File in Section: -

Bulletin No.: PIE0216

Service Bulletin

Date: May, 2012

PRELIMINARY INFORMATION

Subject: Engineering Information – Airbag Lamp Illuminated, DTC U0151 Displayed, Unable to Communicate with Sensing and Diagnostic Module (SDM)

Models: 2012 Buick Verano
2012 Cadillac SRX
2012 Chevrolet Cruze, Equinox
2012 GMC Terrain

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

Some customers may comment that the Airbag lamp, located in the instrument cluster, is illuminated. Using the Global Diagnostic System (GDS) tool, the technician may find DTC U0151 set as current or in history.

If communication **Cannot** be established with the SDM, proceed to the Instruction steps below.

Important: If the GDS tool can communicate with the SDM, proceed with the normal steps in SI to diagnose and repair the concern.

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

Important: Do **NOT** pull the SDM fuse or disconnect the SDM.

1. Do not pull the SDM fuse located in the IP fuse panel. Verify with a test light that both sides of the SDM fuse have 12 volt power. If power is not supplied to both sides, replace the fuse. Otherwise, proceed to the next step.
2. During the following procedures, the battery voltage must be maintained within the proper range of 12-15 volts. Connect the approved Midtronics® PSC 550 Battery Maintainer (SPS Programming Support Tool EL-49642) to the vehicle.
3. Place the ignition key in the "Run" position. Ensure the key is in the "Run" position throughout these steps.
4. Confirm that GDS is still not communicating to the SDM. Using the scan tool & vehicle diagnostics selection, read and record all DTCs using "Vehicle DTC Information."
5. Using the scan tool, attempt to check DTCs in the (SDM) and record the results.
   - If there are no DTCs or unable to communicate, select "Identification Information" and record End Model Part Number & Base Model Part Number. If successful in reading part numbers, reflash the SDM using SPS. See Programming/Reprogramming Checklist at the end of this bulletin.

     Stop the diagnosis at this time and call the engineer listed below with the results.
   - If unsuccessful in reading part numbers, record which Passenger Air Bag Indicator (ON/OFF) telltales are illuminated.

Note: Normal operation with passenger seat empty, the Passenger Air Bag Indicator (ON/OFF) should show OFF illuminated.

6. With the key in the "Run" position, disconnect the driver side impact sensor, measure and record the voltage between pins 1 & 2 at the driver side impact sensor.

The value should range between 6-7 volts.

- For Equinox and Terrain, refer to Inflatable Restraint Side Impact Sensor Replacement - Rear Side Door in SI.
- For SRX, refer to Inflatable Restraint Rear Side Door Side Impact Sensor Replacement in SI.
- For Cruze and Verano, refer to Inflatable Restraint Side Impact Sensor Replacement (Center Pillar-Mounted) in SI.

Note: Keep the ignition in RUN when calling phone number listed below.

7. Contact the engineer listed below. If the engineer is unavailable within one hour, proceed with the following steps and record the information. Document specifically which of the following steps led to re-establishing communication with the SDM using the scan tool.

8. Please confirm that, in the GDS tool, when data display is selected in the Inflatable Restraint Sensing & Diagnostic choice, that "No Communication with Vehicle" is displayed.

9. Cycle the ignition to "OFF" and then immediately to "RUN." Does the SDM communicate now? If No, then continue to the next step. If Yes, record the results and proceed to step 14.

10. Cycle the ignition to "OFF", disconnect the scan tool and verify the vehicle has gone to sleep (wait at least five minutes). Reconnect the scan tool, cycle the key to the "Run" position and record if communication has been established with the SDM. If yes, proceed to step 14.

11. Pull the SDM fuse, wait 30 seconds then reattach fuse. Does the SDM communicate now? If yes, proceed to step 14.

12. Check the SDM electrical connector to see if latched properly. Squeeze inward tightening it more if possible without disconnecting the SDM to see if this changes the condition. If communication is established to the SDM, proceed to step 14.

13. Measure the GMLAN bus from Pin 1 at the DLC to X1 pin 15 at the SDM for less than 5 ohms. If greater than 5 ohms, check for an open circuit.

14. Replace the SDM.

Contact Information

Engineer Name	Phone Number
Karen Hale	(248) 724-8473

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).

Programming/Reprogramming Checklist

- Turn OFF or disable any electrical system, accessory or component that may put an additional electrical load on the vehicle battery during reprogramming.
- Only program a module when you have been instructed to by Service Information (SI), a Bulletin, TAC or a Techline operator.
- You **MUST** refer to **Control Module References** in SI for the appropriate Programming and Setup procedures.
- Thoroughly review the Service Programming System (SPS) in SI **BEFORE** reprogramming any module.
- Some modules will require specific additional programming setup events to be performed **BEFORE** reprogramming. Refer to **Control Module References** for the appropriate Programming and Setup procedures in SI.
- Capture and record the Engine Oil Life Remaining information. Record the Engine Oil Life Remaining as a percentage (%).
- Follow all on-screen instructions in SPS. Verify that the ignition switch is in the proper position.
- If a wireless connection will be used for reprogramming, a secure service department connection **MUST** be used. **DO NOT** use any public WiFi connection from the customer lounge.
- **DO NOT** run other programs on the computer while reprogramming.
- Use the approved Midtronics® PSC 550 Battery Maintainer (SPS Programming Support Tool EL-49642) or the GR8 (EL50313) in the power supply mode.
- **DO NOT** disturb the vehicle, programming device(s) or operate any of its features during reprogramming.
- Some modules will require specific additional programming setup events to be performed **AFTER** reprogramming. Refer to **Control Module References** for the appropriate Programming and Setup procedures in SI.

- Use a Scan Tool to reset the Engine Oil Life Remaining information to the previous percentage (%) that was recorded before starting the reprogramming event.
- Verify that all DTCs are cleared after performing the reprogramming event.
- In the event of an interrupted or unsuccessful reprogramming event, document the SPS Error. DO NOT cycle the ignition. DO NOT replace the ECM. Refer to: PI0592 Service Programming System (SPS) Errors in SI.
- If further assistance is required call Techline at 1-800-828-6860 or 1-800-503-3222 French.

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Warranty Information

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

Labor Operation	Description	Labor Time
N9685*	Engineering Information – SDM Unable To Communicate With GDS	Use Actual Clock Time
Add	SRX Inflatable Restraint Sensing and Diagnostic Module Replacement	1.6 hrs
Add	Cruze and Verano Inflatable Restraint Sensing and Diagnostic Module Replacement	0.5 hr
Add	Equinox and Terrain Inflatable Restraint Sensing and Diagnostic Module Replacement	0.8 hr
*This is a unique labor operation for bulletin use only. It will not be published in the Labor Time Guide.		