Bulletin No.: PIT5513A

Date: Oct-2016

Service Bulletin

PRELIMINARY INFORMATION

Subject: eAssist (BAS3 HYBRID) Drive Motor Generator Battery Module (Powerpack) and Part Restriction

Models: 2016-2017 Chevrolet Silverado

2016-2017 GMC Sierra

This PI was superseded to update Warranty Information. Please discard PIT5513.

The following diagnosis might be helpful if the vehicle exhibits the symptom(s) described in this PI.

Condition/Concern

As part of our ongoing quality improvement process, effective May 30, 2016 the A4 Hybrid/EV battery Pack, A28 Generator Battery Disconnector Relay, K114B Hybrid/EV Powertrain Control Module (HPCM2), and G14 Drive Motor Generator Battery Cooling Blower for the 2016-2017 Silverado and Sierra with eAssist are being placed on restriction through the General Motors Technical Assistance Center (TAC).

This P/I will explain the Exchange Program for all models listed above.

Product teams continually seek valuable information for engineering improvements. This exchange program is also designed to gain important feedback on the Drive Motor Generator Control and Battery Module Assembly or Battery Sections regarding service diagnostics, repair procedures, and accelerated root cause analysis for continuous improvements.

After providing your dealer a case number and authorization number, the TAC Consultant will order the Drive Motor Generator Battery Module(Powerpack).

Warranty replacement parts will be provided at no charge to the dealership.

Recommendation/Instructions

Important: DO NOT ATTEMPT TO REPROGRAM SOFTWARE OR CLEAR ANY DTCs PRIOR TO CAPTURING DATA AND CALLING TAC

Prior to calling TAC, please, completely follow diagnosis guidelines and obtain all required information as provided in the Recommendation/Instructions portion c this PI. This will minimize the time spent on the telephone and prevent the need for multiple calls to TAC. Guidelines for honoring this exchange program are being strictly enforced. To obtain a replacement Powerpack, the servicing eAssist technician must provide TAC with a detailed customer complaint, conditions, diagnostic trouble codes (DTCs), Freeze Frame/Failure Records and other useful information as outlined below

Danger: Always perform the High Voltage Disabling procedure prior to servicing any High Voltage component or connection. Personal Protection Equipment (PPE) and proper procedures must be followed.

The High Voltage Disabling procedure will perform the following tasks:

- Identify how to disable high voltage.
- Identify how to test for the presence of high voltage.
- Identify condition under which high voltage is always present and personal protection equipment (PPE) and proper procedures must be followed.

Before working on any high voltage system, be sure to wear the following Personal Protection Equipment:

- Safety glasses with appropriate side shields when within 15 meters (50 feet) of the vehicle, either indoors or outdoors.
- Certified and up-to-date Class "0" Insulation gloves rated at 1000V with leather protectors.
  - Visually and functionally inspect the gloves before use.
  - Wear the Insulation gloves with leather protectors at all times when working with the high voltage battery assembly, whether the system is energizec or not.

Danger: Ensure all High Voltage safety procedures are followed. Failure to follow the procedures exactly as written may result in serious injury or death. Have an eAssist trained hybrid technician follow the diagnostic procedures below prior to contacting TAC.

