

# Product Safety Recall

## N222380031 Improper Urethane Sealing - High Voltage Battery Pack



**Release Date:** May 2023

**Revision:** 03

**Revision Description:** This bulletin has been revised to update one of the High Voltage Drive Motor Cable part numbers. Please discard all previous copies of N222380031-02.

**Attention:** It is a violation of Federal law for a dealer to deliver a new motor vehicle or any new or used item of motor vehicle equipment (including a tire) covered by this notification under a sale or lease until the defect or noncompliance is remedied.

Vehicles involved in this recall were placed on stop delivery October 13, 2022. Once the service procedure contained in this bulletin has been performed on the vehicle, the vehicle is released from stop delivery and the vehicle can be delivered to the customer.

All involved vehicles that are in dealer inventory must be held and not delivered to customers, dealer traded, or used for demonstration purposes until the repair contained in this bulletin has been performed on the vehicle.

**This is a phased launch.**

As VINs become eligible for final repair, they will be moved to an "Open" status in IVH. Remaining VINs in "Incomplete. Remedy Not Available" status will not be eligible for the final repair until GM informs dealers at a future date.

This recall must only be completed by GMC EV certified dealers and repairs must be performed by a technician who has successfully completed the required EV training.

For Canadian Dealers: Only GMC Dealers who have signed the GMC Electric Models Agreement and have met all the GMC HUMMER EV-specific training, tools, and equipment requirements are eligible to complete the repair. Any Dealer unsure of their eligibility status should immediately review with their District Service Manager.

**Danger: Carefully read this bulletin before beginning the remedy procedure. This bulletin contains important legal and safety requirements that must be followed in order to safely replace the vehicle's high voltage battery in compliance with applicable federal, state, provincial, and local laws. To avoid injury or death, use of a forklift that meets the specifications outlined in bulletin 22-NA-114 is required to safely load and unload crated HV batteries into and out of delivery trucks. Failure to carefully follow the procedures in this bulletin may result in serious injury or death.**

**Important:** Dealers must submit a core return request through the "SNT ALFRED – High Voltage Battery Order and Returns" app in Global Connect. The app is available in the Global Connect Center. It is the same app used to order batteries for the recall. **DO NOT CALL CCA Logistics or XPO directly.**

**Important:** Shipment of these high voltage batteries is regulated by dangerous goods transportation laws. GM Dealer Parts and Accessories Policies and Procedures requires that dealers comply with all applicable dangerous goods transportation laws, including but not limited to having at least one employee be certified in the transportation of dangerous goods as required by law. Additional resources for dangerous goods transportation can be found as part of appendix G in the latest version of Service Bulletin #99-00-89-019. As the shipper of record, dealers are responsible for compliance with all applicable international, federal, state, provincial, or local dangerous goods transportation laws. This includes, but is not limited to, proper labeling, marking, completion of shipping papers, and packaging. Failure to comply with federal dangerous goods transportation laws may result in a violation of the U.S. Hazardous Materials Transportation Act, as amended, and its implementing regulations issued by the U.S. DOT at Title 49, Volumes 2-3, of the CFR and could subject you to fines of up to \$89,678 for each violation, except the maximum fine is \$209,249 if the violation results in death, serious illness, or severe injury to any person or substantial destruction of property.

**Danger:** Prior to packaging and requesting the core return through the SNT ALFRED App via Global Connect, you are required to verify the core is safe to return by checking one of the following 2 boxes below. If the criteria is not met by either box, the battery is NOT OK to Ship back. You are **Required** to call TAC and obtain verification that the battery is OK to Ship before it can be returned.

Box1 – There were no issues found as outlined in service procedure steps 1 through 5 ("Return Battery Shipping Check List"), battery core is OK to Ship back.

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Box2 – There was an issue found with one or more service procedure steps 1 through 5 (“Return Battery Shipping Check List”). However, TAC provided authorization that battery is OK to Ship back. Provide TAC case # (enter here).

Make	Model	Model Year		RPO	Description
		From	To		
GMC	HUMMER EV	2022	2023		

Involved vehicles are marked “Open” on the Investigate Vehicle History screen in GM Global Warranty Management system. This site should always be checked to confirm vehicle involvement prior to beginning any required inspections and/or repairs.

<b>Condition</b>	General Motors has decided that a defect which relates to motor vehicle safety exists in certain 2022-2023 model year GMC HUMMER EV vehicles. The high-voltage battery pack enclosure in some of these vehicles may not have been properly sealed. If the pack enclosure is not sealed, water can enter the pack. GM is aware of three confirmed reports of this condition causing water to enter the pack. In two of the cases, the vehicles would not start. In the third case, the vehicle lost propulsion while driving. A loss of propulsion while driving can increase the risk of a crash.
<b>Correction</b>	Dealers will replace high-voltage battery packs.

### Parts

Quantity	Part Name	Part No.
1	High Voltage Battery Assembly	*
As Req.	High Voltage Drive Motor Cable	86783177
As Req.	High Voltage Drive Motor Cable	86783176
6	Engine Coolant	12378390 US 10953456 CA

\* See “Parts Ordering Information” section below.

### Storage Guidelines for Containerized High Voltage Batteries

- Store the High Voltage Battery and shipping crate flat.
- Protect the High Voltage Battery and shipping crate from exposure to liquids, including rain and snow.
- Protect the High Voltage Battery and shipping crate from physical damage.

