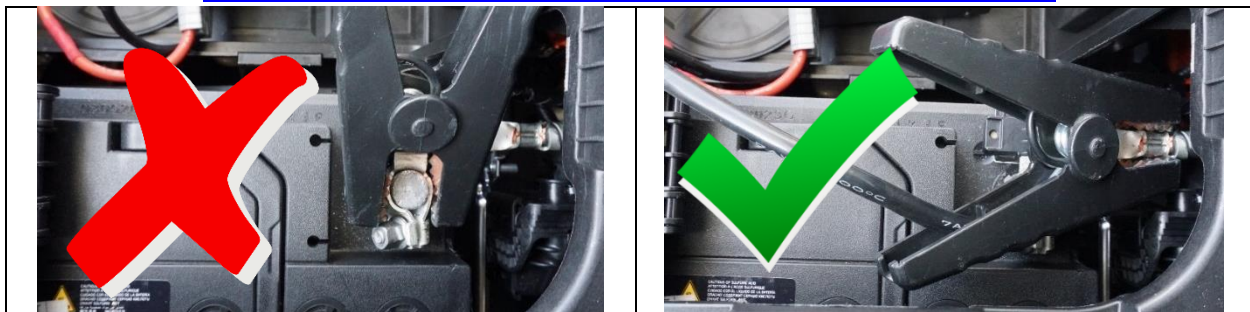
To correct this condition, the specified system module should be reprogrammed using KDS as described in this bulletin in 'Auto Mode'.

Upgrade Event Name
809.MV1 R_MCU Upgrade for Inverter AD (Active Damping) Logic
810.MV1a R_MCU Upgrade for Inverter AD (Active Damping) Logic

📄 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.

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



SUBJECT:

SERVICE ACTION: REAR MCU SOFTWARE UPGRADE (SA601)**ROM ID Information Table:****Upgrade Event #809 (MV1)****ⓘ 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.

MY	Model	System	IMMO	ECU P/No.	ROM ID	
					Previous	New
2024-2025	EV9 (MV1)	MCU_R	Yes	36601 1XHNO	EMVDE23NERS7 010 EMVDE24NERS8 010	EMVDE24NERS9 010

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.

Upgrade Event #810 (MV1a)**ⓘ 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.

MY	Model	System	IMMO	ECU P/No.	ROM ID	
					Previous	New
2025	EV9 (MV1a)	MCU_R	Yes	36601 1XHN1	EMVAE24NERS0 010	EMVAE24NERS1 010
				36601 1XHNO	EMVDE23NERS7 010 EMVDE24NERS8 010	EMVDE24NERS9 010

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.



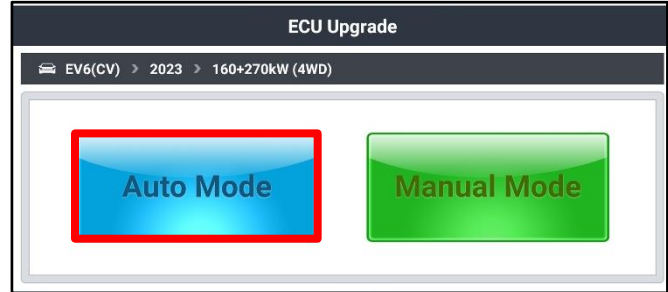
SUBJECT:

SERVICE ACTION: REAR MCU SOFTWARE UPGRADE (SA601)

Software Information:

The required software must be installed by selecting the **'Auto Mode'** ECU Upgrade option.

Note: In some cases, the 'Manual Mode' installation option may be required **ONLY** if the 'Auto Mode' function fails or is otherwise noted above.



NOTICE

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 the manual upgrade.

'Manual Mode' passwords.

Event #	Menu	Password
809	MV1 R_MCU: 36601-1XHNO	8910
810	MV1a R_MCU: 36601-1XHN1	1001
	MV1a R_MCU : 36601-1XHNO	8910

UPGRADE EVENT:

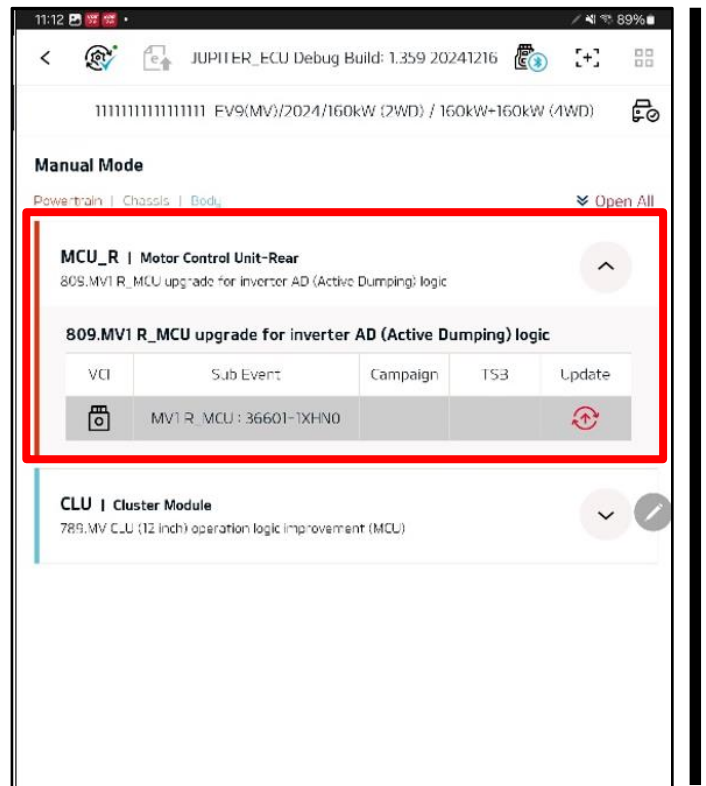
Select the applicable **'MCU_R'** 'system' module and **'Event Group'** number in the ECU Upgrade.

- **2024-2025MY EV9 (MV1) - Korea Built**
809.MV1 R_MCU upgrade for inverter AD (Active Dumping) logic

or

- **2025MY EV9 (MV1a) - US Built**
810.MV1a R_MCU upgrade for inverter AD (Active Dumping) logic"

Verify the affected vehicle Calibration Identification of the applicable ECU ROM ID and reference the Information Table on page 3 as necessary.




SUBJECT:

SERVICE ACTION: REAR MCU SOFTWARE UPGRADE (SA601)**AFFECTED VEHICLE RANGE:**

Model	Production Date Range
EV9 (MV1, MV1a)	September 24, 2023 to January 2, 2025

REQUIRED TOOL:

Tool Name	Part Number	Figure	Comments
Kia Diagnostic System (KDS)	N/A		KDS + VCI-II Required

WARRANTY INFORMATION:**N Code: N99 C Code: C99**

Model	Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
MV	V	36601 1XHNO	0	(SA601 <u>A</u>) MCU_R Software Upgrade	SA601MV1	0.3 M/H	N/A	0
MV1a				(SA601 <u>B</u>) MCU_R Software Upgrade	SA601MVA			

NOTICE

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference **SA601** when accessing the KDealer+ system.