RQ13-003

GM

9-9-2013

ATTACHMENT 1

Q7A

Q7B PAGE 79

Q8 PAGE 160

Q 11 PAGE 186

RQ13-003

GM

9-9-2013

ATTACHMENT 1

Q 07 A

Service Bulletin

File in Section: 00 - General Information
Bulletin No.: 10-00-89-017Z
Date: March, 2013

INFORMATION

Subject: **Car and Truck Fix it Right the First Time Issues**

Models: **2013 and Prior GM Passenger Cars and Trucks**

This bulletin is being revised to include updated information. Please discard Corporate Bulletin Number 10-00-89-017Y (Section 00 – General Information).

In order to access this bulletin electronically, go to the SI Home Page and select the "Newest Bulletins" icon. The documents are arranged by sub-section and then by date (newest to oldest). Scroll down to "General Information" then click on the latest "Fix it Right the First Time" bulletin.

Field Product Reminder – Car Issues – Fix it Right the First Time

Model Year(s)	Vehicle Line(s) / Condition	Do This	Don't Do This	Reference Information/Bulletin
2013	All Lines — Multi-Media Interface Tester (MIT) Software Update for InTouch Radio	There is a new software update available for the MIT which will allow the end user to additionally test the InTouch Radios.	Replace radio if the tool is not updated per the latest S/W.	PI0911
2013	Spark, Sonic — MyLink Radio – XM Inoperable, Service Camera Message On, No Bluetooth Function, Software Enhancement Update – GMNA Only	An updated software calibration has been released to address these conditions. Reprogram the radio following the 2 part steps. Part 1 (SPS Programming) Reprogram the radio using the Service Programming System (SPS) with the latest calibrations available on TIS2WEB. Refer to the SPS procedures in SI. Part 2 (USB Programming).	Replace the radio.	PI0914A
2013	Malibu — Rear Seat Armrest Will Not Fold Up Completely or Lay Flat on Seat Bottom.	Reposition Armrest in bracket. Order new bracket only if necessary.	Replace Complete Armrest.	PI0902
2013	Malibu — Malfunction Indicator Lamp (MIL) On, DTCs P059F and/or P069E Set	Inspect Air Shutter Assembly for damage/ debris, Order & Install Washer from WPC if Necessary.	Replace Air Shutter Assembly.	PI0922

Field Product Reminder – Car Issues – Fix it Right the First Time (cont'd)

Model Year(s)	Vehicle Line(s) / Condition	Do This	Don't Do This	Reference Information/Bulletin
2012-2013	Regal, LaCrosse, Malibu — Service Update for Inventory Vehicles Only - Loss of Battery Charge-Inspect Generator Control Module	Prior to start of inspection, install GDS2 entering current vehicle make, model. Perform a vehicle wide DTC check and record freeze frame records. Select Module Diagnostics / HPCM / Data Display / 14V Power Module menu. Leave GDS2 connected and on this menu throughout the drive cycle. Perform a charging system voltage output test if vehicle fails inspection and part number 24267940 or 24267941 is installed.	Perform procedure without GDS2 connected and on the appropriate menu. Repeat a 3 hour drive cycle if part number 24267940 or 24267941 is installed.	12238D
2012-2013	Corvette, Camaro — Thin Finish in Lug Nut Recesses on Optional Gloss Black Wheels	Paint the lug nut area of the wheel.	Replace wheels for thin paint in the lug nut area.	PI0484A
2005-2013	Corvette Convertible — Dark Stains on Tonneau Lid	Use a light rubbing compound to remove the stain and polish after.	In most cases painting is not required.	13-08-51-001
2010-2013	Camaro — Accessory Blade Spoiler	Obtain new emblem if equipped, additional cost to kit.	Do not charge to warranty.	PI0913

Field Product Reminder – Truck Issues – Fix it Right the First Time

Model Year(s)	Vehicle Line(s) / Condition	Do This	Don't Do This	Reference Information/Bulletin
2013	Silverado, Sierra, Savana, Express — Harsh Shift Illuminated MIL DTC P0716 and or P0717 May be Current or in History in the TCM	Replace the Input Speed Sensor (ISS) and Check the TCM Grounds at the TCM.	Replace the transmission.	PIP5084A
2007-2013	Yukon XL Denali, Yukon Denali, Yukon XL, Yukon, Sierra, Tahoe, Suburban, Silverado, Avalanche, Escalade EXT, Escalade ESV, Escalade — Hydraulic Power Steering Leak at Hose Connection to Steering Rack	Verify leak with dye. Replace Duckbill seal using J-42640 if necessary.	Do not replace steering gear or lines.	12-02-32-001A
2007-2013	Silverado, Sierra — Reduced Heater Performance with Winter Grille Cover Installed	Relocate the ambient air temperature sensor.	Do not replace any HVAC components.	11-01-39-005A
2011-2013	Traverse, Enclave, Acadia — Creak Type Noise from Driver and/or Passenger Seat Track Front Mounting Area	Install shim under seat track.	Replace seat track.	PI0521D

Field Product Reminder – Truck Issues – Fix it Right the First Time (cont'd)

Model Year(s)	Vehicle Line(s) / Condition	Do This	Don't Do This	Reference Information/Bulletin
2013	Traverse, Enclave, Acadia — Bubbles, Bumps or Raised Sections on Side Door Interior Trim Panel(s)	Repair door trim.	Replace door trim.	PI0905
2012-2013	Escalade ESV, Escalade EXT — Rear Door Exterior Paint Finish Chipped, Cracked or Scratched Along Lower Rear Corner of Rear Side Door Reveal Molding	Repair using spacers.	Do not replace reveal molding or refinish w/o adding spacer.	PI0900

Bulletin No.: 13136
Date: May 2013

Recall Bulletin

PRODUCT SAFETY RECALL

SUBJECT: **Loss of Battery Charge – Inspect Generator Control Module**

MODELS: **2012-2013 Buick LaCrosse, Regal**
2013 Chevrolet Malibu Eco
Equipped with eAssist

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.

Vehicles that were involved in Service Update 12238 but have not yet had the repair performed have been transferred to this recall. Vehicles that had parts replaced under Service Update 12238 prior to Nov 15, 2012, have also been transferred to this recall.

CONDITION

General Motors has decided that a defect, which relates to motor vehicle safety, exists in **certain** 2012-2013 model year Buick LaCrosse and Regal, and 2013 model year Chevrolet Malibu Eco vehicles, equipped with eAssist. Some of these vehicles have a condition in which the Generator Control Module (GCM) may not function properly. This could cause a gradual loss of battery charge and the illumination of the malfunction indicator light. If these warnings are ignored, eventually, the engine will stall and/or the vehicle will not start. In addition, there may be a burning or melting odor, smoke, and possibly a fire in the trunk.

CORRECTION

Dealers are to inspect and, if necessary, replace the GCM.

VEHICLES INVOLVED

All involved vehicles are identified by Vehicle Identification Number on the Investigate Vehicle History screen in GM Global Warranty Management system. Dealership service personnel should always check this site to confirm vehicle involvement prior to beginning any required inspections and/or repairs. It is important to routinely use this tool to verify eligibility because not all similar vehicles may be involved regardless of description or option content.

For dealers with involved vehicles, a listing with involved vehicles containing the complete vehicle identification number, customer name, and address information has been prepared

and will be provided to dealers through the GM GlobalConnect Recall Reports. Dealers will not have a report available if they have no involved vehicles currently assigned.

The listing may contain customer names and addresses obtained 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 is a violation of law in several states/provinces/countries. Accordingly, you are urged to limit the use of this report to the follow-up necessary to complete this recall.

PART INFORMATION

Parts required to complete this recall are to be obtained from General Motors Customer Care and Aftersales (GMCC&A). Please refer to your "involved vehicles listing" before ordering parts.

Only a small number of vehicles are expected to require replacement of the generator control module. Parts can only be ordered from the Product Quality Center (PQC) when the service procedure determines that it is necessary to replace the generator control module. Orders placed without PQC approval will automatically cancel.

Note: Approximately 1% of vehicles will require replacement of the Generator Control Module.

Part Number	Description	Quantity/Vehicle
24267940	MODULE, GEN CONT (all 2012 MY & 2013 Malibu)	1 (If Req'd)
24267941	MODULE, GEN CONT (2013 LaCrosse, Regal)	1 (If Req'd)

SERVICE PROCEDURE

Caution: This service procedure is intended to fully stress the generator control module beyond normal customer use. This stress, in rare cases, may result in smoke and thermal damage to the generator control module. For the extended idle portion of the service procedure (Steps 8 and 12), the vehicle should be located outdoors, with the right rear seat back down, and with the location of the power pack in view of an observer in the left rear seat during the complete idle portion. Do not remove any trim panels. If smoke is observed or smelled, even a trace level, or a popping or unusual noise is heard from the power pack, immediately turn off the engine and exit the vehicle. Continue to observe vehicle for 10 minutes, making sure event has subsided. Connect GDS2 tool, key on to RUN, and acquire freeze frame data from ECM and HPCM. Turn the key to the off position and disconnect 12V battery while vehicle waits for repair.

Note: Install GDS2 to vehicle. Enter current vehicle make model. Perform a Vehicle Wide DTC check and record any Freeze Frame records. Select Module Diagnostics / HPCM / Data Display / 14V Power Module menu. Leave GDS2 connected and on this menu throughout the drive cycle. If any one of the following DTCs P0CA2, P1AF0 P1B0B P1E0C P1E12 is set, replace the Generator Control Module (GCM). Refer to *Generator Control Module Replacement* in SI.

Note: Perform the Generator Control Module inspection to determine if the Generator Control Module requires replacement. The inspection will take about 3 hours to complete.

- If the generator control module is replaced, it will **not** be necessary to repeat a 3 hour drive cycle. However, a charging system voltage output test must be performed. Complete one of the following tests:
  - Option A: Perform a DC Power Conversion Test. Refer to *DC Power Conversion Test* in SI.
  - Option B: Using the DIC and a voltmeter at the 12V battery, monitor the charging system voltage while a load is applied by turning on the vehicle accessories listed in Step 7 of this bulletin.

Note: Verify the 175 amp fuse torque and APM cable crimp at the UBEC stud end of the cable prior to performing the inspection below.

1. Install GDS2 to vehicle. Start engine and confirm the vehicle has enough fuel for the drive cycle and 2 hour idle test. A quarter-tank of fuel is required to complete the test. Add fuel as required.
2. If the Service Hybrid System DIC message is displayed at any time, follow service instructions in SI for the particular DTC or tell tale that is set.
3. Change the driver information center to show Power Flow Display or use center console display.
4. Set parking brake and place shifter in Neutral position. Increase engine speed to 2,000 RPM.
5. Run in this mode until battery shown in Power Flow Display is completely filled.
6. Shift back to Park and release parking brake.
7. Turn on 12V loads.
   - Head lamps on with high beams
   - Air conditioning set to 78^{o}F (25^{o}C), Eco mode (green snowflake LED), recirc., BiLevel (foot / floor -- do not want Defrost enabled)
   - Cabin blower to high speed
   - Radio on, with sound muted.
   - Heated seats, if equipped
   - Rear defog, it will time out, no need to reinitiate
8. Allow vehicle to idle for approximately 15 minutes.
9. Perform drive cycle maintaining high 12V loads and air conditioning settings specified in Step 7.

10. The drive cycle should contain the following maneuvers.
    - Perform at least 10 moderate to heavy accelerations followed by, brake regen events, with 15% brake apply (light to moderate). Perform these tasks from a vehicle speed of greater than 30 mph (50 km/h) down to at least 5 mph (8 km/h).
    - Perform at least 3 key off / key on cycles with a 2 minute off time, spread out throughout drive cycle. Note: you will need to turn high beams and heated seats back on after each key cycle.
11. Return vehicle to dealership (testing continues outside). Set parking brake and place shifter in Neutral and operate engine at 2,000 RPM until hybrid battery display shows full.
12. Place shifter in Park, release parking brake, and allow vehicle to idle for 2 hours with the following 12V loads on:
    - Head lamps with high beams
    - Cabin blower on highest setting
    - Air conditioning set to 78 deg. F (25 deg. C), Eco mode (green snowflake LED), recirc., Bi Level (foot / floor -- do not want Defrost enabled)
    - Heated seats on high
    - Windows up
    - Radio on, with sound muted
    - 4 way flashers on
    - Dome lights on
13. Turn off engine and all 12 V loads, headlamps, dome lamps, and hazard lamps. Wait 2 minutes, then restart engine.
14. If the Service Hybrid System DIC message is displayed at any time, follow service instructions in SI for the particular DTC or tell tale that is set.
15. FOR CALIFORNIA VEHICLES ONLY**:** Install a Recall Identification Label and complete a “Proof of Correction” certificate upon recall completion.

RECALL IDENTIFICATION LABEL – California Vehicles Only

Place a Recall Identification Label on each vehicle corrected in accordance with the instructions outlined in this Product Recall Bulletin. Each label provides a space to include the recall number and the five-digit dealer code of the dealer performing the recall service. This information may be inserted with a ballpoint pen.

Put the Recall Identification Label on a clean and dry surface of the radiator core support in an area that will be visible to people servicing the vehicle.

When installing the Recall Identification Label, be sure to pull the tab to allow adhesion of the clear protective covering. Additional Recall Identification Labels for US dealers can be obtained from Dealer Support Materials by ordering on the web from DWD Store, www.gmglobalconnect.com, and then click on the DWD Store link. Request Item Number S-1015 when ordering.

COURTESY TRANSPORTATION – For US and Canada

The General Motors Courtesy Transportation program is intended to minimize customer inconvenience when a vehicle requires a repair that is covered by the New Vehicle Limited Warranties. The availability of courtesy transportation to customers whose vehicles are within the warranty coverage period and involved in a product program is very important in maintaining customer satisfaction. Dealers are to ensure that these customers understand that shuttle service or some other form of courtesy transportation is available and will be provided at no charge. Dealers should refer to the General Motors Service Policies and Procedures Manual for Courtesy Transportation guidelines.

WARRANTY TRANSACTION INFORMATION

Submit a transaction using the table below. All transactions should be submitted as a ZFAT transaction type, unless noted otherwise.

Labor Code	Description	Labor Time	Net Item
9100017	Inspect GCM – No Further Action Req'd	3.0	*
9100018	Inspect & Replace GCM (inc testing of new module)		*
	- Malibu, Regal	5.5	
	- LaCrosse	6.0	

* Submit the cost of ¼ tank (15 litres) of gasoline required to perform the test in the Net Item field, not to exceed $16.00 USD, $24.00 CAD.

CUSTOMER NOTIFICATION – For US and Canada

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

CUSTOMER NOTIFICATION – For Export

Letters will be sent to known owners of record located within areas covered by the US National Traffic and Motor Vehicle Safety Act. For owners outside these areas, dealers should notify customers using the attached sample letter.

DEALER RECALL RESPONSIBILITY – For US and Export (US 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 RECALL RESPONSIBILITY – All

All unsold new vehicles in dealers' possession and subject to this recall must be held and inspected/repaired per the service procedure of this recall bulletin before customers take possession of these vehicles.

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.

In summary, whenever a vehicle subject to this recall enters your vehicle inventory, or is in your dealership for service in the future, you must take the steps necessary to be sure the recall correction has been made before selling or releasing the vehicle.

Dear General Motors Customer:

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

General Motors has decided that a defect, which relates to motor vehicle safety, exists in certain 2012-2013 model year Buick LaCrosse and Regal, and 2013 model year Chevrolet Malibu Eco vehicles, equipped with eAssist. 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.

I M P O R T A N T

- Your vehicle is involved in safety recall 13136.
- Schedule an appointment with your GM dealer.
- This service will be performed for you at **no charge**.

Why is your vehicle being recalled?

Your vehicle may have a condition in which the Generator Control Module (GCM) may not function properly. This could cause a gradual loss of battery charge and the illumination of the malfunction indicator light. If you continue to drive the vehicle, the loss of battery charge will cause the engine to stall and/or the vehicle will not start. In addition, there may be a burning or melting odor, smoke, and possibly a fire in the trunk.

What will we do?

Your GM dealer will inspect and, if necessary, replace the GCM. 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 longer than the actual inspection time of 3 hours. If the GCM requires replacement, an additional 2 hours and 30 minutes up to 3 hours will be needed.

If your vehicle is within the New Vehicle Limited Warranty, your dealer may provide you with shuttle service or some other form of courtesy transportation while your vehicle is at the dealership for this repair. Please refer to your Owner Manual and your dealer for details on courtesy transportation.

What should you do?

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

California Residents: The state of California requires the completion of recalls on emission related parts prior to vehicle registration renewal. In addition, the state requires that every vehicle must pass an emission test (SMOG Check) every two years and before it is sold. Without the completion of this no-charge recall, your vehicle may be more likely to fail this test. At the time of the recall completion, your dealer will issue you a "Proof of Correction Certificate". Keep this certificate and, if required, present it to the Department of Motor Vehicles when renewing your registration as

proof of recall completion.

Do you have questions? If you have questions or concerns that your dealer is unable to resolve, please contact the appropriate Customer Assistance Center at the number listed below.

Division	Number	Text Telephones (TTY)
Buick	1-800-521-7300	1-800-832-8425
Chevrolet	1-800-222-1020	1-800-833-2438
Guam	65-6267-1752	
Puerto Rico – English	1-800-496-9992	
Puerto Rico – Español	1-800-496-9993	
Virgin Islands	1-800-496-9994	

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 Vehicle Safety Hotline at 1.888.327.4236 (TTY 1.800.424.9153), or go to http://www.safercar.gov. The National Highway Traffic Safety Administration Campaign ID Number for this recall is 13V173.

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

Jim Moloney
General Director,
Customer and Relationship Services

GM Recall #13136

Bulletin No.: 13136A
Date: August 2013

Recall Bulletin

PRODUCT SAFETY RECALL

SUBJECT: **Loss of Battery Charge – Inspect Generator Control Module**

MODELS: **2012-2013 Buick LaCrosse, Regal**
2013 Chevrolet Malibu Eco
Equipped with eAssist

Parts required for this recall have been removed from Product Quality Center (PQC) restriction. Additional part numbers and a part inspection procedure have been added to this bulletin. Please discard all copies of bulletin 13136.

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.

Vehicles that were involved in Service Update 12238 but have not yet had the repair performed have been transferred to this recall. Vehicles that had parts replaced under Service Update 12238 prior to Nov 15, 2012, have also been transferred to this recall.

CONDITION

General Motors has decided that a defect, which relates to motor vehicle safety, exists in **certain** 2012-2013 model year Buick LaCrosse and Regal, and 2013 model year Chevrolet Malibu Eco vehicles, equipped with eAssist. Some of these vehicles have a condition in which the Generator Control Module (GCM) may not function properly. This could cause a gradual loss of battery charge and the illumination of the malfunction indicator light. If these warnings are ignored, eventually, the engine will stall and/or the vehicle will not start. In addition, there may be a burning or melting odor, smoke, and possibly a fire in the trunk.

CORRECTION

Dealers are to inspect and, if necessary, replace the GCM.

VEHICLES INVOLVED

All involved vehicles are identified by Vehicle Identification Number on the Investigate Vehicle History screen in GM Global Warranty Management system. Dealership service personnel should always check this site to confirm vehicle involvement prior to beginning any required

inspections and/or repairs. It is important to routinely use this tool to verify eligibility because not all similar vehicles may be involved regardless of description or option content.

For dealers with involved vehicles, a listing with involved vehicles containing the complete vehicle identification number, customer name, and address information has been prepared and will be provided to dealers through the GM GlobalConnect Recall Reports. Dealers will not have a report available if they have no involved vehicles currently assigned.

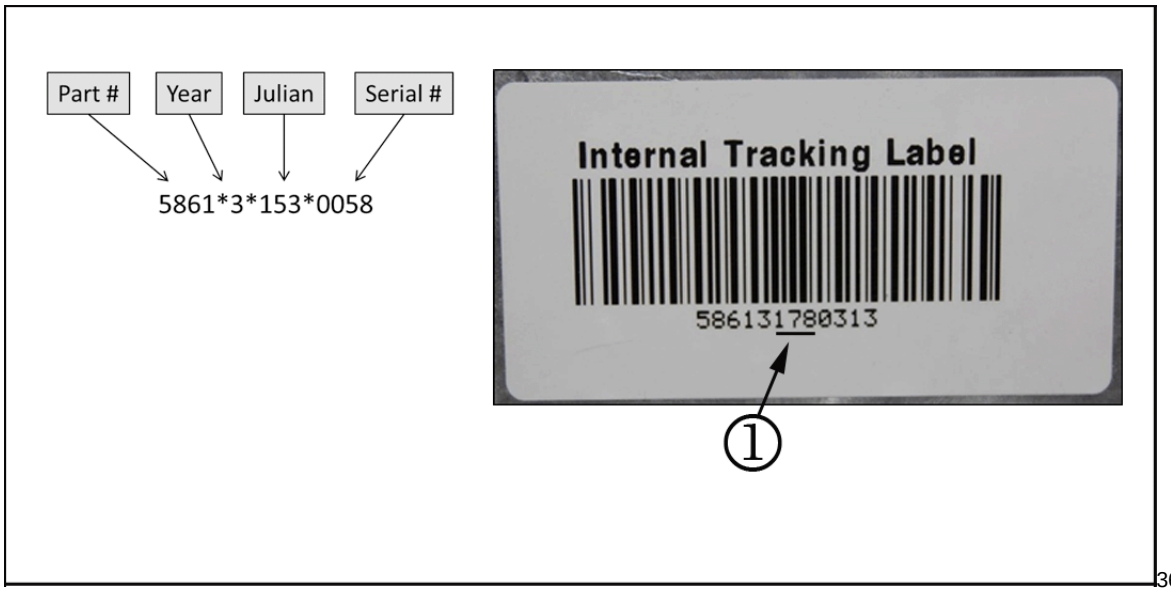
The listing may contain customer names and addresses obtained from Motor Vehicle Registration Records. The use of such motor vehicle registration data for any purpose other than follow-up necessary to complete this recall is a violation of law in several states/provinces/countries. Accordingly, you are urged to limit the use of this report to the follow-up necessary to complete this recall.

PART INFORMATION

Parts required to complete this recall are to be obtained from General Motors Customer Care and Aftersales (GMCC&A). Please refer to your "involved vehicles listing" before ordering parts. Normal orders should be placed on a DRO = Daily Replenishment Order. In an emergency situation, parts should be ordered on a CSO = Customer Special Order.

Note: Approximately 1% of vehicles will require replacement of the Generator Control Module.

Important Part Inspection



Generator Control Modules (GCM) with part number 24269448 or 24266403 require an inspection prior to installation in a vehicle. GCMs with part number 24267940 or 24267941 do NOT require inspection prior to installation in a vehicle.

Do NOT provide technicians with GCMs (p/n 24269448 or 24266403) that have a Julian date of 171 through 199. Determine the Julian date following the steps below. Return modules that fail the inspection according to Special Return Bulletin #G_0000171850.

1. Locate the barcode label on the new GCM.

2. Determine the Julian date (1) as shown above.
   - If the Julian date (1) is 171 through 199, do NOT install the module. Obtain another module and perform the inspection again.
   - If the Julian date (1) is NOT 171 through 199, provide to the technician for installation in the vehicle.

Part Number	Description	Quantity/Vehicle
24267940 or 24269448	MODULE, GEN CONT (2012 LaCrosse, Regal & 2013 Malibu)	1 (If Req'd)
24267941 or 24266403	MODULE, GEN CONT (2013 LaCrosse, Regal)	1 (If Req'd)

SERVICE PROCEDURE

Caution: This service procedure is intended to fully stress the generator control module beyond normal customer use. This stress, in rare cases, may result in smoke and thermal damage to the generator control module. For the extended idle portion of the service procedure (Steps 8 and 12), the vehicle should be located outdoors, with the right rear seat back down, and with the location of the power pack in view of an observer in the left rear seat during the complete idle portion. Do not remove any trim panels. If smoke is observed or smelled, even a trace level, or a popping or unusual noise is heard from the power pack, immediately turn off the engine and exit the vehicle. Continue to observe vehicle for 10 minutes, making sure event has subsided. Connect GDS2 tool, key on to RUN, and acquire freeze frame data from ECM and HPCM. Turn the key to the off position and disconnect 12V battery while vehicle waits for repair.

Note: Install GDS2 to vehicle. Enter current vehicle make model. Perform a Vehicle Wide DTC check and record any Freeze Frame records. Select Module Diagnostics / HPCM / Data Display / 14V Power Module menu. Leave GDS2 connected and on this menu throughout the drive cycle. If any one of the following DTCs P0CA2, P1AF0 P1B0B P1E0C P1E12 is set, replace the Generator Control Module (GCM). Refer to *Generator Control Module Replacement* in SI.

Note: Perform the Generator Control Module inspection to determine if the Generator Control Module requires replacement. The inspection will take about 3 hours to complete.

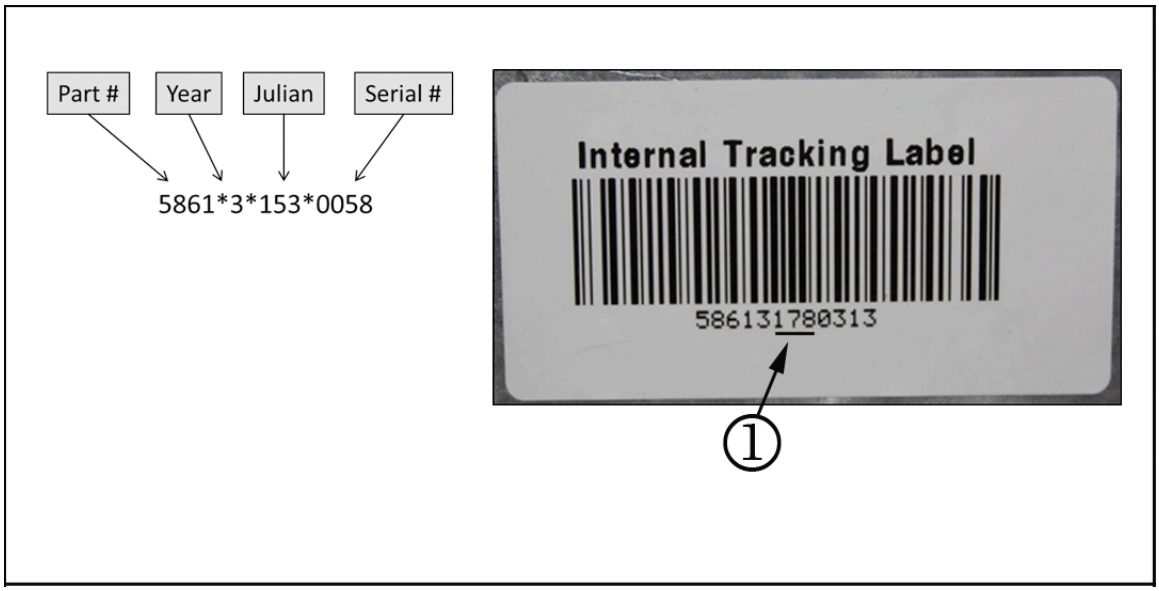
- If the generator control module is replaced, it will **not** be necessary to repeat a 3 hour drive cycle. However, a charging system voltage output test must be performed. Complete one of the following tests:
  - Option A: Perform a DC Power Conversion Test. Refer to *DC Power Conversion Test* in SI.
  - Option B: Using the DIC and a voltmeter at the 12V battery, monitor the charging system voltage while a load is applied by turning on the vehicle accessories listed in Step 7 of this bulletin.

Note: Verify the 175 amp fuse torque and APM cable crimp at the UBEC stud end of the cable prior to performing the inspection below.

Note: If the GCM requires replacement, follow the part inspection procedure below prior to installing a new module. Determine part number of new Generator Control Module (GCM) to be installed in the vehicle.

- If the new GCM part number is 24267940 or 24267941, no inspection is required. The module can be installed in the vehicle.
- If the new GCM part number is 24269448 or 24266403, proceed to *Inspection Procedure* below.

Part Inspection Procedure



Note: Do NOT install GCMs with a Julian date of 171 through 199. Return those modules according to Special Return Bulletin #G_0000171850.

3. Locate the barcode label on the new GCM.
4. Determine the Julian date (1) as shown above.
   - If the Julian date (1) is 171 through 199, do NOT install the module. Obtain another module and perform the inspection again.
   - If the Julian date (1) is NOT 171 through 199, the module can be installed in the vehicle.

1. Install GDS2 to vehicle. Start engine and confirm the vehicle has enough fuel for the drive cycle and 2 hour idle test. A quarter-tank of fuel is required to complete the test. Add fuel as required.
2. If the Service Hybrid System DIC message is displayed at any time, follow service instructions in SI for the particular DTC or tell tale that is set.
3. Change the driver information center to show Power Flow Display or use center console display.
4. Set parking brake and place shifter in Neutral position. Increase engine speed to 2,000 RPM.
5. Run in this mode until battery shown in Power Flow Display is completely filled.
6. Shift back to Park and release parking brake.

7. Turn on 12V loads.
   - Head lamps on with high beams
   - Air conditioning set to 78°F (25°C), Eco mode (green snowflake LED), recirc., BiLevel (foot / floor -- do not want Defrost enabled)
   - Cabin blower to high speed
   - Radio on, with sound muted.
   - Heated seats, if equipped
   - Rear defog, it will time out, no need to reinitiate
8. Allow vehicle to idle for approximately 15 minutes.
9. Perform drive cycle maintaining high 12V loads and air conditioning settings specified in Step 7.
10. The drive cycle should contain the following maneuvers.
    - Perform at least 10 moderate to heavy accelerations followed by, brake regen events, with 15% brake apply (light to moderate). Perform these tasks from a vehicle speed of greater than 30 mph (50 km/h) down to at least 5 mph (8 km/h).
    - Perform at least 3 key off / key on cycles with a 2 minute off time, spread out throughout drive cycle. Note: you will need to turn high beams and heated seats back on after each key cycle.
11. Return vehicle to dealership (testing continues outside). Set parking brake and place shifter in Neutral and operate engine at 2,000 RPM until hybrid battery display shows full.
12. Place shifter in Park, release parking brake, and allow vehicle to idle for 2 hours with the following 12V loads on:
    - Head lamps with high beams
    - Cabin blower on highest setting
    - Air conditioning set to 78 deg. F (25 deg. C), Eco mode (green snowflake LED), recirc., Bi Level (foot / floor -- do not want Defrost enabled)
    - Heated seats on high
    - Windows up
    - Radio on, with sound muted
    - 4 way flashers on
    - Dome lights on
13. Turn off engine and all 12 V loads, headlamps, dome lamps, and hazard lamps. Wait 2 minutes, then restart engine.
14. If the Service Hybrid System DIC message is displayed at any time, follow service instructions in SI for the particular DTC or tell tale that is set.

15. FOR CALIFORNIA VEHICLES ONLY**:** Install a Recall Identification Label and complete a "Proof of Correction" certificate upon recall completion.

RECALL IDENTIFICATION LABEL – California Vehicles Only

Place a Recall Identification Label on each vehicle corrected in accordance with the instructions outlined in this Product Recall Bulletin. Each label provides a space to include the recall number and the five-digit dealer code of the dealer performing the recall service. This information may be inserted with a ballpoint pen.

Put the Recall Identification Label on a clean and dry surface of the radiator core support in an area that will be visible to people servicing the vehicle.

When installing the Recall Identification Label, be sure to pull the tab to allow adhesion of the clear protective covering. Additional Recall Identification Labels for US dealers can be obtained from Dealer Support Materials by ordering on the web from DWD Store, www.gmglobalconnect.com, and then click on the DWD Store link. Request Item Number S-1015 when ordering.

COURTESY TRANSPORTATION – For US and Canada

The General Motors Courtesy Transportation program is intended to minimize customer inconvenience when a vehicle requires a repair that is covered by the New Vehicle Limited Warranties. The availability of courtesy transportation to customers whose vehicles are within the warranty coverage period and involved in a product program is very important in maintaining customer satisfaction. Dealers are to ensure that these customers understand that shuttle service or some other form of courtesy transportation is available and will be provided at no charge. Dealers should refer to the General Motors Service Policies and Procedures Manual for Courtesy Transportation guidelines.

WARRANTY TRANSACTION INFORMATION

Submit a transaction using the table below. All transactions should be submitted as a ZFAT transaction type, unless noted otherwise.

Labor Code	Description	Labor Time	Net Item
9100017	Inspect GCM – No Further Action Req'd	3.0	*
9100018	Inspect & Replace GCM (inc testing of new module)		*
	- Malibu, Regal	5.5	
	- LaCrosse	6.0	

* Submit the cost of ¼ tank (15 litres) of gasoline required to perform the test in the Net Item field, not to exceed $16.00 USD, $24.00 CAD.

CUSTOMER NOTIFICATION – For US and Canada

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

CUSTOMER NOTIFICATION – For Export

Letters will be sent to known owners of record located within areas covered by the US National Traffic and Motor Vehicle Safety Act. For owners outside these areas, dealers should notify customers using the attached sample letter.

DEALER RECALL RESPONSIBILITY – For US and Export (US 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 RECALL RESPONSIBILITY – All

All unsold new vehicles in dealers' possession and subject to this recall must be held and inspected/repaired per the service procedure of this recall bulletin before customers take possession of these vehicles.

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.

In summary, whenever a vehicle subject to this recall enters your vehicle inventory, or is in your dealership for service in the future, you must take the steps necessary to be sure the recall correction has been made before selling or releasing the vehicle.

Dear General Motors Customer:

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

General Motors has decided that a defect, which relates to motor vehicle safety, exists in certain 2012-2013 model year Buick LaCrosse and Regal, and 2013 model year Chevrolet Malibu Eco vehicles, equipped with eAssist. 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.

I M P O R T A N T

- Your vehicle is involved in safety recall 13136.
- Schedule an appointment with your GM dealer.
- This service will be performed for you at **no charge**.

Why is your vehicle being recalled?

Your vehicle may have a condition in which the Generator Control Module (GCM) may not function properly. This could cause a gradual loss of battery charge and the illumination of the malfunction indicator light. If you continue to drive the vehicle, the loss of battery charge will cause the engine to stall and/or the vehicle will not start. In addition, there may be a burning or melting odor, smoke, and possibly a fire in the trunk.

What will we do?

Your GM dealer will inspect and, if necessary, replace the GCM. 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 longer than the actual inspection time of 3 hours. If the GCM requires replacement, an additional 2 hours and 30 minutes up to 3 hours will be needed.

If your vehicle is within the New Vehicle Limited Warranty, your dealer may provide you with shuttle service or some other form of courtesy transportation while your vehicle is at the dealership for this repair. Please refer to your Owner Manual and your dealer for details on courtesy transportation.

What should you do?

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

California Residents: The state of California requires the completion of recalls on emission related parts prior to vehicle registration renewal. In addition, the state requires that every vehicle must pass an emission test (SMOG Check) every two years and before it is sold. Without the completion of this no-charge recall, your vehicle may be more likely to fail this test. At the time of the recall completion, your dealer will issue you a "Proof of Correction Certificate". Keep this certificate and, if required, present it to the Department of Motor Vehicles when renewing your registration as

proof of recall completion.

Do you have questions? If you have questions or concerns that your dealer is unable to resolve, please contact the appropriate Customer Assistance Center at the number listed below.

Division	Number	Text Telephones (TTY)
Buick	1-800-521-7300	1-800-832-8425
Chevrolet	1-800-222-1020	1-800-833-2438
Guam	65-6267-1752	
Puerto Rico – English	1-800-496-9992	
Puerto Rico – Español	1-800-496-9993	
Virgin Islands	1-800-496-9994	

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 Vehicle Safety Hotline at 1.888.327.4236 (TTY 1.800.424.9153), or go to http://www.safercar.gov. The National Highway Traffic Safety Administration Campaign ID Number for this recall is 13V173.

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

Jim Moloney
General Director,
Customer and Relationship Services

GM Recall #13136

Bulletin No.: 13136B
Date: August 2013

Recall Bulletin

PRODUCT SAFETY RECALL

SUBJECT: **Loss of Battery Charge – Inspect Generator Control Module**

MODELS: **2012-2013 Buick LaCrosse, Regal**
2013 Chevrolet Malibu Eco
Equipped with eAssist

The service procedure in this bulletin has been revised. Step 2 has been expanded and Step 15 has been added. Please discard all copies of bulletin 13136A.

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.

Vehicles that were involved in Service Update 12238 but have not yet had the repair performed have been transferred to this recall. Vehicles that had parts replaced under Service Update 12238 prior to Nov 15, 2012, have also been transferred to this recall.

CONDITION

General Motors has decided that a defect, which relates to motor vehicle safety, exists in **certain** 2012-2013 model year Buick LaCrosse and Regal, and 2013 model year Chevrolet Malibu Eco vehicles, equipped with eAssist. Some of these vehicles have a condition in which the Generator Control Module (GCM) may not function properly. This could cause a gradual loss of battery charge and the illumination of the malfunction indicator light. If these warnings are ignored, eventually, the engine will stall and/or the vehicle will not start. In addition, there may be a burning or melting odor, smoke, and possibly a fire in the trunk.

CORRECTION

Dealers are to inspect and, if necessary, replace the GCM.

VEHICLES INVOLVED

All involved vehicles are identified by Vehicle Identification Number on the Investigate Vehicle History screen in GM Global Warranty Management system. Dealership service personnel should always check this site to confirm vehicle involvement prior to beginning any required inspections and/or repairs. It is important to routinely use this tool to verify eligibility because not all similar vehicles may be involved regardless of description or option content.

For dealers with involved vehicles, a listing with involved vehicles containing the complete vehicle identification number, customer name, and address information has been prepared and will be provided to dealers through the GM GlobalConnect Recall Reports. Dealers will not have a report available if they have no involved vehicles currently assigned.

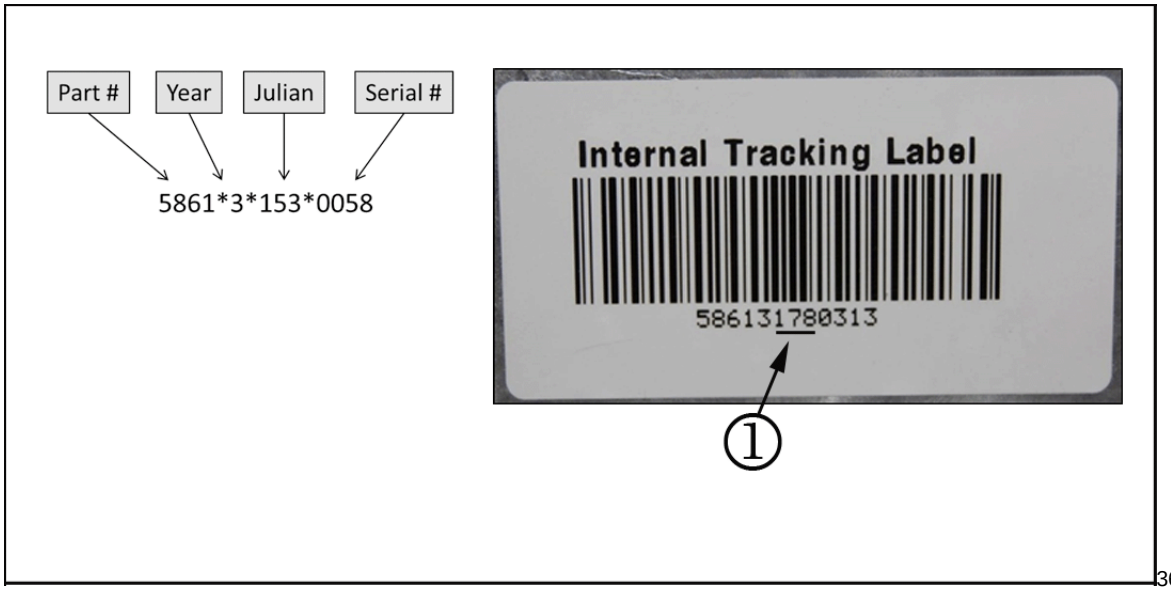
The listing may contain customer names and addresses obtained from Motor Vehicle Registration Records. The use of such motor vehicle registration data for any purpose other than follow-up necessary to complete this recall is a violation of law in several states/provinces/countries. Accordingly, you are urged to limit the use of this report to the follow-up necessary to complete this recall.

PART INFORMATION

Parts required to complete this recall are to be obtained from General Motors Customer Care and Aftersales (GMCC&A). Please refer to your "involved vehicles listing" before ordering parts. Normal orders should be placed on a DRO = Daily Replenishment Order. In an emergency situation, parts should be ordered on a CSO = Customer Special Order.

Note: Approximately 1% of vehicles will require replacement of the Generator Control Module.

Important Part Inspection



3600552

Generator Control Modules (GCM) with part number 24269448 or 24266403 require an inspection prior to installation in a vehicle. GCMs with part number 24267940 or 24267941 do NOT require inspection prior to installation in a vehicle.

Do NOT provide technicians with GCMs (p/n 24269448 or 24266403) that have a Julian date of 171 through 199. Determine the Julian date following the steps below. Return modules that fail the inspection according to Special Return Bulletin #G_0000171850.

1. Locate the barcode label on the new GCM.

2. Determine the Julian date (1) as shown above.
   - If the Julian date (1) is 171 through 199, do NOT install the module. Obtain another module and perform the inspection again.
   - If the Julian date (1) is NOT 171 through 199, provide to the technician for installation in the vehicle.

