



GROUP

MODEL

Product Improvement

2020-2022MY
Niro EV (DE EV)

NUMBER

DATE

PI2603

June 2026

TECHNICAL SERVICE BULLETIN

SUBJECT:

BMS BATTERY DIAGNOSTIC
LOGIC IMPROVEMENT (PI2603)

This bulletin provides information regarding a Battery Management System (BMS) software update for certain 2020-2022MY Niro (DE EV) vehicles produced from June 2, 2020, through November 8, 2021. Kia has developed improved battery health monitoring software to enhance the BMS diagnostic performance of the high-voltage battery (HVB) cells produced by a specific supplier in the subject vehicles. This improved software will enhance the long-term issue detection capabilities of the high-voltage battery in the subject vehicles. Follow the procedure outlined in this publication to update the BMS with improved software using the Kia Diagnostic System (KDS 2.0) diagnostic device. Refer to [SST081](#) for software upgrade instructions using the Kia Diagnostic System (KDS 2.0) tablet and VCI-II or VCI-III, and confirm the applicable Upgrade Event Number/Name, ROM ID information, and Manual Mode passwords (if applicable) on the affected vehicle.



NOTICE

A Product Improvement Campaign is a repair program with customer notification. There is no charge to the vehicle owner for this repair.

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 PI2603.

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.

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

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

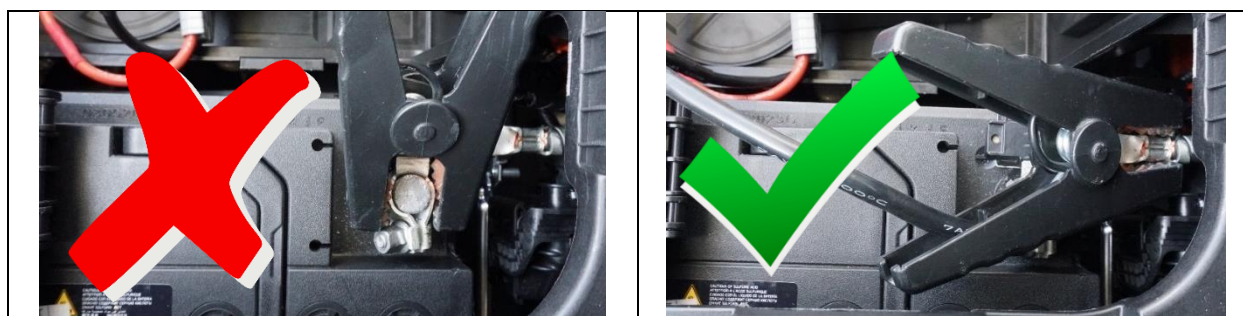
Upgrade Event Name

931.DE EV BMS ALT Battery Diagnostic 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.

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



 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.

SUBJECT:

BMS BATTERY DIAGNOSTIC LOGIC IMPROVEMENT (PI2603)**ROM ID Information Table:****Upgrade Event #931****❗ 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.

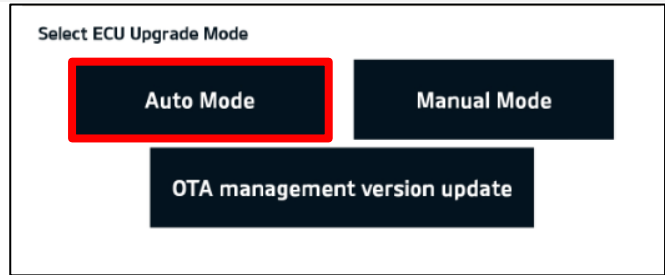
Model	System	IMMO 	ECU P/No.	ROM ID		
				Previous		New
Niro EV (DE EV) 20-21MY	BMS		375A0 K4053	6960 6980 7020 7040 7050 7060 7080	7100 7120 7140 7160 7180 7400	7420
			375A0 K4003	6962 6982 7022 7042 7052 7062 7082	7102 7122 7142 7162 7182 7402	7422
			375A0 K4453	6964 6984 7024 7044 7054 7064 7084	7104 7124 7144 7164 7184 7404	7424
			375A0 K4403	6966 6986 7026 7046 7056 7066 7086	7106 7126 7146 7166 7186 7406	7426

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.

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

During Manual Mode: if the pop-up message "No need for S/W update" appears, do not proceed with the software upgrade.



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.

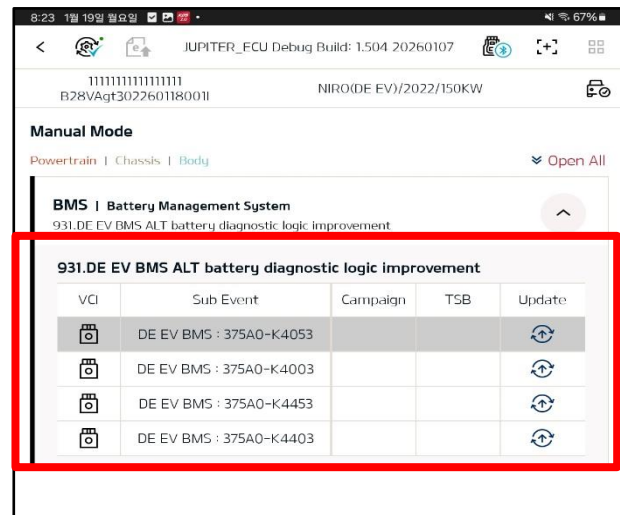
Event No.	Menu	Password
#931	DE EV BMS : 375A0-K4053	1891
	DE EV BMS : 375A0-K4003	4048
	DE EV BMS : 375A0-K4453	7050
	DE EV BMS : 375A0-K4403	9315

UPGRADE EVENT:

Select the applicable **'BMS'** system module and the Event Group.

- 931.DE EV BMS ALT Battery Diagnostic Logic Improvement

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



SUBJECT:

BMS BATTERY DIAGNOSTIC LOGIC IMPROVEMENT (PI2603)**AFFECTED VEHICLE RANGE:**

Model	Production Date Range
Niro EV (DE EV)	June 2, 2020, to November 8, 2021

REQUIRED TOOL:

Tool Name	Part Number	Figure	Location	Comments
Kia Diagnostic System (KDS)	N/A		SHOP	KDS + VCI
VCI-II Connector	N/A			Connect Directly to KDS Using Included Ethernet Cable
ECI Adapter	GIT1XDDMN057 or GIT0XDDMN052		Located in Toolbox #1 Drawer 8	ECI Adapter For VCI-II

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	375A0 K4053	0	(PI2603) BMS Logic Improvement	260041R0	0.3 M/H	N/A	0

Note: Refer to [Warranty Bulletin 2026-15](#) for claim submission procedures.

When substitute transportation is provided, manually enter sublet code 'X2' for rental expense reimbursement or one roundtrip rideshare expense.

NOTICE

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference [PI2603](#) when accessing the KDealer+ system.