1. If DTCs are present and procedure gives direction to remove internal components; STOP, record Freeze Frame/Failure Record stored data, view vehicle wide DTCs and Module ID information with GDS2. Any data reviewed will be included in your GDS2 Session Log. If possible, test drive vehicle with GDS2 and MDI connected to capture data from the Hybrid Powertrain Control Module (HPCM) and Hybrid Powertrain Control Module 2 (HPCM2) voltage menus, including any other menus as needed, when condition occurs. See the latest version of PIP4902 for instructions on GDS2 data collection and how to email the log to TAC. TAC may request that you email the Session Log to them.
2. If DTCs are not present, refer to Hybrid/EV Controls - Symptoms - Hybrid Controls in G.S.I.
3. If any diagnostic procedure gives direction to remove internal components, stop and call TAC, internal components should not be removed at this time.
4. Upon review of the diagnosis, TAC will establish a case reference number and Contact the Battery Service Center (BSC) to order the Powerpack for your dealership if necessary.
5. The dealership should provide any important shipping instructions and the TAC Consultant will confirm the shipping information with the dealership that is requesting the order.
6. Disable the high voltage system. Refer to G.S.I. for the High Voltage Disabling Procedure.
7. Remove the Powerpack as required. Refer to High Voltage Battery Replacement.
8. Prior to contacting TAC, make sure you know:
   - The name of the parts department manager or another contact in parts department who will be handling the battery pack
   - The parts department fax number
   - The Powerpack serial number (Battery Identification Number)
9. The Battery pack Identification Number (BIN) tag is located on the back of the assembly cover. Locate the tag and record the 16 digit Battery pack Identification Number (See Photo Below). If the Generator Control and Battery Module is not out of the vehicle yet, you can find the assembly ID number by installing the MDI and using GDS2. Access the Hybrid Powertrain Control Module 2 (HPCM2) menu and look under the ID Information section for the sixteen digit number. It will be listed under the parameter: Hybrid Battery Pack Identification Number. You will need to record the serial number and supply it to TAC when requesting a Powerpack or Battery Sections.

10. Refer to G.S.I. for Programming and Setup Procedures under the Control Module Reference Table for Hybrid Powertrain Control Module 2 (HPCM2).
11. Charge pack to at least 30% SOC by driving or idling the vehicle. Review the GDS2 data to ensure the charging system is operational.
12. Refer to G.S.I. High Voltage Battery Replacement.

Danger: The high voltage (HV) battery must be protected when outside of the vehicle. This is why the battery must be immediately placed inside the plastic shipping bag and the original shipping container.

STORAGE GUIDELINES:

1. Store the High Voltage Battery flat on a level surface.
2. Store the High Voltage Battery in an environmentally protected area.
3. Maintain the High Voltage Battery at room temperature.
4. Protect the High Voltage Battery from exposure to liquids.

5. Protect the High Voltage Battery from physical damage.
6. Store the High Voltage Battery in a limited-access area.

Danger: Failure to follow these guidelines may result in serious injury or death.

CANADA ONLY- Parts Return Request (Core Return) - For dealers in Canada, the return of failed batteries will be handled through the existing core return process. (Type 4 return)

SHIPPING PREPARATION:

1. Disable the high voltage. Refer to G.S.I. High Voltage Disabling
2. Remove the High Voltage Battery from the vehicle as outlined in High Voltage Battery in G.S.I.
3. Tighten any fasteners that were loosened or removed during High Voltage Battery Module removal to the original torque specification.
4. Write the TAC case reference number on the High Voltage Battery in a visible location
5. Write the TAC case reference number on the repair order.
6. Ensure that tape with UL® listed, or equivalent, insulation tape rated at a minimum of 600v covers the high voltage 3 phase cable connections and the 12 volt DC cable connection.
7. Ensure the Manual Service Disconnect (MSD) Cover is properly retained.
8. Place the High Voltage Battery into the plastic shipping bag and original shipping container.
9. Place a copy of the completed repair order with any technician comments, inside the shipping container with the failed battery.

CANADA DEALER SHIPPING INSTRUCTIONS:

Canadian Dealers should follow the steps below to return a failed battery:

1. Submit a type 4 core return for the battery.
   a. A core return tag along with a core return application will be generated at your servicing PDC and sent to you.
2. Place the core return tag on the outside of the battery container.
3. Secure shipping container to the shipping pallet with reusable straps.

   Note: DO NOT return the battery in any container other than the container that the new/refurbished battery was delivered in.
4. Complete the required hazardous goods shipping paperwork (302C form).
5. Leave the labeled container along with the necessary shipping documents in the area within your dealership which you would normally use for your material / core returns. The DDS carrier will pick up this battery core along with your normal returns. If your dealership is not serviced by a DDS carrier you will need to return this battery via LTL (similar to how you would return other parts).
6. DO NOT return batteries to the Battery Service Center (BSC) in Canada.