Part Number	Description	Quantity/Vehicle
24267940 or 24269448	MODULE, GEN CONT (2012 LaCrosse, Regal & 2013 Malibu)	1 (If Req'd)
24267941 or 24266403	MODULE, GEN CONT (2013 LaCrosse, Regal)	1 (If Req'd)

SERVICE PROCEDURE

Caution: This service procedure is intended to fully stress the generator control module beyond normal customer use. This stress, in rare cases, may result in smoke and thermal damage to the generator control module. For the extended idle portion of the service procedure (Steps 8 and 12), the vehicle should be located outdoors, with the right rear seat back down, and with the location of the power pack in view of an observer in the left rear seat during the complete idle portion. Do not remove any trim panels. If smoke is observed or smelled, even a trace level, or a popping or unusual noise is heard from the power pack, immediately turn off the engine and exit the vehicle. Continue to observe vehicle for 10 minutes, making sure event has subsided. Connect GDS2 tool, key on to RUN, and acquire freeze frame data from ECM and HPCM. Turn the key to the off position and disconnect 12V battery while vehicle waits for repair.

Note: Install GDS2 to vehicle. Enter current vehicle make model. Perform a Vehicle Wide DTC check and record any Freeze Frame records. Select Module Diagnostics / HPCM / Data Display / 14V Power Module menu. Leave GDS2 connected and on this menu throughout the drive cycle. If any one of the following DTCs P0CA2, P1AF0 P1B0B P1E0C P1E12 is set, replace the Generator Control Module (GCM). Refer to *Generator Control Module Replacement* in SI.

Note: Perform the Generator Control Module inspection to determine if the Generator Control Module requires replacement. The inspection will take about 3 hours to complete.

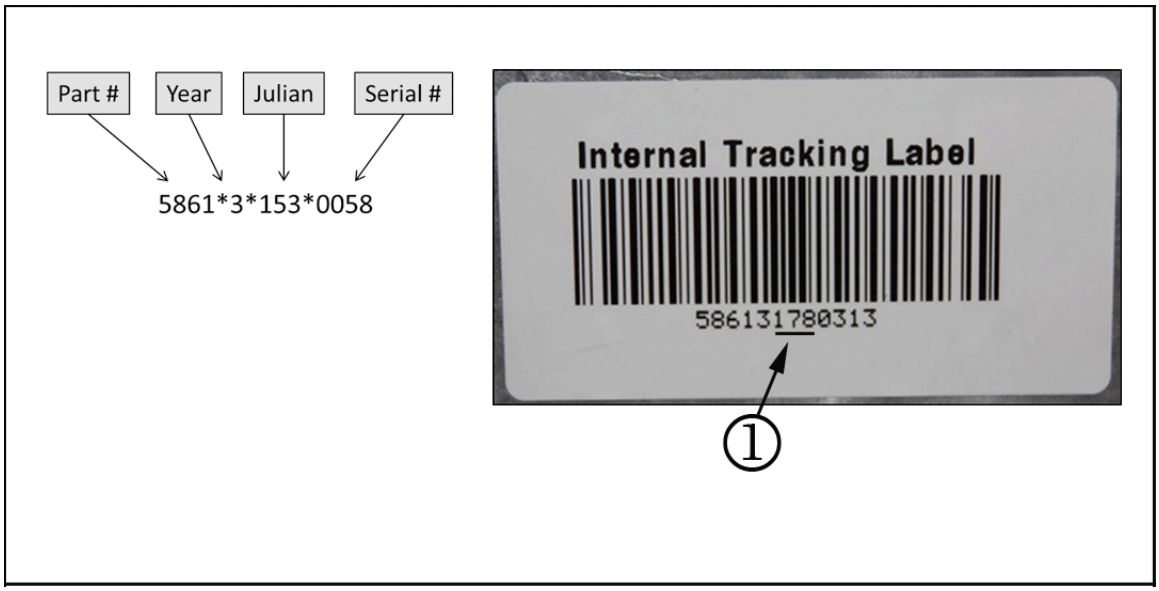
- If the generator control module is replaced, it will **not** be necessary to repeat a 3 hour drive cycle. However, a charging system voltage output test must be performed. Complete one of the following tests:
  - Option A: Perform a DC Power Conversion Test. Refer to *DC Power Conversion Test* in SI.
  - Option B: Using the DIC and a voltmeter at the 12V battery, monitor the charging system voltage while a load is applied by turning on the vehicle accessories listed in Step 7 of this bulletin.

Note: Verify the 175 amp fuse torque and APM cable crimp at the UBEC stud end of the cable prior to performing the inspection below.

Note: If the GCM requires replacement, follow the part inspection procedure below prior to installing a new module. Determine part number of new Generator Control Module (GCM) to be installed in the vehicle.

- If the new GCM part number is 24267940 or 24267941, no inspection is required. The module can be installed in the vehicle.
- If the new GCM part number is 24269448 or 24266403, proceed to *Inspection Procedure* below.

Part Inspection Procedure



Note: Do NOT install GCMs with a Julian date of 171 through 199. Return those modules according to Special Return Bulletin #G_0000171850.

3. Locate the barcode label on the new GCM.
4. Determine the Julian date (1) as shown above.
   - If the Julian date (1) is 171 through 199, do NOT install the module. Obtain another module and perform the inspection again.
   - If the Julian date (1) is NOT 171 through 199, the module can be installed in the vehicle.

1. Install GDS2 to vehicle. Start engine and confirm the vehicle has enough fuel for the drive cycle and 2 hour idle test. A quarter-tank of fuel is required to complete the test. Add fuel as required.
2. If the Service Hybrid System DIC message is displayed at any time, follow service instructions in SI for the particular DTC or tell tale that is set. Refer to PIP4992B if the drive motor generator and battery control module (hybrid powerpack) cooling fan is inoperative.
3. Change the driver information center to show Power Flow Display or use center console display.
4. Set parking brake and place shifter in Neutral position. Increase engine speed to 2,000 RPM.
5. Run in this mode until battery shown in Power Flow Display is completely filled.

6. Shift back to Park and release parking brake.
7. Turn on 12V loads.
    - Head lamps on with high beams
    - Air conditioning set to 78^{o}F (25^{o}C), Eco mode (green snowflake LED), recirc., BiLevel (foot / floor -- do not want Defrost enabled)
    - Cabin blower to high speed
    - Radio on, with sound muted.
    - Heated seats, if equipped
    - Rear defog, it will time out, no need to reinitiate
8. Allow vehicle to idle for approximately 15 minutes.
9. Perform drive cycle maintaining high 12V loads and air conditioning settings specified in Step 7.
10. The drive cycle should contain the following maneuvers.
    - Perform at least 10 moderate to heavy accelerations followed by, brake regen events, with 15% brake apply (light to moderate). Perform these tasks from a vehicle speed of greater than 30 mph (50 km/h) down to at least 5 mph (8 km/h).
    - Perform at least 3 key off / key on cycles with a 2 minute off time, spread out throughout drive cycle. Note: you will need to turn high beams and heated seats back on after each key cycle.
11. Return vehicle to dealership (testing continues outside). Set parking brake and place shifter in Neutral and operate engine at 2,000 RPM until hybrid battery display shows full.
12. Place shifter in Park, release parking brake, and allow vehicle to idle for 2 hours with the following 12V loads on:
    - Head lamps with high beams
    - Cabin blower on highest setting
    - Air conditioning set to 78 deg. F (25 deg. C), Eco mode (green snowflake LED), recirc., Bi Level (foot / floor -- do not want Defrost enabled)
    - Heated seats on high
    - Windows up
    - Radio on, with sound muted
    - 4 way flashers on
    - Dome lights on
13. Turn off engine and all 12 V loads, headlamps, dome lamps, and hazard lamps. Wait 2 minutes, then restart engine.

14. If the Service Hybrid System DIC message is displayed at any time, follow service instructions in SI for the particular DTC or tell tale that is set.
15. Refer to PIP4992B if the drive motor generator and battery control module (hybrid powerpack) cooling fan is inoperative.
16. FOR CALIFORNIA VEHICLES ONLY**:** Install a Recall Identification Label and complete a "Proof of Correction" certificate upon recall completion.

RECALL IDENTIFICATION LABEL – California Vehicles Only

Place a Recall Identification Label on each vehicle corrected in accordance with the instructions outlined in this Product Recall Bulletin. Each label provides a space to include the recall number and the five-digit dealer code of the dealer performing the recall service. This information may be inserted with a ballpoint pen.

Put the Recall Identification Label on a clean and dry surface of the radiator core support in an area that will be visible to people servicing the vehicle.

When installing the Recall Identification Label, be sure to pull the tab to allow adhesion of the clear protective covering. Additional Recall Identification Labels for US dealers can be obtained from Dealer Support Materials by ordering on the web from DWD Store, www.gmglobalconnect.com, and then click on the DWD Store link. Request Item Number S-1015 when ordering.

COURTESY TRANSPORTATION – For US and Canada

The General Motors Courtesy Transportation program is intended to minimize customer inconvenience when a vehicle requires a repair that is covered by the New Vehicle Limited Warranties. The availability of courtesy transportation to customers whose vehicles are within the warranty coverage period and involved in a product program is very important in maintaining customer satisfaction. Dealers are to ensure that these customers understand that shuttle service or some other form of courtesy transportation is available and will be provided at no charge. Dealers should refer to the General Motors Service Policies and Procedures Manual for Courtesy Transportation guidelines.

WARRANTY TRANSACTION INFORMATION

Submit a transaction using the table below. All transactions should be submitted as a ZFAT transaction type, unless noted otherwise.

Labor Code	Description	Labor Time	Net Item
9100017	Inspect GCM – No Further Action Req'd	3.0	*
9100018	Inspect & Replace GCM (inc testing of new module)		*
	- Malibu, Regal	5.5	
	- LaCrosse	6.0	

* Submit the cost of ¼ tank (15 litres) of gasoline required to perform the test in the Net Item field, not to exceed $16.00 USD, $24.00 CAD.

CUSTOMER NOTIFICATION – For US and Canada

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

CUSTOMER NOTIFICATION – For Export

Letters will be sent to known owners of record located within areas covered by the US National Traffic and Motor Vehicle Safety Act. For owners outside these areas, dealers should notify customers using the attached sample letter.

DEALER RECALL RESPONSIBILITY – For US and Export (US 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 RECALL RESPONSIBILITY – All

All unsold new vehicles in dealers' possession and subject to this recall must be held and inspected/repaired per the service procedure of this recall bulletin before customers take possession of these vehicles.

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.

In summary, whenever a vehicle subject to this recall enters your vehicle inventory, or is in your dealership for service in the future, you must take the steps necessary to be sure the recall correction has been made before selling or releasing the vehicle.

Dear General Motors Customer:

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

General Motors has decided that a defect, which relates to motor vehicle safety, exists in certain 2012-2013 model year Buick LaCrosse and Regal, and 2013 model year Chevrolet Malibu Eco vehicles, equipped with eAssist. 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.

I M P O R T A N T

- Your vehicle is involved in safety recall 13136.
- Schedule an appointment with your GM dealer.
- This service will be performed for you at **no charge**.

Why is your vehicle being recalled?

Your vehicle may have a condition in which the Generator Control Module (GCM) may not function properly. This could cause a gradual loss of battery charge and the illumination of the malfunction indicator light. If you continue to drive the vehicle, the loss of battery charge will cause the engine to stall and/or the vehicle will not start. In addition, there may be a burning or melting odor, smoke, and possibly a fire in the trunk.

What will we do?

Your GM dealer will inspect and, if necessary, replace the GCM. 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 longer than the actual inspection time of 3 hours. If the GCM requires replacement, an additional 2 hours and 30 minutes up to 3 hours will be needed.

If your vehicle is within the New Vehicle Limited Warranty, your dealer may provide you with shuttle service or some other form of courtesy transportation while your vehicle is at the dealership for this repair. Please refer to your Owner Manual and your dealer for details on courtesy transportation.

What should you do?

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

California Residents: The state of California requires the completion of recalls on emission related parts prior to vehicle registration renewal. In addition, the state requires that every vehicle must pass an emission test (SMOG Check) every two years and before it is sold. Without the completion of this no-charge recall, your vehicle may be more likely to fail this test. At the time of the recall completion, your dealer will issue you a "Proof of Correction Certificate". Keep this certificate and, if required, present it to the Department of Motor Vehicles when renewing your registration as

proof of recall completion.

Do you have questions? If you have questions or concerns that your dealer is unable to resolve, please contact the appropriate Customer Assistance Center at the number listed below.

Division	Number	Text Telephones (TTY)
Buick	1-800-521-7300	1-800-832-8425
Chevrolet	1-800-222-1020	1-800-833-2438
Guam	65-6267-1752	
Puerto Rico – English	1-800-496-9992	
Puerto Rico – Español	1-800-496-9993	
Virgin Islands	1-800-496-9994	

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 Vehicle Safety Hotline at 1.888.327.4236 (TTY 1.800.424.9153), or go to http://www.safercar.gov. The National Highway Traffic Safety Administration Campaign ID Number for this recall is 13V173.

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

Jim Moloney
General Director,
Customer and Relationship Services

GM Recall #13136

Bulletin No.: 13136C
Date: August 2013

Recall Bulletin

PRODUCT SAFETY RECALL

SUBJECT: **Loss of Battery Charge – Inspect Generator Control Module**

MODELS: **2012-2013 Buick LaCrosse, Regal**
2013 Chevrolet Malibu Eco
Equipped with eAssist

The Part Inspection Procedure in this bulletin has been revised. Please discard all copies of bulletin 13136B.

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.

Vehicles that were involved in Service Update 12238 but have not yet had the repair performed have been transferred to this recall. Vehicles that had parts replaced under Service Update 12238 prior to Nov 15, 2012, have also been transferred to this recall.

CONDITION

General Motors has decided that a defect, which relates to motor vehicle safety, exists in **certain** 2012-2013 model year Buick LaCrosse and Regal, and 2013 model year Chevrolet Malibu Eco vehicles, equipped with eAssist. Some of these vehicles have a condition in which the Generator Control Module (GCM) may not function properly. This could cause a gradual loss of battery charge and the illumination of the malfunction indicator light. If these warnings are ignored, eventually, the engine will stall and/or the vehicle will not start. In addition, there may be a burning or melting odor, smoke, and possibly a fire in the trunk.

CORRECTION

Dealers are to inspect and, if necessary, replace the GCM.

VEHICLES INVOLVED

All involved vehicles are identified by Vehicle Identification Number on the Investigate Vehicle History screen in GM Global Warranty Management system. Dealership service personnel should always check this site to confirm vehicle involvement prior to beginning any required inspections and/or repairs. It is important to routinely use this tool to verify eligibility because not all similar vehicles may be involved regardless of description or option content.

For dealers with involved vehicles, a listing with involved vehicles containing the complete vehicle identification number, customer name, and address information has been prepared and will be provided to dealers through the GM GlobalConnect Recall Reports. Dealers will not have a report available if they have no involved vehicles currently assigned.

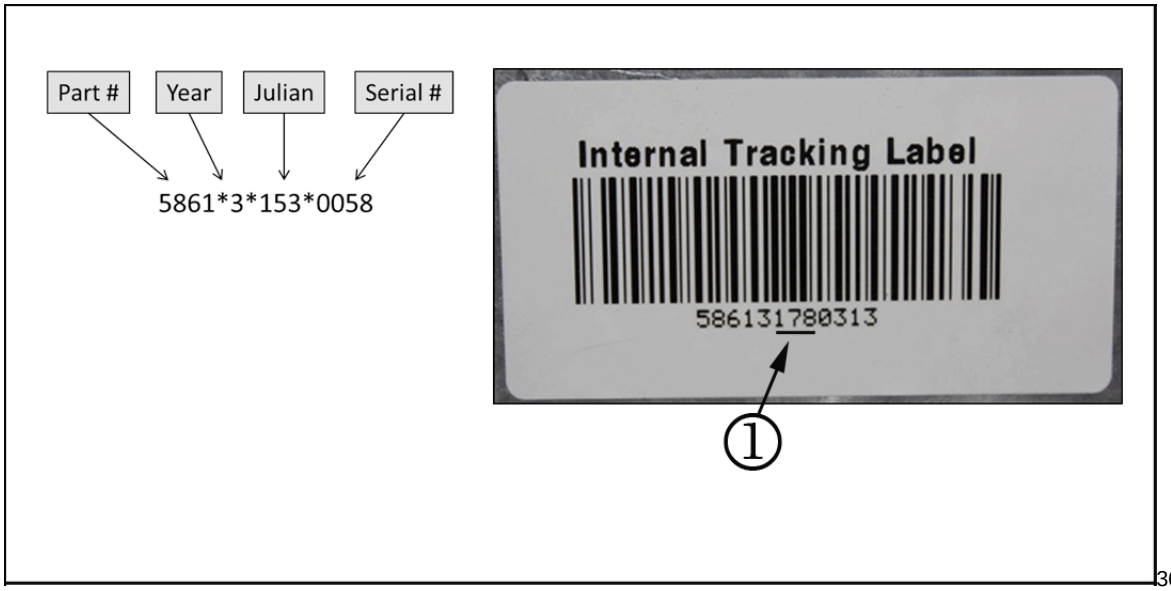
The listing may contain customer names and addresses obtained from Motor Vehicle Registration Records. The use of such motor vehicle registration data for any purpose other than follow-up necessary to complete this recall is a violation of law in several states/provinces/countries. Accordingly, you are urged to limit the use of this report to the follow-up necessary to complete this recall.

PART INFORMATION

Parts required to complete this recall are to be obtained from General Motors Customer Care and Aftersales (GMCC&A). Please refer to your "involved vehicles listing" before ordering parts. Normal orders should be placed on a DRO = Daily Replenishment Order. In an emergency situation, parts should be ordered on a CSO = Customer Special Order.

Note: Approximately 1% of vehicles will require replacement of the Generator Control Module.

Important Part Inspection



Generator Control Modules (GCM) with part number 24269448 or 24266403 require an inspection prior to installation in a vehicle. GCMs with part number 24267940 or 24267941 do NOT require inspection prior to installation in a vehicle.

Do NOT provide technicians with GCMs (p/n 24269448 or 24266403) that have a Julian date of 171 through 199. Determine the Julian date following the steps below. Return modules that fail the inspection according to Special Return Bulletin #G_0000171850.

1. Locate the barcode label on the new GCM.

2. Determine the Julian date (1) as shown above.
   - If the Julian date (1) is 171 through 199, proceed to step 3.
   - If the Julian date (1) is NOT 171 through 199, provide the GCM to the technician for installation in the vehicle.

3604229

3. Locate the Flash label on the GCM.
   - If the number on the lower right-hand side of the label (2) is 3203 or lower, do NOT use the GCM. Obtain another module and perform the inspection again.
   - If the number on the lower right-hand side of the label (2) is 3204 or higher, provide the GCM to the technician for installation in the vehicle.

Part Number	Description	Quantity/Vehicle
24267940 or 24269448	MODULE, GEN CONT (2012 LaCrosse, Regal & 2013 Malibu)	1 (If Req'd)
24267941 or 24266403	MODULE, GEN CONT (2013 LaCrosse, Regal)	1 (If Req'd)

SERVICE PROCEDURE

Caution: This service procedure is intended to fully stress the generator control module beyond normal customer use. This stress, in rare cases, may result in smoke and thermal damage to the generator control module. For the extended idle portion of the service procedure (Steps 8 and 12), the vehicle should be located outdoors, with the right rear seat back down, and with the location of the power pack in view of an observer in the left rear seat during the complete idle portion. Do not remove any trim panels. If smoke is observed or smelled, even a trace level, or a popping or unusual noise is heard from the power pack, immediately turn off the engine and exit the vehicle. Continue to observe vehicle for 10 minutes, making sure event has subsided. Connect GDS2 tool, key on to RUN, and acquire freeze frame data from ECM and HPCM. Turn the key to the off position and disconnect 12V battery while vehicle waits for repair.

Note: Install GDS2 to vehicle. Enter current vehicle make model. Perform a Vehicle Wide DTC check and record any Freeze Frame records. Select Module Diagnostics / HPCM / Data Display / 14V Power Module menu. Leave GDS2 connected and on this menu throughout the drive cycle. If any one of the following DTCs P0CA2, P1AF0 P1B0B P1E0C P1E12 is set, replace the Generator Control Module (GCM). Refer to *Generator Control Module Replacement* in SI.

Note: Perform the Generator Control Module inspection to determine if the Generator Control Module requires replacement. The inspection will take about 3 hours to complete.

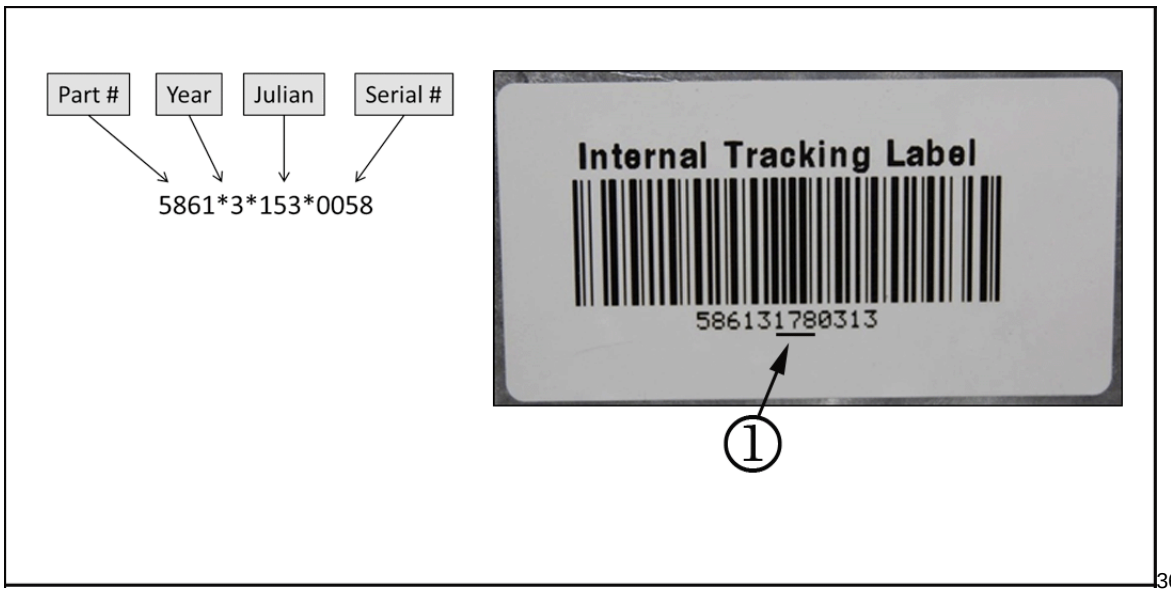
- If the generator control module is replaced, it will **not** be necessary to repeat a 3 hour drive cycle. However, a charging system voltage output test must be performed. Complete one of the following tests:
  - Option A: Perform a DC Power Conversion Test. Refer to *DC Power Conversion Test* in SI.
  - Option B: Using the DIC and a voltmeter at the 12V battery, monitor the charging system voltage while a load is applied by turning on the vehicle accessories listed in Step 7 of this bulletin.

Note: Verify the 175 amp fuse torque and APM cable crimp at the UBEC stud end of the cable prior to performing the inspection below.

Note: If the GCM requires replacement, follow the part inspection procedure below prior to installing a new module. Determine part number of new Generator Control Module (GCM) to be installed in the vehicle.

- If the new GCM part number is 24267940 or 24267941, no inspection is required. The GCM can be installed in the vehicle.
- If the new GCM part number is 24269448 or 24266403, proceed to *Part Inspection Procedure* below.

Part Inspection Procedure



3600552

1. Locate the barcode label on the new GCM.
2. Determine the Julian date (1) as shown above.
   - If the Julian date (1) is 171 through 199, proceed to step 3.
   - If the Julian date (1) is NOT 171 through 199, install the GCM in the vehicle.

3604229

3. Locate the Flash label on the GCM.
   - If the number on the lower right-hand side of the label (2) is 3203 or lower, do NOT use the GCM. Obtain another module and perform the inspection again.
   - If the number on the lower right-hand side of the label (2) is 3204 or higher, install the GCM in the vehicle.

GCM Performance Test

1. Install GDS2 to vehicle. Start engine and confirm the vehicle has enough fuel for the drive cycle and 2 hour idle test. A quarter-tank of fuel is required to complete the test. Add fuel as required.

2. If the Service Hybrid System DIC message is displayed at any time, follow service instructions in SI for the particular DTC or tell tale that is set. Refer to PIP4992B if the drive motor generator and battery control module (hybrid powerpack) cooling fan is inoperative.
3. Change the driver information center to show Power Flow Display or use center console display.
4. Set parking brake and place shifter in Neutral position. Increase engine speed to 2,000 RPM.
5. Run in this mode until battery shown in Power Flow Display is completely filled.
6. Shift back to Park and release parking brake.
7. Turn on 12V loads.
   - Head lamps on with high beams
   - Air conditioning set to 78^{o}F (25^{o}C), Eco mode (green snowflake LED), recirc., BiLevel (foot / floor -- do not want Defrost enabled)
   - Cabin blower to high speed
   - Radio on, with sound muted.
   - Heated seats, if equipped
   - Rear defog, it will time out, no need to reinitiate
8. Allow vehicle to idle for approximately 15 minutes.
9. Perform drive cycle maintaining high 12V loads and air conditioning settings specified in Step 7.
10. The drive cycle should contain the following maneuvers.
    - Perform at least 10 moderate to heavy accelerations followed by, brake regen events, with 15% brake apply (light to moderate). Perform these tasks from a vehicle speed of greater than 30 mph (50 km/h) down to at least 5 mph (8 km/h).
    - Perform at least 3 key off / key on cycles with a 2 minute off time, spread out throughout drive cycle. Note: you will need to turn high beams and heated seats back on after each key cycle.
11. Return vehicle to dealership (testing continues outside). Set parking brake and place shifter in Neutral and operate engine at 2,000 RPM until hybrid battery display shows full.

12. Place shifter in Park, release parking brake, and allow vehicle to idle for 2 hours with the following 12V loads on:
    - Head lamps with high beams
    - Cabin blower on highest setting
    - Air conditioning set to 78 deg. F (25 deg. C), Eco mode (green snowflake LED), recirc., Bi Level (foot / floor -- do not want Defrost enabled)
    - Heated seats on high
    - Windows up
    - Radio on, with sound muted
    - 4 way flashers on
    - Dome lights on
13. Turn off engine and all 12 V loads, headlamps, dome lamps, and hazard lamps. Wait 2 minutes, then restart engine.
14. If the Service Hybrid System DIC message is displayed at any time, follow service instructions in SI for the particular DTC or tell tale that is set.
15. Refer to PIP4992B if the drive motor generator and battery control module (hybrid powerpack) cooling fan is inoperative.
16. FOR CALIFORNIA VEHICLES ONLY**:** Install a Recall Identification Label and complete a "Proof of Correction" certificate upon recall completion.

RECALL IDENTIFICATION LABEL – California Vehicles Only

Place a Recall Identification Label on each vehicle corrected in accordance with the instructions outlined in this Product Recall Bulletin. Each label provides a space to include the recall number and the five-digit dealer code of the dealer performing the recall service. This information may be inserted with a ballpoint pen.

Put the Recall Identification Label on a clean and dry surface of the radiator core support in an area that will be visible to people servicing the vehicle.

When installing the Recall Identification Label, be sure to pull the tab to allow adhesion of the clear protective covering. Additional Recall Identification Labels for US dealers can be obtained from Dealer Support Materials by ordering on the web from DWD Store, www.gmglobalconnect.com, and then click on the DWD Store link. Request Item Number S-1015 when ordering.

COURTESY TRANSPORTATION – For US and Canada

The General Motors Courtesy Transportation program is intended to minimize customer inconvenience when a vehicle requires a repair that is covered by the New Vehicle Limited Warranties. The availability of courtesy transportation to customers whose vehicles are within the warranty coverage period and involved in a product program is very important in maintaining customer satisfaction. Dealers are to ensure that these customers understand that shuttle service or some other form of courtesy transportation is available and will be provided at no charge. Dealers should refer to the General Motors Service Policies and Procedures Manual for Courtesy Transportation guidelines.

WARRANTY TRANSACTION INFORMATION

Submit a transaction using the table below. All transactions should be submitted as a ZFAT transaction type, unless noted otherwise.

Labor Code	Description	Labor Time	Net Item
9100017	Inspect GCM – No Further Action Req'd	3.0	*
9100018	Inspect & Replace GCM (inc testing of new module)		*
	- Malibu, Regal	5.5	
	- LaCrosse	6.0	

* Submit the cost of ¼ tank (15 litres) of gasoline required to perform the test in the Net Item field, not to exceed $16.00 USD, $24.00 CAD.

CUSTOMER NOTIFICATION – For US and Canada

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

CUSTOMER NOTIFICATION – For Export

Letters will be sent to known owners of record located within areas covered by the US National Traffic and Motor Vehicle Safety Act. For owners outside these areas, dealers should notify customers using the attached sample letter.

DEALER RECALL RESPONSIBILITY – For US and Export (US 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 RECALL RESPONSIBILITY – All

All unsold new vehicles in dealers' possession and subject to this recall must be held and inspected/repaired per the service procedure of this recall bulletin before customers take possession of these vehicles.

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.

In summary, whenever a vehicle subject to this recall enters your vehicle inventory, or is in your dealership for service in the future, you must take the steps necessary to be sure the recall correction has been made before selling or releasing the vehicle.

Dear General Motors Customer:

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

General Motors has decided that a defect, which relates to motor vehicle safety, exists in certain 2012-2013 model year Buick LaCrosse and Regal, and 2013 model year Chevrolet Malibu Eco vehicles, equipped with eAssist. 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.

I M P O R T A N T

- Your vehicle is involved in safety recall 13136.
- Schedule an appointment with your GM dealer.
- This service will be performed for you at **no charge**.

Why is your vehicle being recalled?

Your vehicle may have a condition in which the Generator Control Module (GCM) may not function properly. This could cause a gradual loss of battery charge and the illumination of the malfunction indicator light. If you continue to drive the vehicle, the loss of battery charge will cause the engine to stall and/or the vehicle will not start. In addition, there may be a burning or melting odor, smoke, and possibly a fire in the trunk.

What will we do?

Your GM dealer will inspect and, if necessary, replace the GCM. 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 longer than the actual inspection time of 3 hours. If the GCM requires replacement, an additional 2 hours and 30 minutes up to 3 hours will be needed.

If your vehicle is within the New Vehicle Limited Warranty, your dealer may provide you with shuttle service or some other form of courtesy transportation while your vehicle is at the dealership for this repair. Please refer to your Owner Manual and your dealer for details on courtesy transportation.

What should you do?

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

California Residents: The state of California requires the completion of recalls on emission related parts prior to vehicle registration renewal. In addition, the state requires that every vehicle must pass an emission test (SMOG Check) every two years and before it is sold. Without the completion of this no-charge recall, your vehicle may be more likely to fail this test. At the time of the recall completion, your dealer will issue you a "Proof of Correction Certificate". Keep this certificate and, if required, present it to the Department of Motor Vehicles when renewing your registration as

proof of recall completion.

Do you have questions? If you have questions or concerns that your dealer is unable to resolve, please contact the appropriate Customer Assistance Center at the number listed below.

Division	Number	Text Telephones (TTY)
Buick	1-800-521-7300	1-800-832-8425
Chevrolet	1-800-222-1020	1-800-833-2438
Guam	65-6267-1752	
Puerto Rico – English	1-800-496-9992	
Puerto Rico – Español	1-800-496-9993	
Virgin Islands	1-800-496-9994	

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 Vehicle Safety Hotline at 1.888.327.4236 (TTY 1.800.424.9153), or go to http://www.safercar.gov. The National Highway Traffic Safety Administration Campaign ID Number for this recall is 13V173.

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

Jim Moloney
General Director,
Customer and Relationship Services

GM Recall #13136

Bulletin No.: 13142
Date: May 2013

Recall Bulletin

PRODUCT SAFETY RECALL

SUBJECT: **Loss of Battery Charge – Replace Generator Control Module**

MODELS: **2012-2013 Buick LaCrosse, Regal**
2013 Chevrolet Malibu Eco
Equipped with eAssist

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.

Due to part availability, customers will be contacted in phases.

CONDITION

General Motors has decided that a defect, which relates to motor vehicle safety, exists in **certain** 2012-2013 model year Buick LaCrosse and Regal, and 2013 model year Chevrolet Malibu Eco vehicles, equipped with eAssist. Some of these vehicles have a condition in which the Generator Control Module (GCM) may not function properly. This could cause a gradual loss of battery charge and the illumination of the malfunction indicator light. If these warnings are ignored, eventually, the engine will stall and/or the vehicle will not start. In addition, there may be a burning or melting odor, smoke, and possibly a fire in the trunk.

CORRECTION

Dealers are to replace the GCM.

VEHICLES INVOLVED

All involved vehicles are identified by Vehicle Identification Number on the Investigate Vehicle History screen in GM Global Warranty Management system. Dealership service personnel should always check this site to confirm vehicle involvement prior to beginning any required inspections and/or repairs. It is important to routinely use this tool to verify eligibility because not all similar vehicles may be involved regardless of description or option content.

For dealers with involved vehicles, a listing with involved vehicles containing the complete vehicle identification number, customer name, and address information has been prepared and will be provided to dealers through the GM GlobalConnect Recall Reports. Dealers will not have a report available if they have no involved vehicles currently assigned.

The listing may contain customer names and addresses obtained 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 is a violation of law in several states/provinces/countries. Accordingly, you are urged to limit the use of this report to the follow-up necessary to complete this recall.

PART INFORMATION

Parts required to complete this recall are to be obtained from General Motors Customer Care and Aftersales (GMCC&A). Please refer to your "involved vehicles listing" before ordering parts.

Parts can only be ordered from the Product Quality Center (PQC). Orders placed without PQC approval will automatically cancel.

Due to inventory constraints, please do NOT replace generator control modules on unsold vehicles at this time unless they are used for demonstration or loaner purposes.

Part Number	Description	Quantity/Vehicle
24267940	MODULE, GEN CONT (all 2012 MY & 2013 Malibu)	1
24267941	MODULE, GEN CONT (2013 LaCrosse, Regal)	1

SERVICE PROCEDURE

1. Remove Generator Control Module (GCM). Refer to *Generator Control Module Replacement* in SI.
2. Install new GCM. Refer to *Generator Control Module Replacement* in SI.
3. Perform a charging system voltage output test by following one of the 2 options below.
   - Option A: Perform a DC Power Conversion Test. Refer to *DC Power Conversion Test* in SI.
   - Option B: Using the DIC and a voltmeter at the 12V battery, monitor the charging system voltage while a load is applied by turning on the vehicle accessories listed below. Allow vehicle to idle for approximately 15 minutes with the load applied.
     - Head lamps on with high beams
     - Air conditioning set to 78^{o}F (25^{o}C), Eco mode (green snowflake LED), recirc., BiLevel (foot / floor -- do not want Defrost enabled)
     - Cabin blower to high speed
     - Radio on, with sound muted.
     - Heated seats, if equipped
     - Rear defog, it will time out, no need to reinitiate
4. FOR CALIFORNIA VEHICLES ONLY**:** Install a Recall Identification Label and complete a "Proof of Correction" certificate upon recall completion.

RECALL IDENTIFICATION LABEL – California Vehicles Only

Place a Recall Identification Label on each vehicle corrected in accordance with the instructions outlined in this Product Recall Bulletin. Each label provides a space to include the recall number and the five-digit dealer code of the dealer performing the recall service. This information may be inserted with a ballpoint pen.

Put the Recall Identification Label on a clean and dry surface of the radiator core support in an area that will be visible to people servicing the vehicle.

When installing the Recall Identification Label, be sure to pull the tab to allow adhesion of the clear protective covering. Additional Recall Identification Labels for US dealers can be obtained from Dealer Support Materials by ordering on the web from DWD Store, www.gmglobalconnect.com, and then click on the DWD Store link. Request Item Number S-1015 when ordering.

COURTESY TRANSPORTATION – For US and Canada

The General Motors Courtesy Transportation program is intended to minimize customer inconvenience when a vehicle requires a repair that is covered by the New Vehicle Limited Warranties. The availability of courtesy transportation to customers whose vehicles are within the warranty coverage period and involved in a product program is very important in maintaining customer satisfaction. Dealers are to ensure that these customers understand that shuttle service or some other form of courtesy transportation is available and will be provided at no charge. Dealers should refer to the General Motors Service Policies and Procedures Manual for Courtesy Transportation guidelines.

WARRANTY TRANSACTION INFORMATION

Submit a transaction using the table below. All transactions should be submitted as a ZFAT transaction type, unless noted otherwise.

Labor Code	Description	Labor Time	Net Item
9100038	Replace GCM (inc testing of new module)		N/A
	- Malibu, Regal	2.5	
	- LaCrosse	3.0	

CUSTOMER NOTIFICATION – For US and Canada

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

CUSTOMER NOTIFICATION – For Export

Letters will be sent to known owners of record located within areas covered by the US National Traffic and Motor Vehicle Safety Act. For owners outside these areas, dealers should notify customers using the attached sample letter.

DEALER RECALL RESPONSIBILITY – For US and Export (US 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 RECALL RESPONSIBILITY – All

All unsold new vehicles in dealers' possession and subject to this recall must be held and inspected/repaired per the service procedure of this recall bulletin before customers take possession of these vehicles.

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.

In summary, whenever a vehicle subject to this recall enters your vehicle inventory, or is in your dealership for service in the future, you must take the steps necessary to be sure the recall correction has been made before selling or releasing the vehicle.

Dear General Motors Customer:

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

General Motors has decided that a defect, which relates to motor vehicle safety, exists in certain 2012-2013 model year Buick LaCrosse and Regal, and 2013 model year Chevrolet Malibu Eco vehicles, equipped with eAssist. 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.

I M P O R T A N T

- Your vehicle is involved in safety recall 13142.
- Schedule an appointment with your GM dealer.
- This service will be performed for you at **no charge**.

Why is your vehicle being recalled?

Your vehicle may have a condition in which the Generator Control Module (GCM) may not function properly. This could cause a gradual loss of battery charge and the illumination of the malfunction indicator light. If you continue to drive the vehicle, the loss of battery charge will cause the engine to stall and/or the vehicle will not start. In addition, there may be a burning or melting odor, smoke, and possibly a fire in the trunk.

What will we do?

Your GM dealer will replace the GCM. 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 longer than the actual service correction time of approximately 2 hours and 30 minutes up to 3 hours.

If your vehicle is within the New Vehicle Limited Warranty, your dealer may provide you with shuttle service or some other form of courtesy transportation while your vehicle is at the dealership for this repair. Please refer to your Owner Manual and your dealer for details on courtesy transportation.

What should you do?

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

California Residents: The state of California requires the completion of recalls on emission related parts prior to vehicle registration renewal. In addition, the state requires that every vehicle must pass an emission test (SMOG Check) every two years and before it is sold. Without the completion of this no-charge recall, your vehicle may be more likely to fail this test. At the time of the recall completion, your dealer will issue you a "Proof of Correction Certificate". Keep this certificate and, if required, present it to the Department of Motor Vehicles when renewing your registration as proof of recall completion.

Do you have questions? If you have questions or concerns that your dealer is unable to resolve, please contact the appropriate Customer Assistance Center at the number listed below.

Division	Number	Text Telephones (TTY)
Buick	1-800-521-7300	1-800-832-8425
Chevrolet	1-800-222-1020	1-800-833-2438
Guam	65-6267-1752	
Puerto Rico – English	1-800-496-9992	
Puerto Rico – Español	1-800-496-9993	
Virgin Islands	1-800-496-9994	

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 Vehicle Safety Hotline at 1.888.327.4236 (TTY 1.800.424.9153), or go to http://www.safercar.gov. The National Highway Traffic Safety Administration Campaign ID Number for this recall is 13V173.

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

Jim Moloney
General Director,
Customer and Relationship Services

GM Recall #13142

Bulletin No.: 13142
Date: May 2013

Recall Bulletin

PRODUCT SAFETY RECALL

SUBJECT: **Loss of Battery Charge – Replace Generator Control Module**

MODELS: **2012-2013 Buick LaCrosse, Regal**
2013 Chevrolet Malibu Eco
Equipped with eAssist

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.

Due to part availability, customers will be contacted in phases.

CONDITION

General Motors has decided that a defect, which relates to motor vehicle safety, exists in **certain** 2012-2013 model year Buick LaCrosse and Regal, and 2013 model year Chevrolet Malibu Eco vehicles, equipped with eAssist. Some of these vehicles have a condition in which the Generator Control Module (GCM) may not function properly. This could cause a gradual loss of battery charge and the illumination of the malfunction indicator light. If these warnings are ignored, eventually, the engine will stall and/or the vehicle will not start. In addition, there may be a burning or melting odor, smoke, and possibly a fire in the trunk.

CORRECTION

Dealers are to replace the GCM.

VEHICLES INVOLVED

All involved vehicles are identified by Vehicle Identification Number on the Investigate Vehicle History screen in GM Global Warranty Management system. Dealership service personnel should always check this site to confirm vehicle involvement prior to beginning any required inspections and/or repairs. It is important to routinely use this tool to verify eligibility because not all similar vehicles may be involved regardless of description or option content.

For dealers with involved vehicles, a listing with involved vehicles containing the complete vehicle identification number, customer name, and address information has been prepared and will be provided to dealers through the GM GlobalConnect Recall Reports. Dealers will not have a report available if they have no involved vehicles currently assigned.

The listing may contain customer names and addresses obtained 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 is a violation of law in several states/provinces/countries. Accordingly, you are urged to limit the use of this report to the follow-up necessary to complete this recall.

PART INFORMATION

Parts required to complete this recall are to be obtained from General Motors Customer Care and Aftersales (GMCC&A). Please refer to your "involved vehicles listing" before ordering parts.

Parts can only be ordered from the Product Quality Center (PQC). Orders placed without PQC approval will automatically cancel.

