



Service Bulletin

PRELIMINARY INFORMATION

Subject: BAS+ (Hybrid) eAssist Battery Cooling Fan Inoperative Due To Low System Voltage Conditions

Models: 2012 - 2016 Buick Lacrosse eAssist
2012 - 2016 Buick Regal eAssist
2014 - Chevrolet Impala
2013 - 2014 Chevrolet Malibu ECO eAssist
All with RPO HP6

This PI was superseded to update Recommendation/Instructions and Warranty Information. Please discard PIP4992B.

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

Condition/Concern

The Drive Motor Generator and Battery Control Module (Hybrid Powerpack) Cooling Fan may become inoperative due to low system voltage.

Recommendation/Instructions

There may have been a Charging System Message, Battery Warning Lamp or Service Hybrid System Message displayed and may have DTCS P0C32 and/or P0A7E. If the voltage level drops to a predetermined level (below approximately 9V) use GDS2 to command the Battery Pack Cooling Fan Motor on to make sure it operates.

1. Reprogram the Generator Control Module
2. Replace the fan if it is not operating when making the command (see test below).

Note: The technician may need to run the vehicle through several drive cycles to ensure that there is not another root cause for the low voltage condition. Review G.S.I for any criteria required for setting "Type B DTCs" so that the conditions will be met to ensure no further root cause exists.

How to Test the Fan:

In any scenario when low voltage was encountered, the following Function Test for the Battery Cooling Fan will need to be performed through GDS2.

1. Start GDS2 and enter the correct vehicle information. Make sure Engine RPO "LUK" is selected.
2. Select Module Diagnostics.
3. Select the Hybrid Powertrain Control Module (HPCM).
4. Select Control Functions.
5. Select the Hybrid/EV Battery Pack Cooling Fan.
6. Command the Fan on. Listen for Fan operation through the entire range and monitor Fan Speed (RPM).
7. Command the Fan off.
8. Start the car and monitor the Hybrid Battery Pack Voltage, Current and State of Charge (SOC) in the HPCM data list.
9. Exit GDS2.

Warranty Information

For vehicles repaired under warranty use:

Labor Operation	Description	Labor Time
2810025	Reprogram Hybrid (Generator) Control Module	Use Published Labor Operation Time

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

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



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