



GROUP

MODEL

ELE

2025MY

Sorento HEV (MQ4 HEV)
w/ 19" wheels

NUMBER

DATE

364

December 2024

TECHNICAL SERVICE BULLETIN

SUBJECT:

SERVICE ACTION: MOTOR CONTROL
UNIT (MCU) LOGIC IMPROVEMENT (SA596)

This bulletin provides the procedure to update the Motor Control Unit (MCU) software on certain 2025MY Sorento HEV (MQ4 HEV) vehicles equipped with 19" wheels and produced from March 4, 2024 through November 9, 2024. The affected vehicles may exhibit traction motor noise, an inoperable A/C, and illuminated warning lights with DTCs P0A3C, P0AF0, P1B77 stored due to intermittent traction motor operation when the hybrid system powers 'OFF' during the engine clutch calibration procedure. Follow the procedure outlined in this publication to apply the improved logic to the 'MCU' system using the KDS ECU Upgrade function as described in this bulletin. Before conducting the procedure, verify that the vehicle is included in the list of affected VINs.

DTC Descriptions:

P0A3C - Drive Motor 'A' Inverter Over Temperature

P0AF0 - Drive Motor Inverter Temperature Sensor 'A' Circuit High

P1B77 - Inverter Capacitor Precharging Fault



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 SA596.

A printed copy is for reference only; publication information can be updated at any time. Always refer to KGIS for the latest information. After logging in kdealer.com, the newest technical publications are listed in 'Service Releases' and has the latest service information that has been released.

ECU Upgrade Procedure:

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

Upgrade Event Name

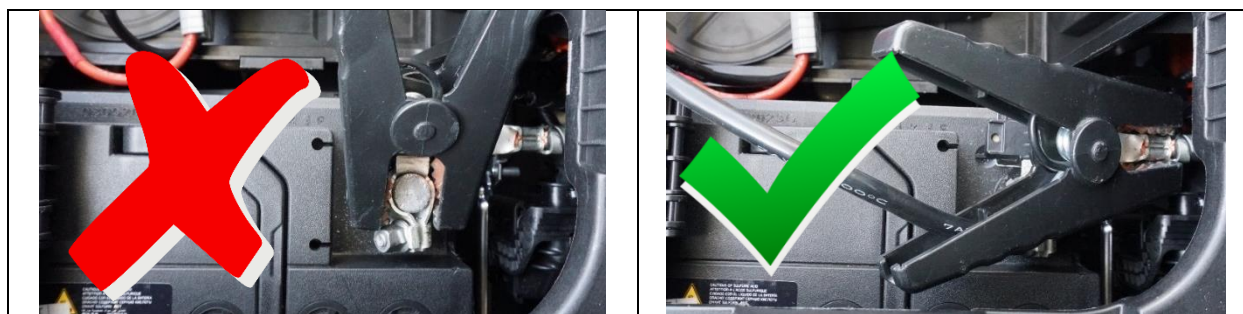
791.MQ4 PE HEV MCU Operation Logic Improvement**NOTICE**

- 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.

Connect the negative (-) terminal to the battery as shown below.



SUBJECT: SERVICE ACTION: MOTOR CONTROL UNIT LOGIC IMPROVEMENT (SA596)

 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 #791

System	IMMO		ECU P/No.	ROM ID		Comment
				Previous	New	
MCU	Yes		36601 3DPG2	GMQPH24NAMS1 920	GMQPH24NAMS2 920	19" 2WD
			36601 3DPG3	GMQPH24NAMS1 940	GMQPH24NAMS2 940	19" 4WD

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.

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

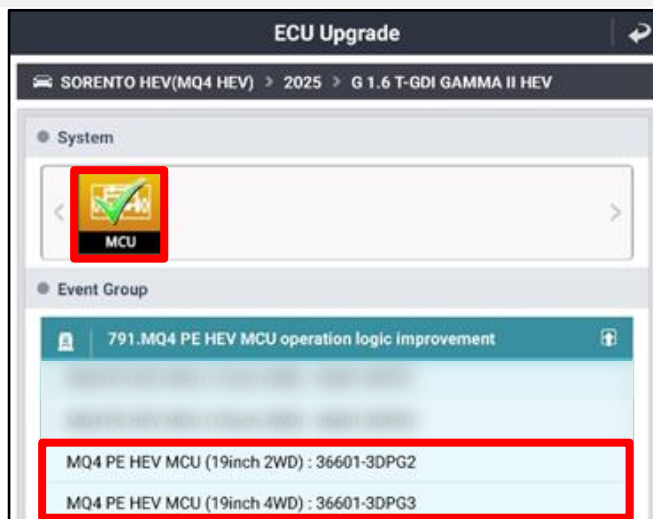
Menu	Password
MQ4 PE HEV MCU (19inch 2WD): 36601-3DPG2	3537
MQ4 PE HEV MCU (19inch 4WD): 36601-3DPG3	3366

SUBJECT: SERVICE ACTION: MOTOR CONTROL UNIT LOGIC IMPROVEMENT (SA596)

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

1. **UPGRADE EVENT:**

- 791.MQ4 PE HEV MCU Operation Logic Improvement



SUBJECT: **SERVICE ACTION: MOTOR CONTROL UNIT LOGIC IMPROVEMENT (SA596)**

AFFECTED VEHICLE RANGE:

Model	Production Date Range
Sorento HEV (MQ4 HEV)	March 4, 2024 to November 9, 2024

REQUIRED TOOL:

Tool Name	Part Number	Figure	Comments
KDS	N/A		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	36601 3DPG2	0	(SA596) MCU Software Upgrade	240214R0	0.3 M/H	N/A	0

NOTICE

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference SA596 when accessing the KDealer+ system.