### Parts Ordering Information

#### For US Dealers:

In order to simplify the ordering process for high voltage batteries necessary to perform repairs under THIS RECALL, the high voltage battery ordering process requiring authorization from the Technical Assistance Center (TAC) is not required. Battery ordering will be completed using the “SNT ALFRED – High Voltage Battery Order and Returns” app in GlobalConnect. The application can be located in either the “App Center” or “Parts Department” in GlobalConnect. All other high voltage battery orders NOT related to the recall must continue to be authorized through Technical Assistance. Once you locate and enter the app you will be connected directly to the SNT ALFRED portal. At this point simply click “Create New Order” to begin the process to order a high voltage battery. Before visiting the SNT ALFRED ordering portal, please have all required information available (shown below). Please be advised that you will be restricted from ordering a High Voltage Battery, if you have not met all the EV requirements. An applicable forklift on premise, hoist meeting the specifications published in 22-NA-114, the essential tools to perform the recall (listed below), applicable charger and certified EV technician are required.

Note that in addition to order placement, this app is also used to arrange for the high voltage battery core return and to request replacement packaging material and parts.



SNT ALFRED -  
High Voltage  
Battery Order...

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#### For Canadian Dealers:

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High voltage batteries may be ordered from York Electronics by logging onto the York Electronics website ([www.yorkelec.com](http://www.yorkelec.com)) using the username and password created for your Dealership.

Canadian dealer online order process:

- Log in to the website.
- Click on the GMC HUMMER / BrightDrop Battery Recall icon.
- Complete all required fields and submit the order.
- A copy of the order will be emailed to the email address used to log into the online order system.
- Once the order is processed by the York Electronics order desk, a confirmation email from York will be sent indicating the order was successfully received.

**Note:** For concerns with the online ordering process, please contact YORK ELECTRONICS OSHAWA at 1-888-650-9675 ext. 307.

### Required Information for U.S. and Canada

Dealer Name: \_\_\_\_\_

Dealer Code: \_\_\_\_\_

Shipping Address: \_\_\_\_\_

Contact At Dealership (include phone number and email address): \_\_\_\_\_

Dealerships Preferred Dealer Delivery Time/Date for Dealer Forklift Operator (Must be within 24 hours of the order time): \_\_\_\_\_

Hours of operation: \_\_\_\_\_

VIN # \_\_\_\_\_

Old Battery Identification Number (BIN): \_\_\_\_\_

Model Year: \_\_\_\_\_

### Parts Retention and Return

#### Parts Retention and Returns (United States Service Agents ONLY)

All high voltage batteries are GM assets and must be returned. Dealers are to return the high voltage battery as soon as possible after completion of the repair. If the batteries are not **returned**, the dealer will be invoiced for the core charge.

**Important:** Shipment of these high voltage batteries is regulated by dangerous goods transportation laws. GM Dealer Parts and Accessories Policies and Procedures requires that dealers comply with all applicable dangerous goods transportation laws, including but not limited to having at least one employee be certified in the transportation of dangerous goods as required by law. Additional resources for dangerous goods transportation can be found as part of appendix G in the latest version of Service Bulletin #99-00-89-019. As the shipper of record, dealers are responsible for compliance with all applicable international, federal, state, provincial, or local dangerous goods transportation laws. This includes, but is not limited to, proper labeling, marking, completion of shipping papers, and packaging. Failure to comply with federal dangerous goods transportation laws may result in a violation of the U.S. Hazardous Materials Transportation Act, as amended, and its implementing regulations issued by the U.S. DOT at Title 49, Volumes 2-3, of the CFR and could subject you to fines of up to \$89,678 for each violation, except the maximum fine is \$209,249 if the violation results in death, serious illness, or severe injury to any person or substantial destruction of property.

#### High Voltage Battery Core Return Process (United States Service Agents ONLY)

**Important:** Dealers must submit a core return request through the “SNT ALFRED – High Voltage Battery Order and Returns” app in Global Connect. The app is available in the Global Connect Center. It is the same app used to order batteries for the recall. **DO NOT CALL CCA Logistics or XPO directly.**

**Danger:** Prior to packaging and requesting the core return through the SNT ALFRED App via Global Connect, you are required to verify the core is safe to return by checking one of the following 2 boxes below. If the criteria is not met by either box, the battery is NOT OK to Ship back. You are **Required** to call TAC and obtain verification that the battery is OK to Ship before it can be returned.

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Box1 – There were no issues found as outlined in service procedure steps 1 through 5 (“Return Battery Shipping Check List”), battery core is OK to Ship back.

Box2 – There was an issue found with one or more service procedure steps 1 through 5 (“Return Battery Shipping Check List”). However, TAC provided authorization that battery is OK to Ship back. Provide TAC case # (enter here).

DO NOT wait for the warranty claim to be processed before returning the removed high voltage battery. This part is GM's material and is not claimed under the warranty labor operation. Place a copy of the repair order with the high voltage battery to be returned. Failure to return a copy of the repair order with the shipment may result in a debit. Attach the completed return shipping tag to the shipping crate. DO NOT return the high voltage battery in any crate other than the crate that the service high voltage battery was delivered in. The removed unit must be returned complete in the original shipping crate.

For questions about your order status, how to return exchanged material, or to verify battery receipt contact:

1-833-33 GM BSC (1-833-334-6272)

### High Voltage Battery Core Return Process (Canadian Service Agents ONLY)

**Important:** For shipping preparation instructions, refer to “Final Shipping Preparation” information following the Service Procedure at the end of this bulletin.

**Danger:** Prior to packaging and requesting the core return through York Electronics ([www.yorkelec.com](http://www.yorkelec.com)), you are required to verify the core is safe to return by checking one of the following 2 boxes below. If the criteria is not met by either box, the battery is NOT OK to Ship back. You are Required to call TAC and obtain verification that the battery is OK to Ship before it can be returned.

Box1 – There were no issues found as outlined in service procedure steps 1 through 5 (“Return Battery Shipping Check List”), battery core is OK to Ship back.

Box2 – There was an issue found with one or more service procedure steps 1 through 5 (“Return Battery Shipping Check List”). However, TAC provided authorization that battery is OK to Ship back. Provide TAC case # (enter here).