Due to inventory constraints, please do NOT replace generator control modules on unsold vehicles at this time unless they are used for demonstration or loaner purposes.

Part Number	Description	Quantity/Vehicle
24267940	MODULE, GEN CONT (all 2012 MY & 2013 Malibu)	1
24267941	MODULE, GEN CONT (2013 LaCrosse, Regal)	1

SERVICE PROCEDURE

1. Remove Generator Control Module (GCM). Refer to *Generator Control Module Replacement* in SI.
2. Install new GCM. Refer to *Generator Control Module Replacement* in SI.
3. Perform a charging system voltage output test by following one of the 2 options below.
   - Option A: Perform a DC Power Conversion Test. Refer to *DC Power Conversion Test* in SI.
   - Option B: Using the DIC and a voltmeter at the 12V battery, monitor the charging system voltage while a load is applied by turning on the vehicle accessories listed below. Allow vehicle to idle for approximately 15 minutes with the load applied.
     - Head lamps on with high beams
     - Air conditioning set to 78^{o}F (25^{o}C), Eco mode (green snowflake LED), recirc., BiLevel (foot / floor -- do not want Defrost enabled)
     - Cabin blower to high speed
     - Radio on, with sound muted.
     - Heated seats, if equipped
     - Rear defog, it will time out, no need to reinitiate
4. FOR CALIFORNIA VEHICLES ONLY**:** Install a Recall Identification Label and complete a "Proof of Correction" certificate upon recall completion.

RECALL IDENTIFICATION LABEL – California Vehicles Only

Place a Recall Identification Label on each vehicle corrected in accordance with the instructions outlined in this Product Recall Bulletin. Each label provides a space to include the recall number and the five-digit dealer code of the dealer performing the recall service. This information may be inserted with a ballpoint pen.

Put the Recall Identification Label on a clean and dry surface of the radiator core support in an area that will be visible to people servicing the vehicle.

When installing the Recall Identification Label, be sure to pull the tab to allow adhesion of the clear protective covering. Additional Recall Identification Labels for US dealers can be obtained from Dealer Support Materials by ordering on the web from DWD Store, www.gmglobalconnect.com, and then click on the DWD Store link. Request Item Number S-1015 when ordering.

COURTESY TRANSPORTATION – For US and Canada

The General Motors Courtesy Transportation program is intended to minimize customer inconvenience when a vehicle requires a repair that is covered by the New Vehicle Limited Warranties. The availability of courtesy transportation to customers whose vehicles are within the warranty coverage period and involved in a product program is very important in maintaining customer satisfaction. Dealers are to ensure that these customers understand that shuttle service or some other form of courtesy transportation is available and will be provided at no charge. Dealers should refer to the General Motors Service Policies and Procedures Manual for Courtesy Transportation guidelines.

WARRANTY TRANSACTION INFORMATION

Submit a transaction using the table below. All transactions should be submitted as a ZFAT transaction type, unless noted otherwise.

Labor Code	Description	Labor Time	Net Item
9100038	Replace GCM (inc testing of new module)		N/A
	- Malibu, Regal	2.5	
	- LaCrosse	3.0	

CUSTOMER NOTIFICATION – For US and Canada

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

CUSTOMER NOTIFICATION – For Export

Letters will be sent to known owners of record located within areas covered by the US National Traffic and Motor Vehicle Safety Act. For owners outside these areas, dealers should notify customers using the attached sample letter.

DEALER RECALL RESPONSIBILITY – For US and Export (US 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 RECALL RESPONSIBILITY – All

All unsold new vehicles in dealers' possession and subject to this recall must be held and inspected/repaired per the service procedure of this recall bulletin before customers take possession of these vehicles.

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.

In summary, whenever a vehicle subject to this recall enters your vehicle inventory, or is in your dealership for service in the future, you must take the steps necessary to be sure the recall correction has been made before selling or releasing the vehicle.

Dear General Motors Customer:

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

General Motors has decided that a defect, which relates to motor vehicle safety, exists in certain 2012-2013 model year Buick LaCrosse and Regal, and 2013 model year Chevrolet Malibu Eco vehicles, equipped with eAssist. 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.

I M P O R T A N T

- Your vehicle is involved in safety recall 13142.
- Schedule an appointment with your GM dealer.
- This service will be performed for you at **no charge**.

Why is your vehicle being recalled?

Your vehicle may have a condition in which the Generator Control Module (GCM) may not function properly. This could cause a gradual loss of battery charge and the illumination of the malfunction indicator light. If you continue to drive the vehicle, the loss of battery charge will cause the engine to stall and/or the vehicle will not start. In addition, there may be a burning or melting odor, smoke, and possibly a fire in the trunk.

What will we do?

Your GM dealer will replace the GCM. 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 longer than the actual service correction time of approximately 2 hours and 30 minutes up to 3 hours.

If your vehicle is within the New Vehicle Limited Warranty, your dealer may provide you with shuttle service or some other form of courtesy transportation while your vehicle is at the dealership for this repair. Please refer to your Owner Manual and your dealer for details on courtesy transportation.

What should you do?

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

California Residents: The state of California requires the completion of recalls on emission related parts prior to vehicle registration renewal. In addition, the state requires that every vehicle must pass an emission test (SMOG Check) every two years and before it is sold. Without the completion of this no-charge recall, your vehicle may be more likely to fail this test. At the time of the recall completion, your dealer will issue you a "Proof of Correction Certificate". Keep this certificate and, if required, present it to the Department of Motor Vehicles when renewing your registration as proof of recall completion.

Do you have questions? If you have questions or concerns that your dealer is unable to resolve, please contact the appropriate Customer Assistance Center at the number listed below.

Division	Number	Text Telephones (TTY)
Buick	1-800-521-7300	1-800-832-8425
Chevrolet	1-800-222-1020	1-800-833-2438
Guam	65-6267-1752	
Puerto Rico – English	1-800-496-9992	
Puerto Rico – Español	1-800-496-9993	
Virgin Islands	1-800-496-9994	

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 Vehicle Safety Hotline at 1.888.327.4236 (TTY 1.800.424.9153), or go to http://www.safercar.gov. The National Highway Traffic Safety Administration Campaign ID Number for this recall is 13V173.

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

Jim Moloney
General Director,
Customer and Relationship Services

GM Recall #13142

Bulletin No.: 13142A
Date: August 2013

Recall Bulletin

PRODUCT SAFETY RECALL

SUBJECT: **Loss of Battery Charge – Replace Generator Control Module**

MODELS: **2012-2013 Buick LaCrosse, Regal**
2013 Chevrolet Malibu Eco
Equipped with eAssist

Parts required for this recall have been removed from Product Quality Center (PQC) restriction. Additional part numbers and a part inspection procedure have been added to this bulletin. Please discard all copies of bulletin 13142.

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.

Due to part availability, customers will be contacted in phases.

CONDITION

General Motors has decided that a defect, which relates to motor vehicle safety, exists in **certain** 2012-2013 model year Buick LaCrosse and Regal, and 2013 model year Chevrolet Malibu Eco vehicles, equipped with eAssist. Some of these vehicles have a condition in which the Generator Control Module (GCM) may not function properly. This could cause a gradual loss of battery charge and the illumination of the malfunction indicator light. If these warnings are ignored, eventually, the engine will stall and/or the vehicle will not start. In addition, there may be a burning or melting odor, smoke, and possibly a fire in the trunk.

CORRECTION

Dealers are to replace the GCM.

VEHICLES INVOLVED

All involved vehicles are identified by Vehicle Identification Number on the Investigate Vehicle History screen in GM Global Warranty Management system. Dealership service personnel should always check this site to confirm vehicle involvement prior to beginning any required inspections and/or repairs. It is important to routinely use this tool to verify eligibility because not all similar vehicles may be involved regardless of description or option content.

For dealers with involved vehicles, a listing with involved vehicles containing the complete vehicle identification number, customer name, and address information has been prepared and will be provided to dealers through the GM GlobalConnect Recall Reports. Dealers will not have a report available if they have no involved vehicles currently assigned.

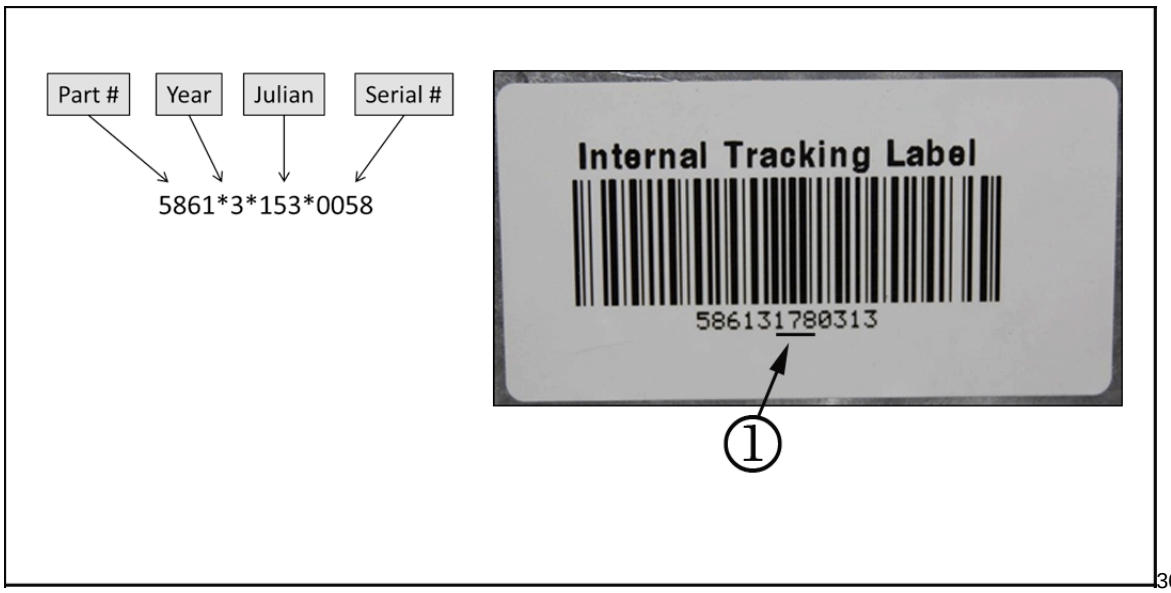
The listing may contain customer names and addresses obtained from Motor Vehicle Registration Records. The use of such motor vehicle registration data for any purpose other than follow-up necessary to complete this recall is a violation of law in several states/provinces/countries. Accordingly, you are urged to limit the use of this report to the follow-up necessary to complete this recall.

PART INFORMATION

Parts required to complete this recall are to be obtained from General Motors Customer Care and Aftersales (GMCC&A). Please refer to your "involved vehicles listing" before ordering parts. Normal orders should be placed on a DRO = Daily Replenishment Order. In an emergency situation, parts should be ordered on a CSO = Customer Special Order.

Due to inventory constraints, please do NOT replace generator control modules on unsold vehicles at this time unless they are used for demonstration or loaner purposes.

Important Part Inspection



3600552

Generator Control Modules (GCM) with part number 24269448 or 24266403 require an inspection prior to installation in a vehicle. GCMs with part number 24267940 or 24267941 do NOT require inspection prior to installation in a vehicle.

Do NOT provide technicians with GCMs (p/n 24269448 or 24266403) that have a Julian date of 171 through 199. Determine the Julian date following the steps below. Return modules that fail the inspection according to Special Return Bulletin #G_0000171850.

1. Locate the barcode label on the new GCM.

2. Determine the Julian date (1) as shown above.
   - If the Julian date (1) is 171 through 199, do NOT install the module. Obtain another module and perform the inspection again.
   - If the Julian date (1) is NOT 171 through 199, provide to the technician for installation in the vehicle.

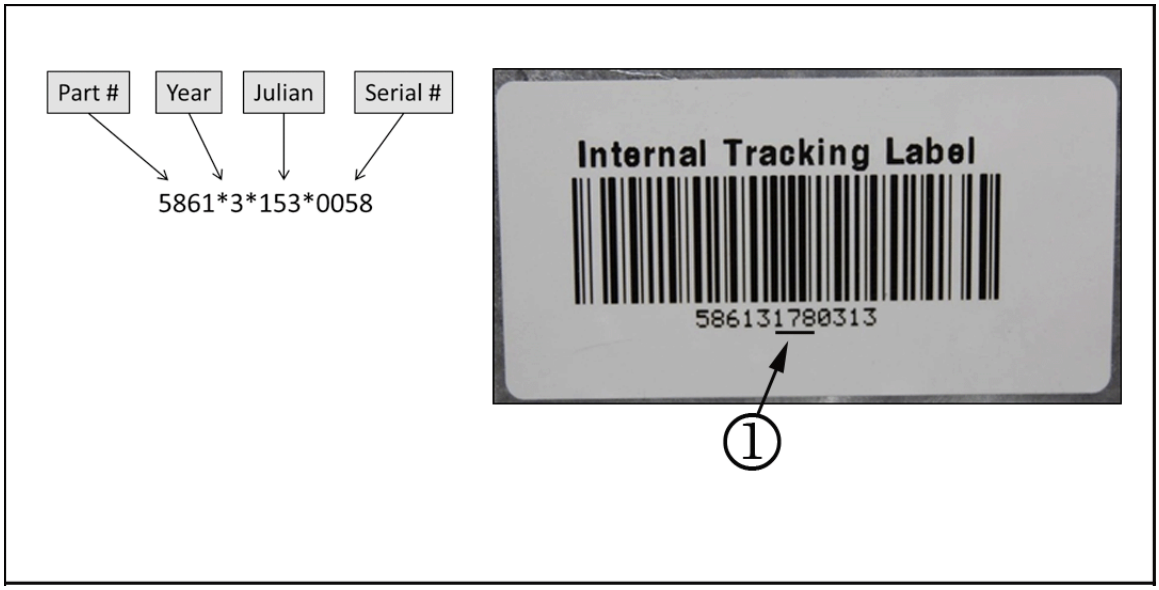
Part Number	Description	Quantity/Vehicle
24267940 or 24269448	MODULE, GEN CONT (2012 LaCrosse, Regal & 2013 Malibu)	1
24267941 or 24266403	MODULE, GEN CONT (2013 LaCrosse, Regal)	1

SERVICE PROCEDURE

Determine part number of new Generator Control Module (GCM) to be installed in the vehicle.

- If the new GCM part number is 24267940 or 24267941, proceed to *Installation Procedure* contained in this bulletin.
- If the new GCM part number is 24269448 or 24266403, proceed to *Inspection Procedure* contained in this bulletin.

Inspection Procedure



Note: Do NOT install GCMs with a Julian date of 171 through 199. Return those modules according to Special Return Bulletin #G_0000171850.

3. Locate the barcode label on the new GCM.

4. Determine the Julian date (1) as shown above.
   - If the Julian date (1) is 171 through 199, do NOT install the module. Obtain another module and perform the inspection again.
   - If the Julian date (1) is NOT 171 through 199, proceed to the Installation Procedure below.

Installation Procedure

1. Remove Generator Control Module (GCM). Refer to *Generator Control Module Replacement* in SI.
2. Install new GCM. Refer to *Generator Control Module Replacement* in SI.
3. Perform a charging system voltage output test by following one of the 2 options below.
   - Option A: Perform a DC Power Conversion Test. Refer to *DC Power Conversion Test* in SI.
   - Option B: Using the DIC and a voltmeter at the 12V battery, monitor the charging system voltage while a load is applied by turning on the vehicle accessories listed below. Allow vehicle to idle for approximately 15 minutes with the load applied.
     - Head lamps on with high beams
     - Air conditioning set to 78°F (25°C), Eco mode (green snowflake LED), recirc., BiLevel (foot / floor -- do not want Defrost enabled)
     - Cabin blower to high speed
     - Radio on, with sound muted.
     - Heated seats, if equipped
     - Rear defog, it will time out, no need to reinitiate
4. FOR CALIFORNIA VEHICLES ONLY**:** Install a Recall Identification Label and complete a "Proof of Correction" certificate upon recall completion.

RECALL IDENTIFICATION LABEL – California Vehicles Only

Place a Recall Identification Label on each vehicle corrected in accordance with the instructions outlined in this Product Recall Bulletin. Each label provides a space to include the recall number and the five-digit dealer code of the dealer performing the recall service. This information may be inserted with a ballpoint pen.

Put the Recall Identification Label on a clean and dry surface of the radiator core support in an area that will be visible to people servicing the vehicle.

When installing the Recall Identification Label, be sure to pull the tab to allow adhesion of the clear protective covering. Additional Recall Identification Labels for US dealers can be obtained from Dealer Support Materials by ordering on the web from DWD Store, www.gmglobalconnect.com, and then click on the DWD Store link. Request Item Number S-1015 when ordering.

COURTESY TRANSPORTATION – For US and Canada

The General Motors Courtesy Transportation program is intended to minimize customer inconvenience when a vehicle requires a repair that is covered by the New Vehicle Limited Warranties. The availability of courtesy transportation to customers whose vehicles are within the warranty coverage period and involved in a product program is very important in maintaining customer satisfaction. Dealers are to ensure that these customers understand that shuttle service or some other form of courtesy transportation is available and will be provided at no charge. Dealers should refer to the General Motors Service Policies and Procedures Manual for Courtesy Transportation guidelines.

WARRANTY TRANSACTION INFORMATION

Submit a transaction using the table below. All transactions should be submitted as a ZFAT transaction type, unless noted otherwise.

Labor Code	Description	Labor Time	Net Item
9100038	Replace GCM (inc testing of new module)		N/A
	- Malibu, Regal	2.5	
	- LaCrosse	3.0	

CUSTOMER NOTIFICATION – For US and Canada

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

CUSTOMER NOTIFICATION – For Export

Letters will be sent to known owners of record located within areas covered by the US National Traffic and Motor Vehicle Safety Act. For owners outside these areas, dealers should notify customers using the attached sample letter.

DEALER RECALL RESPONSIBILITY – For US and Export (US 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 RECALL RESPONSIBILITY – All

All unsold new vehicles in dealers' possession and subject to this recall must be held and inspected/repaired per the service procedure of this recall bulletin before customers take possession of these vehicles.

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.

In summary, whenever a vehicle subject to this recall enters your vehicle inventory, or is in your dealership for service in the future, you must take the steps necessary to be sure the recall correction has been made before selling or releasing the vehicle.

Dear General Motors Customer:

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

General Motors has decided that a defect, which relates to motor vehicle safety, exists in certain 2012-2013 model year Buick LaCrosse and Regal, and 2013 model year Chevrolet Malibu Eco vehicles, equipped with eAssist. 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.

I M P O R T A N T

- Your vehicle is involved in safety recall 13142.
- Schedule an appointment with your GM dealer.
- This service will be performed for you at **no charge**.

Why is your vehicle being recalled?

Your vehicle may have a condition in which the Generator Control Module (GCM) may not function properly. This could cause a gradual loss of battery charge and the illumination of the malfunction indicator light. If you continue to drive the vehicle, the loss of battery charge will cause the engine to stall and/or the vehicle will not start. In addition, there may be a burning or melting odor, smoke, and possibly a fire in the trunk.

What will we do?

Your GM dealer will replace the GCM. 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 longer than the actual service correction time of approximately 2 hours and 30 minutes up to 3 hours.

If your vehicle is within the New Vehicle Limited Warranty, your dealer may provide you with shuttle service or some other form of courtesy transportation while your vehicle is at the dealership for this repair. Please refer to your Owner Manual and your dealer for details on courtesy transportation.

What should you do?

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

California Residents: The state of California requires the completion of recalls on emission related parts prior to vehicle registration renewal. In addition, the state requires that every vehicle must pass an emission test (SMOG Check) every two years and before it is sold. Without the completion of this no-charge recall, your vehicle may be more likely to fail this test. At the time of the recall completion, your dealer will issue you a "Proof of Correction Certificate". Keep this certificate and, if required, present it to the Department of Motor Vehicles when renewing your registration as proof of recall completion.

Do you have questions? If you have questions or concerns that your dealer is unable to resolve, please contact the appropriate Customer Assistance Center at the number listed below.

Division	Number	Text Telephones (TTY)
Buick	1-800-521-7300	1-800-832-8425
Chevrolet	1-800-222-1020	1-800-833-2438
Guam	65-6267-1752	
Puerto Rico – English	1-800-496-9992	
Puerto Rico – Español	1-800-496-9993	
Virgin Islands	1-800-496-9994	

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 Vehicle Safety Hotline at 1.888.327.4236 (TTY 1.800.424.9153), or go to http://www.safercar.gov. The National Highway Traffic Safety Administration Campaign ID Number for this recall is 13V173.

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

Jim Moloney
General Director,
Customer and Relationship Services

GM Recall #13142

Bulletin No.: 13142B
Date: August 2013

Recall Bulletin

PRODUCT SAFETY RECALL

SUBJECT: **Loss of Battery Charge – Replace Generator Control Module**

MODELS: **2012-2013 Buick LaCrosse, Regal**
2013 Chevrolet Malibu Eco
Equipped with eAssist

The Part Inspection Procedure in this bulletin has been revised. Please discard all copies of bulletin 13136A.

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.

Due to part availability, customers will be contacted in phases.

CONDITION

General Motors has decided that a defect, which relates to motor vehicle safety, exists in **certain** 2012-2013 model year Buick LaCrosse and Regal, and 2013 model year Chevrolet Malibu Eco vehicles, equipped with eAssist. Some of these vehicles have a condition in which the Generator Control Module (GCM) may not function properly. This could cause a gradual loss of battery charge and the illumination of the malfunction indicator light. If these warnings are ignored, eventually, the engine will stall and/or the vehicle will not start. In addition, there may be a burning or melting odor, smoke, and possibly a fire in the trunk.

CORRECTION

Dealers are to replace the GCM.

VEHICLES INVOLVED

All involved vehicles are identified by Vehicle Identification Number on the Investigate Vehicle History screen in GM Global Warranty Management system. Dealership service personnel should always check this site to confirm vehicle involvement prior to beginning any required inspections and/or repairs. It is important to routinely use this tool to verify eligibility because not all similar vehicles may be involved regardless of description or option content.

For dealers with involved vehicles, a listing with involved vehicles containing the complete vehicle identification number, customer name, and address information has been prepared

and will be provided to dealers through the GM GlobalConnect Recall Reports. Dealers will not have a report available if they have no involved vehicles currently assigned.

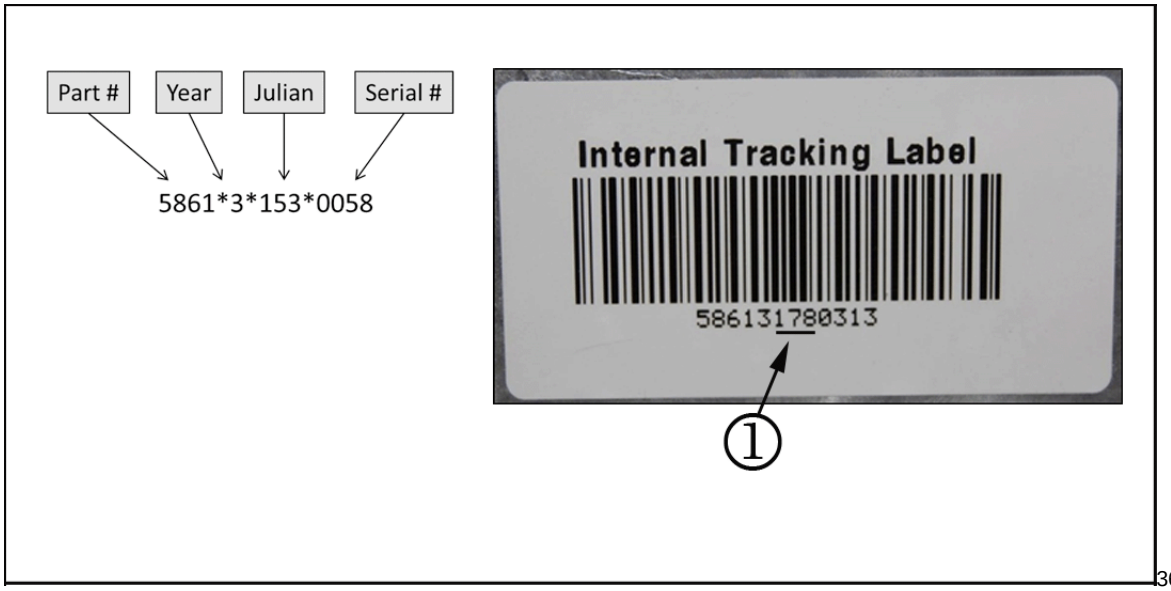
The listing may contain customer names and addresses obtained from Motor Vehicle Registration Records. The use of such motor vehicle registration data for any purpose other than follow-up necessary to complete this recall is a violation of law in several states/provinces/countries. Accordingly, you are urged to limit the use of this report to the follow-up necessary to complete this recall.

PART INFORMATION

Parts required to complete this recall are to be obtained from General Motors Customer Care and Aftersales (GMCC&A). Please refer to your "involved vehicles listing" before ordering parts. Normal orders should be placed on a DRO = Daily Replenishment Order. In an emergency situation, parts should be ordered on a CSO = Customer Special Order.

Note: Approximately 1% of vehicles will require replacement of the Generator Control Module.

Important Part Inspection



3600552

Generator Control Modules (GCM) with part number 24269448 or 24266403 require an inspection prior to installation in a vehicle. GCMs with part number 24267940 or 24267941 do NOT require inspection prior to installation in a vehicle.

Do NOT provide technicians with GCMs (p/n 24269448 or 24266403) that have a Julian date of 171 through 199. Determine the Julian date following the steps below. Return modules that fail the inspection according to Special Return Bulletin #G_0000171850.

1. Locate the barcode label on the new GCM.

2. Determine the Julian date (1) as shown above.
   - If the Julian date (1) is 171 through 199, proceed to step 3.
   - If the Julian date (1) is NOT 171 through 199, provide the GCM to the technician for installation in the vehicle.

3604229

3. Locate the Flash label on the GCM.
   - If the number on the lower right-hand side of the label (2) is 3203 or lower, do NOT use the GCM. Obtain another module and perform the inspection again.
   - If the number on the lower right-hand side of the label (2) is 3204 or higher, provide the GCM to the technician for installation in the vehicle.

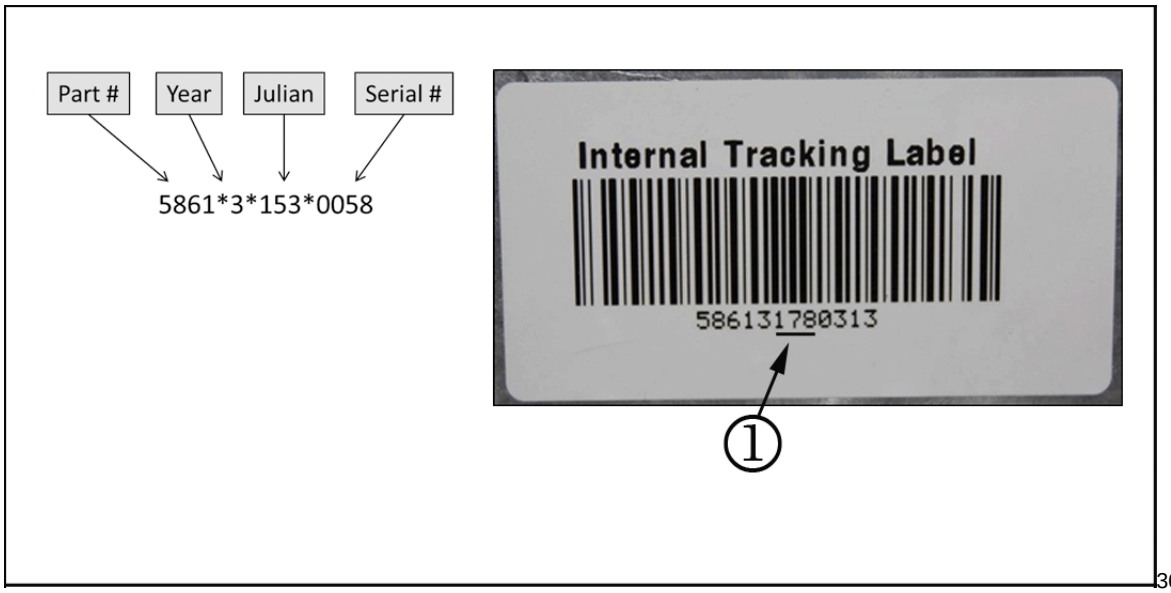
Part Number	Description	Quantity/Vehicle
24267940 or 24269448	MODULE, GEN CONT (2012 LaCrosse, Regal & 2013 Malibu)	1
24267941 or 24266403	MODULE, GEN CONT (2013 LaCrosse, Regal)	1

SERVICE PROCEDURE

Determine part number of new Generator Control Module (GCM) to be installed in the vehicle.

- If the new GCM part number is 24267940 or 24267941, proceed to *Installation Procedure* contained in this bulletin.
- If the new GCM part number is 24269448 or 24266403, proceed to *Part Inspection Procedure* contained in this bulletin.

Part Inspection Procedure



3600552

1. Locate the barcode label on the new GCM.
2. Determine the Julian date (1) as shown above.
   - If the Julian date (1) is 171 through 199, proceed to step 3.
   - If the Julian date (1) is NOT 171 through 199, install the GCM in the vehicle.

3604229

3. Locate the Flash label on the GCM.
   - If the number on the lower right-hand side of the label (2) is 3203 or lower, do NOT use the GCM. Obtain another module and perform the inspection again.
   - If the number on the lower right-hand side of the label (2) is 3204 or higher, install the GCM in the vehicle.

Installation Procedure

1. Remove Generator Control Module (GCM). Refer to *Generator Control Module Replacement* in SI.
2. Install new GCM. Refer to *Generator Control Module Replacement* in SI.
3. Perform a charging system voltage output test by following one of the 2 options below.
   - Option A: Perform a DC Power Conversion Test. Refer to *DC Power Conversion Test* in SI.
   - Option B: Using the DIC and a voltmeter at the 12V battery, monitor the charging system voltage while a load is applied by turning on the vehicle accessories listed below. Allow vehicle to idle for approximately 15 minutes with the load applied.
     - Head lamps on with high beams
     - Air conditioning set to 78°F (25°C), Eco mode (green snowflake LED), recirc., BiLevel (foot / floor -- do not want Defrost enabled)
     - Cabin blower to high speed
     - Radio on, with sound muted.
     - Heated seats, if equipped
     - Rear defog, it will time out, no need to reinitiate
4. FOR CALIFORNIA VEHICLES ONLY**:** Install a Recall Identification Label and complete a “Proof of Correction” certificate upon recall completion.

RECALL IDENTIFICATION LABEL – California Vehicles Only

Place a Recall Identification Label on each vehicle corrected in accordance with the instructions outlined in this Product Recall Bulletin. Each label provides a space to include the recall number and the five-digit dealer code of the dealer performing the recall service. This information may be inserted with a ballpoint pen.

Put the Recall Identification Label on a clean and dry surface of the radiator core support in an area that will be visible to people servicing the vehicle.

When installing the Recall Identification Label, be sure to pull the tab to allow adhesion of the clear protective covering. Additional Recall Identification Labels for US dealers can be obtained from Dealer Support Materials by ordering on the web from DWD Store, www.gmglobalconnect.com, and then click on the DWD Store link. Request Item Number S-1015 when ordering.

COURTESY TRANSPORTATION – For US and Canada

The General Motors Courtesy Transportation program is intended to minimize customer inconvenience when a vehicle requires a repair that is covered by the New Vehicle Limited Warranties. The availability of courtesy transportation to customers whose vehicles are within the warranty coverage period and involved in a product program is very important in maintaining customer satisfaction. Dealers are to ensure that these customers understand that shuttle service or some other form of courtesy transportation is available and will be provided at no charge. Dealers should refer to the General Motors Service Policies and Procedures Manual for Courtesy Transportation guidelines.

WARRANTY TRANSACTION INFORMATION

Submit a transaction using the table below. All transactions should be submitted as a ZFAT transaction type, unless noted otherwise.

Labor Code	Description	Labor Time	Net Item
9100038	Replace GCM (inc testing of new module)		N/A
	- Malibu, Regal	2.5	
	- LaCrosse	3.0	

CUSTOMER NOTIFICATION – For US and Canada

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

CUSTOMER NOTIFICATION – For Export

Letters will be sent to known owners of record located within areas covered by the US National Traffic and Motor Vehicle Safety Act. For owners outside these areas, dealers should notify customers using the attached sample letter.

DEALER RECALL RESPONSIBILITY – For US and Export (US 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 RECALL RESPONSIBILITY – All

All unsold new vehicles in dealers' possession and subject to this recall must be held and inspected/repaired per the service procedure of this recall bulletin before customers take possession of these vehicles.

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.

In summary, whenever a vehicle subject to this recall enters your vehicle inventory, or is in your dealership for service in the future, you must take the steps necessary to be sure the recall correction has been made before selling or releasing the vehicle.

Dear General Motors Customer:

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

General Motors has decided that a defect, which relates to motor vehicle safety, exists in certain 2012-2013 model year Buick LaCrosse and Regal, and 2013 model year Chevrolet Malibu Eco vehicles, equipped with eAssist. 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.

I M P O R T A N T

- Your vehicle is involved in safety recall 13142.
- Schedule an appointment with your GM dealer.
- This service will be performed for you at **no charge**.

Why is your vehicle being recalled?

Your vehicle may have a condition in which the Generator Control Module (GCM) may not function properly. This could cause a gradual loss of battery charge and the illumination of the malfunction indicator light. If you continue to drive the vehicle, the loss of battery charge will cause the engine to stall and/or the vehicle will not start. In addition, there may be a burning or melting odor, smoke, and possibly a fire in the trunk.

What will we do?

Your GM dealer will replace the GCM. 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 longer than the actual service correction time of approximately 2 hours and 30 minutes up to 3 hours.

If your vehicle is within the New Vehicle Limited Warranty, your dealer may provide you with shuttle service or some other form of courtesy transportation while your vehicle is at the dealership for this repair. Please refer to your Owner Manual and your dealer for details on courtesy transportation.

What should you do?

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

California Residents: The state of California requires the completion of recalls on emission related parts prior to vehicle registration renewal. In addition, the state requires that every vehicle must pass an emission test (SMOG Check) every two years and before it is sold. Without the completion of this no-charge recall, your vehicle may be more likely to fail this test. At the time of the recall completion, your dealer will issue you a "Proof of Correction Certificate". Keep this certificate and, if required, present it to the Department of Motor Vehicles when renewing your registration as proof of recall completion.

Do you have questions? If you have questions or concerns that your dealer is unable to resolve, please contact the appropriate Customer Assistance Center at the number listed below.

Division	Number	Text Telephones (TTY)
Buick	1-800-521-7300	1-800-832-8425
Chevrolet	1-800-222-1020	1-800-833-2438
Guam	65-6267-1752	
Puerto Rico – English	1-800-496-9992	
Puerto Rico – Español	1-800-496-9993	
Virgin Islands	1-800-496-9994	

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 Vehicle Safety Hotline at 1.888.327.4236 (TTY 1.800.424.9153), or go to http://www.safercar.gov. The National Highway Traffic Safety Administration Campaign ID Number for this recall is 13V173.

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

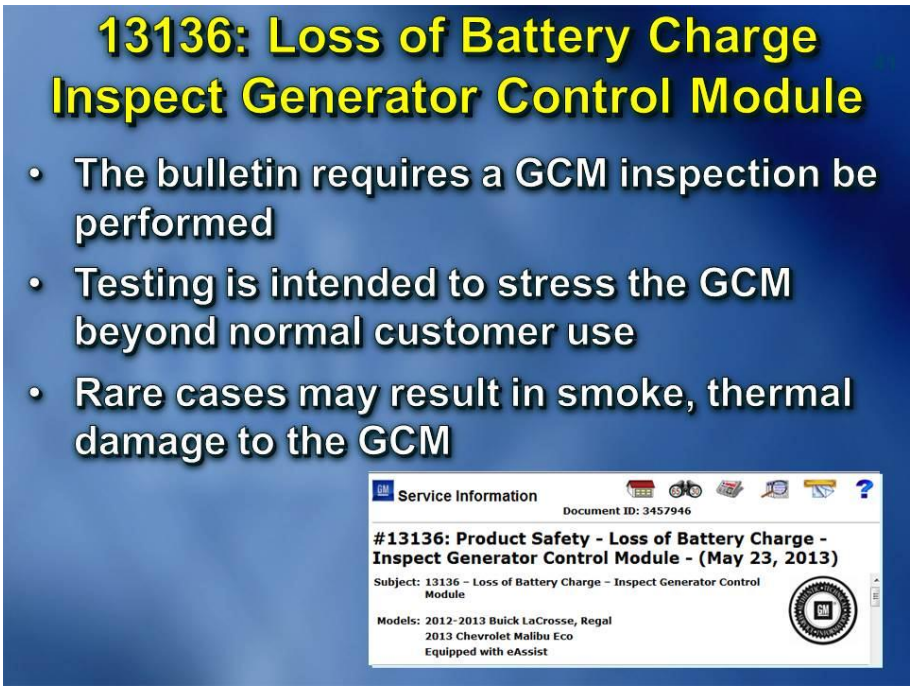
Jim Moloney
General Director,
Customer and Relationship Services

GM Recall #13142

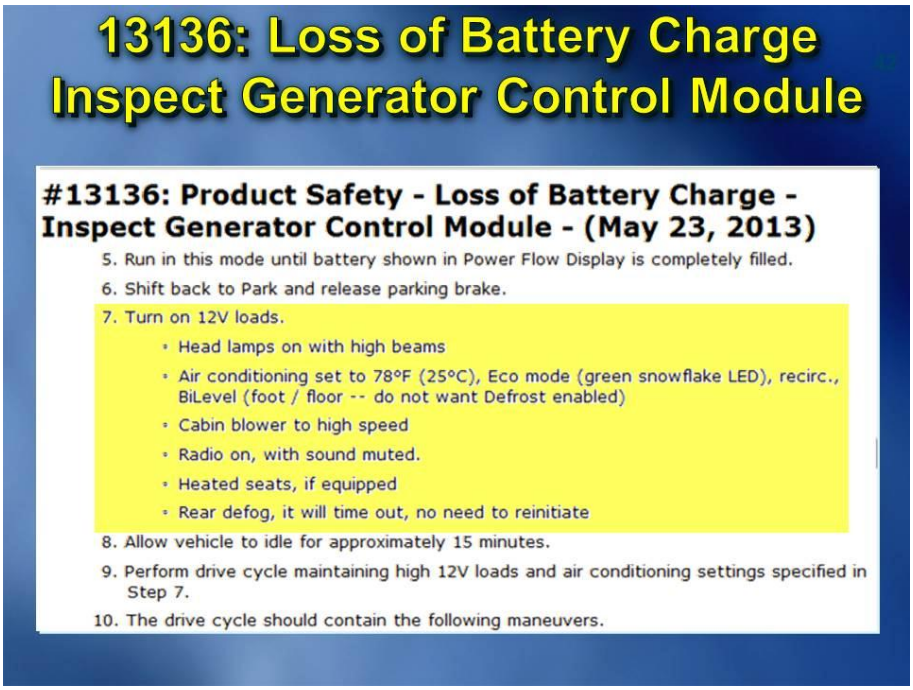
GM Service Know-How
Emerging Issues

Segment 3

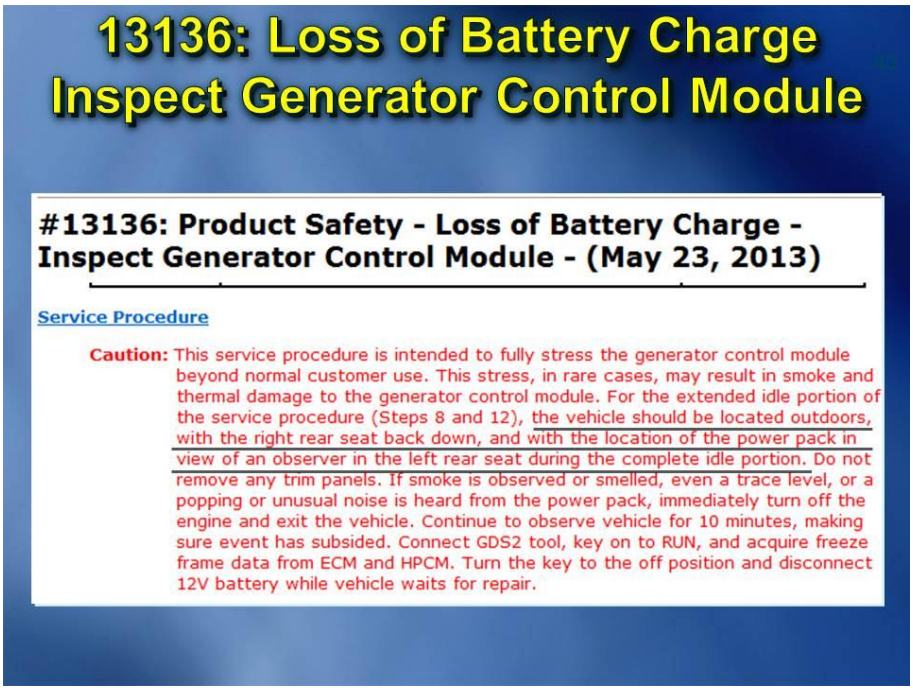
What's Hot for Cars

Cues	Broadcast Presentation
PPT #77	

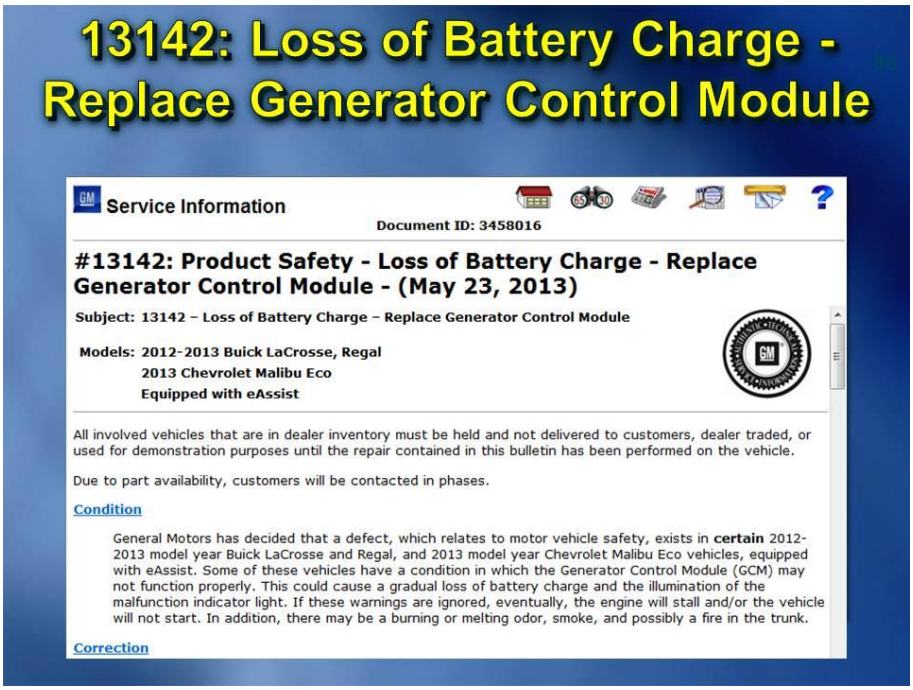
Bulletin 13136 requires a Generator Control Module or GCM inspection be performed. This testing is intended to stress the GCM beyond normal customer use and in rare cases may result in smoke and thermal damage to the GCM.

