



# 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 °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.

**WARRANTY TRANSACTION INFORMATION**

Submit a transaction using the table below.

<b>Labor Code</b>	<b>Description</b>	<b>Labor Time</b>	<b>Net Item</b>
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.