### Email to arrange LTL pickup for the high voltage battery:

Send an email to: [GMBatteryReturns@rxo.com](mailto:GMBatteryReturns@rxo.com).

You will be required to provide size (l x w x h) and weight. This information is available on the GM0003 tag. If your facility does not have a loading dock, please ensure RXO understands that this shipment will be loaded at ground level. (LTL carrier will need to bring required equipment).

Specify Return address:

Vancouver Serviced Dealers: TST Overland Express Burnaby  
7867 Express Street 111  
Burnaby, BC

Edmonton Serviced Dealers: Day & Ross Edmonton X-Dock  
11727 – 178th Street  
Edmonton, Alberta

Woodstock Serviced Dealers: Day & Ross Woodstock X-Dock  
520 Beards Lane, Unit B  
Woodstock, Ontario

Montreal Serviced Dealers: Day & Ross Montreal X-Dock  
5000 Trans Canada Hwy  
Pointe Claire, PQ

For individual batteries over 500 kg. (1102 lbs.) – included with your new battery will be four (4) Class 9 TDG placards. Please provide these to the driver and **ensure** placards are affixed to the vehicle before departing.

Refer to GM GlobalConnect for the latest GM Canada Parts Bulletin (GMP2021-213) relating to procedures for return of EV Batteries or Sections. This can be found under Parts Bulletins & Resources located in the application section of the Parts Department page.

Canadian Dealers DO NOT return batteries to the ESC or to the WPC.

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**Note:** If the removed high voltage battery is not returned, the entire transaction will be debited, and the dealer will also be charged the value of a service high voltage battery.

### Warranty Information

Labor Operation	Description	Labor Time	Trans. Type	Net Item
9106527*	2022 model year only: Hybrid/Electric Vehicle Battery Pack Replacement and Shipping Preparation (Includes K16K107 – Battery Energy Control Module / Drive Motor Control Modules Sequence Programming) ADD: Crating and Uncrating ADD: Diagnosis	11.4  1.8 0.3-1.0****	ZFAT	**
9106636*	2023 model year only: Hybrid/Electric Vehicle Battery Pack Replacement and Shipping Preparation (Includes K16 – Battery Energy Control Module Programming) ADD: Crating and Uncrating ADD: Diagnosis	11.3  1.8 0.3-1.0****	ZFAT	**
9106736	Floor Plan Reimbursement – NEW INVENTORY ONLY	N/A	ZFAT	***

\*\*\*\* If more diagnosis time is required than 1.0, you may claim OLH.

Note: To avoid having to “H” route the floor plan transaction for approval, it must be submitted prior to the repair transaction.

**Important:** \* To avoid warranty transaction rejections, the Warranty Administrator will need to carefully read and follow the instructions below:

Labour Time [\[Top\]](#)

Labour Operation Code:

Additional labour op code information:

SPS Warranty Claim Code:

- **Required (Warranty Administrator)** – The Warranty Claim Code must be accurately entered in the “Warranty Claim Code” field of the transaction.
  - **When more than one Warranty Claim Code is generated for a programming event, it is required to document all Warranty Claim Codes in the “Correction” field on the job card. Dealers must also enter one of the codes in the “Warranty Claim Code” field of the transaction, otherwise the transaction will reject. It is best practice to enter the FINAL code provided by SPS/SPS2.**
  - **Required (Warranty Administrator)** – Document the OLD and NEW Battery BINs in the “Correction” field on the job card (per Technician Old and New Battery BIN recording on repair order in service procedure step 5).
- \*\* Submit a \$520.00 USD (\$624.00 CAN) administrative part allowance. Add this amount in the Administrative Allowance Net Item field when submitting the repair transaction.
- \*\* Submit a \$700.00 USD (\$950.00 CAN) administrative allowance for recall specific impacts to technician and service department throughput, Business Development Centers, high voltage battery handling and storage, and miscellaneous shop supplies.
- \*\* Submit a \$20.00 (\$25.00 CAN) administrative allowance for return of the used high voltage battery assembly (document preparation and packaging). Add this amount in the Administrative Allowance Net Item field when submitting the repair transaction.
- \*\* Involved vehicle owners are eligible for courtesy transportation while their vehicle is being repaired. If courtesy transportation is required, add the actual cost in the appropriate Net Item field when submitting the repair

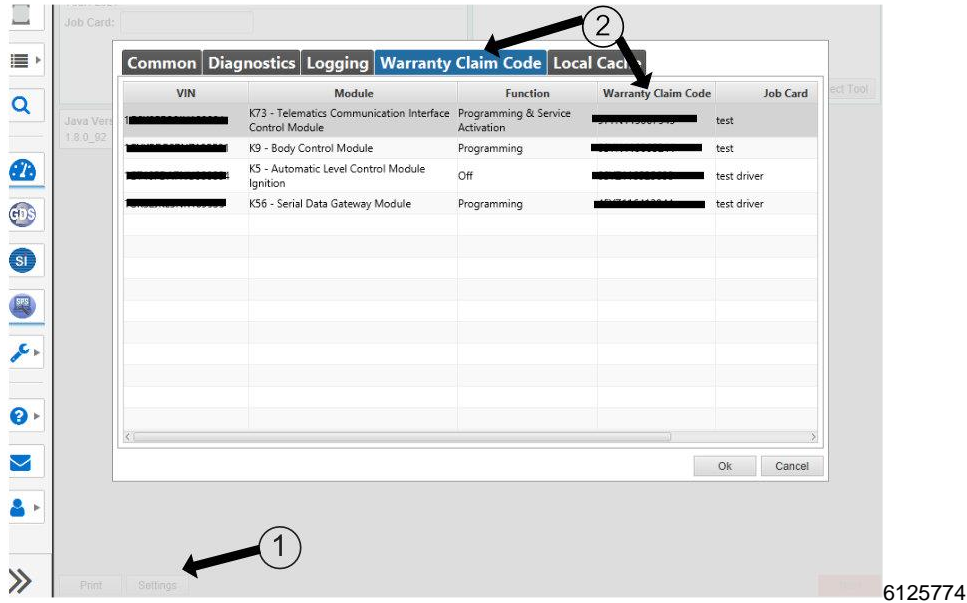
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transaction. Refer to GM Warranty Administration Bulletin 18-NA-094 for Courtesy Transportation Program guidelines.

