

## Service Bulletin

File in Section:

Bulletin No.: PIC5626

Date: February, 2012

# PRELIMINARY INFORMATION

Subject: BAS+ (Hybrid) eAssist Service Charging System Message MIL On With P0A8F And

P062F Or Without DTCs

Models: 2012 Buick LaCrosse eAssist

2012 Buick Regal eAssist

2013 Chevrolet Malibu ECO eAssist

All with RPO HP6

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

### Condition/Concern:

Technician may comment that the 12V Battery is discharged with a Service Charging System Message, a MIL and Red Battery Light on with or without P0A8F and P062F. This may be the result of a poor connection at the 175A or 80A underhood fuse.

#### Recommendation/Instructions:

- It may be necessary to road test the vehicle or meet certain drive cycle criteria in order for the DTC to reset.
- When setting up the Scan Tool and building the vehicle in GDS2, be certain Engine RPO "LUK" is selected.
   Failure to do so will result in a lack of communication with the Hybrid Powertrain Modules and no DTCs are found during the diagnostic check.
- The engine may start and run but the charging may be inoperative. As a result, the 12V battery may discharge within 30 minutes or less.
- The DTCs that were stored before the battery discharged may no longer be stored in any module depending on the criteria for setting or clearing DTCs.

Note: Refer to Powertrain Diagnostic Trouble Code (DTC) Type Definitions in Document ID: 1800770.

#### Perform the following checks:

- Check the torque of each fuse nut. Tighten each nut to 4.7 Nm making certain the nut is fully seated against the
  fuse and fuse is seated against the Bus Bar in the Fuse Block.
- Test for battery voltage on each side of the fuse.
- Test the Voltage Drop of each Fuse. This can be done without removing the fuse from the fuse block. The Vehicle
  must be running with accessories turned on to generate a load on the fuse.
- Attach the Voltmeter Leads as shown in Test A to check the 80 Amp Fuse. (Voltage Drop less than 58 mV)
- Attach the Voltmeter Leads as shown in Test B to check the 175 Amp Fuse. (Voltage Drop less than 77 mV)

**Note:** The actual specification for the 80A fuse is .541 milliohms (.000541 ohms) and the 175A fuse is .285 milliohms (.000285 ohms). Typically, a Technician will not have a meter capable of measuring a resistance value that low which is why voltage drop tests are recommended.

If the fuses are within specifications, inspect around the edge of the black plastic portion of these fuses for any sign of voltage stress as shown in the photo below. Make sure that the metal blades of the fuse are not bent or showing signs of thermal damage.



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If the fuses show voltage stress is present, this is most likely the result of a poor connection. The Fuses are now available individually. If the entire fuse block needs to be replaced for any reason the fuse block includes both fuses.



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If the fuses have been removed, they can be reused if they pass the inspection above and they are not visually damaged in any way. Carefully torque them to 4.7 Nm (42 lb-in), and re-evaluate the charging system operation. If the 175A fuse is open or has a poor connection, a P0A8F may be stored in history but the DTC may not consistently reset.

**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.

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.