Cues	Broadcast Presentation
PPT #78	

Part of the test requires 12 volt loads to be placed on the system by turning on high beam headlamps, AC, high speed blower, radio, heated seats and the rear defog. The bulletin contains step by step instructions for the test.

Cues	Broadcast Presentation
PPT #79	

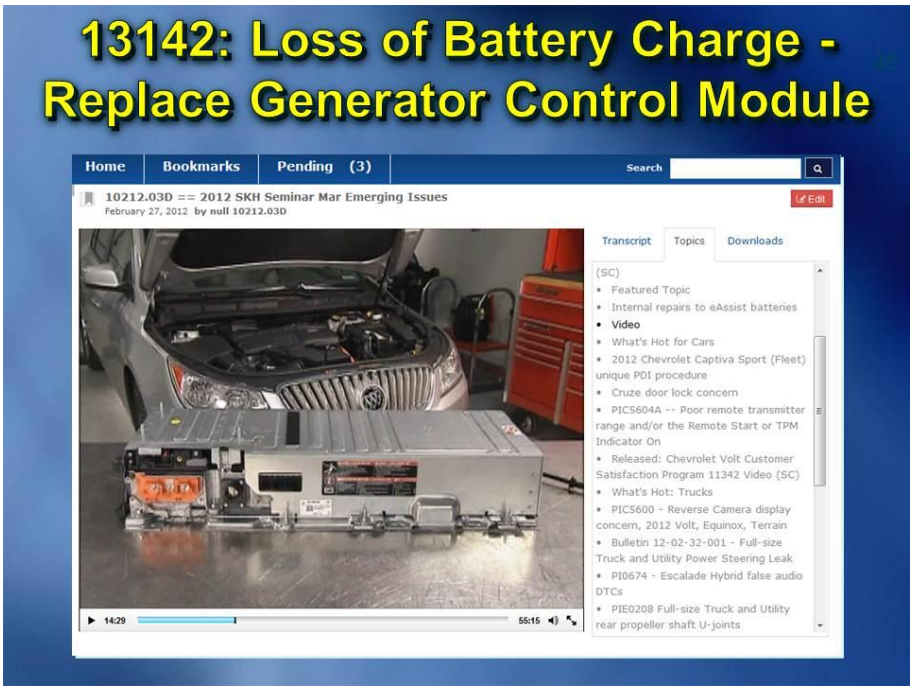
After a road test, the vehicle must idle for 2 hours. The vehicle must be located outside for the idle portion. If smoke is observed or smelled immediately turn the ignition OFF and exit the vehicle. Continue to observe for 10 minutes, and then use GDS 2 to perform a vehicle wide DTC check and acquire any freeze frame records from the ECM and HPCM. Be sure you correctly build the vehicle with Engine RPO LUK. The test will require approximately 3 hours to perform and only a very small percentage of vehicles, about 1 percent, will require replacement of the GCM.

Cues	Broadcast Presentation
PPT #80	

Bulletin 13142 is a bit simpler, if a vehicle is involved, the GCM needs to be replaced.

With either bulletin, be sure to confirm involvement by entering the VIN into the Vehicle History screen in GM Global Warranty Management System.

If you go to the Center of Learning web site and open the March 2012 EI, we put together a video showing the steps for GCM replacement which could make the process a bit clearer.

Cues	Broadcast Presentation
PPT #81	

In that video we stated that it may be easier to remove the battery assembly from the vehicle to perform this repair. You will probably find that this is the fastest and safest method, at least the first few times you perform this repair. Follow the procedure in SI for safe removal.

Cues	Broadcast Presentation
 Mike	**Both bulletins contain part numbers and labor operation codes for these repairs.** **Let's move on to What's Hot For Trucks.**

End of What's Hot for Cars

RQ13-003

GM

9-9-2013

ATTACHMENT 1

Q 07 B

GM Bulletin No.: 12013
Date: February 2012

Service Bulletin

SERVICE UPDATE

SUBJECT: **Service Update for Inventory Vehicles Only**
Battery Drain - Replace Battery Power Inverter Module
Expires February 28, 2013

MODELS: **2012 Buick LaCrosse, Regal**
Equipped with eAssist (LUK)

This service update involves vehicles in dealer inventory only and will expire February 28, 2013.

PURPOSE

This bulletin provides a service procedure to replace the Battery Power Inverter Module (BPIM) on **certain** 2012 model year Buick LaCrosse and Regal vehicles that are equipped with eAssist (LUK). The circuit board within the BPIM may have been compressed during the assembly process. This could cause damage to the circuitry and result in illumination of the Service Engine Soon light, Service Battery Charging System message, Low Battery message, Battery Saver Active message, setting of DTCs U1817 and U0293, and a battery drain.

This service procedure should be completed on involved vehicles currently in dealership inventory as soon as possible but no later than February 28, 2013, at which time this bulletin will expire.

VEHICLES INVOLVED

All involved vehicles are identified by VIN in the Global Warranty Management System – Investigate Vehicle History (GMVIS2) Application. Dealership technicians should always check this site to confirm vehicle involvement prior to beginning any required inspections and/or repairs. It is important to routinely use this tool to verify eligibility because not all similar vehicles may be involved regardless of description or option content.

Additionally, a list of involved vehicles currently in dealer inventory is available on the “Service Update Bulletin Information” link under the “Service” tab in GM GlobalConnect (US) or attached to the GlobalConnect message (Canada) used to release this bulletin.

PART INFORMATION

Parts required to complete this service update are to be obtained from General Motors Customer Care and Aftersales (GMCC&A). Please refer to your "involved vehicles listing" before ordering parts. Normal orders should be placed on a DRO = Daily Replenishment Order. In an emergency situation, parts should be ordered on a CSO = Customer Special Order.

Note: There are only 162 vehicles involved in this service update. Please refer to your "involved vehicles listing" to determine if you have any vehicles assigned to you prior to ordering parts.

Part Number	Description	Quantity/Vehicle
12635717*	MODULE,GEN CONT	1

* Modules are to be returned to the Warranty Parts Center (WPC). Please return the module when you receive the return request from the WPC.

SERVICE PROCEDURE

Note: Removed modules are to be returned to the Warranty Parts Center. Please return the module when you receive the return request from the WPC.

1. Remove the generator control module. Refer to *Generator Control Module Replacement* in SI.
2. Install a new generator control module. Refer *to Generator Control Module Replacement* in SI.

WARRANTY TRANSACTION INFORMATION

Submit a transaction using the table below.

Labor Code	Description	Labor Time
V2542	Generator Control Module Replacement	2.5

DEALER PROGRAM RESPONSIBILITY

Dealers must take the steps necessary to ensure that the service update correction has been made to all involved vehicles in dealer inventory before selling or dealer-trading the vehicle, but no later than February 28, 2013.

GM Bulletin No.: 12238
Date: October 2012

Service Bulletin

SERVICE UPDATE

SUBJECT: **Service Update for Inventory Vehicles Only**
Loss of Battery Charge – Inspect Generator Control Module
Expires October 31, 2013

MODELS: **2012 Buick Regal**
2012-2013 Buick LaCrosse
2013 Chevrolet Malibu Eco
Equipped with eAssist

This service update involves vehicles in dealer inventory only and will expire October 31, 2013.

PURPOSE

This bulletin provides a service procedure to inspect and replace, if necessary, the Generator Control Module (GCM) on **certain** 2012 model year Buick Regal, 2012-2013 model year Buick LaCrosse, and 2013 model year Chevrolet Malibu Eco vehicles, equipped with eAssist. The GCM may not function properly, resulting in the gradual loss of battery charge, illumination of the MIL, and eventual engine stall or no start condition.

This service procedure should be completed on involved vehicles currently in dealership inventory as soon as possible but no later than October 31, 2013, at which time this bulletin will expire.

VEHICLES INVOLVED

All involved vehicles are identified by VIN in the Global Warranty Management System – Investigate Vehicle History Application. Dealership technicians should always check this site to confirm vehicle involvement prior to beginning any required inspections and/or repairs. It is important to routinely use this tool to verify eligibility because not all similar vehicles may be involved regardless of description or option content.

Additionally, a list of involved vehicles currently in dealer inventory is available on the “Service Update Bulletin Information” link under the “Service” tab in GM GlobalConnect (US) or attached to the GlobalConnect message (Canada) used to release this bulletin.

PART INFORMATION

Parts required to complete this service update are to be obtained from General Motors Customer Care and Aftersales (GMCC&A). Please refer to your "involved vehicles listing" before ordering parts. Normal orders should be placed on a DRO = Daily Replenishment Order. In an emergency situation, parts should be ordered on a CSO = Customer Special Order.

Part Number	Description	Quantity/Vehicle
12635717*	MODULE, GEN CONT	1 (If Req'd)

* Approximately 3% of vehicles will require replacement of the Generator Control Module.

SERVICE PROCEDURE

Note: Perform the Generator Control Module inspection to determine if the Generator Control Module requires replacement. The inspection will take about 3 hours to complete.

If module replacement is required, the parts, diagnostic time, and repair time is to be submitted using the normal warranty labor code. Submit for the inspection using the labor code contained in this bulletin.

1. Start engine and confirm the vehicle has enough fuel for the drive cycle and 2 hour idle test. A quarter-tank of fuel is required to complete the test. Add fuel as required.
2. If the Service Hybrid System DIC message is displayed at any time, follow service instructions in SI for the particular DTC or tell tale that is set.
3. Change the driver information center to show Power Flow Display or use center console display.
4. Set parking brake and place shifter in Neutral position. Increase engine speed to 2,000 RPM.
5. Run in this mode until battery shown in Power Flow Display is completely filled.
6. Shift back to Park and release parking brake.
7. Turn on 12V loads.
   - Head lamps on with high beams
   - Air conditioning set to 78 ^{o}F (25 ^{o}C), Eco mode (green snowflake LED), recirc., BiLevel (foot / floor -- do not want Defrost enabled)
   - Cabin blower to high speed
   - Radio on
   - Heated seats, if equipped
   - Rear defog, it will time out, no need to reinitiate
8. Allow vehicle to idle for approximately 15 minutes.
9. Perform drive cycle maintaining high 12V loads and air conditioning settings specified in Step 7.

10. The drive cycle should contain the following maneuvers.
    - Perform at least 10 moderate to heavy accelerations followed by, brake regen events, with 15% brake apply (light to moderate). Perform these tasks from a vehicle speed of greater than 30 mph down to at least 5mph.
    - Perform at least 3 key off / key on cycles with a 2 minute off time, spread out throughout drive cycle. Note: you will need to turn high beams and heated seats back on after each key cycle.
11. Return vehicle to garage. Set parking brake and place shifter in Neutral and operate engine at 2,000 RPM until hybrid battery display shows full.
12. Place shifter in Park, release parking brake, and allow vehicle to idle for 2 hours with the following 12V loads on:
    - Head lamps with high beams
    - Cabin blower on highest setting
    - Air conditioning set to 78 deg. F, Eco mode (green snowflake LED), recirc., Bi Level (foot / floor -- do not want Defrost enabled)
    - Heated seats on high
    - Windows up
    - Radio on
    - 4 way flashers on
    - Dome lights on
13. Turn off engine and all 12 V loads, headlamps, dome lamps, and hazard lamps. Wait 2 minutes, then restart engine.
14. If the Service Hybrid System DIC message is displayed at any time, follow service instructions in SI for the particular DTC or tell tale that is set.

WARRANTY TRANSACTION INFORMATION

Submit a transaction using the table below.

Labor Code	Description	Labor Time	Net Item
V2675	Generator Control Module Performance Inspection*	3.0	**

* Parts, diagnostic time, and repair time, if required, due to DTCs found during the inspection are to be submitted using normal warranty labor codes.

** Submit the cost of ¼ tank (15 litres) of gasoline in the Net Item field, not to exceed $16.00 USD, $24.00 CAD.

DEALER PROGRAM RESPONSIBILITY

Dealers must take the steps necessary to ensure that the service update correction has been made to all involved vehicles in dealer inventory before selling or dealer-trading the vehicle, but no later than October 31, 2013.

GM Bulletin No.: 12238B
Date: November 2012

Service Bulletin

SERVICE UPDATE

SUBJECT: **Service Update for Inventory Vehicles Only**
Loss of Battery Charge – Inspect Generator Control Module
Expires October 31, 2013

MODELS: **2012-2013 Buick Regal**
2012-2013 Buick LaCrosse
2013 Chevrolet Malibu Eco
Equipped with eAssist

This bulletin is being revised to include additional population and add additional information to the service procedure.

- If a module fails the test contained in this bulletin and is replaced, **the new module must also be tested** using the procedure contained in this bulletin.
- If the new module fails the test, install another module and perform the test again.
- All testing of modules is to be submitted using the labor code contained in this bulletin. If module replacement is required, the part cost and labor time to perform the replacement are to be submitted using the normal warranty labor code and time.

Please discard all copies of bulletin 12238A.

This service update involves vehicles in dealer inventory only and will expire October 31, 2013.

PURPOSE

This bulletin provides a service procedure to inspect and replace, if necessary, the Generator Control Module (GCM) on **certain** 2012-2013 model year Buick LaCrosse and Regal, and 2013 model year Chevrolet Malibu Eco vehicles, equipped with eAssist. The GCM may not function properly, resulting in the gradual loss of battery charge, illumination of the MIL, and eventual engine stall or no start condition.

This service procedure should be completed on involved vehicles currently in dealership inventory as soon as possible but no later than October 31, 2013, at which time this bulletin will expire.

VEHICLES INVOLVED

All involved vehicles are identified by VIN in the Global Warranty Management System – Investigate Vehicle History Application. Dealership technicians should always check this site to confirm vehicle involvement prior to beginning any required inspections and/or repairs. It is important to routinely use this tool to verify eligibility because not all similar vehicles may be involved regardless of description or option content.

Additionally, a list of involved vehicles currently in dealer inventory is available on the "Service Update Bulletin Information" link under the "Service" tab in GM GlobalConnect (US) or attached to the GlobalConnect message (Canada) used to release this bulletin.

PART INFORMATION

Parts required to complete this service update are to be obtained from General Motors Customer Care and Aftersales (GMCC&A). Please refer to your "involved vehicles listing" before ordering parts. Normal orders should be placed on a DRO = Daily Replenishment Order. In an emergency situation, parts should be ordered on a CSO = Customer Special Order.

Part Number	Description	Quantity/Vehicle
12635717*	MODULE, GEN CONT	1 (If Req'd)

* Approximately 3% of vehicles will require replacement of the Generator Control Module.

SERVICE PROCEDURE

Caution: This service procedure is intended to fully stress the generator control module beyond normal customer use. This stress, in rare cases, may result in smoke and thermal damage to the generator control module. For the extended idle portion of the service procedure (Steps 8 and 12), the vehicle should be located outdoors, with the right rear seat back down, and with the location of the power pack in view of an observer in the left rear seat during the complete idle portion. Do not remove any trim panels. If smoke is observed or smelled, even a trace level, or a popping or unusual noise is heard from the power pack, immediately turn off the engine and exit the vehicle. Disconnect the 12V battery and observe for 10 minutes, then contact TAC.

Note: Perform the Generator Control Module inspection to determine if the Generator Control Module requires replacement. The inspection will take about 3 hours to complete.

- If a module fails the test contained in this bulletin and is replaced, **the new module must also be tested** using the procedure contained in this bulletin.
- If the new module fails the test, install another module and perform the test again.
- All testing of modules is to be submitted using the labor code contained in this bulletin. If module replacement is required, the part cost and labor time to perform the replacement are to be submitted using the normal warranty labor code and time.

1. Start engine and confirm the vehicle has enough fuel for the drive cycle and 2 hour idle test. A quarter-tank of fuel is required to complete the test. Add fuel as required.
2. If the Service Hybrid System DIC message is displayed at any time, follow service instructions in SI for the particular DTC or tell tale that is set.
3. Change the driver information center to show Power Flow Display or use center console display.

4. Set parking brake and place shifter in Neutral position. Increase engine speed to 2,000 RPM.
5. Run in this mode until battery shown in Power Flow Display is completely filled.
6. Shift back to Park and release parking brake.
7. Turn on 12V loads.
   - Head lamps on with high beams
   - Air conditioning set to 78 ^{o}F (25 ^{o}C), Eco mode (green snowflake LED), recirc., BiLevel (foot / floor -- do not want Defrost enabled)
   - Cabin blower to high speed
   - Radio on, with sound muted.
   - Heated seats, if equipped
   - Rear defog, it will time out, no need to reinitiate
8. Allow vehicle to idle for approximately 15 minutes.
9. Perform drive cycle maintaining high 12V loads and air conditioning settings specified in Step 7.
10. The drive cycle should contain the following maneuvers.
    - Perform at least 10 moderate to heavy accelerations followed by, brake regen events, with 15% brake apply (light to moderate). Perform these tasks from a vehicle speed of greater than 30 mph (50 km/h) down to at least 5 mph (8 km/h).
    - Perform at least 3 key off / key on cycles with a 2 minute off time, spread out throughout drive cycle. Note: you will need to turn high beams and heated seats back on after each key cycle.
11. Return vehicle to garage. Set parking brake and place shifter in Neutral and operate engine at 2,000 RPM until hybrid battery display shows full.
12. Place shifter in Park, release parking brake, and allow vehicle to idle for 2 hours with the following 12V loads on:
    - Head lamps with high beams
    - Cabin blower on highest setting
    - Air conditioning set to 78 deg. F (25 deg. C), Eco mode (green snowflake LED), recirc., Bi Level (foot / floor -- do not want Defrost enabled)
    - Heated seats on high
    - Windows up
    - Radio on, with sound muted
    - 4 way flashers on

- Dome lights on

13. Turn off engine and all 12 V loads, headlamps, dome lamps, and hazard lamps. Wait 2 minutes, then restart engine.
14. If the Service Hybrid System DIC message is displayed at any time, follow service instructions in SI for the particular DTC or tell tale that is set.

WARRANTY TRANSACTION INFORMATION

Submit a transaction using the table below.

Labor Code	Description	Labor Time	Net Item
V2675	Generator Control Module Performance Inspection*	3.0	**
	Add: Testing on Replaced Module	3.0	

* Parts, diagnostic time, and repair time, if required, due to DTCs found during the inspection are to be submitted using normal warranty labor codes.

** Submit the cost of ¼ tank (15 litres) of gasoline required to perform the test in the Net Item field, not to exceed $16.00 USD, $24.00 CAD per test.

DEALER PROGRAM RESPONSIBILITY

Dealers must take the steps necessary to ensure that the service update correction has been made to all involved vehicles in dealer inventory before selling or dealer-trading the vehicle, but no later than October 31, 2013.

GM Bulletin No.: 12238C
Date: January 2013

Service Bulletin

SERVICE UPDATE

SUBJECT: **Service Update for Inventory Vehicles Only**
Loss of Battery Charge – Inspect Generator Control Module
Expires October 31, 2013

MODELS: **2012-2013 Buick Regal**
2012-2013 Buick LaCrosse
2013 Chevrolet Malibu Eco
Equipped with eAssist

The Part Information section has been updated to include an additional part number, and the Service Procedure has been revised to clarify instructions. All technicians should review the revised service procedure immediately.

Please discard all copies of bulletin 12238B.

This service update involves vehicles in dealer inventory only and will expire October 31, 2013.

PURPOSE

This bulletin provides a service procedure to inspect and replace, if necessary, the Generator Control Module (GCM) on **certain** 2012-2013 model year Buick LaCrosse and Regal, and 2013 model year Chevrolet Malibu Eco vehicles, equipped with eAssist. The GCM may not function properly, resulting in the gradual loss of battery charge, illumination of the MIL, and eventual engine stall or no start condition.

This service procedure should be completed on involved vehicles currently in dealership inventory as soon as possible but no later than October 31, 2013, at which time this bulletin will expire.

VEHICLES INVOLVED

All involved vehicles are identified by VIN in the Global Warranty Management System – Investigate Vehicle History Application. Dealership technicians should always check this site to confirm vehicle involvement prior to beginning any required inspections and/or repairs. It is important to routinely use this tool to verify eligibility because not all similar vehicles may be involved regardless of description or option content.

Additionally, a list of involved vehicles currently in dealer inventory is available on the "Service Update Bulletin Information" link under the "Service" tab in GM GlobalConnect (US) or attached to the GlobalConnect message (Canada) used to release this bulletin.

PART INFORMATION

Parts required to complete this service update are to be obtained from General Motors Customer Care and Aftersales (GMCC&A). Please refer to your "involved vehicles listing" before ordering parts. Normal orders should be placed on a DRO = Daily Replenishment Order. In an emergency situation, parts should be ordered on a CSO = Customer Special Order.

Part Number	Description	Quantity/Vehicle
12635717*	MODULE, GEN CONT (all 2012 MY & 2013 Malibu)	1 (If Req'd)
12650851*	MODULE, GEN CONT (2013 LaCrosse, Regal)	1 (If Req'd)

* Approximately 10% of vehicles will require replacement of the Generator Control Module.

SERVICE PROCEDURE

Caution: This service procedure is intended to fully stress the generator control module beyond normal customer use. This stress, in rare cases, may result in smoke and thermal damage to the generator control module. For the extended idle portion of the service procedure (Steps 8 and 12), the vehicle should be located outdoors, with the right rear seat back down, and with the location of the power pack in view of an observer in the left rear seat during the complete idle portion. Do not remove any trim panels. If smoke is observed or smelled, even a trace level, or a popping or unusual noise is heard from the power pack, immediately turn off the engine and exit the vehicle. Continue to observe vehicle for 10 minutes, making sure event has subsided. Connect GDS tool, key on to RUN, and acquire freeze frame data from ECM and SGCM. Disconnect the 12V battery and then contact TAC.

Note: Perform the Generator Control Module inspection to determine if the Generator Control Module requires replacement. The inspection will take about 3 hours to complete.

- If a module fails the test contained in this bulletin and is replaced, **the new module must also be tested** using the procedure contained in this bulletin.
- If the new module fails the test, install another module and perform the test again.
- All testing of modules is to be submitted using the labor code contained in this bulletin. If module replacement is required, the part cost and labor time to perform the replacement are to be submitted using the normal warranty labor code and time.

Note: Verify the 175 amp fuse torque and APM cable crimp at the UBEC stud end of the cable prior to performing the inspection below.

Install GDS2 to vehicle. Enter current vehicle make model. Select Module Diagnostics / HPCM / Data Display / 14V Power Module menu. If any one of the following DTCs set, replace Generator Control Module (GCM); P1AF0, P1B0B, P1E0C, P1E12.

1. Start engine and confirm the vehicle has enough fuel for the drive cycle and 2 hour idle test. A quarter-tank of fuel is required to complete the test. Add fuel as required.
2. If the Service Hybrid System DIC message is displayed at any time, follow service instructions in SI for the particular DTC or tell tale that is set.

3. Change the driver information center to show Power Flow Display or use center console display.
4. Set parking brake and place shifter in Neutral position. Increase engine speed to 2,000 RPM.
5. Run in this mode until battery shown in Power Flow Display is completely filled.
6. Shift back to Park and release parking brake.
7. Turn on 12V loads.
   - Head lamps on with high beams
   - Air conditioning set to 78 ^{o}F (25 ^{o}C), Eco mode (green snowflake LED), recirc., BiLevel (foot / floor -- do not want Defrost enabled)
   - Cabin blower to high speed
   - Radio on, with sound muted.
   - Heated seats, if equipped
   - Rear defog, it will time out, no need to reinitiate
8. Allow vehicle to idle for approximately 15 minutes.
9. Perform drive cycle maintaining high 12V loads and air conditioning settings specified in Step 7.
10. The drive cycle should contain the following maneuvers.
    - Perform at least 10 moderate to heavy accelerations followed by, brake regen events, with 15% brake apply (light to moderate). Perform these tasks from a vehicle speed of greater than 30 mph (50 km/h) down to at least 5 mph (8 km/h).
    - Perform at least 3 key off / key on cycles with a 2 minute off time, spread out throughout drive cycle. Note: you will need to turn high beams and heated seats back on after each key cycle.
11. Return vehicle to dealership (testing continues outside). Set parking brake and place shifter in Neutral and operate engine at 2,000 RPM until hybrid battery display shows full.

12. Place shifter in Park, release parking brake, and allow vehicle to idle for 2 hours with the following 12V loads on:
    - Head lamps with high beams
    - Cabin blower on highest setting
    - Air conditioning set to 78 deg. F (25 deg. C), Eco mode (green snowflake LED), recirc., Bi Level (foot / floor -- do not want Defrost enabled)
    - Heated seats on high
    - Windows up
    - Radio on, with sound muted
    - 4 way flashers on
    - Dome lights on
13. Turn off engine and all 12 V loads, headlamps, dome lamps, and hazard lamps. Wait 2 minutes, then restart engine.
14. If the Service Hybrid System DIC message is displayed at any time, follow service instructions in SI for the particular DTC or tell tale that is set.

WARRANTY TRANSACTION INFORMATION

Submit a transaction using the table below.

Labor Code	Description	Labor Time	Net Item
V2675	Generator Control Module Performance Inspection*	3.0	**
	Add: Testing on Replaced Module	3.0	

* Parts, diagnostic time, and repair time, if required, due to DTCs found during the inspection are to be submitted using normal warranty labor codes.

** Submit the cost of ¼ tank (15 litres) of gasoline required to perform the test in the Net Item field, not to exceed $16.00 USD, $24.00 CAD per test.

DEALER PROGRAM RESPONSIBILITY

Dealers must take the steps necessary to ensure that the service update correction has been made to all involved vehicles in dealer inventory before selling or dealer-trading the vehicle, but no later than October 31, 2013.

GM Bulletin No.: 12238D
Date: February 2013

Service Bulletin

SERVICE UPDATE

SUBJECT: **Service Update for Inventory Vehicles Only**
Loss of Battery Charge – Inspect Generator Control Module
Expires October 31, 2013

MODELS: **2012-2013 Buick LaCrosse, Regal**
2013 Chevrolet Malibu Eco
Equipped with eAssist

The Part Information section has been updated to include additional part numbers, and the Service Procedure has been revised to clarify instructions. All technicians should review the revised service procedure immediately.

Please discard all copies of bulletin 12238C.

This service update involves vehicles in dealer inventory only and will expire October 31, 2013.

PURPOSE

This bulletin provides a service procedure to inspect and replace, if necessary, the Generator Control Module (GCM) on **certain** 2012-2013 model year Buick LaCrosse and Regal, and 2013 model year Chevrolet Malibu Eco vehicles, equipped with eAssist. The GCM may not function properly, resulting in the gradual loss of battery charge, illumination of the MIL, and eventual engine stall or no start condition.

This service procedure should be completed on involved vehicles currently in dealership inventory as soon as possible but no later than October 31, 2013, at which time this bulletin will expire.

VEHICLES INVOLVED

All involved vehicles are identified by VIN in the Global Warranty Management System – Investigate Vehicle History Application. Dealership technicians should always check this site to confirm vehicle involvement prior to beginning any required inspections and/or repairs. It is important to routinely use this tool to verify eligibility because not all similar vehicles may be involved regardless of description or option content.

Additionally, a list of involved vehicles currently in dealer inventory is available on the "Service Update Bulletin Information" link under the "Service" tab in GM GlobalConnect (US) or attached to the GlobalConnect message (Canada) used to release this bulletin.

PART INFORMATION

Parts required to complete this service update are to be obtained from General Motors Customer Care and Aftersales (GMCC&A). Please refer to your "involved vehicles listing" before ordering parts. Normal orders should be placed on a DRO = Daily Replenishment Order. In an emergency situation, parts should be ordered on a CSO = Customer Special Order.

Part Number*	Description	Quantity/Vehicle
12635717 or 24267940**	MODULE, GEN CONT (all 2012 MY & 2013 Malibu)	1 (If Req'd)
12650851 or 24267941**	MODULE, GEN CONT (2013 LaCrosse, Regal)	1 (If Req'd)

* Approximately 10% of vehicles will require replacement of the Generator Control Module.

** If part number 24267940 or 24267941 is installed, it will **not** be necessary to repeat a 3 hour drive cycle. However, a charging system voltage output test must be performed. Complete one of the following tests:

- Option A: Perform a DC Power Conversion Test. Refer to *DC Power Conversion Test* in SI.
- Option B: Using the DIC and a voltmeter at the 12V battery, monitor the charging system voltage while a load is applied by turning on the vehicle accessories listed in Step 7 of this bulletin.

SERVICE PROCEDURE

Caution: This service procedure is intended to fully stress the generator control module beyond normal customer use. This stress, in rare cases, may result in smoke and thermal damage to the generator control module. For the extended idle portion of the service procedure (Steps 8 and 12), the vehicle should be located outdoors, with the right rear seat back down, and with the location of the power pack in view of an observer in the left rear seat during the complete idle portion. Do not remove any trim panels. If smoke is observed or smelled, even a trace level, or a popping or unusual noise is heard from the power pack, immediately turn off the engine and exit the vehicle. Continue to observe vehicle for 10 minutes, making sure event has subsided. Connect GDS2 tool, key on to RUN, and acquire freeze frame data from ECM and HPCM. Turn the key to the off position and disconnect 12V battery while vehicle waits for repair.

Note: Install GDS2 to vehicle. Enter current vehicle make model. Perform a Vehicle Wide DTC check and record any Freeze Frame records. Select Module Diagnostics / HPCM / Data Display / 14V Power Module menu. Leave GDS2 connected and on this menu throughout the drive cycle. If any one of the following DTCs P1AF0 P1B0B P1E0C P1E12 are set, replace **the Generator Control Module (GCM)**

Note: Perform the Generator Control Module inspection to determine if the Generator Control Module requires replacement. The inspection will take about 3 hours to complete.

- If a module is replaced with part number 12635717 or 12650851, **the new module must also be tested** using the procedure contained in this bulletin.
- If the new module fails the test, install another module and perform the test again if the replacement module is part number 12635717 or 12650851.
- All testing of modules is to be submitted using the labor code contained in this bulletin. If module replacement is required, the part cost and labor time to perform the replacement are to be submitted using the normal warranty labor code and time.
- If part number 24267940 or 24267941 is installed, it will **not** be necessary to repeat a 3 hour drive cycle. However, a charging system voltage output test must be performed. Complete one of the following tests:
  - Option A: Perform a DC Power Conversion Test. Refer to *DC Power Conversion Test* in SI.
  - Option B: Using the DIC and a voltmeter at the 12V battery, monitor the charging system voltage while a load is applied by turning on the vehicle accessories listed in Step 7 of this bulletin.

Note: Verify the 175 amp fuse torque and APM cable crimp at the UBEC stud end of the cable prior to performing the inspection below.

1. Install GDS2 to vehicle. Start engine and confirm the vehicle has enough fuel for the drive cycle and 2 hour idle test. A quarter-tank of fuel is required to complete the test. Add fuel as required.
2. If the Service Hybrid System DIC message is displayed at any time, follow service instructions in SI for the particular DTC or tell tale that is set.
3. Change the driver information center to show Power Flow Display or use center console display.
4. Set parking brake and place shifter in Neutral position. Increase engine speed to 2,000 RPM.
5. Run in this mode until battery shown in Power Flow Display is completely filled.
6. Shift back to Park and release parking brake.
7. Turn on 12V loads.
   - Head lamps on with high beams
   - Air conditioning set to 78 ^{o}F (25 ^{o}C), Eco mode (green snowflake LED), recirc., BiLevel (foot / floor -- do not want Defrost enabled)
   - Cabin blower to high speed
   - Radio on, with sound muted.
   - Heated seats, if equipped
   - Rear defog, it will time out, no need to reinitiate
8. Allow vehicle to idle for approximately 15 minutes.

9. Perform drive cycle maintaining high 12V loads and air conditioning settings specified in Step 7.
10. The drive cycle should contain the following maneuvers.
    - Perform at least 10 moderate to heavy accelerations followed by, brake regen events, with 15% brake apply (light to moderate). Perform these tasks from a vehicle speed of greater than 30 mph (50 km/h) down to at least 5 mph (8 km/h).
    - Perform at least 3 key off / key on cycles with a 2 minute off time, spread out throughout drive cycle. Note: you will need to turn high beams and heated seats back on after each key cycle.
11. Return vehicle to dealership (testing continues outside). Set parking brake and place shifter in Neutral and operate engine at 2,000 RPM until hybrid battery display shows full.
12. Place shifter in Park, release parking brake, and allow vehicle to idle for 2 hours with the following 12V loads on:
    - Head lamps with high beams
    - Cabin blower on highest setting
    - Air conditioning set to 78 deg. F (25 deg. C), Eco mode (green snowflake LED), recirc., Bi Level (foot / floor -- do not want Defrost enabled)
    - Heated seats on high
    - Windows up
    - Radio on, with sound muted
    - 4 way flashers on
    - Dome lights on
13. Turn off engine and all 12 V loads, headlamps, dome lamps, and hazard lamps. Wait 2 minutes, then restart engine.
14. If the Service Hybrid System DIC message is displayed at any time, follow service instructions in SI for the particular DTC or tell tale that is set.

WARRANTY TRANSACTION INFORMATION

Submit a transaction using the table below.

Labor Code	Description	Labor Time	Net Item
V2675	Generator Control Module Performance Inspection*	3.0	**
	Add: Testing on Replaced Module (if replaced with PN 12635717 or 12650851)	3.0	
	Add: Testing on Module 24267940 or 24267941	0.3	

* Parts, diagnostic time, and repair time, if required, due to DTCs found during the inspection are to be submitted using normal warranty labor codes.

** Submit the cost of ¼ tank (15 litres) of gasoline required to perform the test in the Net Item field, not to exceed $16.00 USD, $24.00 CAD per test.

DEALER PROGRAM RESPONSIBILITY

Dealers must take the steps necessary to ensure that the service update correction has been made to all involved vehicles in dealer inventory before selling or dealer-trading the vehicle, but no later than October 31, 2013.

Subject: BAS+ (HYBRID) eAssist Generator Control and Battery Module Exchange Process

Models: 2012 Buick LaCrosse
2012 Buick Regal
eAssist HYBRID (equipped with RPO HP6)

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 June 13, 2011 the Generator Control and Battery Module, for the eAssist Buick LaCrosse and Buick Regal (GM part number 24259770) is being placed on restriction through the GM Technical Assistance Center (TAC).

Note: Please review all of the information provided below prior to contacting the Technical Assistance Center (TAC) @ 877-446-8227 (U.S.) or in Canada 1-800-263-7740 (English) or 1-800-263-7960 (French) to review case details.

This P/I will explain the Generator Control and Battery Module Exchange Program for the eAssist Buick LaCrosse. It is expected that this exchange program will remain in effect for a minimum of 12 months. Product teams continually seek valuable information for engineering improvements. This exchange program is also designed to gain important feedback on this new high voltage Generator Control and Battery Module assembly including service diagnostics, repair procedures, and accelerated root cause analysis for continuous improvements.

During the initial exchange period, components inside the Generator Control and Battery Module assembly will not be replaced. As feedback and component analysis is understood, components inside the Generator Control and Battery Module will be released and this exchange P/I will be updated. Do not remove any Generator Control and Battery Module assembly covers during this exchange period unless instructed to do so by TAC or GM engineering. The Generator Control and Battery Module assembly must be returned unopened unless specifically instructed by TAC or GM engineering. This P/I will also be revised to announce the end of the Generator Control and Battery Module Exchange program at a later date.

Recommendation/Instructions:

Important: DO NOT CLEAR 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 of 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 Generator Control and Battery Module, the servicing eAssist technician must provide TAC with a detailed customer complaint, conditions, diagnostic trouble codes (DTCs), and other useful information as outlined below.

Danger: Ensure all High Voltage safety procedures are followed. Failure to follow the procedure exactly as written may result in serious injury or death.

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 energized or not.

Failure to follow the procedures exactly as written may result in serious injury or death. Please, 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, capture snapshot stored data, and test drive vehicle with GDS and MDI and capture a snap shot of the Hybrid Powertrain Control Module and BECM data when condition occurs. See 07-07-30-010 for correct snap shot data collection. TAC may request that you e-mail the snapshots to them. Reminder: DO NOT clear codes prior to capturing data and calling TAC.
2. If DTCs are not present, refer to Hybrid/EV Controls - Symptoms - Hybrid Controls (Doc ID: 2596135) in SI.
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 will provide instructions for ordering an exchange battery assembly unit to your dealership if necessary.
5. Disable the high voltage system. Refer to High Voltage Disabling (Doc ID 2595458).
6. Remove the Generator Control and Battery Module Assembly. Refer to Generator Control and Battery Module Replacement and Shipping Preparation (Doc ID 2667688).
7. 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,
   - parts department fax number,
   - generator control and battery module serial number
8. The generator control and battery module serial number tag that is located on the side of the assembly cover. Locate the tag and record the 16 digit identification number. The assembly ID number is starts with a "20T" indicator (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 GDS. Access the Battery Energy Control Module and look under the identification information section and the sixteen digit number 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 ordering a battery.

9. Install the Generator Control and Battery Module Assembly. Refer to Generator Control and Battery Module Replacement and Shipping Preparation (Doc ID 2667688).
10. Charge pack to at least 30% SOC by driving or idling the vehicle @ 1500 RPM.

Note: The HVIL switch/ HV access cover should remain with the vehicle and not be returned with the battery assembly. The MSD switch on the power pack should be zip tied in the open position and the high voltage 3 phase cable connections and 12V cable connection should be covered with UL® listed, or equivalent, insulation tape rated at a minimum of 600V for return shipping.

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 Generator Control and Battery Module flat.
2. Store the Generator Control and Battery Module in an environmentally protected area.
3. Maintain the Generator Control and Battery Module at room temperature.
4. Protect the Generator Control and Battery Module from exposure to liquids.
5. Protect the Generator Control and Battery Module from physical damage.
6. Store the Generator Control and Battery Module in a limited-access area.

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 at the generator control and battery module. Refer to High Voltage Disabling
2. Remove the Generator Control and Battery Module from the vehicle as outlined in Generator Control and Battery Module Replacement in SI.
3. Tighten any fasteners that were loosened or removed during Generator Control and Battery Module removal to the original torque specification.
4. Write the TAC case reference number on the generator control and battery module assembly 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. The Manual Service Disconnect (MSD) is properly retained in the open position with a zip tie.
8. Place the generator control and battery module into the plastic shipping bag and original shipping container.
9. Place the completed “BATTERY PRODUCT FEEDBACK FORM” (included in the container containing the new Generator Control and Battery Module) along with a copy of the repair order with any technician comments, inside the shipping container with the failed battery.
10. Secure shipping container to the shipping pallet with reusable straps.

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.
   Note: Do not return the battery in any container other than the container that the new/refurbished battery was delivered in.
3. Complete the required hazardous goods shipping paperwork (302C form)
4. 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)
5. Do NOT return batteries to the ESC in Canada.

Note: Failure to return the battery will result in the dealership being debited the entire warranty claim (parts and labor) as well as assessment of an (Need the right name for this fee) for the value of the failed pack. This environmental fee is substantial ($3,000) and will only be assessed if the battery is not returned.

US ONLY – Parts Return Request (WPC) - A Special Parts Return Request will be faxed to you with proper shipping instructions. Do NOT wait for the warranty claim to be paid before returning the failed used battery.

Please follow WPC guidelines below:

1. Do NOT send a Generator Control and Battery Module back without a Special Parts Return Request.
2. Do NOT send the Generator Control and Battery Module back to the ESC.
3. Do NOT return the Generator Control and Battery Module 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. Dealers need to place a new envelope inside the battery with completed “BATTERY PRODUCT FEEDBACK FORM” including the TAC Case #, along with a copy of the Job Card (RO) including the technician’s comments, DTC’s, and diagnostics. It is recommended that this be taped to the Generator Control and Battery Module inside the shipping container. Failure to place this information both outside and inside the Generator Control and Battery Module shipping container may delay the processing of your return. Do not ship a Generator Control and Battery Module back without an official WPC Request.