### Warranty Claim Code Information Retrieval



If the Warranty Claim Code was not recorded on the Job Card, the code can be retrieved in the SPS system as follows:

1. Open TIS/TLC on the computer used to program the vehicle.
2. Select and start SPS/SPS2.
3. Select Settings.
4. Select the Warranty Claim Code tab.

The VIN, Warranty Claim Code and Date/Time will be listed on a roster of recent programming events. If the code is retrievable, dealers should resubmit the transaction making sure to include the code in the SPS Warranty Claim Code field.

### Floor Plan Reimbursement – NEW INVENTORY ONLY

\*\*\* **USA Only** – For vehicles eligible for floor plan reimbursement, the amount should be submitted in Net Item/Miscellaneous. This amount should represent the product of the vehicle’s average daily interest rate (see table below) multiplied by the actual number of days the vehicle was in dealer inventory and not available for sale. This reimbursement is limited to the number of days from the date of the stop delivery message October 13, 2022, to the date the VIN was placed in “Open” status in IVH. (Maximum Number of days for Floor Plan is calculated from the “Release Date” on VINs in “Open” Status in IVH, and will be adjusted as additional releases occur.)

Vehicle	Floor Plan Reimbursement Amount	
	USA	Canada
2022 GMC HUMMER EV	\$28.33	N/A
2023 GMC HUMMER EV	TBD	N/A

### Special Tools

Marketing Number	Description
EL-53000	HV Battery Support Fixture
EL-53152	HV Battery Alignment Pins
GE-47716	Vac-N-Fill Coolant Refill Tool
EL-53076	Battery Pack Coolant Passage Pressure Adapter
EL-53080	High Voltage Battery Pack Lifting System

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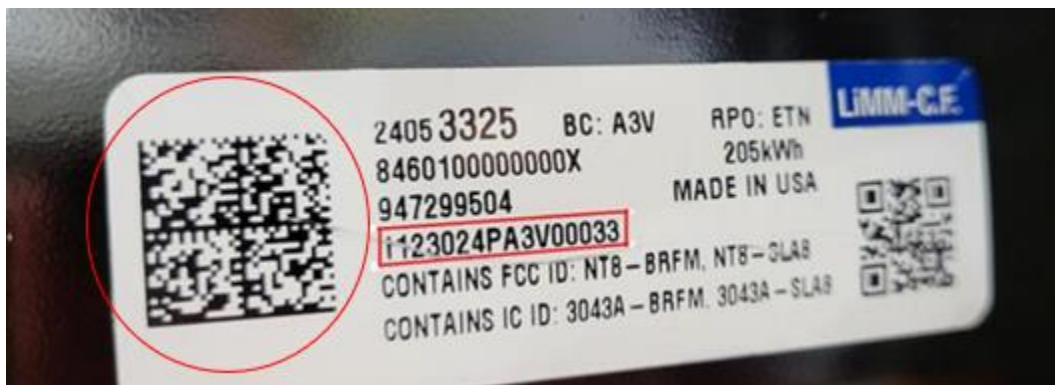


EL-53097	EV Battery Lifting Eye Bolts
EL-39200-LEAD	Electronic Test Leads Kit
EL-48900-A	HV Safety Kit
EL-49642	SPS Programming Support Tool

**REQUIRED: Replacement Battery Identification Number (BIN) Recording (CSMT RPT Method)**

**IMPORTANT: \* (TECHNICIAN) the OLD and NEW BATTERY IDENTIFICATION NUMBER (BIN) RECORDING IS REQUIRED per the information in the Service Procedure.**

It is REQUIRED to record the Battery Identification Number (BIN) using the Certified Service Mobile Toolbox (CSMT) Replacement Part Traceability (RPT) App. Refer to **TSB 22-NA-070** for specific information on downloading the App to your mobile phone, how to use/submit the new part serial number/QR code information and other related Q and A.



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If the App is already loaded to your phone, simply:

1. Log into the CSMT RPT application
2. Scan the Vehicle VIN (door pillar QR code or windshield VIN barcode) that the new part is going into and
3. Scan the new part label QR code as shown above and
4. Check the information and if correct then, Submit. (Note: you can verify submission by checking your phone outgoing emails)
5. Repeat steps 1-4 above for Old and New Battery

**Failure to submit this serial number by RPT may cause the claim to reject.**

### Service Procedure

**Danger: Failure to use the proper Personal Protective Equipment and failure to carefully follow these procedures may result in serious injury or death.**

**Important:** Service agents must comply with all International, Federal, State, Provincial, and/or Local laws applicable to the activities it performs under this bulletin, including but not limited to handling, deploying, preparing, classifying, packaging, marking, labeling, and shipping dangerous goods. In the event of a conflict between the procedures set forth in this bulletin and the laws that apply to your dealership, you must follow those applicable laws.

### Return Battery Shipping Check List – Steps 1-5

1. Using the MDI2, check all modules for the following DTCs; U2BFC, U2220-U2237, U1666, U1667, U2426, U2427, U359E, P0AA6.
  - If ANY of the above DTCs are set (current OR history), **stop work immediately, record the data that was incorrect and contact TAC (for additional diagnostics, battery storage, handling, and shipping information).**
  - If NONE of those DTCs are set, continue to the next step.