US ONLY – Parts Return Request

– You will be contacted with a Special Parts Return Request and proper shipping instructions within two weeks.

PLEASE FOLLOW GUIDELINES BELOW:

1. DO NOT send a High Voltage Battery back without a Special Parts Return Request.
2. DO NOT send the High Voltage Battery back to the Battery Service Center (BSC).
3. DO NOT return the High Voltage Battery in any other container than the container that the new/refurbished battery was delivered in. The removed unit must be returned complete in the original exchange shipping container.

The Special Parts Request will provide a request number. This request number must be placed in the outside shipping envelope along with the TAC Case number. Do not ship a High Voltage Battery back without an official Request.

Note: If you do not receive the return paper work, Call GM CCA Logistics: 855-654-7157 (shipper prompt #1) to obtain the proper paper work in order to return the failed battery Module.

U.S. DEALER SHIPPING INSTRUCTIONS:

1. Refer to the Lithium Ion (Li Ion) Battery Warranty Return Process in Global Connect listed under Parts / Process and Policy / G_0000176282 for detailed shipping information.
2. Place a copy of the Special Parts Return Request, repair order with technician comments and place into the plastic envelope. The bill of lading and customs papers (for cross border shipments) should also be inserted into the plastic envelope. Remove the original shipping label and attach the plastic envelope with the return shipping label on it to the container.
3. Close the top lid and adhere using the two Velcro straps. See photo above.
4. Label the outside of the shipping container with the Part Return request number and the TAC case reference number.

Battery" http://recyclemybattery.com/ for the latest information.

Warranty and customer pay batteries that are not compromised should be returned to the BSC

Parts Information

Description	Part Number	Qty
2016 A4, Hybrid/EV battery Pack	24284307	1
2017 A4, Hybrid/EV battery Pack	24283816	1
A28, Generator Battery Disconnector Relay	24284219	1
K114B, Hybrid/EV Powertrain Control Module (HPCM2)	24283822	1
G14, Drive Motor Generator Battery Cooling Blower	13585840	1
K112A, High Voltage Battery Interface Control Module 1	24282084	1
K112B, High Voltage Battery Interface Control Module 2	24282084	1

Warranty Information

For vehicles repaired under warranty use:

No Part Number should be entered for exchange components on the warranty claim.

Exchange battery is delivered to the dealer by Spiers New Technologies (SNT).

Dealer is not billed for an exchange component unless it is not returned within the prescribed time period.

There will be a $250 handling allowance for this exchange.

Applicable handling allowance and miscellaneous items such as coolant should be added to the part allowance amount and claimed in the Parts Cost column and not included in the Net Amount (DMN) column of the warranty claim.

Labor Operation	Description	Labor Time	Part Allowance
5031630	High Voltage Battery Replacement	Use Published Labor Operation Time	$250.00
5030410	Cell Battery Module Replacement	Use Published Labor Operation Time	$250.00
Add	Administrative Allowance	0.2 hr	
Add	Road test – Data snapshot	0.3 hr	
Add	Additional time to balance section	1.0 hr	
Labor Operation	Description	Labor Time	Part Allowance
5031410	Generator Battery Disconnector Relay Replacement	Use Published Labor Operation Time	

Labor Operation	Description	Labor Time	
5031410	Generator Battery Disconnector Relay	Use Published Labor Operation Time	
5010080	Hybrid/EV Powertrain Control Module (HPCM2)	Use Published Labor Operation Time	
5010250	High Voltage Battery Interface Control Module 1 and 2	Use Published Labor Operation Time	
?	Drive Motor Generator Battery Cooling Blower	Use Published Labor Operation Time	

Please follow this diagnostic or repair process thoroughly and complete each step. If the condition exhibited is resolved without completing every step, the remaining steps do not need to be performed.