Note: Failure to return the battery by the due date will result in the dealership being debited the entire warranty claim (parts and labor) as well as assessment of an environmental fee for the value of the failed pack. This environmental fee is substantial ($3,000) and will only be assessed if the battery is not returned in the WPC time frame.

Note: If you do not receive the WPC Special Part Request, contact Julie Cumo at 248-371-9939 (for French speaking dealers call PQC 1-866-654-7654) to obtain the proper paper work in order to return the failed Generator Control and Battery Module.

SHIPPING PREPARATION:

1. Disable the high voltage at the Generator Control and Battery Module. Refer to High Voltage Disabling
2. Remove the Generator Control and Battery Module from the vehicle as outlined in Generator Control and Battery Module Replacement in SI.
3. Tighten any fasteners that were loosened or removed during Generator Control and Battery Module removal to the original torque specification.
4. Write the TAC case reference number on the Generator Control and Battery Module assembly 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. The Manual Service Disconnect (MSD) is properly retained in the open position with a zip tie.
8. Place the Generator Control and Battery Module into the plastic shipping bag and original shipping container and attach the completed return shipping tag to the Generator Control and Battery Module.

SHIPPING INSTRUCTIONS:

1. Place a copy of the Special Parts Return Request, repair order with technician comments, and the completed “BATTERY PRODUCT FEEDBACK FORM” 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.
2. Secure shipping container to the shipping pallet with reusable straps.

2688033

3. Label the outside of the shipping container with the Part Return request number and the TAC case reference number. Refer to the Corporate Bulletin Number 99-00-89-019 for detailed shipping information.
4. Contact UPS Freight 1-800-333-7400 for pick-up of removed battery. If lift gate service is necessary, please request it at the time of arranging pick-up service.
5. the driver sign the bill of lading. Retain a copy of the signed bill of lading and attach your copy to the original repair order. This will be your proof of returning the Drive Motor Battery.

6. Ship the Generator Control and Battery Module Third Party Prepaid Freight Collect with appropriate paperwork to:

GM Warranty Parts Center

45 Northpointe Drive

Orion, MI 48359

Parts Information:

No Part Number should be entered for exchange components. Applicable miscellaneous items 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.

Warranty Information:

Labor Operation: N5866

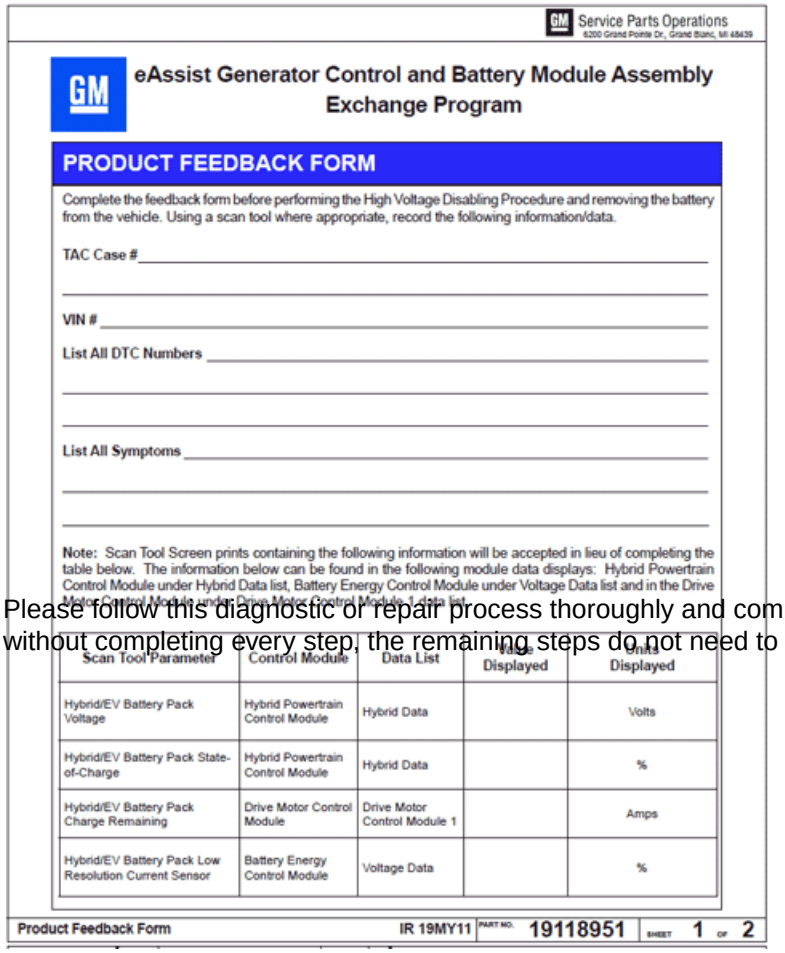
Description: Generator Control and Battery Module Replacement

Labor Time: Use Published Labor Operation Time

Parts Allowance: $250

Add: Administrative Allowance 0.2 hr

Add: Road test - Data snapshot 0.3 hr



GM Service Parts Operations
6200 Grand Pointe Dr., Grand Blanc, MI 48439

eAssist Generator Control and Battery Module Assembly Exchange Program

PRODUCT FEEDBACK FORM

Complete the feedback form before performing the High Voltage Disabling Procedure and removing the battery from the vehicle. Using a scan tool where appropriate, record the following information/data.

TAC Case # _____

VIN # _____

List All DTC Numbers _____

List All Symptoms _____

Note: Scan Tool Screen prints containing the following information will be accepted in lieu of completing the table below. The information below can be found in the following module data displays: Hybrid Powertrain Control Module under Hybrid Data list, Battery Energy Control Module under Voltage Data list and in the Drive Motor Control Module under Drive Motor Control Module 1 data list.

Scan Tool Parameter	Control Module	Data List	Value Displayed	Units Displayed
Hybrid/EV Battery Pack Voltage	Hybrid Powertrain Control Module	Hybrid Data		Volts
Hybrid/EV Battery Pack State-of-Charge	Hybrid Powertrain Control Module	Hybrid Data		%
Hybrid/EV Battery Pack Charge Remaining	Drive Motor Control Module	Drive Motor Control Module 1		Amps
Hybrid/EV Battery Pack Low Resolution Current Sensor	Battery Energy Control Module	Voltage Data		%

Product Feedback Form IR 19MY11 PART NO. 19118951 SHEET 1 OF 2

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.

Document ID: 3425040

#PIC5520H: BAS+ (HYBRID) eAssist Generator Control And Battery Module Or Battery Section Exchange Process And Order Instructions - (May 8, 2013)

Subject: BAS+ (HYBRID) eAssist Generator Control And Battery Module Or Battery Section Exchange Process And Order Instructions

Models: 2012 -2013 BUICK LACROSSE, REGAL
2013 Chevrolet Malibu ECO
All equipped with eAssist (RPO HP6)

This PI was superseded to update recommended parts information. Please discard PIC5520G.

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 June 13, 2011 the Generator Control and Battery Module, for the 2012 -2013 Buick LaCrosse, Buick Regal and 2013 Chevrolet Malibu ECO with eAssist are being placed on restriction through the General Motors Technical Assistance Center (TAC). After obtaining a case number and authorization through TAC, it will be necessary for the Dealer to call their local Electronic Service Center (ESC) to order the Generator Control and Battery Module (Powerpack) or the Generator Battery Sections 1 and 2.

PARTS INFORMATION

Year	Make	Model	Part Description	Part Number
2012	Buick	LaCrosse, Regal	Generator Control and Battery Module Replacement (Powerpack)	23102218 (supersedes 24259770)
2013	Buick	LaCrosse, Regal	Generator Control and Battery Module Replacement (Powerpack)	23102217 (supersedes 22948845)
2013	Chevrolet	Malibu Eco	Generator Control and Battery Module Replacement (Powerpack)	23102218 (supersedes 24259770)
All			Generator Battery Sections 1 and 2	20813602

This P/I will explain the Generator Control and Battery Module or the Generator Battery Section Exchange Program for the eAssist Buick LaCrosse, Buick Regal and Chevrolet Malibu ECO. It is expected that this exchange program will remain in effect for a minimum of 12 months. Product teams continually seek valuable information for engineering improvements. This exchange program is also designed to gain important feedback on this new high voltage Generator Control and Battery Module assembly including service diagnostics, repair procedures, and accelerated root cause analysis for continuous improvements.

Note: Please review all of the information provided below prior to contacting the Technical Assistance Center (TAC) @ 877-446-8227 (U.S.) or in Canada 1-800-263-7740 (English) or 1-800-263-7960 (French) to review case details.

Note: Out-of-warranty/Customer Pay replacements or exchanges should be handled between the Dealer and their local ESC. The dealer should advise the ESC that this is a customer pay job and is not covered under warranty.

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 of 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 Generator Control and Battery Module, the servicing eAssist technician must provide TAC with a detailed customer complaint, conditions, diagnostic trouble codes (DTCs), 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 energized or not.

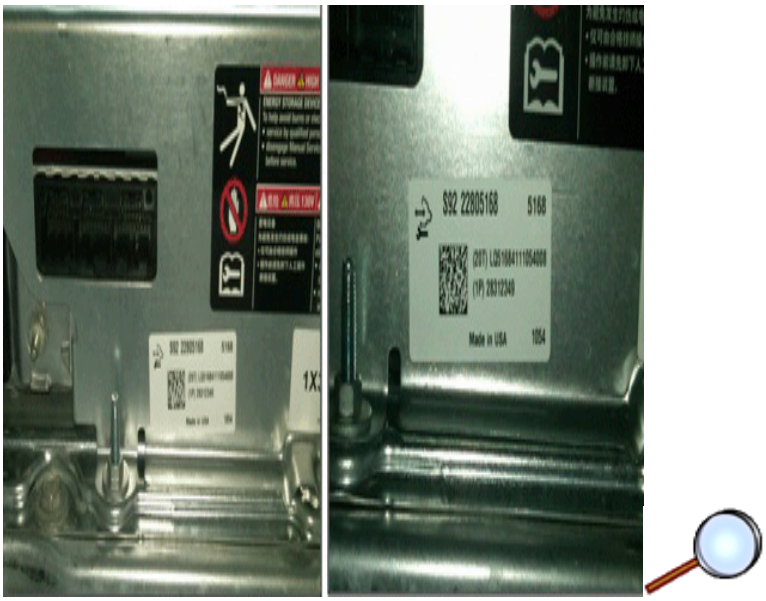
Danger: Ensure all High Voltage safety procedures are followed. Failure to follow the procedures exactly as written may result in serious injury or death. Have an eAssist trained hybrid technician follow the diagnostic procedures below prior to contacting TAC.

1. If DTCs are present and procedure gives direction to remove internal components; STOP, record freeze frame stored data, view vehicle wide DTCs. If possible, test drive vehicle with GDS2 and MDI connected to capture data from the Hybrid Powertrain Control Module (HPCM) 14V Power Module and Battery Energy Control Module (BECM) 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.

   REMINDER: DO NOT clear codes or attempt SPS programming prior to capturing data and calling TAC.
2. If DTCs are not present, refer to Hybrid/EV Controls - Symptoms - Hybrid Controls (Doc ID: 2596135) in SI.
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 will provide instructions for ordering an exchange battery assembly unit to your dealership if necessary.
5. Disable the high voltage system. Refer to High Voltage Disabling (Doc ID 2595458).
6. Remove the Generator Control and Battery Module Assembly. Refer to Generator Control and Battery Module Replacement and Shipping Preparation (Doc ID 2667688).
7. 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 generator control and battery module serial number
8. The generator control and battery module serial number tag that is located on the side of the assembly cover. Locate the tag and record the 16 digit identification number.

   The assembly ID number starts with a "20T" indicator (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 GDS.

   Access the Battery Energy Control Module and look under the identification information section and the sixteen digit number 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 ordering a battery.



9. Install the Generator Control and Battery Module Assembly. Refer to Generator Control and Battery Module Replacement and Shipping Preparation (Doc ID 2667688).
10. Charge pack to at least 30% SOC by driving or idling the vehicle.

Note: The HVIL switch/ HV access cover should remain with the vehicle and not be returned with the battery assembly. The MSD switch on the power pack should be zip tied in the open position and the high voltage 3 phase cable connections and 12V cable connection should be covered with UL® listed, or equivalent, insulation tape rated at a minimum of 600V for return shipping.

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 Generator Control and Battery Module flat.
2. Store the Generator Control and Battery Module in an environmentally protected area.
3. Maintain the Generator Control and Battery Module at room temperature.
4. Protect the Generator Control and Battery Module from exposure to liquids.
5. Protect the Generator Control and Battery Module from physical damage.
6. Store the Generator Control and Battery Module in a limited-access area.

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 at the generator control and battery module. Refer to High Voltage Disabling
2. Remove the Generator Control and Battery Module from the vehicle as outlined in Generator Control and Battery Module Replacement in SI.
3. Tighten any fasteners that were loosened or removed during Generator Control and Battery Module removal to the original torque specification.

4. Write the TAC case reference number on the generator control and battery module assembly 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. The Manual Service Disconnect (MSD) is properly retained in the open position with a zip tie.
8. Place the generator control and battery module into the plastic shipping bag and original shipping container.
9. Place the completed “BATTERY PRODUCT FEEDBACK FORM” (included in the container containing the new Generator Control and Battery Module) along with a copy of the repair order with any technician comments, inside the shipping container with the failed battery.
10. Secure shipping container to the shipping pallet with reusable straps.

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 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.

   Note: Do not return the battery in any container other than the container that the new/refurbished battery was delivered in.
3. Complete the required hazardous goods shipping paperwork (302C form).
4. 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)
5. Do NOT return batteries to the ESC in Canada.

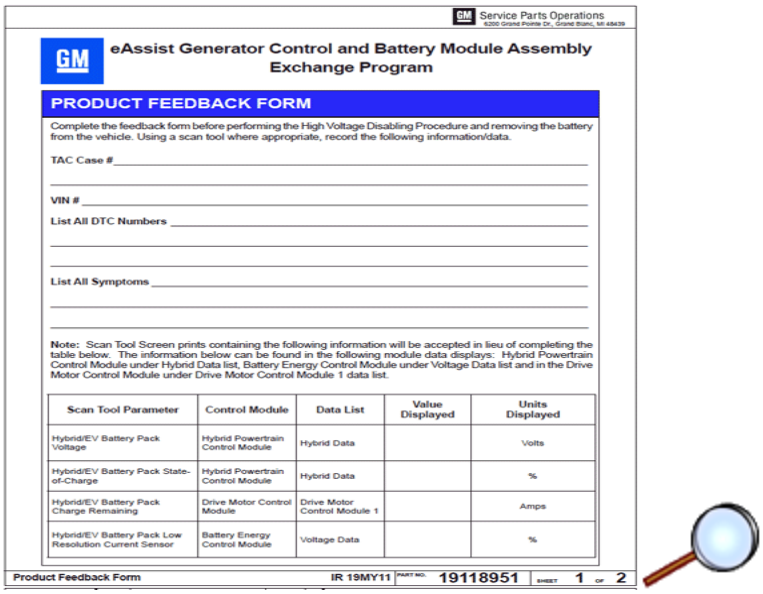
Note: Failure to return the battery will result in the dealership being debited the entire warranty claim (parts and labor) as well as assessment of an Environmental Fee for the value of the failed pack. This environmental fee is substantial ($3,000) and will only be assessed if the battery is not returned.

US ONLY – Parts Return Request (WPC) - A Special Parts Return Request will be faxed to you with proper shipping instructions. Do NOT wait for the warranty claim to be paid before returning the failed used battery.

Please follow WPC guidelines below:

1. Do NOT send a Generator Control and Battery Module back without a Special Parts Return Request.
2. Do NOT send the Generator Control and Battery Module back to the ESC.
3. Do NOT return the Generator Control and Battery Module 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. Dealers need to place a new envelope inside the battery with completed “BATTERY PRODUCT FEEDBACK FORM” including the TAC Case #, along with a copy of the Job Card (RO) including the technician’s comments, DTC’s, and diagnostics. It is recommended that this be taped to the Generator Control and Battery Module inside the shipping container. Failure to place this information both outside and inside the Generator Control and Battery Module shipping container may delay the processing of your return. Do not ship a Generator Control and Battery Module back without an official WPC Request.



GM Service Parts Operations

eAssist Generator Control and Battery Module Assembly Exchange Program

PRODUCT FEEDBACK FORM

Complete the feedback form before performing the High Voltage Disabling Procedure and removing the battery from the vehicle. Using a scan tool where appropriate, record the following information/data.

TAC Case # _____

VIN # _____

List All DTC Numbers _____

List All Symptoms _____

Note: Scan Tool Screen prints containing the following information will be accepted in lieu of completing the table below. The information below can be found in the following module data displays: Hybrid Powertrain Control Module under Hybrid Data list, Battery Energy Control Module under Voltage Data list and in the Drive Motor Control Module under Drive Motor Control Module 1 data list.

Scan Tool Parameter	Control Module	Data List	Value Displayed	Units Displayed
Hybrid/EV Battery Pack Voltage	Hybrid Powertrain Control Module	Hybrid Data		Volts
Hybrid/EV Battery Pack State-of-Charge	Hybrid Powertrain Control Module	Hybrid Data		%
Hybrid/EV Battery Pack Charge Remaining	Drive Motor Control Module	Drive Motor Control Module 1		Amps
Hybrid/EV Battery Pack Low Resolution Current Sensor	Battery Energy Control Module	Voltage Data		%

Product Feedback Form IR 19MY11 PART NO. 19118951 SHEET 1 OF 2

Note: Failure to return the battery by the due date will result in the dealership being debited the entire warranty claim (parts and labor) as well as assessment of an environmental fee for the value of the failed pack. This environmental fee is substantial ($3,000) and will only be assessed if the battery is not returned in the WPC time frame.

Note: If you do not receive the WPC Special Part Request, contact Julie Cumo at 248-371-9939 (for French speaking dealers call PQC 1-866-654-7654) to obtain the proper paper work in order to return the failed Generator Control and Battery Module.

SHIPPING PREPARATION:

1. Disable the high voltage at the Generator Control and Battery Module. Refer to High Voltage Disabling
2. Remove the Generator Control and Battery Module from the vehicle as outlined in Generator Control and Battery Module Replacement in SI.
3. Tighten any fasteners that were loosened or removed during Generator Control and Battery Module removal to the original torque specification.
4. Write the TAC case reference number on the Generator Control and Battery Module assembly 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. The Manual Service Disconnect (MSD) is properly retained in the open position with a zip tie.
8. Place the Generator Control and Battery Module into the plastic shipping bag and original shipping container and attach the completed return shipping tag to the Generator Control and Battery Module.

SHIPPING INSTRUCTIONS:

1. Place a copy of the Special Parts Return Request, repair order with technician comments, and the completed “BATTERY PRODUCT FEEDBACK FORM” 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.
2. Secure shipping container to the shipping pallet with reusable straps.

3. Label the outside of the shipping container with the Part Return request number and the TAC case reference number. Refer to the Corporate Bulletin Number 99-00-89-019 for detailed shipping information.
4. Contact UPS Freight 1-800-333-7400 for pick-up of removed battery. If lift gate service is necessary, please request it at the time of arranging pick-up service.

5. Have the driver sign the bill of lading. Retain a copy of the signed bill of lading and attach your copy to the original repair order. This will be your proof of returning the Drive Motor Battery.
6. Ship the Generator Control and Battery Module Third Party Prepaid Freight Collect with appropriate paperwork to:

GM Warranty Parts Center

45 Northpointe Drive

Orion, MI 48359

In the event the HV Battery needs to be recycled, refer to the web page "General Motors Recycle My Battery" http://recyclemybattery.com/for the latest information.

Parts Information

No Part Number should be entered for exchange components. Applicable miscellaneous items 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.

Warranty Information

For vehicles repaired under warranty use:

Labor Code	Description	Labor Time	Part Allowance
5031400	Generator Control and Battery Module Replacement (Powerpack)	Use Published Labor Operation Time	$250
5031050	Generator Battery Section Replacement	Use Published Labor Operation Time	$150
Add	Administrative Allowance	.2 Hours	N/A
Add	Road Test - GDS2 Session Log	.3 Hours	N/A

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.

Subject: BAS+ (HYBRID) eAssist Generator Control and Battery Module Exchange Process

Models: 2012 BUICK LACROSSE eAssist
2012 BUICK REGAL eAssist
eAssist HYBRID (equipped with RPO HP6)

This PI was superseded to update recommended field. Please discard PIC5520

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 June 13, 2011 the Generator Control and Battery Module, for the 2012 eAssist Buick LaCrosse and Buick Regal (GM part number 24259770) is being placed on restriction through the GM Technical Assistance Center (TAC).

This P/I will explain the Generator Control and Battery Module Exchange Program for the eAssist Buick LaCrosse and Buick Regal. It is expected that this exchange program will remain in effect for a minimum of 12 months. Product teams continually seek valuable information for engineering improvements. This exchange program is also designed to gain important feedback on this new high voltage Generator Control and Battery Module assembly including service diagnostics, repair procedures, and accelerated root cause analysis for continuous improvements

Note: Please review all of the information provided below prior to contacting the Technical Assistance Center (TAC) @ 877-446-8227 (U.S.) or in Canada 1-800-263-7740 (English) or 1-800-263-7960 (French) to review case details. After obtaining a case number and authorization through TAC it will be necessary for the Dealer to call their local Electronic Service Center (ESC) to order the Generator Control and Battery Module.

Note: : Out-of-warranty/Customer Pay replacements or exchanges should be handled between the Dealer and their local ESC. The dealer should advise the ESC that this is a customer pay job and is not covered under warranty

Recommendation/Instructions:

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

Prior to calling TAC
:

Completely follow diagnosis guidelines and obtain all required information as provided in the Recommendation/Instructions portion of 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 Generator Control and Battery Module, the servicing eAssist technician must provide TAC with a detailed customer complaint, conditions, diagnostic trouble codes (DTCs), and other useful information as outlined below.

Danger: : Ensure all High Voltage safety procedures are followed. Failure to follow the procedure exactly as written may result in serious injury or death.

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 energized or not.

Failure to follow the procedures exactly as written may result in serious injury or death. Please, 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, capture snapshot stored data, and test drive vehicle with GDS and MDI and capture a snap shot of the Hybrid Powertrain Control Module and BECM data when condition occurs. See 07-07-30-010 for correct snap shot data collection. TAC may request that you e-mail the snapshots to them.

   Notice: DO NOT clear codes or attempt SPS programming prior to capturing data and calling TAC.
2. If DTCs are not present, refer to Hybrid/EV Controls - Symptoms - Hybrid Controls (Doc ID: 2596135) in SI.
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 will provide instructions for ordering an exchange battery assembly unit to your dealership if necessary
5. Disable the high voltage system. Refer to High Voltage Disabling (Doc ID 2595458).
6. Remove the Generator Control and Battery Module Assembly. Refer to Generator Control and Battery Module Replacement and Shipping Preparation (Doc ID 2667688).
7. 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
   - Parts department fax number
   - Generator control and battery module serial number
8. The generator control and battery module serial number tag that is located on the side of the assembly cover. Locate the tag and record the 16 digit identification number. The assembly ID number is starts with a "20T" indicator (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 GDS. Access the Battery Energy Control Module and look under the identification information section and the sixteen digit number 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 ordering a battery.

9.) Install the Generator Control and Battery Module Assembly. Refer to Generator Control and Battery Module Replacement and Shipping Preparation (Doc ID 2667688).
10. Charge pack to at least 30% SOC by driving or idling the vehicle.

Note: The HVIL switch/ HV access cover should remain with the vehicle and not be returned with the battery assembly. The MSD switch on the power pack should be zip tied in the open position and the high voltage 3 phase cable connections and 12V cable connection should be covered with UL® listed, or equivalent, insulation tape rated at a minimum of 600V for return shipping.

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 Generator Control and Battery Module flat.
2. Store the Generator Control and Battery Module in an environmentally protected area
3. Maintain the Generator Control and Battery Module at room temperature
4. Protect the Generator Control and Battery Module from exposure to liquids.
5. Protect the Generator Control and Battery Module from physical damage.
6. Store the Generator Control and Battery Module in a limited-access area

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 at the generator control and battery module. Refer to High Voltage Disabling
2. Remove the Generator Control and Battery Module from the vehicle as outlined in Generator Control and Battery Module Replacement in SI.
3. Tighten any fasteners that were loosened or removed during Generator Control and Battery Module removal to the original torque specification.
4. Write the TAC case reference number on the generator control and battery module assembly 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. The Manual Service Disconnect (MSD) is properly retained in the open position with a zip tie.
8. Place the generator control and battery module into the plastic shipping bag and original shipping container
9. Place the completed “BATTERY PRODUCT FEEDBACK FORM” (included in the container containing the new Generator Control and Battery Module) along with a copy of the repair order with any technician comments, inside the shipping container with the failed battery
10. Secure shipping container to the shipping pallet with reusable straps

SHIPPING INSTRUCTIONS

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

1. Submit a type 4 core return for the battery.
   Note: 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
   Note: Do not return the battery in any container other than the container that the new/refurbished battery was delivered in
3. Complete the required hazardous goods shipping paperwork (302C form).
4. 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).
5. Do NOT return batteries to the ESC in Canada.
   Note: Failure to return the battery will result in the dealership being debited the entire warranty claim (parts and labor) as well as assessment of an Environmental Fee for the value of the failed pack. This environmental fee is substantial ($3,000) and will only be assessed if the battery is not returned.

US ONLY
– Parts Return Request (WPC) - A Special Parts Return Request will be faxed to you with proper shipping instructions. Do NOT wait for the warranty claim to be paid before returning the failed used battery

Please follow WPC guidelines below:

1. Do NOT send a Generator Control and Battery Module back without a Special Parts Return Request.
2. Do NOT send the Generator Control and Battery Module back to the ESC.

3. Do NOT return the Generator Control and Battery Module 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. Dealers need to place a new envelope inside the battery with completed “BATTERY PRODUCT FEEDBACK FORM” including the TAC Case #, along with a copy of the Job Card (RO) including the technician’s comments, DTC’s, and diagnostics. It is recommended that this be taped to the Generator Control and Battery Module inside the shipping container. Failure to place this information both outside and inside the Generator Control and Battery Module shipping container may delay the processing of your return. Do not ship a Generator Control and Battery Module back without an official WPC Request.

Note: : Failure to return the battery by the due date will result in the dealership being debited the entire warranty claim (parts and labor) as well as assessment of an environmental fee for the value of the failed pack. This environmental fee is substantial ($3,000) and will only be assessed if the battery is not returned in the WPC time frame

Note: : If you do not receive the WPC Special Part Request, contact Julie Cumo at 248-371-9939 (for French speaking dealers call PQC 1-866-654-7654) to obtain the proper paper work in order to return the failed Generator Control and Battery Module

SHIPPING PREPARATION
:

1. Disable the high voltage at the Generator Control and Battery Module. Refer to High Voltage Disabling.
2. Remove the Generator Control and Battery Module from the vehicle as outlined in Generator Control and Battery Module Replacement in SI.
3. Tighten any fasteners that were loosened or removed during Generator Control and Battery Module removal to the original torque specification.
4. Write the TAC case reference number on the Generator Control and Battery Module assembly 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. The Manual Service Disconnect (MSD) is properly retained in the open position with a zip tie
8.) Place the Generator Control and Battery Module into the plastic shipping bag and original shipping container and attach the completed return shipping tag to the Generator Control and Battery Module.

SHIPPING INSTRUCTIONS
:

1. Place a copy of the Special Parts Return Request, repair order with technician comments, and the completed “BATTERY PRODUCT FEEDBACK FORM” 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.
2. Secure shipping container to the shipping pallet with reusable straps.

2688033

3.) Label the outside of the shipping container with the Part Return request number and the TAC case reference number. Refer to the Corporate Bulletin Number 99-00-89-019 for detailed shipping information
4. Contact UPS Freight 1-800-333-7400 for pick-up of removed battery. If lift gate service is necessary, please request it at the time of arranging pick-up service.
5. Have the driver sign the bill of lading. Retain a copy of the signed bill of lading and attach your copy to the original repair order. This will be your proof of returning the Drive Motor Battery.
6. Ship the Generator Control and Battery Module Third Party Prepaid Freight Collect with appropriate paperwork to

GM Warranty Parts Center

45 Northpointe Drive

Orion, MI 48359

Parts Information:

No Part Number should be entered for exchange components. Applicable miscellaneous items 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

Warranty Information:

Labor Operation: N5866

Description: Generator Control and Battery Module Replacement

Labor Time: Use Published Labor Operation Time

Parts Allowance: $250

Add: Administrative Allowance 0.2 hr

Add: Road test - Data snapshot 0.3 hr

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.

Subject: PIC5520B BAS+ (HYBRID) eAssist Generator Control and Battery Module Exchange Process

Models: 2012 BUICK LACROSSE eAssist
2012 BUICK REGAL eAssist
eAssist HYBRID (equipped with RPO HP6)

This PI was superseded to update recommended field. Please discard PIC5520A.

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 June 13, 2011 the Generator Control and Battery Module, for the 2012 eAssist Buick LaCrosse and Buick Regal (GM part number 24259770) is being placed on restriction through the GM Technical Assistance Center (TAC).

This P/I will explain the Generator Control and Battery Module Exchange Program for the eAssist Buick LaCrosse and Buick Regal. It is expected that this exchange program will remain in effect for a minimum of 12 months. Product teams continually seek valuable information for engineering improvements. This exchange program is also designed to gain important feedback on this new high voltage Generator Control and Battery Module assembly including service diagnostics, repair procedures, and accelerated root cause analysis for continuous improvements.

Note: Please review all of the information provided below prior to contacting the Technical Assistance Center (TAC) @ 877-446-8227 (U.S.) or in Canada 1-800-263-7740 (English) or 1-800-263-7960 (French) to review case details. After obtaining a case number and authorization through TAC it will be necessary for the Dealer to call their local Electronic Service Center (ESC) to order the Generator Control and Battery Module.

Note: Out-of-warranty/Customer Pay replacements or exchanges should be handled between the Dealer and their local ESC. The dealer should advise the ESC that this is a customer pay job and is not covered under warranty.

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 of 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 Generator Control and Battery Module, the servicing eAssist technician must provide TAC with a detailed customer complaint, conditions, diagnostic trouble codes (DTCs), and other useful information as outlined below.

DANGER

Ensure all High Voltage safety procedures are followed. Failure to follow the procedure exactly as written may result in serious injury or death.

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 energized or not.

Failure to follow the procedures exactly as written may result in serious injury or death. Please, 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, capture snapshot stored data, and test drive vehicle with GDS and MDI and capture a snap shot of the Hybrid Powertrain Control Module and BECM data when condition occurs. See 07-07-30-010 for correct snap shot data collection. TAC may request that you e-mail the snapshots to them.

   Reminder: DO NOT clear codes or attempt SPS programming prior to capturing data and calling TAC.
2. If DTCs are not present, refer to Hybrid/EV Controls - Symptoms - Hybrid Controls (Doc ID: 2596135) in SI.
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 will provide instructions for ordering an exchange battery assembly unit to your dealership if necessary.
5. Disable the high voltage system. Refer to High Voltage Disabling (Doc ID 2595458).
6. Remove the Generator Control and Battery Module Assembly. Refer to Generator Control and Battery Module Replacement and Shipping Preparation (Doc ID 2667688).
7. 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,
   - parts department fax number,
   - generator control and battery module serial number
8. The generator control and battery module serial number tag that is located on the side of the assembly cover. Locate the tag and record the 16 digit identification number. The assembly ID number is starts with a "20T" indicator (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 GDS. Access the Battery Energy Control Module and look under the identification information section and the sixteen digit number 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 ordering a battery.

9. Install the Generator Control and Battery Module Assembly. Refer to Generator Control and Battery Module Replacement and Shipping Preparation (Doc ID 2667688).
10. Charge pack to at least 30% SOC by driving or idling the vehicle.

Note: The HVIL switch/ HV access cover should remain with the vehicle and not be returned with the battery assembly. The MSD switch on the power pack should be zip tied in the open position and the high voltage 3 phase cable connections and 12V cable connection should be covered with UL® listed, or equivalent, insulation tape rated at a minimum of 600V for return shipping.
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 Generator Control and Battery Module flat.
2. Store the Generator Control and Battery Module in an environmentally protected area.
3. Maintain the Generator Control and Battery Module at room temperature.
4. Protect the Generator Control and Battery Module from exposure to liquids.
5. Protect the Generator Control and Battery Module from physical damage.
6. Store the Generator Control and Battery Module in a limited-access area.

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 at the generator control and battery module. Refer to High Voltage Disabling
2. Remove the Generator Control and Battery Module from the vehicle as outlined in Generator Control and Battery Module Replacement in SI.
3. Tighten any fasteners that were loosened or removed during Generator Control and Battery Module removal to the original torque specification.
4. Write the TAC case reference number on the generator control and battery module assembly 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. The Manual Service Disconnect (MSD) is properly retained in the open position with a zip tie.
8. Place the generator control and battery module into the plastic shipping bag and original shipping container.

9. Place the completed “BATTERY PRODUCT FEEDBACK FORM” (included in the container containing the new Generator Control and Battery Module) along with a copy of the repair order with any technician comments, inside the shipping container with the failed battery.
10. Secure shipping container to the shipping pallet with reusable straps.

2688033

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.

   Note: Do not return the battery in any container other than the container that the new/refurbished battery was delivered in.
3. Complete the required hazardous goods shipping paperwork (302C form)
4. 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)
5. Do NOT return batteries to the ESC in Canada.

   Note: Failure to return the battery will result in the dealership being debited the entire warranty claim (parts and labor) as well as assessment of an Environmental Fee for the value of the failed pack. This environmental fee is substantial ($3,000) and will only be assessed if the battery is not returned.

US ONLY – Parts Return Request (WPC) - A Special Parts Return Request will be faxed to you with proper shipping instructions. Do NOT wait for the warranty claim to be paid before returning the failed used battery.

Please follow WPC guidelines below:

1. Do NOT send a Generator Control and Battery Module back without a Special Parts Return Request.
2. Do NOT send the Generator Control and Battery Module back to the ESC.
3. Do NOT return the Generator Control and Battery Module 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. Dealers need to place a new envelope inside the battery with completed

“BATTERY PRODUCT FEEDBACK FORM” including the TAC Case #, along with a copy of the Job Card (RO) including the technician’s comments, DTC’s, and diagnostics. It is recommended that this be taped to the Generator Control and Battery Module inside the shipping container. Failure to place this information both outside and inside the Generator Control and Battery Module shipping container may delay the processing of your return. Do not ship a Generator Control and Battery Module back without an official WPC Request.

Note: Failure to return the battery by the due date will result in the dealership being debited the entire warranty claim (parts and labor) as well as assessment of an environmental fee for the value of the failed pack. This environmental fee is substantial ($3,000) and will only be assessed if the battery is not returned in the WPC time frame.

Note: If you do not receive the WPC Special Part Request, contact Julie Cumo at 248-371-9939 (for French speaking dealers call PQC 1-866-654-7654) to obtain the proper paper work in order to return the failed Generator Control and Battery Module.

SHIPPING PREPARATION:

1. Disable the high voltage at the Generator Control and Battery Module. Refer to High Voltage Disabling
2. Remove the Generator Control and Battery Module from the vehicle as outlined in Generator Control and Battery Module Replacement in SI.
3. Tighten any fasteners that were loosened or removed during Generator Control and Battery Module removal to the original torque specification.
4. Write the TAC case reference number on the Generator Control and Battery Module assembly 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. The Manual Service Disconnect (MSD) is properly retained in the open position with a zip tie.
8. Place the Generator Control and Battery Module into the plastic shipping bag and original shipping container and attach the completed return shipping tag to the Generator Control and Battery Module.

SHIPPING INSTRUCTIONS:

1. Place a copy of the Special Parts Return Request, repair order with technician comments, and the completed “BATTERY PRODUCT FEEDBACK FORM” 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.
2. Secure shipping container to the shipping pallet with reusable straps.

3. Label the outside of the shipping container with the Part Return request number and the TAC case reference number. Refer to the Corporate Bulletin Number 99-00-89-019 for detailed shipping information.
4. Contact UPS Freight 1-800-333-7400 for pick-up of removed battery. If lift gate service is necessary, please request it at the time of arranging pick-up service.
5. Have the driver sign the bill of lading. Retain a copy of the signed bill of lading and attach your copy to the original repair order. This will be your proof of returning the Drive Motor Battery.
6. Ship the Generator Control and Battery Module Third Party Prepaid Freight Collect with appropriate paperwork to:

GM Warranty Parts Center

45 Northpointe Drive

Orion, MI 48359

Parts Information:

No Part Number should be entered for exchange components. Applicable miscellaneous items 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.

Warranty Information:

Labor Operation: N5866

Description: Generator Control and Battery Module Replacement

Labor Time: Use Published Labor Operation Time

Parts Allowance: $250

Add: Administrative Allowance 0.2 hr

Add: Road test - Data snapshot 0.3 hr

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.

Subject: BAS+ (HYBRID) eASSIST GENERATOR CONTROL AND BATTERY MODULE EXCHANGE PROCESS AND ORDER INSTRUCTIONS

Models: 2012 BUICK LACROSSE eAssist2012
BUICK REGAL eAssist
eAssist HYBRID (equipped with RPO HP6)

This PI was superseded to update administrative details. Please discard PIC5520B.

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 June 13, 2011, the Generator Control and Battery Module for the 2012 eAssist Buick LaCrosse and Buick Regal (GM part number 24259770) is being placed on restriction through the Technical Assistance Center (TAC). After obtaining a case number and authorization through TAC, it will be necessary for the dealer to call their local Electronic Service Center (ESC) to order the Generator Control and Battery Module.

This P/I will explain the Generator Control and Battery Module Exchange Program for the eAssist Buick LaCrosse and Buick Regal. It is expected that this exchange program will remain in effect for a minimum of 12 months. Product teams continually seek valuable information for engineering improvements. This exchange program is also designed to gain important feedback on this new high voltage Generator Control and Battery Module assembly including service diagnostics, repair procedures, and accelerated root cause analysis for continuous improvements.

Note: Please review all of the information provided below prior to contacting the Technical Assistance Center (TAC) @ 877-446-8227 (U.S.) or in Canada 1-800-263-7740 (English) or 1-800-263-7960 (French) to review case details.

Note: Out-of-warranty/Customer Pay replacements or exchanges should be handled between the Dealer and their local ESC. The dealer should advise the ESC that this is a customer pay job and is not covered under warranty.

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 of 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 Generator Control and Battery Module, the servicing eAssist technician must provide TAC with a detailed customer complaint, conditions, diagnostic trouble codes (DTCs), and other useful information as outlined below.

Danger: Ensure all High Voltage safety procedures are followed. Failure to follow the procedure exactly as written may result in serious injury or death.

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 energized or not.

Failure to follow the procedures exactly as written may result in serious injury or death. Please, 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, capture snapshot stored data, and test drive vehicle with GDS and MDI and capture a snap shot of the Hybrid Powertrain Control Module and BECM data when condition occurs. See 07-07-30-010 for correct snap shot data collection. TAC may request that you e-mail the snapshots to them.

   REMINDER: DO NOT clear codes or attempt SPS programming prior to capturing data and calling TAC.
2. If DTCs are not present, refer to Hybrid/EV Controls - Symptoms - Hybrid Controls (Doc ID: 2596135) in SI.
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 will provide instructions for ordering an exchange battery assembly unit to your dealership if necessary.
5. Disable the high voltage system. Refer to High Voltage Disabling (Doc ID 2595458).
6. Remove the Generator Control and Battery Module Assembly. Refer to Generator Control and Battery Module Replacement and Shipping Preparation (Doc ID 2667688).
7. 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,
   - parts department fax number,
   - generator control and battery module serial number
8. The generator control and battery module serial number tag that is located on the side of the assembly cover. Locate the tag and record the 16 digit identification number. The assembly ID number is starts with a "20T" indicator (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 GDS. Access the Battery Energy Control Module and look under the identification information section and the sixteen digit number 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 ordering a battery.

9. Install the Generator Control and Battery Module Assembly. Refer to Generator Control and Battery Module Replacement and Shipping Preparation (Doc ID 2667688).

10. Charge pack to at least 30% SOC by driving or idling the vehicle.

Note: The HVIL switch/ HV access cover should remain with the vehicle and not be returned with the battery assembly. The MSD switch on the power pack should be zip tied in the open position and the high voltage 3 phase cable connections and 12V cable connection should be covered with UL® listed, or equivalent, insulation tape rated at a minimum of 600V for return shipping.

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 Generator Control and Battery Module flat.
2. Store the Generator Control and Battery Module in an environmentally protected area.
3. Maintain the Generator Control and Battery Module at room temperature.
4. Protect the Generator Control and Battery Module from exposure to liquids.
5. Protect the Generator Control and Battery Module from physical damage.
6. Store the Generator Control and Battery Module in a limited-access area.

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 at the generator control and battery module. Refer to High Voltage Disabling.
2. Remove the Generator Control and Battery Module from the vehicle as outlined in Generator Control and Battery Module Replacement in SI.
3. Tighten any fasteners that were loosened or removed during Generator Control and Battery Module removal to the original torque specification.
4. Write the TAC case reference number on the generator control and battery module assembly 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. The Manual Service Disconnect (MSD) is properly retained in the open position with a zip tie.
8. Place the generator control and battery module into the plastic shipping bag and original shipping container.
9. Place the completed “BATTERY PRODUCT FEEDBACK FORM” included in the container containing the new Generator Control and Battery Module also at end of this Document, along with a copy of the repair order with any technician comments, inside the shipping container with the failed battery.
10. Secure shipping container to the shipping pallet with reusable straps.

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.