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Data Display

Diagnostic Data Display | Graphical Data Display | Line Graph | DTC Display

High Voltage Isolation Data

Parameter Name	Value	Unit	Control Module
Drive Motor Inverter High Voltage Bus Positive to Chassis Ground Voltage		V	Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Positive to Pack Voltage		V	Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Negative to Pack Voltage		V	Battery Energy Control Module
Inspired Electric Vehicle Battery Pack 1 Positive Half Pack Voltage		V	Battery Energy Control Module
Inspired Electric Vehicle Battery Pack 2 Positive Half Pack Voltage		V	Battery Energy Control Module
Inspired Electric Vehicle Battery Pack 1 Negative Half Pack Voltage		V	Battery Energy Control Module
Inspired Electric Vehicle Battery Pack 2 Negative Half Pack Voltage		V	Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Voltage Isolation Detection Mode			Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Voltage Active Isolation Command			Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Voltage Active Isolation Test Status			Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Voltage Active Isolation Test Completed			Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Voltage Active Isolation Test - Most Recent			Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Voltage Active Isolation Test - History 1			Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Voltage Active Isolation Test - History 2			Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Voltage Active Isolation Test - History 3			Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Voltage Active Isolation Test - History 4			Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Voltage Active Isolation Test - History 5			Battery Energy Control Module
Most Recent Active Isolation Resistance - Complete Vehicle		kOhm	Battery Energy Control Module
Minimum Active Isolation Resistance - Complete Vehicle		kOhm	Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Voltage Isolation Propagation System Test Status			Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Voltage Isolation AC Charge Test Status			Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Voltage Isolation DC Charge Test Status			Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Voltage Isolation Pack Test Status			Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Voltage Isolation Pack 2 Test Status			Battery Energy Control Module
Most Recent Isolation Resistance - Propulsion Mode		kOhm	Battery Energy Control Module
Most Recent Isolation Resistance - AC Charging Mode		kOhm	Battery Energy Control Module
Most Recent Isolation Resistance - DC Fast Charging Mode		kOhm	Battery Energy Control Module
Most Recent Isolation Resistance - Park		kOhm	Battery Energy Control Module
Most Recent Isolation Resistance - Park 2		kOhm	Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Charging Active Isolation Test - Most Recent			Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Charging Active Isolation Test - History 1			Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Charging Active Isolation Test - History 2			Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Charging Active Isolation Test - History 3			Battery Energy Control Module

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2. With the MDI2 and GDS, observe and record the battery energy control module parameter(s) in GDS (example of the correct data screen shown above). Under Module Diagnostics, select **K16 – Battery Energy Control Module - > Data Display -> High Voltage Isolation Data**.

- If value IS below 6.3 MOhm, rerun the isolation test (select *Hybrid/Electric Vehicle Battery Pack Active Isolation Test* in GDS).
- If value remains below 6.3 MOhm, **stop work immediately, record the data that was incorrect and contact TAC (for additional diagnostics, battery storage, handling, and shipping information)**.
- If value is NOT below 6.3 MOhm, proceed to next step.

GDS2

Data Display

Diagnostic Data Display | Graphical Data Display | Line Graph | DTC Display

Hybrid/Electric Vehicle Battery Pack Temperature Data

Parameter Name	Value	Unit	Control Module
Insulation System Status			Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Coolant Temperature		°C	Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Minimum Temperature		°C	Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Average Temperature		°C	Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Maximum Temperature		°C	Battery Energy Control Module
Inspired Electric Vehicle Battery Pack 1 Minimum Temperature		°C	Battery Energy Control Module
Inspired Electric Vehicle Battery Pack 2 Average Temperature		°C	Battery Energy Control Module
Inspired Electric Vehicle Battery Pack 2 Maximum Temperature		°C	Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Thermal Event Temperature Sensor		°C	Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Thermal Event Temperature Sensor 2		°C	Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Thermal Event Gas Sensor		ppm	Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Thermal Event Gas Sensor 2		ppm	Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Thermal Event Pressure Sensor		hPa	Battery Energy Control Module
Inspired Electric Vehicle Battery Pack Thermal Event Pressure Sensor 2		hPa	Battery Energy Control Module

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3. With the MDI2 and GDS, observe and record the battery energy control module parameter(s) in GDS (example of the correct data screen shown above). Under Module Diagnostics, select **K16 – Battery Energy Control Module - > Data Display -> Hybrid/Electric Vehicle Battery Pack Temperature Data**. Ensure *Hybrid/Electric Vehicle Battery Pack Thermal Event Gas Sensor* and *Hybrid/Electric Vehicle Battery Pack Thermal Event Gas Sensor 2* both display 30,000 PPM or less.

- If either sensor is greater than 30,000 PPM, **TURN OFF AND EXIT THE VEHICLE. Stop work immediately, record the data that was incorrect and contact TAC (for additional diagnostics, battery storage, handling, and shipping information)**.
- If both sensors do not exceed 30,000 PPM or gas level decreases proceed to the next step.



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The screenshot shows the GDS Diagnostic Data Display interface. The title bar reads 'Data Display' and the main window title is 'Diagnostic Data Display | Graphical Data Display | Line Graph | DTC Display'. Below the title bar, there is a sub-header 'Hybrid/Electric Vehicle Battery Module Temperature Data'. The main area contains a table with the following columns: Parameter Name, Value, Unit, and Control Module. The table lists 24 rows of data, each representing a temperature measurement for a specific battery interface control module (e.g., 'Hybrid/Electric Vehicle Battery Interface Control Module 1 Temperature 1'). All values are 25, and all units are °C. The control module for all entries is 'Battery Energy Control Module'. The number '6305357' is visible in the bottom right corner of the screenshot.

