File in Section: -
Bulletin No.: PIE0242
Date: January, 2013

Service Bulletin

PRELIMINARY INFORMATION

Subject: **Engineering Information - Service Vehicle Soon Displayed on Driver Information Center (DIC), DTC P0C32 and/or P0C11 Set**

Models: **2012-2013 Buick LaCrosse, Regal with RPO LUK eAssist™ Built After May 1, 2012**
2013 Chevrolet Malibu ECO with RPO LUK eAssist™ Built After May 1, 2012

Attention: **Proceed with this PI ONLY if the customer has commented about this concern AND the PIE number is listed in the Global Warranty Management / Investigate History link (GWM/IVH). If the customer has not commented about this condition or the EI does not show in GWM/IVH, disregard the PI and proceed with diagnostics found in published service information. THIS IS NOT A RECALL – refer to Service Bulletin 04-00-89-053E for more details on the use of Engineering Information PIs.**

Condition

Important: If the vehicle build date is on or after May 1, 2012, proceed with the steps in this Engineering Information (EI) PI.

If the vehicle build date is between Dec. 1, 2011 and May 1, 2012, DO NOT proceed with this EI. Follow published SI Diagnostics. Refer to PIP4992B: BAS+ (Hybrid) eAssist Battery Cooling Fan Inoperative Due To Low System Voltage Conditions.

For more information about Engineering Information PIs, refer to bulletin #04-00-89-053E: Engineering Information (EI) Process.

Important: If the customer did not bring their vehicle in for this concern, DO NOT proceed with this EI.

Some customers may comment that a Service Vehicle Soon light is illuminated or message displayed on the driver information center (DIC). Upon diagnosis, the technician may find DTC P0C32 (Hybrid/EV Battery Pack Cooling System Performance) and/or DTC P0C11 set (Drive Motor Inverter Phase U High Temperature) or the technician may have found the hybrid battery cooling blower inoperative following a functional check using GDS2 as directed by Technical Assistance (TAC).

Cause

GM Engineering is attempting to determine the root cause of the above condition. Engineering has a need to gather information on vehicles PRIOR to repair that may exhibit this condition. As a result, this information will be used to "root cause" the customer's concern and develop/validate a field fix.

Instructions With DTC P0C32 and/or P0C11

For vehicles displaying a Service Vehicle Soon light and having set DTC P0C32 and/or P0C11, proceed with the following steps:

1. Prior to disconnecting any components or clearing any code, download the GDS2 session logs/freeze frame data for P0C32, P0C11.
2. Test the hybrid/EV battery cooling fan function:
   - 2.1. Start GDS2 and enter the correct vehicle information.
     Make sure Engine RPO "LUK" is selected.
   - 2.2. Select Module Diagnostics.
   - 2.3. Select the Hybrid Powertrain Control Module (HPCM).
   - 2.4. Select Control Functions.
   - 2.5. Select the Hybrid/EV Battery Pack Cooling Fan.
   - 2.6. Command the Fan ‘on’ from 30 to 90%. Listen for Fan operation through the entire speed range and monitor Fan Speed (RPM) on the GDS2 screen. The fan should spin just under 3900 rpm at 90%.
   - 2.7. Command the Fan off.

3. If the fan appears inoperative, ensure GDS2 did not display a Fan Speed fault or Reject Code on screen (such as System Voltage Low, Ignition not in Run/Crank). If reject code is present, correct the stated condition. Do not replace the fan.
4. Check for an intermittent condition by inspecting for loose contact of Fuse #31 (F31UA) for the BPIM and hybrid/EV battery cooling fan in the underhood fuse block. One or both terminals may be loose in the fuse block.
5. Proceed with published S.I. Diagnostics for DTC P0C32, P0C11.
6. Prior to ordering or replacing the hybrid/EV battery cooling fan, contact one of the engineers below with the findings and session logs.

Instructions Without DTC P0C32 and/or P0C11

For vehicles not setting DTC P0C32 or P0C11, but may have other Hybrid/EV DTCs related to the HPCM (lost communication), SGCM (Starter/General Control Module), System Voltage (P0562, P0563), Hybrid battery pack exchange/Isolation faults, proceed with the following steps.

1. Prior to disconnecting any components or clearing any code, download the GDS2 session logs/freeze frame data.
2. Prior to testing the Hybrid/EV battery cooling fan using GDS2, the 12V system and Hybrid battery pack/controllers must be operating normally:
   2.1. If the vehicle does not start or stay running, stalls, does not charge, or has a low or depleted 12V System, diagnose and repair those conditions first.
   2.2. If other repairs are in process related to an ESS hybrid battery pack exchange, HPCM (Hyrbrid Powertrain Control Module) or SGCM (Starter/General Control Module) replacement, complete these repairs and reprogram any controllers before continuing.
   2.3. Testing the function of the Hybrid/EV battery cooling fan using GDS2 to manually command the fan speed requires the 12V System to be >10V at the fan and the HPCM/GCM to be installed, programmed and communicating in order for the GCM to relay the GDS2 command signal to the battery cooling fan. If these conditions are met, proceed with steps 2.1–2.7 above to test the fan.
3. If the fan is found inoperative, proceed with published SI Diagnostics for DTC P0C32.
4. Prior to ordering or replacing the hybrid/EV battery cooling fan, contact one of the engineers below with the findings and session logs.

Contact Information

Engineer Name	Phone Number
Kevin Rypstra	(905) 744-0046
Jennifer Ferguson	(289) 927-3901

Please include the following information if leaving a message:

– Technician name
– Dealer name and phone number
– Complete VIN and repair order (R.O) number

On the repair order, document the date and time the call was placed (even if the engineer was not reached).

If engineering is unable to return the call within one hour, proceed with diagnosis and repair based on information found in SI.

Warranty Information

If engineer was contacted or required information was provided, use:

Labor Operation	Description	Labor Time
N9698*	Engineering Information – BAS+ (Hybrid) eAssist Battery Cooling Fan Inoperative and/or Service Vehicle Soon Displayed on Driver Information Center (DIC) with DTC P0C32 and/or P0C11 Set	0.8 hr
*This is a unique labor operation for bulletin use only. It will not be published in the Labor Time Guide.		