   Note: Do not return the battery in any container other than the container that the new/refurbished battery was delivered in.
3. Complete the required hazardous goods shipping paperwork (302C form)
4. 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)
5. Do NOT return batteries to the ESC in Canada.

Note: Failure to return the battery will result in the dealership being debited the entire warranty claim (parts and labor) as well as assessment of an Environmental Fee for the value of the failed pack. This environmental fee is substantial ($3,000) and will only be assessed if the battery is not returned.

US ONLY

Parts Return Request (WPC) - Special Parts Return Request will be faxed to you with proper shipping instructions. Do NOT wait for the warranty claim to be paid before returning the failed used battery.

Please follow WPC guidelines below:

1. Do NOT send a Generator Control and Battery Module back without a Special Parts Return Request.
2. Do NOT send the Generator Control and Battery Module back to the ESC.
3. Do NOT return the Generator Control and Battery Module 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. Dealers need to place a new envelope inside the battery with completed “BATTERY PRODUCT FEEDBACK FORM” including the TAC Case #, along with a copy of the Job Card (RO) including the technician’s comments, DTC’s, and diagnostics. It is recommended that this be taped to the Generator Control and Battery Module inside the shipping container. Failure to place this information both outside and inside the Generator

Control and Battery Module shipping container may delay the processing of your return. Do not ship a Generator Control and Battery Module back without an official WPC Request.

Note: Failure to return the battery by the due date will result in the dealership being debited the entire warranty claim (parts and labor) as well as assessment of an environmental fee for the value of the failed pack. This environmental fee is substantial ($3,000) and will only be assessed if the battery is not returned in the WPC time frame.

Note: If you do not receive the WPC Special Part Request, contact Julie Cumo at 248-371-9939 (for French speaking dealers call PQC 1-866-654-7654) to obtain the proper paper work in order to return the failed Generator Control and Battery Module.

SHIPPING PREPARATION:

1. Disable the high voltage at the Generator Control and Battery Module. Refer to High Voltage Disabling
2. Remove the Generator Control and Battery Module from the vehicle as outlined in Generator Control and Battery Module Replacement in G.S.I.
3. Tighten any fasteners that were loosened or removed during Generator Control and Battery Module removal to the original torque specification.
4. Write the TAC case reference number on the Generator Control and Battery Module assembly 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. The Manual Service Disconnect (MSD) is properly retained in the open position with a zip tie.
8. Place the Generator Control and Battery Module into the plastic shipping bag and original shipping container and attach the completed return shipping tag to the Generator Control and Battery Module.

SHIPPING INSTRUCTIONS:

1. Place a copy of the Special Parts Return Request, repair order with technician comments, and the completed “BATTERY PRODUCT FEEDBACK FORM” 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.
2. Secure shipping container to the shipping pallet with reusable straps.

2688033

3. Label the outside of the shipping container with the Part Return request number and the TAC case reference number. Refer to the Corporate Bulletin Number 99-00-89-019 for detailed shipping information.
4. Contact UPS Freight 1-800-333-7400 for pick-up of removed battery. If lift gate service is necessary, please request it at the time of arranging pick-up service.

5. Have the driver sign the bill of lading. Retain a copy of the signed bill of lading and attach your copy to the original repair order. This will be your proof of returning the Drive Motor Battery.
6. Ship the Generator Control and Battery Module Third Party Prepaid Freight Collect with appropriate paperwork to:

GM Warranty Parts Center

45 Northpointe Drive

Orion, MI 48359

Parts Information:

No Part Number should be entered for exchange components. Applicable miscellaneous items 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.

Warranty Information:

Labor Operation: N5866

Description: Generator Control and Battery Module Replacement

Labor Time: Use Published Labor Operation Time

Parts Allowance: $250

Add: Administrative Allowance 0.2 hr

Add: Road test - Data snapshot 0.3 hr

GM Service Parts Operations
6200 Grand Pointe Dr., Grand Blanc, MI 48439

eAssist Generator Control and Battery Module Assembly Exchange Program

PRODUCT FEEDBACK FORM

Complete the feedback form before performing the High Voltage Disabling Procedure and removing the battery from the vehicle. Using a scan tool where appropriate, record the following information/data.

TAC Case # _____

VIN # _____

List All DTC Numbers _____

List All Symptoms _____

Note: Scan Tool Screen prints containing the following information will be accepted in lieu of completing the table below. The information below can be found in the following module data displays: Hybrid Powertrain Control Module under Hybrid Data list, Battery Energy Control Module under Voltage Data list and in the Drive Motor Control Module under Drive Motor Control Module 1 data list.

Scan Tool Parameter	Control Module	Data List	Value Displayed	Units Displayed
Hybrid/EV Battery Pack Voltage	Hybrid Powertrain Control Module	Hybrid Data		Volts
Hybrid/EV Battery Pack State-of-Charge	Hybrid Powertrain Control Module	Hybrid Data		%
Hybrid/EV Battery Pack Charge Remaining	Drive Motor Control Module	Drive Motor Control Module 1		Amps
Hybrid/EV Battery Pack Low Resolution Current Sensor	Battery Energy Control Module	Voltage Data		%

Product Feedback Form IR 19MY11 PART NO. 19118951 SHEET 1 OF 2

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.

Subject: BAS+ (HYBRID) eAssist Generator Control And Battery Module Exchange Process And Order Instructions

Models: 2012 Buick LaCrosse eAssist
2012 Buick Regal eAssist
2013 Chevrolet Malibu ECO eAssist
Hybrid (equipped with RPO HP6)

This PI was superseded to update model, model years, and email information. Please discard PIC5520C.

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 June 13, 2011, the Generator Control and Battery Module for the eAssist 2012 Buick LaCrosse, Buick Regal and Chevrolet Malibu ECO (GM part number 24259770) is being placed on restriction through the Technical Assistance Center (TAC). After obtaining a case number and authorization through TAC it will be necessary for the dealer to call their local Electronic Service Center (ESC) to order the Generator Control and Battery Module.

This P/I will explain the Generator Control and Battery Module Exchange Program for the eAssist Buick LaCrosse, Buick Regal and Chevrolet Malibu ECO. It is expected that this exchange program will remain in effect for a minimum of 12 months. Product teams continually seek valuable information for engineering improvements. This exchange program is also designed to gain important feedback on this new high voltage Generator Control and Battery Module assembly including service diagnostics, repair procedures, and accelerated root cause analysis for continuous improvements.

Note: Please review all of the information provided below prior to contacting the Technical Assistance Center (TAC) @ 877-446-8227 (U.S.) or in Canada 1-800-263-7740 (English) or 1-800-263-7960 (French) to review case details.

Note: Out-of-warranty/customer pay replacements or exchanges should be handled between the dealer and their local ESC. The dealer should advise the ESC that this is a customer pay job and is not covered under warranty.

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 of 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 Generator Control and Battery Module, the servicing eAssist technician must provide TAC with a detailed customer complaint, conditions, diagnostic trouble codes (DTCs), and other useful information as outlined below.

Danger: Ensure all High Voltage safety procedures are followed. Failure to follow the procedure exactly as written may result in serious injury or death.

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 energized or not.

Failure to follow the procedures exactly as written may result in serious injury or death. Please 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, capture snapshot stored data, and test drive vehicle with GDS and MDI and capture a snap shot of the Hybrid Powertrain Control Module and BECM data when condition occurs. See 07-07-30-010 for correct snap shot data collection. TAC may request that you e-mail the snapshots to them.

   Reminder: DO NOT clear codes or attempt SPS programming prior to capturing data and calling TAC.
2. If DTCs are not present, refer to Hybrid/EV Controls - Symptoms - Hybrid Controls (Doc ID: 2596135) in SI.
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 will provide instructions for ordering an exchange battery assembly unit to your dealership if necessary.
5. Disable the high voltage system. Refer to High Voltage Disabling (Doc ID 2595458).
6. Remove the Generator Control and Battery Module Assembly. Refer to Generator Control and Battery Module Replacement and Shipping Preparation (Doc ID 2667688).
7. 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,
   - parts department fax number,
   - generator control and battery module serial number
8. The generator control and battery module serial number tag that is located on the side of the assembly cover. Locate the tag and record the 16 digit identification number. The assembly ID number is starts with a "20T" indicator (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 GDS.Access the Battery Energy Control Module and look under the identification information section and the sixteen digit number 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 ordering a battery.

9. Install the Generator Control and Battery Module Assembly. Refer to Generator Control and Battery Module Replacement and Shipping Preparation (Doc ID 2667688).
10. Charge pack to at least 30% SOC by driving or idling the vehicle.

Note: The HVIL switch/ HV access cover should remain with the vehicle and not be returned with the battery assembly. The MSD switch on the power pack should be zip tied in the open position and the high voltage 3 phase cable connections and 12V cable connection should be covered with UL® listed, or equivalent, insulation tape rated at a minimum of 600V for return shipping.

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 Generator Control and Battery Module flat.
2. Store the Generator Control and Battery Module in an environmentally protected area.
3. Maintain the Generator Control and Battery Module at room temperature.
4. Protect the Generator Control and Battery Module from exposure to liquids.
5. Protect the Generator Control and Battery Module from physical damage.
6. Store the Generator Control and Battery Module in a limited-access area.

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 at the generator control and battery module. Refer to High Voltage Disabling.
2. Remove the Generator Control and Battery Module from the vehicle as outlined in Generator Control and Battery Module Replacement in SI.
3. Tighten any fasteners that were loosened or removed during Generator Control and Battery Module removal to the original torque specification.
4. Write the TAC case reference number on the generator control and battery module assembly 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. The Manual Service Disconnect (MSD) is properly retained in the open position with a zip tie.
8. Place the generator control and battery module into the plastic shipping bag and original shipping container.
9. Place the completed “BATTERY PRODUCT FEEDBACK FORM” (included in the container containing the new Generator Control and Battery Module) along with a copy of the repair order with any technician comments, inside the shipping container with the failed battery.
10. Secure shipping container to the shipping pallet with reusable straps.

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.
   Note: Do not return the battery in any container other than the container that the new/refurbished battery was delivered in.
3. Complete the required hazardous goods shipping paperwork (302C form).
4. 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).
5. Do NOT return batteries to the ESC in Canada.

Note: Failure to return the battery will result in the dealership being debited the entire warranty claim (parts and labor) as well as assessment of an Environmental Fee for the value of the failed pack. This environmental fee is substantial ($3,000) and will only be assessed if the battery is not returned.

US ONLY – Parts Return Request (WPC) - A Special Parts Return Request will be faxed to you with proper shipping instructions. Do NOT wait for the warranty claim to be paid before returning the failed used battery.

Please follow WPC guidelines below:

1. Do NOT send a Generator Control and Battery Module back without a Special Parts Return Request.
2. Do NOT send the Generator Control and Battery Module back to the ESC.
3. Do NOT return the Generator Control and Battery Module 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. Dealers need to place a new envelope inside the battery with completed “BATTERY PRODUCT FEEDBACK FORM” including the TAC Case #, along with a copy of the Job Card (RO) including the technician’s comments, DTC’s, and diagnostics. It is recommended that this be taped to the Generator Control and Battery Module inside the shipping container. Failure to place this information both outside and inside the Generator Control and Battery Module shipping container may delay the processing of your return. Do not ship a Generator Control and Battery Module back without an official WPC Request.

Note: Failure to return the battery by the due date will result in the dealership being debited the entire warranty claim (parts and labor) as well as assessment of an environmental fee for the value of the failed pack. This environmental fee is substantial ($3,000) and will only be assessed if the battery is not returned in the WPC time frame.

Note: If you do not receive the WPC Special Part Request, contact Julie Cumo at 248-371-9939 (for French speaking dealers call PQC 1-866-654-7654) to obtain the proper paper work in order to return the failed Generator Control and Battery Module.

SHIPPING PREPARATION:

1. Disable the high voltage at the Generator Control and Battery Module. Refer to High Voltage Disabling.
2. Remove the Generator Control and Battery Module from the vehicle as outlined in Generator Control and Battery Module Replacement in SI.
3. Tighten any fasteners that were loosened or removed during Generator Control and Battery Module removal to the original torque specification.
4. Write the TAC case reference number on the Generator Control and Battery Module assembly 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. The Manual Service Disconnect (MSD) is properly retained in the open position with a zip tie.
8. Place the Generator Control and Battery Module into the plastic shipping bag and original shipping container and attach the completed return shipping tag to the Generator Control and Battery Module.

SHIPPING INSTRUCTIONS:

1. Place a copy of the Special Parts Return Request, repair order with technician comments, and the completed “BATTERY PRODUCT FEEDBACK FORM” 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.
2. Secure shipping container to the shipping pallet with reusable straps.

2688033

3. Label the outside of the shipping container with the Part Return request number and the TAC case reference number. Refer to the Corporate Bulletin Number 99-00-89-019 for detailed shipping information.
4. Contact UPS Freight 1-800-333-7400 for pick-up of removed battery. If lift gate service is necessary, please request it at the time of arranging pick-up service.
5. Have the driver sign the bill of lading. Retain a copy of the signed bill of lading and attach your copy to the original repair order. This will be your proof of returning the Drive Motor Battery.

6. Ship the Generator Control and Battery Module Third Party Prepaid Freight Collect with appropriate paperwork to:

GM Warranty Parts Center

45 Northpointe Drive

Orion, MI 48359

Parts Information:

No Part Number should be entered for exchange components. Applicable miscellaneous items 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.

Warranty Information:

Labor Operation: N5866

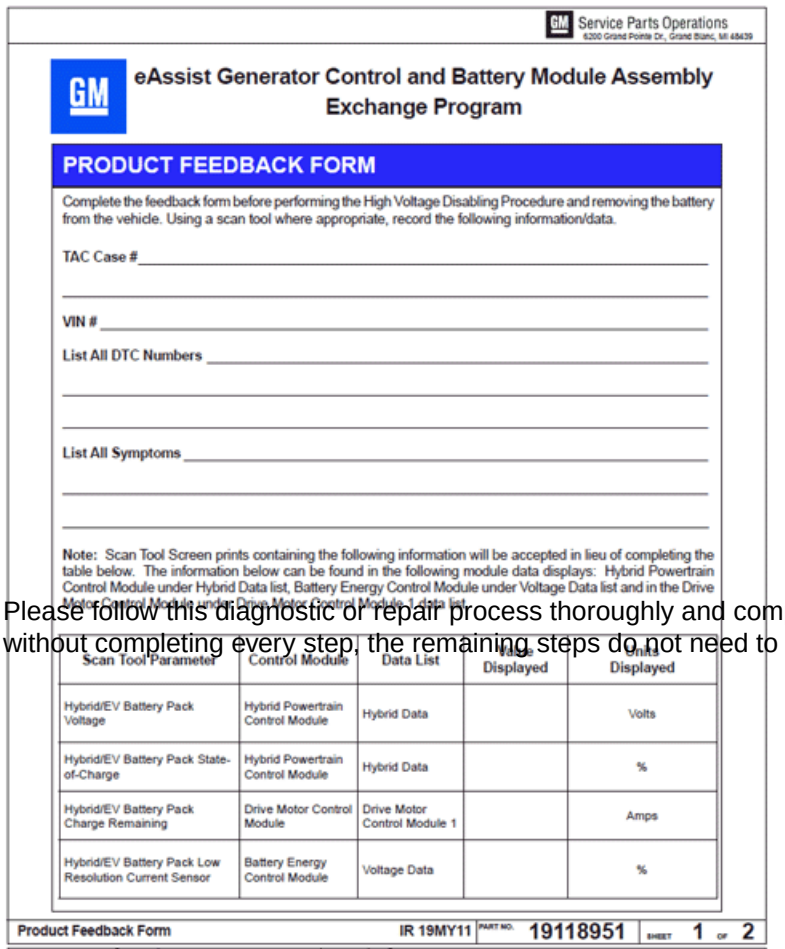
Description: Generator Control and Battery Module Replacement

Labor Time: Use Published Labor Operation Time

Parts Allowance: $250

Add: Administrative Allowance 0.2 hr

Add: Road test - Data snapshot 0.3 hr



GM Service Parts Operations
6200 Grand Pointe Dr., Grand Blanc, MI 48439

eAssist Generator Control and Battery Module Assembly Exchange Program

PRODUCT FEEDBACK FORM

Complete the feedback form before performing the High Voltage Disabling Procedure and removing the battery from the vehicle. Using a scan tool where appropriate, record the following information/data.

TAC Case # _____

_____

VIN # _____

List All DTC Numbers _____

_____

_____

List All Symptoms _____

_____

_____

Note: Scan Tool Screen prints containing the following information will be accepted in lieu of completing the table below. The information below can be found in the following module data displays: Hybrid Powertrain Control Module under Hybrid Data list, Battery Energy Control Module under Voltage Data list and in the Drive Motor Control Module under Drive Motor Control Module 1 data list.

Scan Tool Parameter	Control Module	Data List	Value Displayed	Units Displayed
Hybrid/EV Battery Pack Voltage	Hybrid Powertrain Control Module	Hybrid Data		Volts
Hybrid/EV Battery Pack State-of-Charge	Hybrid Powertrain Control Module	Hybrid Data		%
Hybrid/EV Battery Pack Charge Remaining	Drive Motor Control Module	Drive Motor Control Module 1		Amps
Hybrid/EV Battery Pack Low Resolution Current Sensor	Battery Energy Control Module	Voltage Data		%

Product Feedback Form IR 19MY11 PART NO. 19118951 SHEET 1 OF 2

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.

Subject: BAS+ (HYBRID) eAssist Generator Control And Battery Module Exchange Process And Order Instructions

Models: 2012 - 2013 BUICK LACROSSE, REGAL
2013 Chevrolet Malibu ECO
Equipped with eAssist (RPO HP6)

This PI was superseded to update part numbers, model and model years. Please discard PIC5520D.

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 June 13, 2011 the Generator Control and Battery Module, for the 2012 -2013 Buick LaCrosse, Buick Regal and 2013 Chevrolet Malibu ECO with eAssist are being placed on restriction through the Technical Assistance Center (TAC). After obtaining a case number and authorization through TAC it will be necessary for the Dealer to call their local Electronic Service Center (ESC) to order the Generator Control and Battery Module.

2012 BUICK LACROSSE, REGAL and 2013 Chevrolet Malibu ECO - Part Number 24259770

2013 BUICK LACROSSE, REGAL - Part Number 22948845

This P/I will explain the Generator Control and Battery Module Exchange Program for the eAssist Buick LaCrosse, Buick Regal and Chevrolet Malibu ECO. It is expected that this exchange program will remain in effect for a minimum of 12 months. Product teams continually seek valuable information for engineering improvements. This exchange program is also designed to gain important feedback on this new high voltage Generator Control and Battery Module assembly including service diagnostics, repair procedures, and accelerated root cause analysis for continuous improvements.

Note: Please review all of the information provided below prior to contacting the Technical Assistance Center (TAC) @ 877-446-8227 (U.S.) or in Canada 1-800-263-7740 (English) or 1-800-263-7960 (French) to review case details.

Note: Out-of-warranty/Customer Pay replacements or exchanges should be handled between the Dealer and their local ESC. The dealer should advise the ESC that this is a customer pay job and is not covered under warranty.

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 of 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 Generator Control and Battery Module, the servicing eAssist technician must provide TAC with a detailed customer complaint, conditions, diagnostic trouble codes (DTCs), and other useful information as outlined below.

Danger: Ensure all High Voltage safety procedures are followed. Failure to follow the procedure exactly as written may result in serious injury or death.

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 energized or not.

Failure to follow the procedures exactly as written may result in serious injury or death. Please, 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, capture snapshot stored data, and test drive vehicle with GDS2 and MDI and capture a snap shot of the Hybrid Powertrain Control Module and BECM data when condition occurs. See 07-07-30-010 for correct snap shot data collection. TAC may request that you e-mail the snapshots to them.

   Reminder: DO NOT clear codes or attempt SPS programming prior to capturing data and calling TAC.
2. If DTCs are not present, refer to Hybrid/EV Controls - Symptoms - Hybrid Controls (Doc ID: 2596135) in SI.
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 will provide instructions for ordering an exchange battery assembly unit to your dealership if necessary.
5. Disable the high voltage system. Refer to High Voltage Disabling (Doc ID 2595458).
6. Remove the Generator Control and Battery Module Assembly. Refer to Generator Control and Battery Module Replacement and Shipping Preparation (Doc ID 2667688).
7. 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,
   - parts department fax number,
   - generator control and battery module serial number.
8. The generator control and battery module serial number tag that is located on the side of the assembly cover. Locate the tag and record the 16 digit identification number. The assembly ID number is starts with a "20T" indicator (See Photo Below). If the Generator Control and Battery Module are not out of the vehicle yet, you can find the assembly ID number by installing the MDI and using GDS2. Access the Battery Energy Control Module and look under the identification information section and the sixteen digit number 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 ordering a battery.

9. Install the Generator Control and Battery Module Assembly. Refer to Generator Control and Battery Module Replacement and Shipping Preparation (Doc ID 2667688).
10. Charge pack to at least 30% SOC by driving or idling the vehicle.

Note: The HVIL switch/ HV access cover should remain with the vehicle and not be returned with the battery assembly. The MSD switch on the power pack should be zip tied in the open position and the high voltage 3 phase cable connections and 12V cable connection should be covered with UL® listed, or equivalent, insulation tape rated at a minimum of 600V for return shipping.

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 Generator Control and Battery Module flat.
2. Store the Generator Control and Battery Module in an environmentally protected area.
3. Maintain the Generator Control and Battery Module at room temperature.
4. Protect the Generator Control and Battery Module from exposure to liquids.
5. Protect the Generator Control and Battery Module from physical damage.
6. Store the Generator Control and Battery Module in a limited access area.

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 at the generator control and battery module. Refer to High Voltage Disabling
2. Remove the Generator Control and Battery Module from the vehicle as outlined in Generator Control and Battery Module Replacement in SI.
3. Tighten any fasteners that were loosened or removed during Generator Control and Battery Module removal to the original torque specification.
4. Write the TAC case reference number on the generator control and battery module assembly 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. The Manual Service Disconnect (MSD) is properly retained in the open position with a zip tie.

8. Place the generator control and battery module into the plastic shipping bag and original shipping container.
9. Place the completed “BATTERY PRODUCT FEEDBACK FORM” (included in the container containing the new Generator Control and Battery Module) along with a copy of the repair order with any technician comments, inside the shipping container with the failed battery.
10. Secure shipping container to the shipping pallet with reusable straps.

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.

   Note: Do not return the battery in any container other than the container that the new/refurbished battery was delivered in.
3. Complete the required hazardous goods shipping paperwork (302C form)
4. 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)
5. Do NOT return batteries to the ESC in Canada.

   Note: Failure to return the battery will result in the dealership being debited the entire warranty claim (parts and labor) as well as assessment of an Environmental Fee for the value of the failed pack. This environmental fee is substantial ($3,000) and will only be assessed if the battery is not returned.

US ONLY – Parts Return Request (WPC) - A Special Parts Return Request will be faxed to you with proper shipping instructions. Do NOT wait for the warranty claim to be paid before returning the failed used battery.

Please follow WPC guidelines below:

1. Do NOT send a Generator Control and Battery Module back without a Special Parts Return Request.
2. Do NOT send the Generator Control and Battery Module back to the ESC.
3. Do NOT return the Generator Control and Battery Module 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. Dealers need to place a new envelope inside the battery with completed

“BATTERY PRODUCT FEEDBACK FORM” including the TAC Case #, along with a copy of the Job Card (RO) including the technician’s comments, DTC’s, and diagnostics. It is recommended that this be taped to the Generator Control and Battery Module inside the shipping container. Failure to place this information both outside and inside the Generator Control and Battery Module shipping container may delay the processing of your return. Do not ship a Generator Control and Battery Module back without an official WPC Request.

GM Service Parts Operations
6200 Grand Pointe Dr., Grand Blanc, MI 48439

eAssist Generator Control and Battery Module Assembly Exchange Program

PRODUCT FEEDBACK FORM

Complete the feedback form before performing the High Voltage Disabling Procedure and removing the battery from the vehicle. Using a scan tool where appropriate, record the following information/data.

TAC Case # ____________________

VIN # ____________________

List All DTC Numbers ____________________

List All Symptoms ____________________

Note: Scan Tool Screen prints containing the following information will be accepted in lieu of completing the table below. The information below can be found in the following module data displays: Hybrid Powertrain Control Module under Hybrid Data list, Battery Energy Control Module under Voltage Data list and in the Drive Motor Control Module under Drive Motor Control Module 1 data list.

Scan Tool Parameter	Control Module	Data List	Value Displayed	Units Displayed
Hybrid/EV Battery Pack Voltage	Hybrid Powertrain [illegible]	Hybrid Data		Volts
Hybrid/EV Battery Pack State-of-Charge	Hybrid Powertrain Control Module	Hybrid Data		%
Hybrid/EV Battery Pack Charge Remaining	Drive Motor Control Module	Drive Motor Control Module 1		Amps
Hybrid/EV Battery Pack Low Resolution Current Sensor	Battery Energy Control Module	Voltage Data		%

Product Feedback Form [illegible] 1 of 2

Note: Failure to return the battery by the due date will result in the dealership being debited the entire warranty claim (parts and labor) as well as assessment of an environmental fee for the value of the failed pack. This environmental fee is substantial ($3,000) and will only be assessed if the battery is not returned in the WPC time frame.

Note: If you do not receive the WPC Special Part Request, contact Julie Cumo at 248-371-9939 (for French speaking dealers call PQC 1-866-654-7654) to obtain the proper paper work in order to return the failed Generator Control and Battery Module.

SHIPPING PREPARATION:

1. Disable the high voltage at the Generator Control and Battery Module. Refer to High Voltage Disabling
2. Remove the Generator Control and Battery Module from the vehicle as outlined in Generator Control and Battery Module Replacement in SI.
3. Tighten any fasteners that were loosened or removed during Generator Control and Battery Module removal to the original torque specification.
4. Write the TAC case reference number on the Generator Control and Battery Module assembly 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. The Manual Service Disconnect (MSD) is properly retained in the open position with a zip tie.
8. Place the Generator Control and Battery Module into the plastic shipping bag and original shipping container and attach the completed return shipping tag to the Generator Control and Battery Module.

SHIPPING INSTRUCTIONS:

1. Place a copy of the Special Parts Return Request, repair order with technician comments, and the completed “BATTERY PRODUCT FEEDBACK FORM” 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.
2. Secure shipping container to the shipping pallet with reusable straps.

2688033

3. Label the outside of the shipping container with the Part Return request number and the TAC case reference number. Refer to the Corporate Bulletin Number 99-00-89-019 for detailed shipping information.
4. Contact UPS Freight 1-800-333-7400 for pick-up of removed battery. If lift gate service is necessary, please request it at the time of arranging pick-up service.
5. Have the driver sign the bill of lading. Retain a copy of the signed bill of lading and attach your copy to the original repair order. This will be your proof of returning the Drive Motor Battery.
6. Ship the Generator Control and Battery Module Third Party Prepaid Freight Collect with appropriate paperwork to:
   GM Warranty Parts Center
   45 Northpointe Drive
   Orion, MI 48359

Parts Information:

No Part Number should be entered for exchange components. Applicable miscellaneous items 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.

Warranty Information:

Labor Operation: N5866

Description: Generator Control and Battery Module Replacement

Labor Time: Use Published Labor Operation Time 2.4 hr.

Parts Allowance: $250

Add: Administrative Allowance 0.2 hr.

Add: Road test - Data snapshot 0.3 hr.

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.

Subject: BAS+ (HYBRID) eAssist Generator Control And Battery Module (Powerpack) Exchange Process And Order Instructions

Models: 2012 - 2013 Buick LaCrosse, Regal
2013 Chevrolet Malibu ECO
All equipped with eAssist (RPO HP6)

This PI was superseded to update parts and warranty information. Please discard PIC5520E.

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 June 13, 2011 the Generator Control and Battery Module, for the 2012 - 2013 Buick LaCrosse, Buick Regal and 2013 Chevrolet Malibu ECO with eAssist are being placed on restriction through the Technical Assistance Center (TAC). After obtaining a case number and authorization through TAC it will be necessary for the Dealer to call their local Electronic Service Center (ESC) to order the Generator Control and Battery Module.

Parts Information

Year	Make	Model	Part Description	Part Number
2012	Buick	LaCrosse, Regal	Generator Control and Battery Module Replacement (Powerpack)	23102218 (supersedes 24259770)
2013	Buick	LaCrosse, Regal	Generator Control and Battery Module Replacement (Powerpack)	24267940 (supersedes 22948845)
2013	Chevrolet	Malibu Eco	Generator Control and Battery Module Replacement (Powerpack)	23102218 (supersedes 24259770)

This P/I will explain the Generator Control and Battery Module Exchange Program for the eAssist Buick LaCrosse, Buick Regal and Chevrolet Malibu ECO. It is expected that this exchange program will remain in effect for a minimum of 12 months. Product teams continually seek valuable information for engineering improvements. This exchange program is also designed to gain important feedback on this new high voltage Generator Control and Battery Module assembly including service diagnostics, repair procedures, and accelerated root cause analysis for continuous improvements.

Note: Please review all of the information provided below prior to contacting the Technical Assistance Center (TAC) @ 877-446-8227 (U.S.) or in Canada 1-800-263-7740 (English) or 1-800-263-7960 (French) to review case details.

Note: Out-of-warranty/Customer Pay replacements or exchanges should be handled between the Dealer and their local ESC. The dealer should advise the ESC that this is a customer pay job and is not covered under warranty.

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 of 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 Generator Control and Battery Module, the servicing eAssist technician must provide TAC with a detailed customer complaint, conditions, diagnostic trouble codes (DTCs), 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 energized 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, capture snapshot stored data, and test drive vehicle with GDS2 and MDI and capture a snapshot of the Hybrid Powertrain Control Module (HPCM) 14V Power Module and Battery Energy Control Module (BECM) Voltage menu data when condition occurs. See 07-07-30-010 for correct GDS2 data collection. TAC may request that you email the Session Log to them.

   Note: DO NOT clear codes or attempt SPS programming prior to capturing data and calling TAC.
2. If DTCs are not present, refer to Hybrid/EV Controls - Symptoms - Hybrid Controls (Doc ID: 2596135) in SI.
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 will provide instructions for ordering an exchange battery assembly unit to your dealership if necessary.
5. Disable the high voltage system. Refer to High Voltage Disabling (Doc ID 2595458)
6. Remove the Generator Control and Battery Module Assembly. Refer to Generator Control and Battery Module Replacement and Shipping Preparation (Doc ID 2667688).
7. 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 generator control and battery module serial number
8. The generator control and battery module serial number tag that is located on the side of the assembly cover. Locate the tag and record the 16 digit identification number. The assembly ID number starts with a "20T" indicator (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 GDS. Access the Battery Energy Control Module and look under the identification information section and the sixteen digit number 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 ordering a battery.

9. Install the Generator Control and Battery Module Assembly. Refer to Generator Control and Battery Module Replacement and Shipping Preparation (Doc ID 2667688).
10. Charge pack to at least 30% SOC by driving or idling the vehicle.

Note: The HVIC switch/ HV access cover should remain with the vehicle and not be returned with the battery assembly. The MSD switch on the power pack should be zip tied in the open position and the high voltage 3 phase cable connections and 12V cable connection should be covered with UL® listed, or equivalent, insulation tape rated at a minimum of 600V for return shipping.

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 Generator Control and Battery Module flat.
2. Store the Generator Control and Battery Module in an environmentally protected area.
3. Maintain the Generator Control and Battery Module at room temperature.
4. Protect the Generator Control and Battery Module from exposure to liquids.
5. Protect the Generator Control and Battery Module from physical damage.
6. Store the Generator Control and Battery Module in a limited-access area.

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 at the generator control and battery module. Refer to High Voltage Disabling
2. Remove the Generator Control and Battery Module from the vehicle as outlined in Generator Control and Battery Module Replacement in SI.
3. Tighten any fasteners that were loosened or removed during Generator Control and Battery Module removal to the original torque specification.
4. Write the TAC case reference number on the generator control and battery module assembly 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. The Manual Service Disconnect (MSD) is properly retained in the open position with a zip tie.

8. Place the generator control and battery module into the plastic shipping bag and original shipping container.
9. Place the completed “BATTERY PRODUCT FEEDBACK FORM” (included in the container containing the new Generator Control and Battery Module) along with a copy of the repair order with any technician comments, inside the shipping container with the failed battery.
10. Secure shipping container to the shipping pallet with reusable straps.

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 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.
   Note: Do not return the battery in any container other than the container that the new/refurbished battery was delivered in.
3. Complete the required hazardous goods shipping paperwork (302C form).
4. 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.)
5. Do NOT return batteries to the ESC in Canada.

Note: Failure to return the battery will result in the dealership being debited the entire warranty claim (parts and labor) as well as assessment of an Environmental Fee for the value of the failed pack. This environmental fee is substantial ($3,000) and will only be assessed if the battery is not returned.

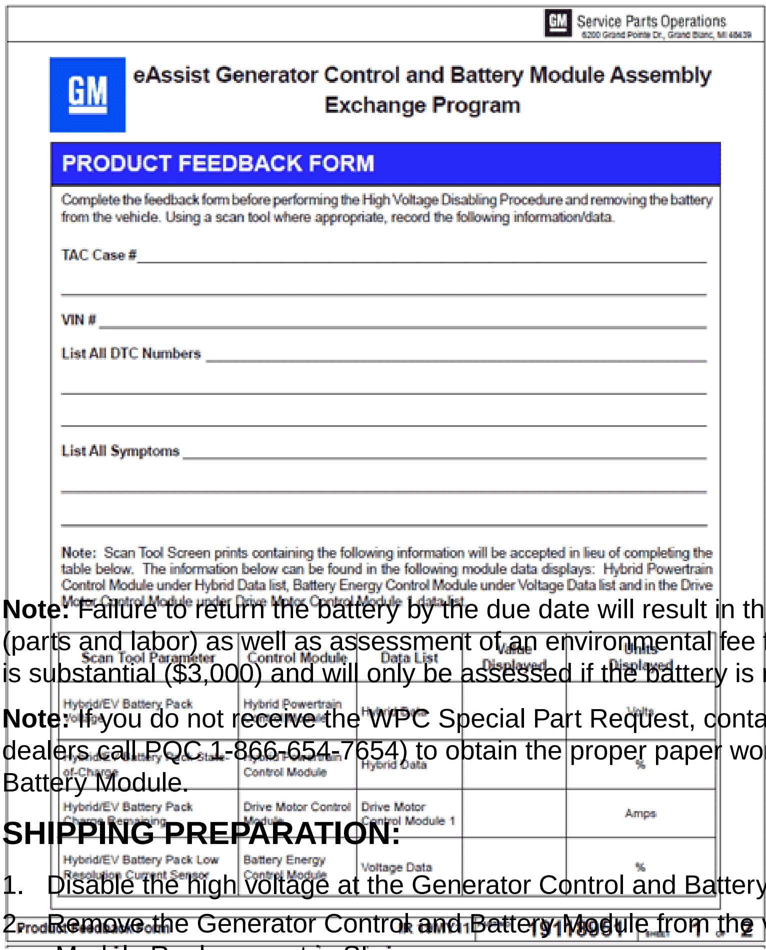
US ONLY – Parts Return Request (WPC) - A Special Parts Return Request will be faxed to you with proper shipping instructions. Do NOT wait for the warranty claim to be paid before returning the failed used battery.

Please follow WPC guidelines below:

1. Do NOT send a Generator Control and Battery Module back without a Special Parts Return Request.
2. Do NOT send the Generator Control and Battery Module back to the ESC.
3. Do NOT return the Generator Control and Battery Module 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. Dealers need to place a new envelope inside the battery with completed

"BATTERY PRODUCT FEEDBACK FORM" including the TAC Case #, along with a copy of the Job Card (RO) including the technician's comments, DTCs, and diagnostics. It is recommended that this be taped to the Generator Control and Battery Module inside the shipping container. Failure to place this information both outside and inside the Generator Control and Battery Module shipping container may delay the processing of your return. Do not ship a Generator Control and Battery Module back without an official WPC Request.



Service Parts Operations
6200 Grand Pointe Dr., Grand Blanc, MI 48439

GM eAssist Generator Control and Battery Module Assembly Exchange Program

PRODUCT FEEDBACK FORM

Complete the feedback form before performing the High Voltage Disabling Procedure and removing the battery from the vehicle. Using a scan tool where appropriate, record the following information/data.

TAC Case # ______

VIN # ______

List All DTC Numbers ______

List All Symptoms ______

Note: Scan Tool Screen prints containing the following information will be accepted in lieu of completing the table below. The information below can be found in the following module data displays: Hybrid Powertrain Control Module under Hybrid Data list, Battery Energy Control Module under Voltage Data list and in the Drive Motor Control Module under Drive Motor Control Module 1 data list.

Scan Tool Parameter	Control Module	Data List	Value Displayed	Units Displayed
Hybrid/EV Battery Pack Voltage	Hybrid Powertrain Control Module	Hybrid Data		Volts
Hybrid/EV Battery Pack State-of-Charge	Hybrid Powertrain Control Module	Hybrid Data		%
Hybrid/EV Battery Pack Charge Remaining	Drive Motor Control Module	Drive Motor Control Module 1		Amps
Hybrid/EV Battery Pack Low Resolution Current Sensor	Battery Energy Control Module	Voltage Data		%

Note: Failure to return the battery by the due date will result in the dealership being debited the entire warranty claim (parts and labor) as well as assessment of an environmental fee for the value of the failed pack. This environmental fee is substantial ($3,000) and will only be assessed if the battery is not returned in the WPC time frame.

Note: If you do not receive the WPC Special Part Request, contact Julie Cumo at 248-371-9939 (for French speaking dealers call PQC 1-866-654-7654) to obtain the proper paper work in order to return the failed Generator Control and Battery Module.

SHIPPING PREPARATION:

1. Disable the high voltage at the Generator Control and Battery Module. Refer to High Voltage Disabling.
2. Remove the Generator Control and Battery Module from the vehicle as outlined in Generator Control and Battery Module Replacement in SI.
3. Tighten any fasteners that were loosened or removed during Generator Control and Battery Module removal to the original torque specification.
4. Write the TAC case reference number on the Generator Control and Battery Module assembly 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. The Manual Service Disconnect (MSD) is properly retained in the open position with a zip tie.
8. Place the Generator Control and Battery Module into the plastic shipping bag and original shipping container and attach the completed return shipping tag to the Generator Control and Battery Module.

SHIPPING INSTRUCTIONS:

1. Place a copy of the Special Parts Return Request, repair order with technician comments, and the completed "BATTERY PRODUCT FEEDBACK FORM" 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.
2. Secure shipping container to the shipping pallet with reusable straps.

2688033

3. Label the outside of the shipping container with the Part Return request number and the TAC case reference number. Refer to the Corporate Bulletin Number 99-00-89-019 for detailed shipping information.
4. Contact UPS Freight 1-800-333-7400 for pick-up of removed battery. If lift gate service is necessary, please request it at the time of arranging pick-up service.
5. Have the driver sign the bill of lading. Retain a copy of the signed bill of lading and attach your copy to the original repair order. This will be your proof of returning the Drive Motor Battery.
6. Ship the Generator Control and Battery Module Third Party Prepaid Freight Collect with appropriate paperwork to:

GM Warranty Parts Center

45 Northpointe Drive

Orion, MI 48359

PARTS INFORMATION:

No Part Number should be entered for exchange components. Applicable miscellaneous items 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.

Warranty Information

For vehicles repaired under warranty use:

Labor Code	Description	Labor Time	Part Allowance
N5866	Generator Control and Battery Module Replacement (Powerpack)	Use Published Labor Operation Time	$250
Add	Administrative Allowance	.2 Hours	N/A
Add	Road Test - GDS2 Session Log	.3 Hours	N/A

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.

Subject: BAS+ (HYBRID) eAssist Generator Control And Battery Module or Battery Section Exchange Process And Order Instructions

Models: 2012 -2013 BUICK LACROSSE, REGAL
2013 Chevrolet Malibu ECO
All equipped with eAssist (RPO HP6)

This PI was superseded to update part numbers and website information. Please discard PIP5520F.

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 June 13, 2011 the Generator Control and Battery Module, for the 2012 - 2013 Buick LaCrosse, Buick Regal and 2013 Chevrolet Malibu ECO with eAssist are being placed on restriction through the General Motors Technical Assistance Center (TAC). After obtaining a case number and authorization through TAC it will be necessary for the Dealer to call their local Electronic Service Center (ESC) to order the Generator Control and Battery Module (Powerpack) or the Generator Battery Sections 1 and 2.

Parts Information

Year	Make	Model	Part Description	Part Number
2012	Buick	LaCrosse, Regal	Generator Control and Battery Module Replacement (Powerpack)	23102218 (supersedes 24259770)
2013	Buick	LaCrosse, Regal	Generator Control and Battery Module Replacement (Powerpack)	24267940 (supersedes 22948845)
2013	Chevrolet	Malibu Eco	Generator Control and Battery Module Replacement (Powerpack)	23102218 (supersedes 24259770)
All			Generator Battery Sections 1 and 2	20813602

This P/I will explain the Generator Control and Battery Module or the Generator Battery Section Exchange Program for the eAssist Buick LaCrosse, Buick Regal and Chevrolet Malibu ECO. It is expected that this exchange program will remain in effect for a minimum of 12 months. Product teams continually seek valuable information for engineering improvements. This exchange program is also designed to gain important feedback on this new high voltage Generator Control and Battery Module assembly including service diagnostics, repair procedures, and accelerated root cause analysis for continuous improvements.

Note: Please review all of the information provided below prior to contacting the Technical Assistance Center (TAC) @ 877-446-8227 (U.S.) or in Canada 1-800-263-7740 (English) or 1-800-263-7960 (French) to review case details.