Parameter Name	Value	Unit	Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 1 Temperature 1	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 1 Temperature 2	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 2 Temperature 1	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 2 Temperature 2	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 3 Temperature 1	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 3 Temperature 2	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 4 Temperature 1	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 4 Temperature 2	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 5 Temperature 1	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 5 Temperature 2	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 6 Temperature 1	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 6 Temperature 2	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 7 Temperature 1	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 7 Temperature 2	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 8 Temperature 1	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 8 Temperature 2	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 9 Temperature 1	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 9 Temperature 2	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 10 Temperature 1	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 10 Temperature 2	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 11 Temperature 1	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 11 Temperature 2	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 12 Temperature 1	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 12 Temperature 2	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 13 Temperature 1	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 13 Temperature 2	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 14 Temperature 1	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 14 Temperature 2	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 15 Temperature 1	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 15 Temperature 2	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 16 Temperature 1	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 16 Temperature 2	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 17 Temperature 1	25	°C	Battery Energy Control Module
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Hybrid/Electric Vehicle Battery Interface Control Module 18 Temperature 2	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 19 Temperature 1	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 19 Temperature 2	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 20 Temperature 1	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 20 Temperature 2	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 21 Temperature 1	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 21 Temperature 2	25	°C	Battery Energy Control Module
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Hybrid/Electric Vehicle Battery Interface Control Module 23 Temperature 2	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 24 Temperature 1	25	°C	Battery Energy Control Module
Hybrid/Electric Vehicle Battery Interface Control Module 24 Temperature 2	25	°C	Battery Energy Control Module

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- With the MDI2 and GDS, observe and record the battery energy control module parameter(s) in GDS (example of the correct data screen shown above). Under Module Diagnostics, select **K16 – Battery Energy Control Module - > Data Display -> Hybrid/Electric Vehicle Battery Module Temperature Data**. Ensure *Hybrid/Electric Vehicle Battery Interface Control Module 1 thru Module 24 Temperature 1 and 2* are all within 5C degrees of each other. Additionally, ensure none exceed 35C.
  - If any temperature is 5C degrees greater than the others or exceeds 35C, **TURN OFF AND EXIT THE VEHICLE. Stop work immediately, record the data that was incorrect and contact TAC (for additional diagnostics, battery storage, handling, and shipping information).**
  - If all temperatures are within 5C of each other and do not exceed 35C:
    - Inspection is complete.

**Danger: If any liquid drips from any of the Battery Pack electrical connectors (or the inspection port/drain plug on the high voltage battery) while disconnecting them, finish battery replacement as quickly as possible and immediately place the removed Battery Pack outside, and contact TAC (for additional diagnostics, battery storage, handling, and shipping information).**

**Note: The new Battery Pack provided may have slight differences from your existing battery, such as a lack of the metal heat shields. It is not necessary to transfer anything from the old Battery Pack to the new one.**

- Replace the Hybrid/Electric Vehicle Battery Pack. Refer to *Hybrid/Electric Vehicle Battery Pack Replacement and Shipping Preparation* in SI.
  - Refer to bulletin 22-NA-005 for additional container-specific information on uncrating the new battery you will receive. This bulletin also contains information on packaging and crating the battery that will be removed from the vehicle for return to GM.
    - After reviewing document 22-NA-005, refer to Hybrid/Electric Vehicle Battery Pack Lifting System and remove the replacement battery pack from the shipping crate. Place the replacement battery pack onto the 4 inch x 4 inch x 8 foot boards. Then remove the EL-53097 EV Battery Lifting Eyebolts for later transfer onto the defective battery pack.

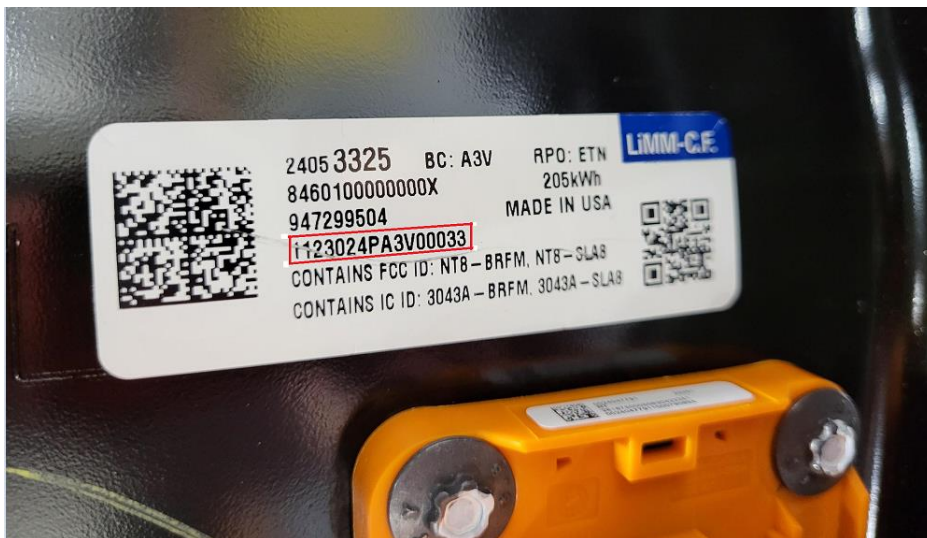
## Product Safety Recall

### N222380031 Improper Urethane Sealing - High Voltage Battery Pack



6305405

- Prior to removing the Battery Assembly from the vehicle, after disconnecting the High Voltage connectors, remove the inspection port/drain plug (circled above) to see if any fluid drains, then reinstall the plug.
  - + If fluid drains from the High Voltage connectors or the inspection port/drain plug, **refer to the danger statement above step 5.**
  - + If no fluid drains from either area, proceed to the next step.



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- **REQUIRED (Technician)** - Locate the BIN label on the rear of the battery and record the BIN of both the old and new battery packs on the repair order.

# Product Safety Recall

## N222380031 Improper Urethane Sealing - High Voltage Battery Pack



### Programming Procedure

#### Notes:

Ensure the programming tool is equipped with the latest software and is securely connected to the data link connector (DLC). If there is an interruption during programming, programming failure or control module damage may occur.