Note: Out-of-warranty/Customer Pay replacements or exchanges should be handled between the Dealer and their local ESC. The dealer should advise the ESC that this is a customer pay job and is not covered under warranty.

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 of 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 Generator Control and Battery Module, the servicing eAssist technician must provide TAC with a detailed customer complaint, conditions, diagnostic trouble codes (DTCs), 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 energized 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 stored data, view vehicle wide DTCs. If possible, test drive vehicle with GDS2 and MDI connected to capture data from the Hybrid Powertrain Control Module (HPCM) 14V Power Module and Battery Energy Control Module (BECM) 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.

   Reminder: DO NOT clear codes or attempt SPS programming prior to capturing data and calling TAC.
2. If DTCs are not present, refer to Hybrid/EV Controls - Symptoms - Hybrid Controls (Doc ID: 2596135) in SI.
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 will provide instructions for ordering an exchange battery assembly unit to your dealership if necessary.
5. Disable the high voltage system. Refer to High Voltage Disabling (Doc ID 2595458).
6. Remove the Generator Control and Battery Module Assembly. Refer to Generator Control and Battery Module Replacement and Shipping Preparation (Doc ID 2667688).
7. 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,
   - parts department fax number,
   - generator control and battery module serial numbe.
8. The generator control and battery module serial number tag that is located on the side of the assembly cover. Locate the tag and record the 16 digit identification number. The assembly ID number is starts with a "20T" indicator (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 GDS. Access the Battery Energy Control Module and look under the identification information section and the sixteen digit number 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 ordering a battery.

9. Install the Generator Control and Battery Module Assembly. Refer to Generator Control and Battery Module Replacement and Shipping Preparation (Doc ID 2667688).
10. Charge pack to at least 30% SOC by driving or idling the vehicle.

Note: The HVIL switch/ HV access cover should remain with the vehicle and not be returned with the battery assembly. The MSD switch on the power pack should be zip tied in the open position and the high voltage 3 phase cable connections and 12V cable connection should be covered with UL® listed, or equivalent, insulation tape rated at a minimum of 600V for return shipping.

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 Generator Control and Battery Module flat.
2. Store the Generator Control and Battery Module in an environmentally protected area.
3. Maintain the Generator Control and Battery Module at room temperature.
4. Protect the Generator Control and Battery Module from exposure to liquids.
5. Protect the Generator Control and Battery Module from physical damage.
6. Store the Generator Control and Battery Module in a limited-access area.

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 at the generator control and battery module. Refer to High Voltage Disabling.
2. Remove the Generator Control and Battery Module from the vehicle as outlined in Generator Control and Battery Module Replacement in SI.
3. Tighten any fasteners that were loosened or removed during Generator Control and Battery Module removal to the original torque specification.
4. Write the TAC case reference number on the generator control and battery module assembly 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. The Manual Service Disconnect (MSD) is properly retained in the open position with a zip tie.

8. Place the generator control and battery module into the plastic shipping bag and original shipping container.
9. Place the completed “BATTERY PRODUCT FEEDBACK FORM” (included in the container containing the new Generator Control and Battery Module) along with a copy of the repair order with any technician comments, inside the shipping container with the failed battery.
10. Secure shipping container to the shipping pallet with reusable straps.

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 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.
   Note: Do not return the battery in any container other than the container that the new/refurbished battery was delivered in.
3. Complete the required hazardous goods shipping paperwork (302C form).
4. 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).
5. Do NOT return batteries to the ESC in Canada.

Note: Failure to return the battery will result in the dealership being debited the entire warranty claim (parts and labor) as well as assessment of an Environmental Fee for the value of the failed pack. This environmental fee is substantial ($3,000) and will only be assessed if the battery is not returned.

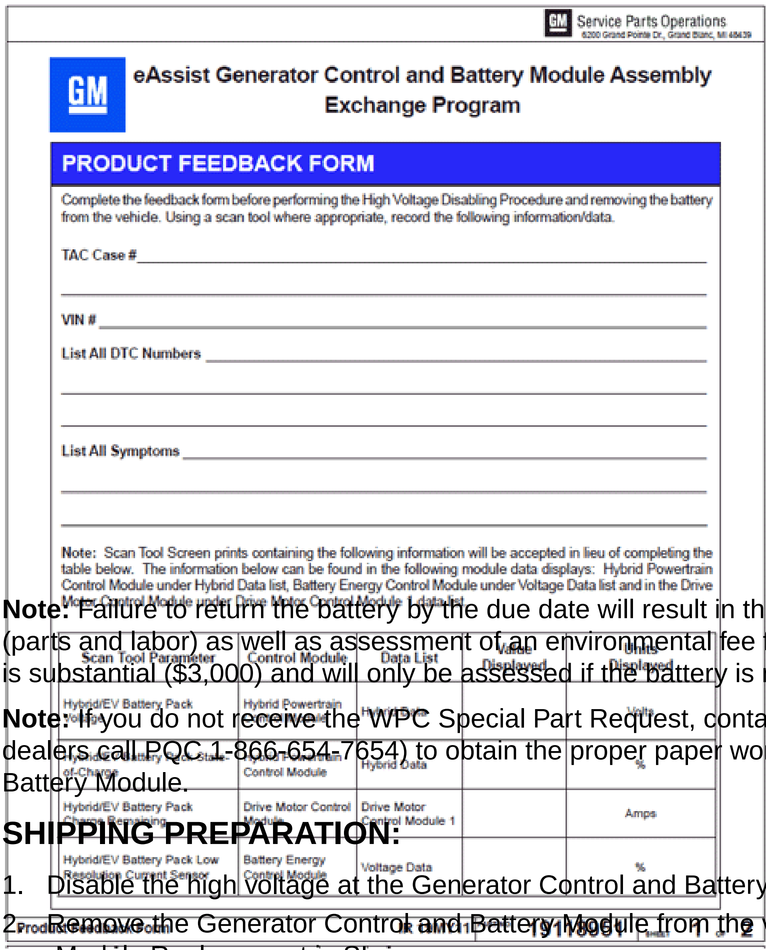
US ONLY – Parts Return Request (WPC) - A Special Parts Return Request will be faxed to you with proper shipping instructions. Do NOT wait for the warranty claim to be paid before returning the failed used battery.

Please follow WPC guidelines below:

1. Do NOT send a Generator Control and Battery Module back without a Special Parts Return Request.
2. Do NOT send the Generator Control and Battery Module back to the ESC.
3. Do NOT return the Generator Control and Battery Module 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. Dealers need to place a new envelope inside the battery with completed

"BATTERY PRODUCT FEEDBACK FORM" including the TAC Case #, along with a copy of the Job Card (RO) including the technician's comments, DTCs, and diagnostics. It is recommended that this be taped to the Generator Control and Battery Module inside the shipping container. Failure to place this information both outside and inside the Generator Control and Battery Module shipping container may delay the processing of your return. Do not ship a Generator Control and Battery Module back without an official WPC Request.



GM Service Parts Operations
6200 Grand Pointe Dr., Grand Blanc, MI 48439

GM **eAssist Generator Control and Battery Module Assembly Exchange Program**

PRODUCT FEEDBACK FORM

Complete the feedback form before performing the High Voltage Disabling Procedure and removing the battery from the vehicle. Using a scan tool where appropriate, record the following information/data.

TAC Case # ______________________________

VIN # ______________________________

List All DTC Numbers ______________________________

List All Symptoms ______________________________

Note: Scan Tool Screen prints containing the following information will be accepted in lieu of completing the table below. The information below can be found in the following module data displays: Hybrid Powertrain Control Module under Hybrid Data list, Battery Energy Control Module under Voltage Data list and in the Drive Motor Control Module under Drive Motor Control Module 1 data list.

Scan Tool Parameter	Control Module	Data List	Value Displayed	Units Displayed
Hybrid/EV Battery Pack Voltage	Hybrid Powertrain Control Module	Hybrid Data		Volts
Hybrid/EV Battery Pack State-of-Charge	Hybrid Powertrain Control Module	Hybrid Data		%
Hybrid/EV Battery Pack Charge Remaining	Drive Motor Control Module	Drive Motor Control Module 1		Amps
Hybrid/EV Battery Pack Low Resolution Current Sensor	Battery Energy Control Module	Voltage Data		%

Product Feedback Form … 1 of 2

Note: Failure to return the battery by the due date will result in the dealership being debited the entire warranty claim (parts and labor) as well as assessment of an environmental fee for the value of the failed pack. This environmental fee is substantial ($3,000) and will only be assessed if the battery is not returned in the WPC time frame.

Note: If you do not receive the WPC Special Part Request, contact Julie Cumo at 248-371-9939 (for French speaking dealers call PQC 1-866-654-7654) to obtain the proper paper work in order to return the failed Generator Control and Battery Module.

SHIPPING PREPARATION:

1. Disable the high voltage at the Generator Control and Battery Module. Refer to High Voltage Disabling.
2. Remove the Generator Control and Battery Module from the vehicle as outlined in Generator Control and Battery Module Replacement in SI.
3. Tighten any fasteners that were loosened or removed during Generator Control and Battery Module removal to the original torque specification.
4. Write the TAC case reference number on the Generator Control and Battery Module assembly 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. The Manual Service Disconnect (MSD) is properly retained in the open position with a zip tie.
8. Place the Generator Control and Battery Module into the plastic shipping bag and original shipping container and attach the completed return shipping tag to the Generator Control and Battery Module.

SHIPPING INSTRUCTIONS:

1. Place a copy of the Special Parts Return Request, repair order with technician comments, and the completed "BATTERY PRODUCT FEEDBACK FORM" 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.
2. Secure shipping container to the shipping pallet with reusable straps.

2688033

3. Label the outside of the shipping container with the Part Return request number and the TAC case reference number. Refer to the Corporate Bulletin Number 99-00-89-019 for detailed shipping information.
4. Contact UPS Freight 1-800-333-7400 for pick-up of removed battery. If lift gate service is necessary, please request it at the time of arranging pick-up service.
5. Have the driver sign the bill of lading. Retain a copy of the signed bill of lading and attach your copy to the original repair order. This will be your proof of returning the Drive Motor Battery.
6. Ship the Generator Control and Battery Module Third Party Prepaid Freight Collect with appropriate paperwork to:

GM Warranty Parts Center

45 Northpointe Drive

Orion, MI 48359

In the event the HV Battery needs to be recycled, refer to the webpage "General Motors Recycle My Battery" http://recyclemybattery.com/ for the latest information.

PARTS INFORMATION:

No Part Number should be entered for exchange components. Applicable miscellaneous items 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.

Warranty Information

For vehicles repaired under warranty use:

Labor Code	Description	Labor Time	Part Allowance
N5866	Generator Control and Battery Module Replacement (Powerpack)	Use Published Labor Operation Time	$250
N5824	Generator Battery Section Replacement	Use Published Labor Operation Time	N/A
Add	Administrative Allowance	.2 Hours	N/A
Add	Road Test - GDS2 Session Log	.3 Hours	N/A

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.

Subject: BAS+ (HYBRID) eAssist Generator Control And Battery Module Or Battery Section Exchange Process And Order Instructions

Models: 2012 -2013 BUICK LACROSSE, REGAL
2013 Chevrolet Malibu ECO
All equipped with eAssist (RPO HP6)

This PI was superseded to update recommended parts information. Please discard PIC5520G.

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 June 13, 2011 the Generator Control and Battery Module, for the 2012 -2013 Buick LaCrosse, Buick Regal and 2013 Chevrolet Malibu ECO with eAssist are being placed on restriction through the General Motors Technical Assistance Center (TAC). After obtaining a case number and authorization through TAC, it will be necessary for the Dealer to call their local Electronic Service Center (ESC) to order the Generator Control and Battery Module (Powerpack) or the Generator Battery Sections 1 and 2.

PARTS INFORMATION

Year	Make	Model	Part Description	Part Number
2012	Buick	LaCrosse, Regal	Generator Control and Battery Module Replacement (Powerpack)	23102218 (supersedes 24259770)
2013	Buick	LaCrosse, Regal	Generator Control and Battery Module Replacement (Powerpack)	23102217 (supersedes 22948845)
2013	Chevrolet	Malibu Eco	Generator Control and Battery Module Replacement (Powerpack)	23102218 (supersedes 24259770)
All			Generator Battery Sections 1 and 2	20813602

This P/I will explain the Generator Control and Battery Module or the Generator Battery Section Exchange Program for the eAssist Buick LaCrosse, Buick Regal and Chevrolet Malibu ECO. It is expected that this exchange program will remain in effect for a minimum of 12 months. Product teams continually seek valuable information for engineering improvements. This exchange program is also designed to gain important feedback on this new high voltage Generator Control and Battery Module assembly including service diagnostics, repair procedures, and accelerated root cause analysis for continuous improvements.

Note: Please review all of the information provided below prior to contacting the Technical Assistance Center (TAC) @ 877-446-8227 (U.S.) or in Canada 1-800-263-7740 (English) or 1-800-263-7960 (French) to review case details.

Note: Out-of-warranty/Customer Pay replacements or exchanges should be handled between the Dealer and their local ESC. The dealer should advise the ESC that this is a customer pay job and is not covered under warranty.

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 of 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 Generator Control and Battery Module, the servicing eAssist technician must provide TAC with a detailed customer complaint, conditions, diagnostic trouble codes (DTCs), 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 energized 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 stored data, view vehicle wide DTCs. If possible, test drive vehicle with GDS2 and MDI connected to capture data from the Hybrid Powertrain Control Module (HPCM) 14V Power Module and Battery Energy Control Module (BECM) 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.

   REMINDER: DO NOT clear codes or attempt SPS programming prior to capturing data and calling TAC.
2. If DTCs are not present, refer to Hybrid/EV Controls - Symptoms - Hybrid Controls (Doc ID: 2596135) in SI.
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 will provide instructions for ordering an exchange battery assembly unit to your dealership if necessary.
5. Disable the high voltage system. Refer to High Voltage Disabling (Doc ID 2595458).
6. Remove the Generator Control and Battery Module Assembly. Refer to Generator Control and Battery Module Replacement and Shipping Preparation (Doc ID 2667688).
7. 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 generator control and battery module serial number
8. The generator control and battery module serial number tag that is located on the side of the assembly cover. Locate the tag and record the 16 digit identification number.

   The assembly ID number starts with a "20T" indicator (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 GDS.

   Access the Battery Energy Control Module and look under the identification information section and the sixteen digit number 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 ordering a battery.

9. Install the Generator Control and Battery Module Assembly. Refer to Generator Control and Battery Module Replacement and Shipping Preparation (Doc ID 2667688).
10. Charge pack to at least 30% SOC by driving or idling the vehicle.

Note: The HVIL switch/ HV access cover should remain with the vehicle and not be returned with the battery assembly. The MSD switch on the power pack should be zip tied in the open position and the high voltage 3 phase cable connections and 12V cable connection should be covered with UL® listed, or equivalent, insulation tape rated at a minimum of 600V for return shipping.

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 Generator Control and Battery Module flat.
2. Store the Generator Control and Battery Module in an environmentally protected area.
3. Maintain the Generator Control and Battery Module at room temperature.
4. Protect the Generator Control and Battery Module from exposure to liquids.
5. Protect the Generator Control and Battery Module from physical damage.
6. Store the Generator Control and Battery Module in a limited-access area.

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 at the generator control and battery module. Refer to High Voltage Disabling
2. Remove the Generator Control and Battery Module from the vehicle as outlined in Generator Control and Battery Module Replacement in SI.
3. Tighten any fasteners that were loosened or removed during Generator Control and Battery Module removal to the original torque specification.
4. Write the TAC case reference number on the generator control and battery module assembly 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. The Manual Service Disconnect (MSD) is properly retained in the open position with a zip tie.

8. Place the generator control and battery module into the plastic shipping bag and original shipping container.
9. Place the completed “BATTERY PRODUCT FEEDBACK FORM” (included in the container containing the new Generator Control and Battery Module) along with a copy of the repair order with any technician comments, inside the shipping container with the failed battery.
10. Secure shipping container to the shipping pallet with reusable straps.

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 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.
   Note: Do not return the battery in any container other than the container that the new/refurbished battery was delivered in.
3. Complete the required hazardous goods shipping paperwork (302C form).
4. 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)
5. Do NOT return batteries to the ESC in Canada.

Note: Failure to return the battery will result in the dealership being debited the entire warranty claim (parts and labor) as well as assessment of an Environmental Fee for the value of the failed pack. This environmental fee is substantial ($3,000) and will only be assessed if the battery is not returned.

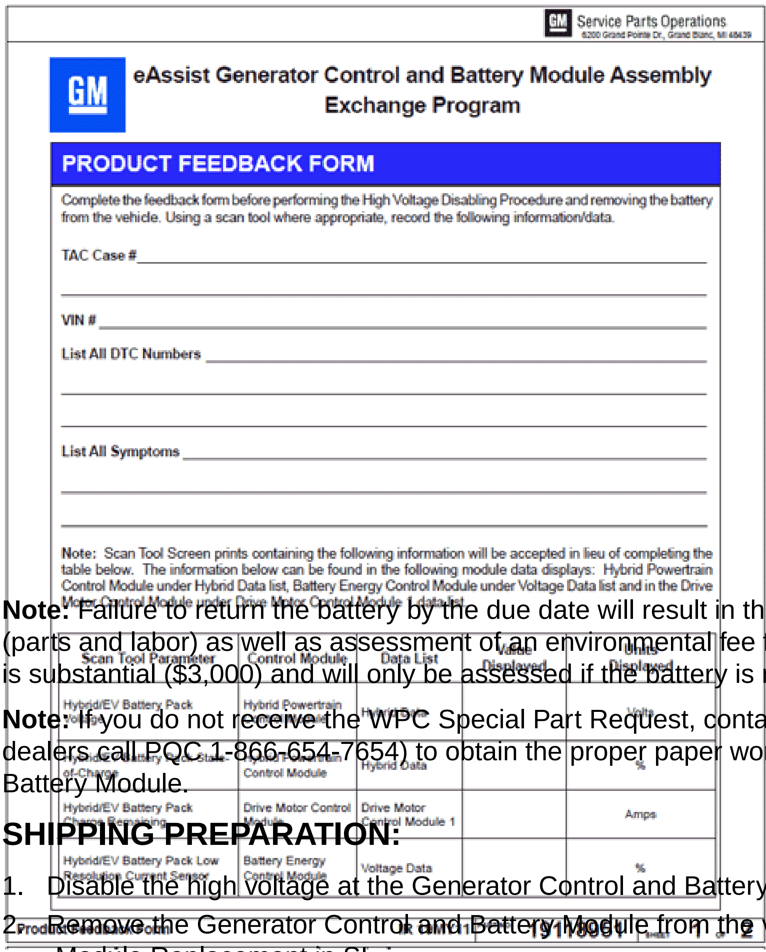
US ONLY – Parts Return Request (WPC) - A Special Parts Return Request will be faxed to you with proper shipping instructions. Do NOT wait for the warranty claim to be paid before returning the failed used battery.

Please follow WPC guidelines below:

1. Do NOT send a Generator Control and Battery Module back without a Special Parts Return Request.
2. Do NOT send the Generator Control and Battery Module back to the ESC.
3. Do NOT return the Generator Control and Battery Module 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. Dealers need to place a new envelope inside the battery with completed

"BATTERY PRODUCT FEEDBACK FORM" including the TAC Case #, along with a copy of the Job Card (RO) including the technician's comments, DTC's, and diagnostics. It is recommended that this be taped to the Generator Control and Battery Module inside the shipping container. Failure to place this information both outside and inside the Generator Control and Battery Module shipping container may delay the processing of your return. Do not ship a Generator Control and Battery Module back without an official WPC Request.


Service Parts Operations
6200 Grand Pointe Dr., Grand Blanc, MI 48439

eAssist Generator Control and Battery Module Assembly Exchange Program

PRODUCT FEEDBACK FORM

Complete the feedback form before performing the High Voltage Disabling Procedure and removing the battery from the vehicle. Using a scan tool where appropriate, record the following information/data.

TAC Case # ____

VIN # ____

List All DTC Numbers ____

List All Symptoms ____

Scan Tool Parameter	Control Module	Data List	Value Displayed	Units Displayed
Hybrid/EV Battery Pack Voltage	Hybrid Powertrain Control Module	Hybrid Data		Volts
Hybrid/EV Battery Pack State-of-Charge	Hybrid Powertrain Control Module	Hybrid Data		%
Hybrid/EV Battery Pack Charge Remaining	Drive Motor Control Module	Drive Motor Control Module 1		Amps
Hybrid/EV Battery Pack Low Resolution Current Sensor	Battery Energy Control Module	Voltage Data		%

Note: Failure to return the battery by the due date will result in the dealership being debited the entire warranty claim (parts and labor) as well as assessment of an environmental fee for the value of the failed pack. This environmental fee is substantial ($3,000) and will only be assessed if the battery is not returned in the WPC time frame.

Note: If you do not receive the WPC Special Part Request, contact Julie Cumo at 248-371-9939 (for French speaking dealers call PQC 1-866-654-7654) to obtain the proper paper work in order to return the failed Generator Control and Battery Module.

SHIPPING PREPARATION:

1. Disable the high voltage at the Generator Control and Battery Module. Refer to High Voltage Disabling
2. Remove the Generator Control and Battery Module from the vehicle as outlined in Generator Control and Battery Module Replacement in SI.
3. Tighten any fasteners that were loosened or removed during Generator Control and Battery Module removal to the original torque specification.
4. Write the TAC case reference number on the Generator Control and Battery Module assembly 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. The Manual Service Disconnect (MSD) is properly retained in the open position with a zip tie.
8. Place the Generator Control and Battery Module into the plastic shipping bag and original shipping container and attach the completed return shipping tag to the Generator Control and Battery Module.

SHIPPING INSTRUCTIONS:

1. Place a copy of the Special Parts Return Request, repair order with technician comments, and the completed "BATTERY PRODUCT FEEDBACK FORM" 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.
2. Secure shipping container to the shipping pallet with reusable straps.

2688033

3. Label the outside of the shipping container with the Part Return request number and the TAC case reference number. Refer to the Corporate Bulletin Number 99-00-89-019 for detailed shipping information.
4. Contact UPS Freight 1-800-333-7400 for pick-up of removed battery. If lift gate service is necessary, please request it at the time of arranging pick-up service.
5. Have the driver sign the bill of lading. Retain a copy of the signed bill of lading and attach your copy to the original repair order. This will be your proof of returning the Drive Motor Battery.
6. Ship the Generator Control and Battery Module Third Party Prepaid Freight Collect with appropriate paperwork to:

GM Warranty Parts Center

45 Northpointe Drive

Orion, MI 48359

In the event the HV Battery needs to be recycled, refer to the web page "General Motors Recycle My Battery" http://recyclemybattery.com/for the latest information.

Parts Information

No Part Number should be entered for exchange components. Applicable miscellaneous items 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.

Warranty Information

For vehicles repaired under warranty use:

Labor Code	Description	Labor Time	Part Allowance
5031400	Generator Control and Battery Module Replacement (Powerpack)	Use Published Labor Operation Time	$250
5031050	Generator Battery Section Replacement	Use Published Labor Operation Time	$150
Add	Administrative Allowance	.2 Hours	N/A
Add	Road Test - GDS2 Session Log	.3 Hours	N/A

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.

RQ13-003

GM

9-9-2013

ATTACHMENT 1

Q 08

Re: BPIM's - campaigns 13142 and 13136

Cindy Hassien to: Kristin L Curran 07/30/2013 05:02 PM

Cc: Bruce A. English, Christine M. Witt, Dale W. Hall, Gary Smits, Greg Hall, Nancy McLean, Patricia Hidock, Ray Romeo

History: This message has been replied to.

There were 2 reasons for the PQC restriction: one was to prevent dealer hoarding considering the different between price and acquisition cost. The other (more important) was to protect stock for customers, especially the low mileage vehicles that were most likely to experience a failure.

Based upon data Ryan gave us it appears that 40% plus of the vehicles in the low mileage bucket are done. The actual completion may be closer to 50% if claims are lagging or if dealers are holding off putting in claims for their stock vehicles. We've done what we can to ensure stock is available for these customers. I'm very pleased with that outcome.

Also, when we started this campaign we had enough stock that when the PQC took the call and sent the request to SPAC the dealer order was placed the same day. Earlier this month GMCH fell behind and we ran out of stock. This caused dealer orders to be held in queue waiting for stock. Dealers don't have visibility to the backlog. We started to get caught up and the number of orders being held was going down so I was comfortable we could get out in front of demand again. Because of the quality issue I am now sending all of my stock back. The order queue has been growing every day which means more and more dealers have put in a request and have no idea what's happening with their order.

Finally, we are hitting the dealers with the Special Return request as well as the instructions to look for specific serial numbers. It's all too much. We still run the risk that someone may buy a BPIM to sell outside our dealer network but the risk does not outweigh making it easier for the dealers.

That's my rationale. Hopefully you all agree.

Cindy Hassien
Manager - Parts Alerts and Business Process Support
GM Customer Care and Aftersales WHQ - Grand Blanc
Cell: (810) 577-9363

Kristin L Curran Hi Cindy, Thanks for the update. What's the re... 07/30/2013 02:48:09 PM

From: Kristin L Curran/US/GM/GMC
To: Cindy Hassien/US/GM/GMC@GM
Cc: Bruce A. English/US/GM/GMC@GM, Christine M. Witt/US/GM/GMC@GM, Dale W. Hall/US/GM/GMC@GM, Gary Smits/US/GM/GMC@GM, Greg Hall/US/GM/GMC@GM, Nancy McLean/US/GM/GMC@GM, Patricia Hidock/US/GM/GMC@GM, Ray Romeo/US/GM/GMC@GM
Date: 07/30/2013 02:48 PM
Subject: Re: BPIM's - campaigns 13142 and 13136

Hi Cindy,

Thanks for the update. What's the reasoning for removing the restriction now?

Thanks,

Kristin L. Curran | ***Brand Quality Manager, Advanced Propulsion***
General Motors Company
30501 Van Dyke, Warren, MI 48090

Cell 586.206.0611 **Email** kristin.curran@gm.com

Cindy Hassien	I am proposing we remove the PQC Restriction...	07/30/2013 12:52:38 PM

From: Cindy Hassien/US/GM/GMC
To: Nancy McLean/US/GM/GMC@GM, Gary Smits/US/GM/GMC@GM, Greg Hall/US/GM/GMC@GM
Cc: Ray Romeo/US/GM/GMC@GM, Bruce A. English/US/GM/GMC@GM, Christine M. Witt/US/GM/GMC@GM, Patricia Hidock/US/GM/GMC@GM, Dale W. Hall/US/GM/GMC@GM, Kristin L Curran/US/GM/GMC@GM
Date: 07/30/2013 12:52 PM
Subject: BPIM's - campaigns 13142 and 13136

I am proposing we remove the PQC Restriction and send a bulletin to Parts Managers and Service Managers containing the following verbiage.

The following parts are subject to an immediate quarantine. We have been notified by the supplier that a potential defect may be present in some of the inventory received by CCA.

- 24269448
- 24266403

The suspect modules can be identified by the serial number on the unit. Any serial number that contains a Julian date of 171 through 199 is suspect. Refer to the attached illustration.

[attachment "Suspect Serial Numbers.ppt" deleted by Kristin L Curran/US/GM/GMC]

Please return all suspect units to GMCH per the instructions in the Special Return Bulletin.

Also, effective 7/31 the PQC restriction is being removed on these parts.

Due to the potential quality defect, we are currently experiencing a part shortage; however, you may place an order via the normal ordering process. Removal of the restriction will eliminate the need to call the PQC and will allow you to see the status of the orders you place.

We will also issue a Special Return Bulletin with the same instructions that would go to the Parts Managers only.

Jim Roe confirmed the DBC finished calling all dealers. I'm waiting for feedback from him; he was

supposed to send it this am.

Cindy Hassien
Manager - Parts Alerts and Business Process Support
GM Customer Care and Aftersales WHQ - Grand Blanc
Cell: (810) 577-9363

Subject: PIP4920 BAS+ (HYBRID) eASSIST TAC PARTS RESTRICTION

Models: 2012 BUICK LACROSSE eAssist
2012 BUICK REGAL eAssist
All with RPO HP6

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 June 24th, 2011 the following parts are being placed on restriction through the GM Technical Assistance Center (TAC).

Recommendation/Instructions:

Drive Belt Tensioner - PN 12633829 -Tensioner Replacement: SI Document. ID 2358629 and Belt

Replacement: SI Document. ID 2083286 - Labor Code J0680

Auxiliary Transmission Fluid Pump - PN 24241057 - Pump Removal SI Document ID 2552827 and Installation Document ID 2552847

Starter Generator (MGU) - PN 24261691 - MGU Replacement SI Document ID 2543171

Battery Powerpack - PN 24259770 -

If diagnosing a vehicle for a customer concern leads to the replacement of any of the components listed above, please contact TAC at Telephone Number US 1-877-446-8227 (Action Center prompt or Hybrid prompt) Canada 1-800-263-7740 for English or 1-800-263-7960 for French

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.

Subject: BAS+ (HYBRID) eASSIST TAC PARTS RESTRICTION

Models: 2012 BUICK LACROSSE eAssist
2012 BUICK REGAL eAssist
All with RPO HP6

This PI was superseded to update recommended field. Please discard PIP4920.

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 June 24th, 2011 the following parts are being placed on restriction through the GM Technical Assistance Center (TAC).

Recommendation/Instructions:

PART NAME	PART NUMBER	SERVICE INFORMATION DOCUMENT ID	LABO COD
Generator and A/C Compressor Belt	12646670	Generator and A/C Compressor Belt ID 2083286	J065
Drive Belt Tensioner	12633829	Drive Belt Tensioner Replacement ID 2358629	J068
Auxiliary Transmission Fluid Pump	24241057	Auxiliary Transmission FluidPump Replacement (Hybrid) ID 2580949	K654
Starter Generator (MGU)	24261691	Starter Generator Replacement ID 2543171	N587
Generator Control and Battery Module	24259770	Generator Control and Battery Module Replacement and Shipping Preparation ID 2667688	N586

If diagnosing a vehicle for a customer concern leads to the replacement of any of the components listed This PI was superseded to update recommended field. Please discard PIP4920. above, please contact TAC at Telephone Number US 1-877-446-8227 (Action Center prompt or Hybrid prompt) Canada 1-800-263-7740 for English or 1-800-263-7960 for French

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.

Subject: BAS+ (HYBRID) eASSIST TAC PARTS RESTRICTION

Models: 2012 BUICK LACROSSE eAssist
2012 BUICK REGAL eAssist
All with RPO HP6

This PI was superseded to update recommended field with ordering information. Please discard PIP4920A.

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 June 24th, 2011, the following parts are being placed on restriction through the GM Technical Assistance Center (TAC) with the exception of the Starter Generator (MGU) which will be ordered through the Product Quality Center (PQC). When ordering the MGU, contact the Product Quality Center (PQC) at 1-866-654-7654.

Recommendation/Instructions:

PART NAME	PART NUMBER	SERVICE INFORMATION	DOCUMENT ID	LABOR CODE
Generator and A/C Compressor Belt	12646670	Generator and A/C Compressor Belt	ID 2083286	J0658
Drive Belt Tensioner	12633829	Drive Belt Tensioner Replacement	ID 2358629	J0680
Auxiliary Transmission Fluid Pump	24241057	Auxiliary Transmission Fluid Pump Replacement (Hybrid)	ID 2580949	K6544
Starter Generator (MGU)	24261691	Starter Generator Replacement	ID 2543171	N5873
Generator Control and Battery Module	24259770	Generator Control and Battery Module Replacement and Shipping Preparation	ID 2667688	N5866

If diagnosing a vehicle for a customer concern leads to the replacement of any of the components listed above other than the MGU, please contact TAC at Telephone Number US 1-877-446-8227 (Action Center prompt or Hybrid prompt) Canada 1-800-263-7740 for English or 1-800-263-7960 for French. If further diagnosis is required after contacting the PQC for an MGU, PQC will transfer the caller back to TAC for further assistance.

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.

Subject: BAS+ (HYBRID) eASSIST TAC Parts Restriction

Models: 2012 BUICK LACROSSE eAssist
2012 BUICK REGAL eAssist
All with RPO HP6

This PI was superseded to update recommended field and ordering instructions. Please discard PIP4920B.

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 June 24th, 2011 the following parts are being placed on restriction through the GM Technical Assistance Center (TAC) with the exception of the Starter Generator (MGU) which will be ordered through the Product Quality Center (PQC). When ordering the MGU, contact the PQC at 1-866-654-7654.

If a Generator Battery Control Module is needed, the dealer must call TAC to have the order authorized first and then call their local Electronic Service Center (ESC) to place the order. Please refer to the latest version of PIP5520C.

Recommendation/Instructions:

PART NAME	NUMBER	SERVICE INFORMATION	DOC ID	LABOR CODE
Generator and A/C Compressor Belt	12646670	Generator and A/C Compressor Belt	2083286	J0658
Drive Belt Tensioner	12633829	Drive Belt Tensioner Replacement	2358629	J0680
Auxiliary Transmission Fluid Pump	24241057	Auxiliary Transmission Fluid Pump Replacement (Hybrid)	2580949	K6544
Starter Generator (MGU)	24261691	Starter Generator Replacement	2543171	N5873
Generator Control and Battery Module (PowerPack)	24259770	PowerPack Replacement and Shipping Preparation Pack Ordering Information	2667688 2748016	N5866

If diagnosing a vehicle for a customer concern leads to the replacement of any of the components listed above other than the MGU, please contact TAC at Telephone Number US 1-877-446-8227 (Action Center prompt or Hybrid prompt) or Canada 1-800-263-7740 for English or 1-800-263-7960 for French. If further diagnosis is required after contacting the PQC for an MGU, PQC will transfer the Dealer back to TAC for further assistance.

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.

Subject: BAS+ (HYBRID) eAssist TAC Parts Restriction

Models: 2012 Buick Lacrosse eAssist
2012 Buick Regal eAssist
2013 Chevrolet Malibu ECO eAssist
All with RPO HP6 - Engine VIN Code R

This PI was superseded to update model and model years. Please discard PIP4920C.

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 June 24th, 2011, the following parts are being placed on restriction through the GM Technical Assistance Center (TAC) with the exception of the Starter Generator (MGU) which will be ordered through the Product Quality Center (PQC). When ordering the MGU, contact the PQC at 1-866-654-7654.

If a Generator Battery Control Module is needed, the dealer must call TAC to have the order authorized first and then call their local Electronic Service Center (ESC) to place the order. Please refer to the latest version of PIC5520.

Recommendation/Instructions:

PART NAME	NUMBER	SERVICE INFORMATION	DOC ID	LABOR CODE
Generator and A/C Compressor Belt	12646670	Generator and A/C Compressor Belt	2083286	J0658
Drive Belt Tensioner	12633829	Drive Belt Tensioner Replacement	2358629	J0680
Auxiliary Transmission Fluid Pump	24241057	Auxiliary Transmission Fluid Pump Replacement (Hybrid)	2580949	K6544
Starter Generator (MGU)	24261691	Starter Generator Replacement	2543171	N5873
Generator Control and Battery Module (PowerPack)	24259770	PowerPack Replacement and Shipping Preparation Pack Ordering Information	2667688 2748016	N5866

If diagnosing a vehicle for a customer concern leads to the replacement of any of the components listed above other than the MGU, please contact TAC at telephone number US 1-877-446-8227 (Action Center prompt or Hybrid prompt) or Canada 1-800-263-7740 for English or 1-800-263-7960 for French. If further diagnosis is required after contacting the PQC for an MGU, PQC will transfer the dealer back to TAC for further assistance.

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.

Subject: BAS+ (HYBRID) eAssist TAC Parts Restriction

Models: 2012 Buick Lacrosse eAssist
2012 Buick Regal eAssist
2013 Chevrolet Malibu Eco eAssist
All with RPO HP6 - Engine VIN Code R

This PI was superseded to update remove restriction. Please discard PIP4920D.

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, Drive Belt Part Number 12646670 has been removed from the GM Technical Assistance Center (TAC) parts restriction. The following Part Numbers 24241057 and 24259770 will remain on restriction through the GM Technical Assistance Center (TAC). As well the Starter Generator (MGU) will remain on restriction through the Product Quality Center (PQC). When ordering the MGU, contact the PQC at 1-866-654-7654.

If a Generator Battery Control Module is needed, the Dealer must call TAC to have the order authorized first and then call their local Electronic Service Center (ESC) to place the order. Please refer to the latest version of PIC5520.

Important: NOTE: If the vehicle build date is after December 15, 2011 and the voltage level dropped to a predetermined level (below approximately 9V), use GDS2 to command the Battery Pack Cooling Fan on to make sure it operates. If the Battery Pack Blower Fan is inoperative when making the command, replace the Battery Pack Cooling Fan. If the vehicle build date is on or before December 15, 2011 follow published G.S.I. Diagnostics.

PART NAME	NUMBER	SERVICE INFORMATION	DOC ID	LABOR CODE
Auxiliary Transmission Fluid Pump	24241057	Auxiliary Transmission Fluid Pump Replacement (Hybrid)	2580949	K6544
Starter Generator (MGU)	24261691	Starter Generator Replacement	2543171	N5873
Generator Control and Battery Module (PowerPack)	24259770	PowerPack Replacement and Shipping Preparation	2667688	N5866
Generator Control and Battery Module (PowerPack)	N/A	PowerPack Ordering Instructions and Feedback Form	2748016	N/A

If diagnosing a vehicle for a customer concern leads to the replacement of any of the components listed above other than the MGU, please contact TAC at Telephone Number US 1-877-446-8227 (Action Center prompt or Hybrid prompt) or Canada 1-800-263-7740 for English or 1-800-263-7960 for French. If further diagnosis is required after contacting the PQC for an MGU, PQC will transfer the Dealer back to TAC for further assistance.

Recommendation/Instructions:

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.

Subject: BAS+ (HYBRID) eAssist TAC Parts Restriction

Models: 2012 Buick Lacrosse eAssist
2012 Buick Regal eAssist
2013 Chevrolet Malibu Eco eAssist
All with RPO HP6 - Engine VIN Code R

This PI was superseded to update restricted part numbers and build dates. Please discard PIP4920E.

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, the following parts will remain on restriction through the GM Technical Assistance Center (TAC). The Starter Generator (MGU) will remain on restriction through the Product Quality Center (PQC). When ordering the MGU, contact the PQC at 1-866-654-7654. If a complete Generator Battery Control Module (Powerpack) is needed, the Dealer must call TAC to have the order authorized first and then call their local Electronic Service Center (ESC) to place the order. Please refer to the latest version of PIC5520.

Recommendation/Instructions:

Important: If the 12V system voltage has fallen below a predetermined level (approximately 9V), use GDS2 to command the Battery Pack Cooling Fan on to make sure it operates.

- If the Battery Pack Blower Fan is inoperative and the vehicle build date is on or between December 15, 2011 and April 23, 2012, replace the Battery Pack Cooling Fan.
- Check to ensure the Generator Control Module calibrations are current.
- If the vehicle build date is before December 15, 2011 or April 23, 2012 and later, follow published G.S.I. Diagnostics.

PART NAME	NUMBER	SERVICE INFORMATION	SI DOC ID	LABOR CODE
Battery Energy Control Module (BECM)	20969054	BECM Replacement	2599120	N5821
Auxiliary Transmission Fluid Pump	24241057	Auxiliary Transmission Fluid Pump Replacement (Hybrid)	2580949	K6544
Starter Generator (MGU)	24261691	Starter Generator Replacement	2543171	N5873
Generator Control and Battery Module (PowerPack)	24259770	PowerPack Replacement and Shipping Preparation	2667688	N5866
Generator Control and Battery Module (PowerPack)	N/A	PowerPack Ordering Instructions and Feedback Form	2748016	N/A

If diagnosing a vehicle for a customer concern leads to the replacement of any of the components listed above other than the MGU, please contact TAC at Telephone Number US 1-877-446-8227 (Action Center prompt or Hybrid prompt) or Canada 1-800-263-7740 for English or 1-800-263-7960 for French. If further diagnosis is required after contacting the PQC for an MGU, PQC will transfer the Dealer back to TAC for further assistance.

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.

Subject: BAS+ (HYBRID) eAssist TAC Parts Restriction

Models: 2012 Buick LaCrosse, Regal
2013 Chevrolet Malibu ECO
All equipped with eAssist (RPO HP6)

This PI was superseded to add the GCM P/N 12635717 to the restriction list. Please discard PIP4920F.

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, the following components will remain on restriction through the GM Technical Assistance Center (TAC).

- The Starter Generator (MGU) will remain on restriction through the Product Quality Center (PQC). When ordering the MGU, contact the PQC at 1-866-654-7654. If further diagnosis is required after contacting the PQC for an MGU, PQC will transfer the Dealer back to TAC for further assistance.
- If a complete Generator Battery Control Module (Powerpack) is needed, the Dealer must call TAC to have the order authorized first and then call their local Electronic Service Center (ESC) to place the order. Please refer to the latest version of PIC5520.

Recommendation/Instructions:

Important: If the 12V system voltage has fallen below a predetermined level (approximately 9V), use GDS2 to command the Battery Pack Cooling Fan on to make sure it operates.

- If the Battery Pack Blower Fan is inoperative and the vehicle build date is on or between December 15, 2011 and April 23, 2012, replace the Battery Pack Cooling Fan.
- Check to ensure the Generator Control Module calibrations are current.
- If the vehicle build date is before December 15, 2011 or April 23, 2012 and later, follow published G.S.I. Diagnostics.