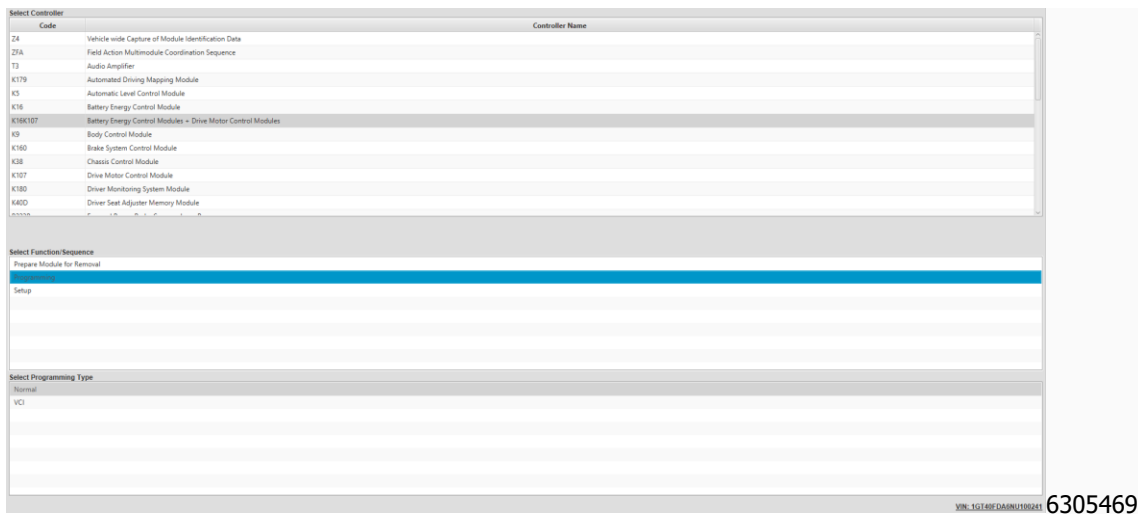
Stable battery voltage is critical during programming. Any fluctuation, spiking, over voltage or loss of voltage will interrupt programming. When required, install a battery maintainer or power supply that provides a steady and stable voltage. Do not use a battery charger, as charging voltage will often fluctuate when connected to the vehicle. This may interrupt programming. If a battery maintainer is not available, connect a fully charged 12 V jumper or booster pack disconnected from the AC voltage supply.

Turn OFF or disable systems that may put a load on the vehicles battery such as; interior lights, exterior lights (including daytime running lights), HVAC, radio, etc.

During the programming procedure, follow the SPS prompts for the correct propulsion system state.

Clear DTCs after programming is complete.

6. Prior to programming, ensure there are no latched High Voltage DTCs. Refer to *Clear Secured High Voltage DTCs in SI*.



7. Program the vehicle using the MDI2 and Techline Connect.

- For MY 22 HUMMER EV - Select the sequenced programming event “K16K107 – Battery Energy Control Module / Drive Motor Control Modules”, as shown above, and then follow the on-screen instructions.
- For MY 23 HUMMER EV - Select “K16 – Battery Energy Control Module”, and then follow the on-screen instructions.

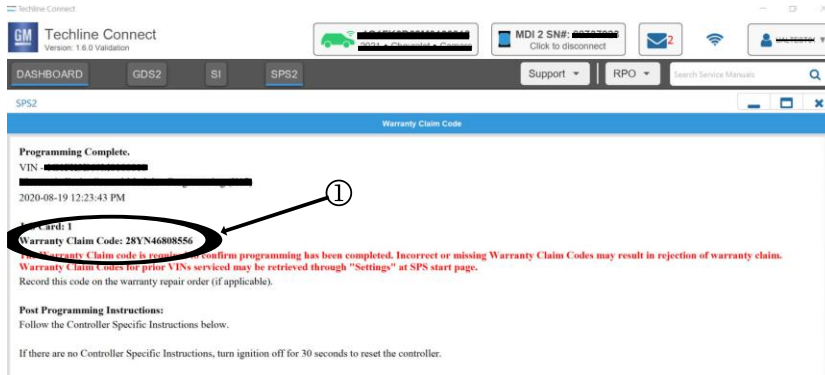


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- If the above message appears on the IPC, disconnect the 12v battery system negative cable and wait at least 10 minutes before reconnecting the battery again and starting at step 5. Refer to *Battery Negative Cable Disconnection and Connection* in SI. If any other trouble is encountered with programming, contact Techline at 1-800-828-6860.



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**Note:** The screenshot above is an example of module programming and may not be indicative of the specific module that is being programmed. Module selection and VIN information have been blacked out.

**Important:** To avoid warranty transaction rejections, you **MUST** record the warranty claim code provided on the Warranty Claim Code (WCC) screen shown above on the job card. Refer to callout 1 above for the location of the WCC on the screen.

- Record SPS Warranty Claim Code on job card for warranty submission.

### Dealer Responsibility – For USA & Export (USA States, Territories, and Possessions)

It is a violation of Federal law for a dealer to deliver a new motor vehicle or any new or used item of motor vehicle equipment (including a tire) covered by this notification under a sale or lease until the defect or noncompliance is remedied.

The US National Traffic and Motor Vehicle Safety Act provides that each vehicle that is subject to a recall of this type must be adequately repaired within a reasonable time after the customer has tendered it for repair. A failure to repair within sixty days after tender of a vehicle is prima facie evidence of failure to repair within a reasonable time. If the condition is not adequately repaired within a reasonable time, the customer may be entitled to an identical or reasonably equivalent vehicle at no charge or to a refund of the purchase price less a reasonable allowance for depreciation. To avoid having to provide these burdensome remedies, every effort must be made to promptly schedule an appointment with each customer and to repair their vehicle as soon as possible. In the recall notification letters, customers are told how to contact the US National Highway Traffic Safety Administration if the recall is not completed within a reasonable time.

### Dealer Responsibility – All

All new, used, GM Certified Used, courtesy transportation vehicles, dealer shuttle vehicles, etc. in dealers' possession and subject to this recall must be held and inspected/repaired per the service procedure of this bulletin before customers take possession of these vehicles. Involved vehicles must be held and not delivered to customers, dealer-traded, released to auction, used for demonstration, or any other purpose.

All GM Certified Used vehicles currently in the dealers' inventory within the Certified Pre-Owned Inventory System (CPOIS) will be de-certified and must be held and remedied per the service procedure in this bulletin. Upon submitting an accepted/paid warranty transaction in the Global Warranty Management (GWM) system, the vehicle can be re-certified for sale within the CPOIS system, or once again be used in the CTP program.

Dealers are to service all vehicles subject to this recall at no charge to customers, regardless of mileage, age of vehicle, or ownership, from this time forward.

Customers who have recently purchased vehicles sold from your vehicle inventory, and for which there is no customer information indicated on the dealer listing, are to be contacted by the dealer. Arrangements are to be made to make the required correction according to the instructions contained in this bulletin. A copy of the customer letter is provided in this bulletin for your use in contacting customers. Recall follow-up cards should not be used for this purpose, since the customer may not as yet have received the notification letter.

## Product Safety Recall

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In summary, whenever a vehicle subject to this field action enters your vehicle inventory you must take the steps necessary to ensure the program correction has been made before selling the vehicle. In addition, for vehicles entering your facility for service, you are required to ensure the customer is aware of the open field action and make every reasonable effort to implement the program correction as set forth in this bulletin prior to releasing the vehicle.

#### **Dealer Reports – For USA & Export**

For dealers with involved vehicles, a listing has been prepared and will be available through GM GlobalConnect Maxis Field Action Reports or sent directly to export dealers. The Inventory tab of the dealer reports will contain VINs that apply to this recall. This information is intended to assist dealers with the **PROMPT COMPLETION** of these vehicles. The Customer In-Service tab will contain customer names and addresses from Motor Vehicle Registration Records. The use of such motor vehicle registration data for any purpose other than follow-up necessary to complete this recall may be a violation of law in several states.

#### **Courtesy Transportation – For USA & Canada**

Courtesy transportation is available for customers whose vehicles are involved in a product program and still within the warranty coverage period. See General Motors Service Policies and Procedures Manual for courtesy transportation program details.

#### **Customer Notification**

USA & Canada - General Motors will notify customers of this recall on their vehicle (see copy of customer letter included with this bulletin).

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GM bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the tools, equipment, safety instructions, and know-how to do a job properly and safely. If a condition is described, **DO NOT** assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your dealer for information on whether your vehicle may benefit from the information.



**We Support  
Voluntary Technician  
Certification**

# Product Safety Recall

N222380031 Improper Urethane Sealing - High Voltage Battery Pack



# IMPORTANT SAFETY RECALL

April 2023

This notice applies to your vehicle, VIN: \_\_\_\_\_

Dear General Motors Customer:

This notice is sent to you in accordance with the National Traffic and Motor Vehicle Safety Act.

General Motors has decided that a defect which relates to motor vehicle safety exists in certain 2022-2023 model year GMC HUMMER EV vehicles. As a result, GM is conducting a safety recall. We apologize for this inconvenience. However, we are concerned about your safety and continued satisfaction with our products.

## IMPORTANT

- Your vehicle is involved in GM safety recall N222380031.
- Schedule an appointment with your GM dealer.
- This service will be performed for you at **no charge**.
- Until the repair is completed, your vehicle can be driven and charged normally. But as a precaution, do not drive your vehicle through deep water (over 24 inches deep).

### Why is your vehicle being recalled?

In some of the recalled vehicles, the high-voltage battery pack enclosure may not have been properly sealed. If the pack enclosure is not sealed, water can enter the pack. If water enters the battery pack enclosure, one or more malfunction indicator lamps may illuminate and the driver information center may display a warning message to the driver. Your vehicle may not start or could lose propulsion while driving. A loss of propulsion while driving can increase the risk of a crash.

### What will we do?

Your GMC dealer will replace high-voltage battery packs. This service will be performed for you at **no charge**. Because of service scheduling requirements, it is likely that your dealer will need your vehicle for 1-2 days to complete the repair.

### What should you do?

You should contact your GMC dealer to arrange a service appointment as soon as possible.

When scheduling your appointment, confirm with the dealer that they are an EV certified dealer.

### Do you have questions?

If you have any questions or concerns that your preferred GMC HUMMER EV dealer is unable to resolve, please contact the EV Concierge at 1-833-HUMMER-EV (1-833-486-6373) (TTY 711 / 1-800-833-2438).

For the hearing or speech impaired, please contact our Customer Assistance Center using the Telecommunication Relay Service by dialing 711 then providing the appropriate Customer Assistance Center number for your vehicle.

Division	Number	Text Telephones (TTY)
GMC HUMMER EV/SUV	1-833-HUMMER-EV (1-833-486-6373)	711 / 1-800-833-2438
Puerto Rico – English	1-866-467-9700	
Puerto Rico – Español	1-866-467-9700	
Virgin Islands	1-866-467-9700	

If after contacting your dealer and the Customer Assistance Center, you are still not satisfied we have done our best to remedy this condition without charge and within a reasonable time, you may wish to write the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE, Washington, DC 20590, or call the toll-free

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Vehicle Safety Hotline at 1.888.327.4236 (TTY 1.800.424.9153), or go to <http://www.nhtsa.gov>. The National Highway Traffic Safety Administration Campaign ID Number for this recall is 22V771.

Federal regulation requires that any vehicle lessor receiving this recall notice must forward a copy of this notice to the lessee within ten days.

Regina A. Carto  
Vice President  
Global Product Safety and Systems

GM Recall: N222380031