PART NAME	NUMBER	SERVICE INFORMATION	SI DOC ID	LABOR CODE
Battery Energy Control Module (BECM)	20969054	BECM Replacement	2599120	N5821
Generator Control Module (GCM)	12635717	Generator Control Module Replacement	2602390	N5875
Auxiliary Transmission Fluid Pump	24241057	Auxiliary Transmission Fluid Pump Replacement (Hybrid)	2580949	K6544
Starter Generator (MGU)	24261691	Starter Generator Replacement	2543171	N5873
Generator Control and Battery Module (PowerPack)	24259770	PowerPack Replacement and Shipping Preparation	2667688	N5866
Generator Control and Battery Module (PowerPack)	N/A	PowerPack Ordering Instructions and Feedback Form	2748016	N/A

If diagnostics lead to the replacement of any of the components listed above other than the MGU, please contact TAC at Telephone Number US 1-877-446-8227 (Action Center prompt or Hybrid prompt) or Canada 1-800-263-7740 for English or 1-800-263-7960 for French.

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.

Subject: BAS+ (HYBRID) eAssist TAC Parts Restriction

Models: 2012-2013 Buick LaCrosse, Regal
2013 Chevrolet Malibu ECO
All equipped with eAssist (RPO HP6)

This PI was superseded to update model years and add to the restriction list. Please discard PIP4920G.

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, the following components will remain on restriction through the GM Technical Assistance Center (TAC).

- The Starter Generator (MGU) will remain on restriction through the Product Quality Center (PQC). When ordering the MGU, contact the PQC at 1-866-654-7654. If further diagnosis is required after contacting the PQC for an MGU, PQC will transfer the Dealer back to TAC for further assistance.
- If a complete Generator Battery Control Module (Powerpack) is needed, the Dealer must call TAC to have the order authorized first and then call their local Electronic Service Center (ESC) to place the order. Please refer to the latest version of PIC5520.

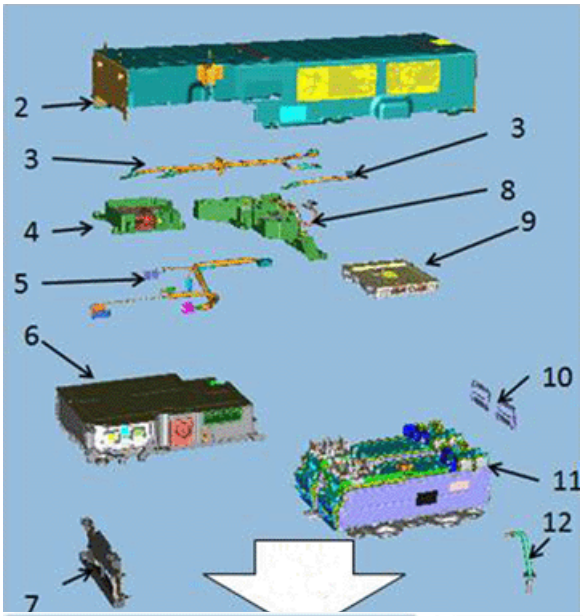
Recommendation/Instructions:

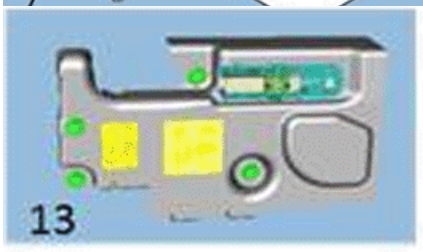
Important: If the 12V system voltage has fallen below a predetermined level (approximately 9V), use GDS2 to command the Battery Pack Cooling Fan on to make sure it operates.

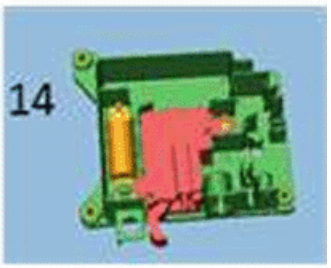
- If the Battery Pack Blower Fan is inoperative and the vehicle build date is on or between December 15, 2011 and April 23, 2012, replace the Battery Pack Cooling Fan.
- Check to ensure the Generator Control Module SPS calibrations are current.
- If the vehicle build date is before December 15, 2011 or April 23, 2012 and later, follow published G.S.I. Diagnostics.

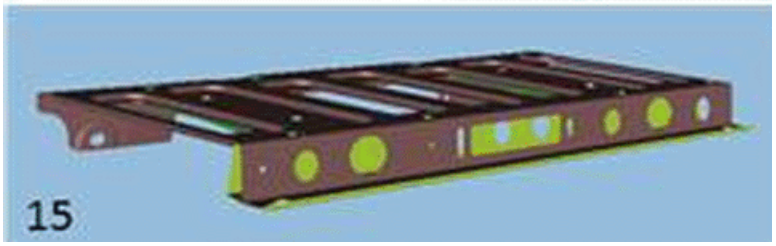
PART NAME	NUMBER	SERVICE INFORMATION	SI DOC ID	LABOR CODE	FIGURE
Battery Energy Control Module (BECM)	20969054	BECM Replacement	2599120	N5821	9
2012 Buick LaCrosse, Regal / 2013 Chevrolet Malibu Eco Generator Control Module (GCM)	12635717	Generator Control Module Replacement	2602390	N5875	6
2013 Buick LaCrosse, Regal Generator Control Module (GCM)	12650851	Generator Control Module Replacement	2602390	N5875	6
Auxiliary Transmission Fluid Pump	24241057	Auxiliary Transmission Fluid Pump Replacement (Hybrid)	2580949	K6544	N/A
Starter Generator (MGU)	24261691	Starter Generator Replacement	2543171	N5873	N/A
Generator Battery Control Wiring Junction Block (Includes Fuse 25846011)	20910412	Battery Energy Control Module Wiring Junction Block Replacement	2652250	N5838	4
Generator Battery Disconnect Relay (Includes Contactor Relay and Pre-Charge Resistor)	20910413	Drive Motor Battery Wire Junction Block Relay Replacement	2652258	N5781	8
Battery Energy Contol Module (BECM) Wiring Harness	24246371	BECM Wiring Harness Replacement (BDU,BECM and BPIM)	2631017	N5840	5

PART NAME	NUMBER	SERVICE INFORMATION	SI DOC ID	LABOR CODE	FIGURE
Battery Disconnect Switch Wiring Harness (LH HV Measurement Harness 1)	20917530	BECM Wiring Harness Replacement (HV Measuring Harness 1 and 2)	2603041	Use N5824	11
Battery Disconnect Switch Wiring Harness (RH HV Measurement Harness 2)	20917531	BECM Wiring Harness Replacement (HV Measuring Harness 1 and 2)	2603041	Use N5824	11
Generator Battery	20813602	Generator Battery Replacement	2604097	N5824	11
2012 Buick LaCrosse, Regal 2013 Chevrolet Malibu Eco Generator Control and Battery Module (PowerPack)	24259770	PowerPack Replacement and Shipping Preparation	2667688	N5866	1
2013 Buick LaCrosse, Regal Generator Control and Battery Module (PowerPack)	22948845	PowerPack Replacement and Shipping Preparation	2667688	N5866	1
Generator Control and Battery Module (PowerPack) Use latest version of PIC5520	N/A	PowerPack Ordering Instructions and Feedback Form	2748016	N/A	N/A









If diagnostics lead to the replacement of any of the components listed above other than the MGU, please contact TAC at Telephone Number US 1-877-446-8227 (Action Center prompt or Hybrid prompt) or Canada 1-800-263-7740 for English or 1-800-263-7960 for French.

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.

Subject: PIP4920J BAS+ (HYBRID) eAssist TAC Parts Restriction

Models: 2012-2013 Buick LaCrosse, Regal
2013 Chevrolet Malibu ECO
All equipped with eAssist (RPO HP6)

This PI was superseded to update part numbers. Please discard PIP4920H.

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

Condition/Concern

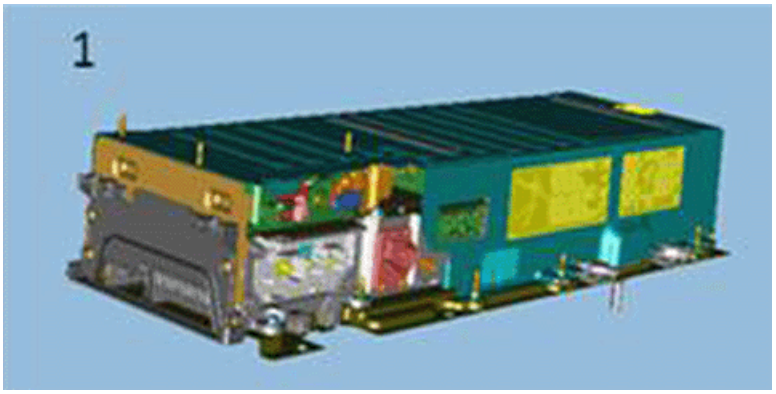
As part of our ongoing quality improvement process, the following components will remain on restriction through the GM Technical Assistance Center (TAC).

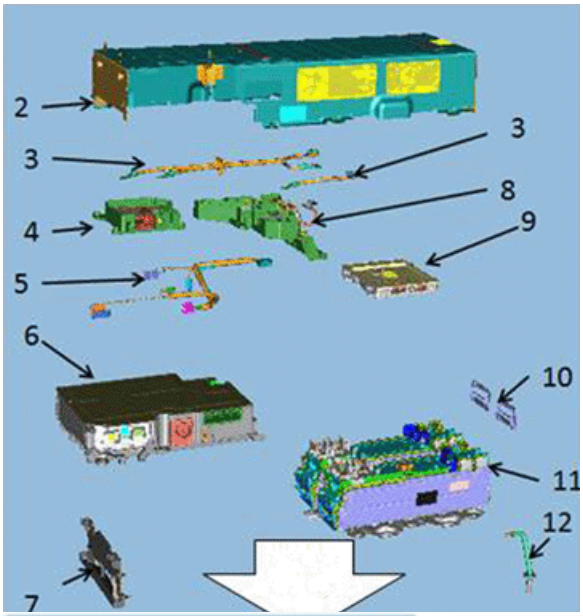
- The Starter Generator (MGU) will remain on restriction through the Product Quality Center (PQC). When ordering the MGU, contact the PQC at 1-866-654-7654. If further diagnosis is required after contacting the PQC for an MGU, PQC will transfer the Dealer back to TAC for further assistance.
- If a complete Generator Battery Control Module (Powerpack) is needed, the Dealer must call TAC to have the order authorized first and then call their local Electronic Service Center (ESC) to place the order. Please refer to the latest version of PIC5520.

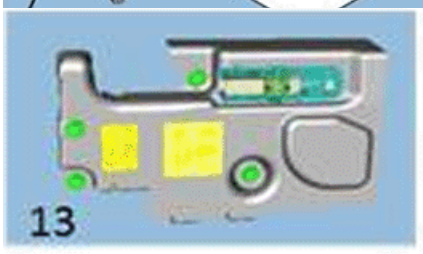
Recommendation/Instructions

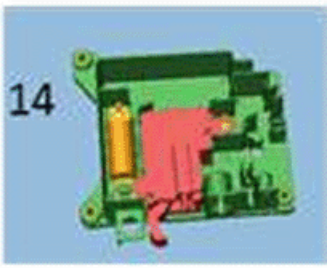
Important: If the 12V system voltage has fallen below a predetermined level (approximately 9V), use GDS2 to command the Battery Pack Cooling Fan on to make sure it operates.

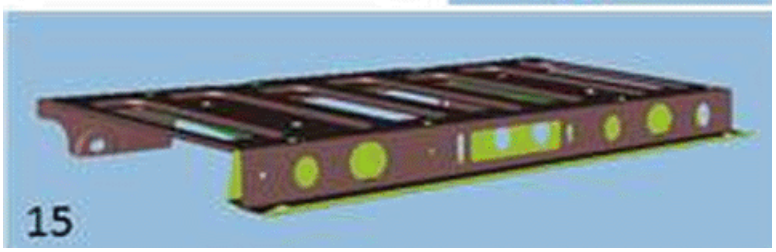
- If the Battery Pack Blower Fan is inoperative and the vehicle build date is on or between December 15, 2011 and April 23, 2012, replace the Battery Pack Cooling Fan.
- Check to ensure the Generator Control Module SPS calibrations are current.
- If the vehicle build date is before December 15, 2011 or April 23, 2012 and later, follow published G.S.I. Diagnostics.











PART NAME	NUMBER	SERVICE INFORMATION	SI DOC ID	LABOR CODE	FIGURE
Battery Energy Control Module (BECM)	20969054	BECM Replacement	2599120	N5821	9
2012 Buick LaCrosse, Regal / 2013 Chevrolet Malibu Eco Generator Control Module (GCM)	24267940 supersedes 12635717	Generator Control Module Replacement	2602390	N5875	6
2013 Buick LaCrosse, Regal Generator Control Module (GCM)	24267941 supersedes 12650851	Generator Control Module Replacement	2602390	N5875	6
Auxiliary Transmission Fluid Pump	24241057	Auxiliary Transmission Fluid Pump Replacement (Hybrid)	2580949	K6544	N/A
Starter Generator (MGU)	24261691	Starter Generator Replacement	2543171	N5873	N/A
Generator Battery Control Wiring Junction Block (Includes Fuse 25846011)	20910412	Battery Energy Control Module Wiring Junction Block Replacement	2652250	N5838	4

PART NAME	NUMBER	SERVICE INFORMATION	SI DOC ID	LABOR CODE	FIGURE
Generator Battery Disconnect Relay (Includes Contactor Relay and Pre-Charge Resistor)	20910413	Drive Motor Battery Wire Junction Block Relay Replacement	2652258	N5781	8
Battery Energy Contol Module (BECM) Wiring Harness	24246371	Battery Energy Control Module Wiring Harness Replacement (BDU,BECM and BPIM)	2631017	N5840	5
Battery Disconnect Switch Wiring Harness (LH HV Measurement Harness 1)	20917530	Battery Energy Control Module Wiring Harness Replacement (HV Measuring Harness 1 and 2)	2603041	Use N5824	11
Battery Disconnect Switch Wiring Harness (RH HV Measurement Harness 2)	20917531	Battery Energy Control Module Wiring Harness Replacement (HV Measuring Harness 1 and 2)	2603041	Use N5824	11
Generator Battery	20813602	Generator Battery Replacement	2604097	N5824	11
2012 Buick LaCrosse, Regal 2013 Chevrolet Malibu Eco Generator Control and Battery Module (Complete PowerPack)	23102218 supersedes 24259770	PowerPack Replacement and Shipping Preparation	2667688	N5866	1
2013 Buick LaCrosse, Regal Generator Control and Battery Module (Complete PowerPack)	23102217 supersedes 22948845	PowerPack Replacement and Shipping Preparation	2667688	N5866	1
Generator Control and Battery Module (PowerPack) Use latest version of PIC5520	N/A	PowerPack Ordering Instructions and Feedback Form	2748016	N/A	N/A

If diagnostics lead to the replacement of any of the components listed above other than the MGU, please contact TAC at Telephone Number US 1-877-446-8227 (Action Center prompt or Hybrid prompt) or Canada 1-800-263-7740 for English or 1-800-263-7960 for French.

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.

Subject: BAS+ (HYBRID) eAssist TAC Parts Restriction

Models: 2012-2013 Buick LaCrosse, Regal
2013 Chevrolet Malibu ECO
All equipped with eAssist (RPO HP6)

This PI was superseded to update part numbers. Please discard PIP4920J.

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

Condition/Concern

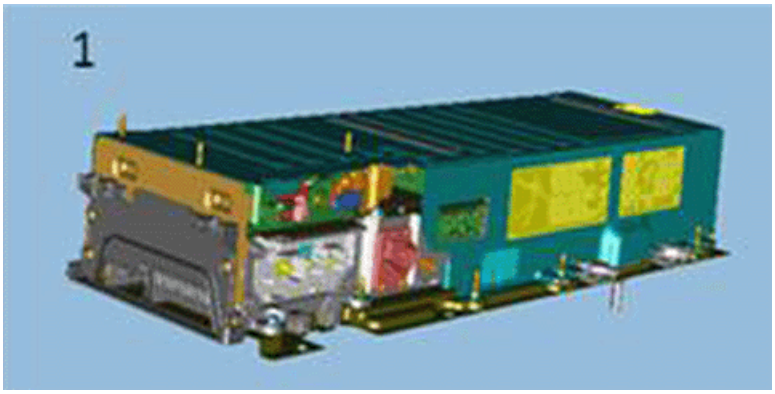
As part of our ongoing quality improvement process, the following components will remain on restriction through the GM Technical Assistance Center (TAC).

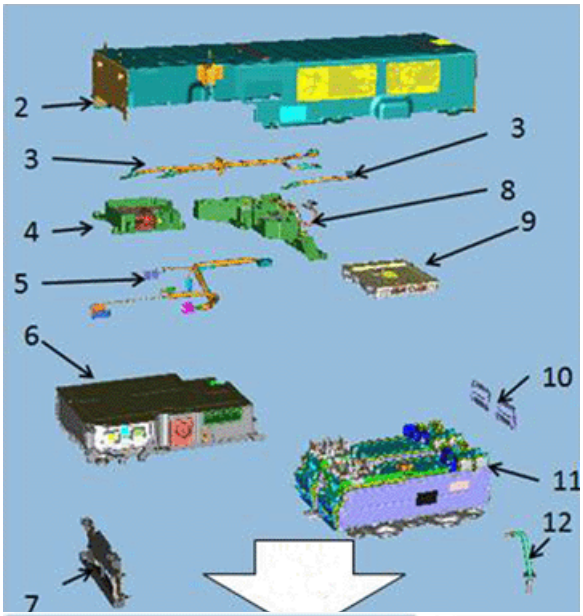
- The Starter Generator (MGU) will remain on restriction through the Product Quality Center (PQC). When ordering the MGU, contact the PQC at 1-866-654-7654. If further diagnosis is required after contacting the PQC for an MGU, PQC will transfer the Dealer back to TAC for further assistance.
- If a complete Generator Battery Control Module (Powerpack) is needed, the Dealer must call TAC to have the order authorized first and then call their local Electronic Service Center (ESC) to place the order. Please refer to the latest version of PIC5520.

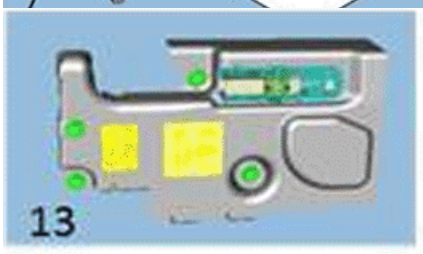
Recommendation/Instructions

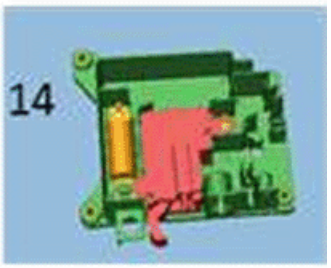
Important: If the 12V system voltage has fallen below a predetermined level (approximately 9V), use GDS2 to command the Battery Pack Cooling Fan on to make sure it operates.

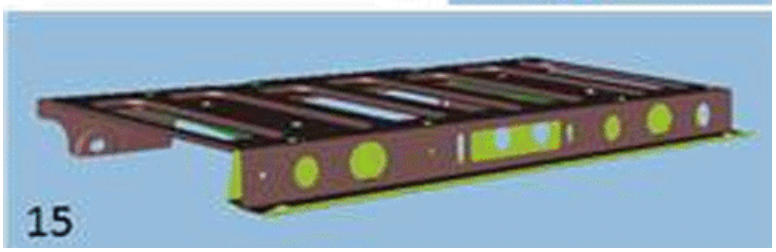
- If the Battery Pack Blower Fan is inoperative and the vehicle build date is on or between December 15, 2011 and April 23, 2012, replace the Battery Pack Cooling Fan.
- Check to ensure the Generator Control Module SPS calibrations are current.
- If the vehicle build date is before December 15, 2011 or April 23, 2012 and later, follow published G.S.I. Diagnostics.











PART NAME	NUMBER	SERVICE INFORMATION	SI DOC ID	LABOR CODE	FIGURE
Battery Energy Control Module (BECM)	20969054	BECM Replacement	2599120	N5821	9
Auxiliary Transmission Fluid Pump	24241057	Auxiliary Transmission Fluid Pump Replacement (Hybrid)	2580949	K6544	N/A
Starter Generator (MGU)	24261691	Starter Generator Replacement	2543171	N5873	N/A
Generator Battery Control Wiring Junction Block (Includes Fuse 25846011)	20910412	Battery Energy Control Module Wiring Junction Block Replacement	2652250	N5838	4
Generator Battery Disconnect Relay (Includes Contactor Relay and Pre-Charge Resistor)	20910413	Drive Motor Battery Wire Junction Block Relay Replacement	2652258	N5781	8
Battery Energy Contol Module (BECM) Wiring Harness	24246371	Battery Energy Control Module Wiring Harness Replacement (BDU,BECM and BPIM)	2631017	N5840	5

PART NAME	NUMBER	SERVICE INFORMATION	SI DOC ID	LABOR CODE	FIGURE
Battery Disconnect Switch Wiring Harness (LH HV Measurement Harness 1)	20917530	Battery Energy Control Module Wiring Harness Replacement (HV Measuring Harness 1 and 2)	2603041	Use N5824	11
Battery Disconnect Switch Wiring Harness (RH HV Measurement Harness 2)	20917531	Battery Energy Control Module Wiring Harness Replacement (HV Measuring Harness 1 and 2)	2603041	Use N5824	11
Generator Battery	20813602	Generator Battery Replacement	2604097	N5824	11
2012 Buick LaCrosse, Regal 2013 Chevrolet Malibu Eco Generator Control and Battery Module (Complete PowerPack)	23102218 supersedes 24259770	PowerPack Replacement and Shipping Preparation	2667688	N5866	1
2013 Buick LaCrosse, Regal Generator Control and Battery Module (Complete PowerPack)	23102217 supersedes 22948845	PowerPack Replacement and Shipping Preparation	2667688	N5866	1
Generator Control and Battery Module (PowerPack) Use latest version of PIC5520	N/A	PowerPack Ordering Instructions and Feedback Form	2748016	N/A	N/A

If diagnostics lead to the replacement of any of the components listed above other than the MGU, please contact TAC at Telephone Number US 1-877-446-8227 (Action Center prompt or Hybrid prompt) or Canada 1-800-263-7740 for English or 1-800-263-7960 for French.

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.

PQC 13136, 13142 Generator Control Module Parts Restriction
05-23-2013

Models:

2012-2013 Buick LaCrosse, Regal
2013 Chevrolet Malibu Eco
Equipped with eAssist
Restricted Part Number: 24267940, 24267941

Important: Dealers cannot order the above P/Ns for stocking their inventory.

NOTE: PRT consultant must check to make sure that the part the dealer is calling on is appropriate for the vehicle they listed. You can check this by going into vehicle history from Siebel.

****

PQC 13136, 13142 Generator Control Module Parts Restriction
05-22-2013

Caller's Name / Position:
Technician's Name / Direct Phone:
Times In / Days Down:

Q1: Is the restricted part being requested for customer pay?

IF YES, STOP; do not complete template. No engineering contact or email is necessary and the part can be released.

- A valid VIN is required
- Add "CP" in the non-keyword qualifier.

Q2: Is the dealer requesting the part for any vehicle model/year other than Bulletin 13136 or 13142 (not displayed in GWM as an Open Required Field Action)?

- If YES, warm-transfer the call to TAC Hybrid at 62842 or 72842.
- If NO, continue.

Q3: Is the dealer requesting the part per Bulletin 13136 or 13142?

- If NO, warm-transfer the call to TAC Hybrid at 62842 or 72842.
- If YES, continue.

Q4: Which Bulletin did the dealer use?

- If 13142, STOP; do not complete template. No engineering contact or email is necessary and the part can be released.
- If 13136, continue.

Q5: After performing the inspection listed in Bulletin 13136, are any active DTCs present?

- If NO, warm-transfer the call to TAC Hybrid at 62842 or 72842.
- If YES, continue.

Q6: List all active and history DTCs:

- If P1B0B, P1AF0, U1817 or U0293 are present, no engineering contact or email is necessary and the part can be released.
- If none of the above codes are present, warm-transfer the call to TAC Hybrid at 62842 or 72842. Advise that a GDS2 Session Log may be requested, as per PIP4902.

PQC Comments:
****
No email needs to be sent to Engineering.

Siebel Case:

Cust. Concern:	part restriction
Service Manual Section:	Hybrid Power Electronics
Subsection:	Charging System
Symptom Description:	MIL/DTC
Recom Bulletin #:	13136 or 13142
Restricted Part #:	24267941,24267940
Keyword #1:	Release / Not Released
Keyword #2:	
Keyword #3:	
Keyword #4:	
Non Keyword Qualifier:	13136 or 13142

PQC Process Compliance Checklist	Yes or N/A

If needed, did you assume the case?	
Does the restriction apply to this vehicle?	
Restricted Part # chosen from drop-down in Siebel?	
Bulletin #, Svc & Keyword fields filled in as per template?	
All template questions answered?	
If not released, did you do Not Released activity?	
If released, is Released activity assigned to RESTPART?	

Generator Control Modules – Campaign 13142 and 13136

Background

Generator control modules on some Regal, Lacrosse, and Malibu eAssist vehicles may be defective.

Campaign 13136 (22k pop):

- Screen 100%
- Replace module if fail (1%). All owner letters were mailed at once.

Campaign 13142 (22k pop.):

- No screening; 100% module replacement
- Only 2,500 letters have been mailed to low mileage customers.

Parts are severely constrained due to OE requirements.

Parts were on a TAC restriction prior to the campaign.

GM buys the module for { ** } and sells it for { ** }.

Parts superseded mid-July.

{ * }

{ * }

Current Status

- Assessing schedule for launching additional letters.
- Continuing to work with OE Constraint Team to obtain additional parts.
- Assessing whether to remove PQC restriction (recommended action)
- Current stock of new parts being quarantined due to quality issue (645 already in our network, 608 scheduled to arrive in Davison today)
- 316 pieces of bad stock already shipped to dealers.
- 7/25 shipment of 324 – first quantity of good stock leaving supplier; will arrive next week.
- All bad stock to be sent back for rework.
- Backorders TBD.

RQ13-003

GM

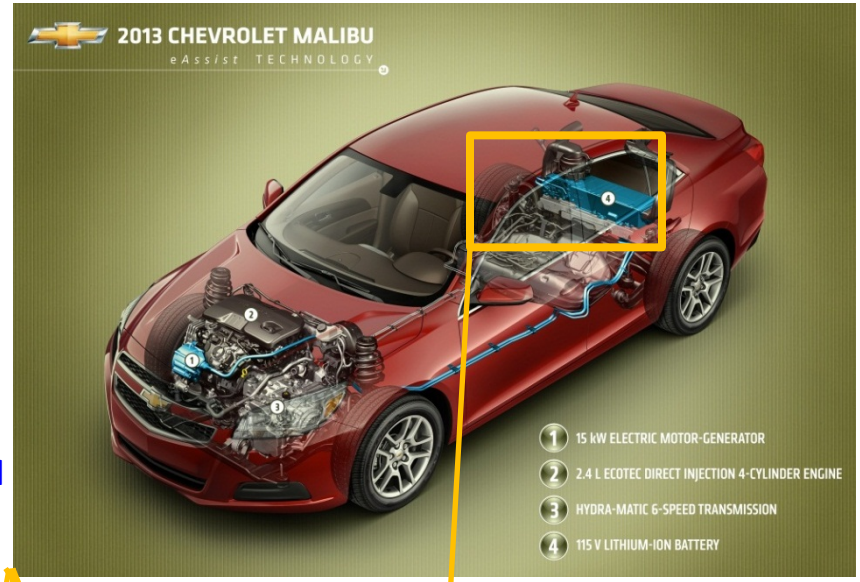
9-9-2013

ATTACHMENT 1

Q 11

RQ13-003 Q11 Response

A BAS (belt alternator starter) is the Engineering name for the eAssist system. All eAssist vehicles have a Powerpack which contains a BAS Power Inverter Module (BPIM) / Accessory Power Module (APM), and a 115-V Lithium-Ion battery. The BPIM consists of a BAS Hybrid Supervisory Control Processor (BCP) a Motor Control Processor (MCP) and the APM. The terms BAS Powerpack, BPIM, and BPIM / APM are internal GM Engineering designations for these components and are also occasionally used in referring to the parts in field bulletins. The APM is a function and internal element of the BPIM assembly. In certain other hybrid systems, the APM is a free standing separate device. For clarity, there are instances where the device is designated BPIM/APM to make it clear that the APM function is included in the design. The BPIM/APM is a part of the Powerpack Assembly, along with the ESS (battery module), and certain other components. The term Generator Control Module is the official functional name given to the BPIM/APM by the General Motors Part Description System for purposes of releasing part numbers. The Powerpack is officially known by the Part Description System as the Generator Control and Battery Module since both the Generator Control Module and the Battery Module are present in the same assembly.



Printed Circuit Boards

BPIM/APM

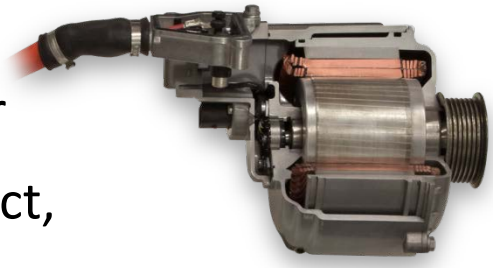
Lithium-Ion Battery

Powerpack

BPIM/APM Exploded View

BPIM/APM

The Elements of *eAssist*™



15-kW belt-driven induction motor/generator

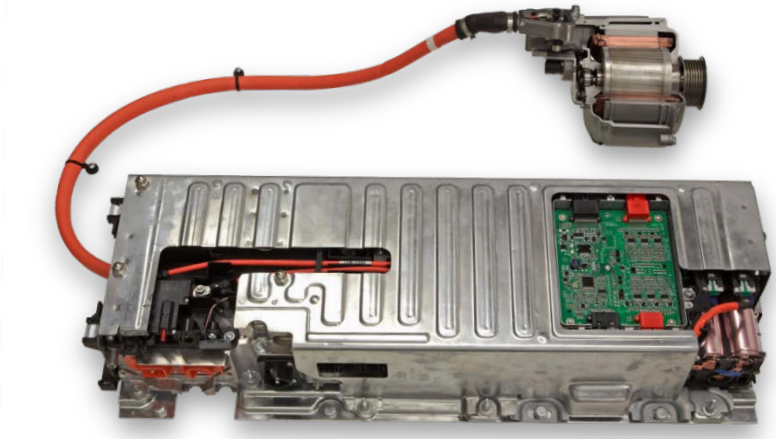
Engine accessory drive with a patented dual tensioner

Air cooled power electronics integrated with a compact, light-weight 115-V lithium-ion battery pack

Direct-injection 2.4 liter 4-cylinder gasoline engine and slightly modified 6-speed automatic transmission

Specific features to reduce road load, which work synergistically with the ***e****Assist*™ propulsion system to maximize regenerative braking:

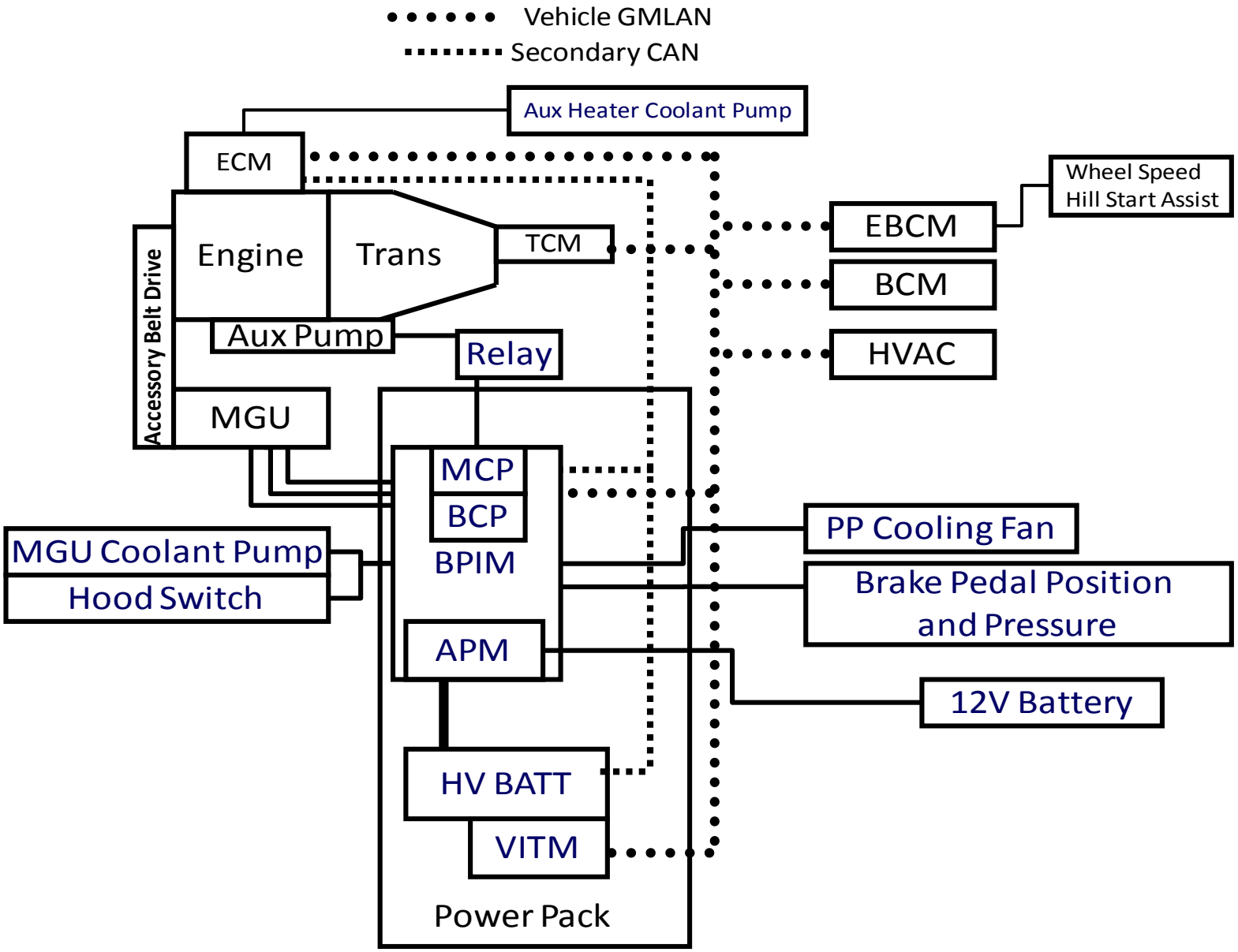
- Low-rolling resistance tires
- Underbody aero panels
- Actively controlled grill shutters



eAssist Functional Summary

The eAssist controls uses a Coordinated Torque Control architecture. The eAssist internal combustion engine and 6-speed automatic transmission were controlled via an Engine Control Module (ECM) and Transmission Control Module (TCM), respectively. However, all hybrid specific functions were coordinated by BPIM. The BPIM consists of a BAS Hybrid Supervisory Control Processor (BCP) a Motor Control Processor (MCP) and the APM. Both motor speed and torque are commanded from the BCP and then executed by the MCP. The coordinated torque system starts within the engine control module (ECM) where the accelerator pedal position or driver intended axle torque request is translated into a desired total torque at the engine crankshaft. This calculation accounts for all torque sources and modifiers such as: combustion torque, electric motor torque, transmission gear ratio, transmission spin loss, engine friction, air conditioning compressor load, traction control, etc. The BPIM receives the desired crankshaft torque from the ECM, and then determines the desired torque contribution of combustion torque and electric motor torque to achieve the desired crankshaft torque while optimizing for performance and fuel economy.

Block diagram

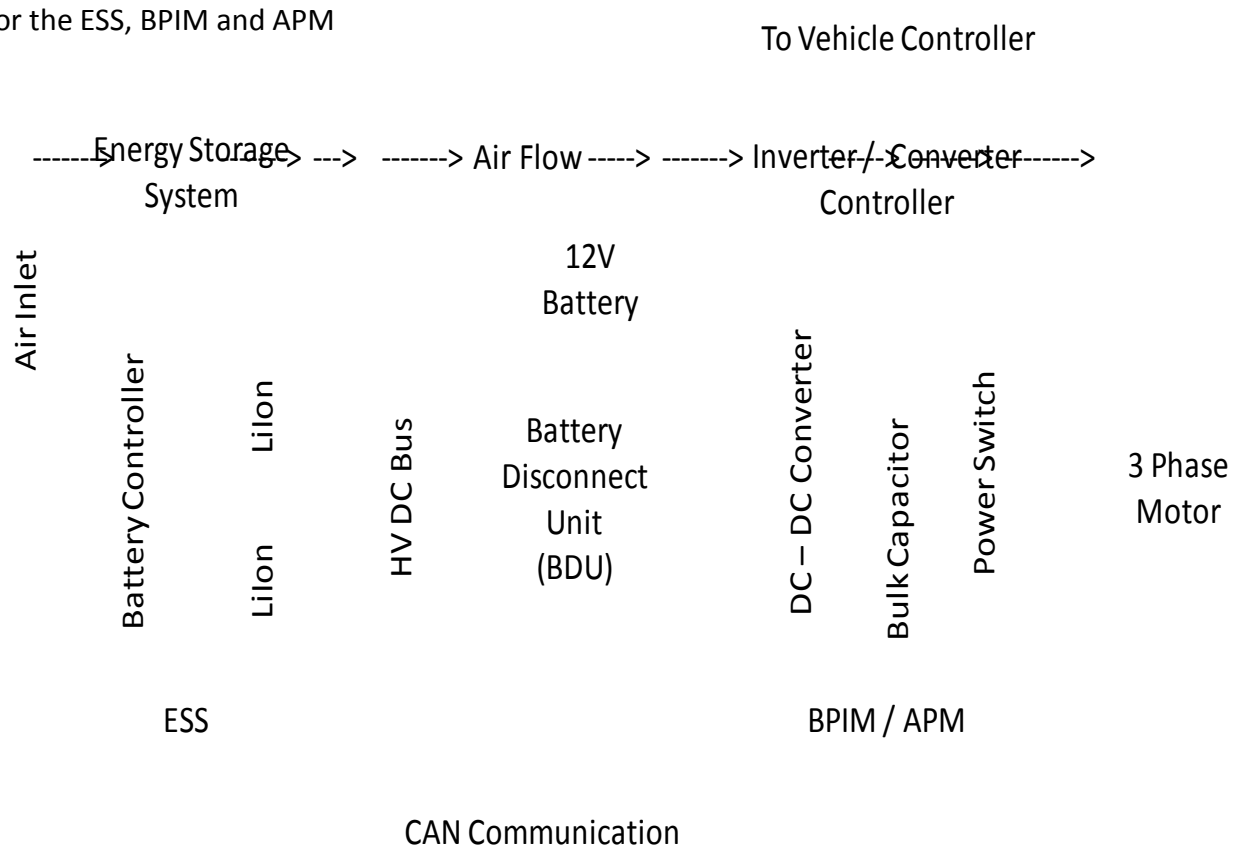


POWER PACK

The high voltage eAssist Power Pack Subsystem (PP) provides the capability to control, monitor, store, and distribute electrical energy in support of vehicle functionality. The Battery Power Inverter Module (BPIM), Accessory Power Module (APM), Energy Storage System (ESS), High and Low Voltage Distribution, Air Cooling Ductwork, and Battery Disconnect components are packaged in one unit.

The PP provides the following functions:

- Converted 3-phase alternating current (AC) from the electric motor to direct current (DC)
- Inverted DC electrical energy into 3-phase AC current for motor control
- Converted DC from high voltage bus to 12V electrical vehicle loads
- Isolated high voltage to the energy storage devices
- Communicated with primary vehicle controller
- Provided cooling for the ESS, BPIM and APM



DEFINITIONS/ABBREVIATIONS

AC	Alternating Current
APM DC-DC Converter	Accessory Power Module – converts high voltage DC (115V nominal) to 12-14 VDC to power vehicle accessories
BDU	Battery Disconnect Unit
BAS	Belt Alternator Starter
BCM	Body Control Module – microprocessor that controls certain vehicle functions such as vehicle lighting, instruments, warning lights
BCP	Hybrid Supervisory Control Module – microprocessor that controls certain hybrid propulsion functions and diagnostics
BPIM	BAS (or Battery) Power Inverter Module – Contains Power inverter, APM, BCP, MCP
BSE	Battery State Estimator
DC	Direct Current
DFCO	Deceleration Fuel Cut Off
DFMEA	Design Failure Mode Effect Analysis
DI	Direct Injection
DPLR	Deceleration Pump Loss Reduction
EBCM	Electronic Brake Control Module
ECM	Engine Control Module
ECOTEC	Emissions Control Optimization Technology
ESS	Energy Storage System
ECC	Electronic Climate Control
FDR	Final Drive Ratio
GBA	Gear Based Assist
GCM	Generator Control Module
HV	High Voltage
HVAC	Heating Ventilation Air Conditioning
HVIL	High Voltage Interlock
IM	Induction Machine
MAP	Manifold Air Pressure
MCP	Motor Control Processor – microprocessor that controls the motor torque and speed based on BCP commands
MG / MGU	Motor Generator / Motor Generator Unit
PFI	Port Fuel Injection
Pre-charge	Circuit to charge BPIM capacitors before the main contactor is closed
PP	Power Pack – Contains BPIM, ESS and BDU
SGCM	Starter Generator Control Module
SIDI	Spark Ignition Direct Injection
SOC	State of Charge
SOH	State of Health
TCM / TECHM	Transmission Control Module
VITM	Voltage Current Temperature Module