Subject: IPC Gauges Inoperative or Fluctuate, No Crank, Start then Stall

“This bulletin replaces PIT5586E. Please discard all copies of PIT5586E”

<table>
<thead>
<tr>
<th>Brand:</th>
<th>Model:</th>
<th>Model Year:</th>
<th>VIN:</th>
<th>Engine:</th>
<th>Transmission:</th>
</tr>
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<tbody>
<tr>
<td></td>
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<td>from to</td>
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<tr>
<td>Cadillac</td>
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<td>2017 2020</td>
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<td></td>
<td>Silverado LD</td>
<td>2019 2019</td>
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<tr>
<td></td>
<td>Silverado 2500HD/3500HD</td>
<td>2019 2019</td>
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<tr>
<td></td>
<td>Silverado 4500HD,5500HD,6500HD</td>
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<td>Suburban</td>
<td>2017 2020</td>
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<td>Tahoe</td>
<td>2017 2020</td>
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<td>Sierra</td>
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<td>Sierra Limited</td>
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<td>Sierra 2500HD/3500HD</td>
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<tr>
<td></td>
<td>Yukon</td>
<td>2017 2020</td>
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</table>

Involved Region or Country: North America, Uzbekistan, Russia, Middle East, Israel, Palestine, Chile, Columbia, Ecuador, Paraguay, Peru, Japan, S. Korea and Thailand.

Additional Options (RPOs): Some customers may comment on the following condition:
- IPC gauges inoperative
- PRNDL does not indicate transmission position
- Multiple Service System messages
- Multiple Malfunction Indicators illuminated on the IPC
- Radio does not display temperature
- Radio does not shut off when door is opened
- No audible Turn Signal feedback or IPC indicator but the external signals function
- DTC U0155 in multiple modules indicating loss of communication with the IPC
Some customers may comment on the following condition:
- IPC gauges inoperative or fluctuate
- No Crank
- No Start
- Start then Stall
- SIR Light / Service Airbag Message
- Service Suspension Message
- Radio display blank
- Steering Wheel Controls (SWC) not illuminated
- HVAC controls inoperative
- Any of the following DTC’s: B1011, B1370, B3980, U0020, U0029, U007D, U0073, U0078, U0100, U0101, U0102, U0104, U0121, U0140, U0146, U0151, U0155, U0164, U0184, U0186, U0198, U0237, U0255, U0422

The causes of the condition may be:
An error in the Serial Data Gateway Module (SDGM) microcontroller where the SDGM will retain power but stop communicating on all CAN channels.
or
The SDGM X1 or X2 connector terminals being bent, backed out, or having loose terminal tension.

The cause of condition 2 may be the SDGM X1 or X2 connector terminals being bent, backed out, or having loose terminal tension.

If the symptoms in the 1st Condition are present, reprogram the Serial Data Gateway Module.

Note:
If after reprogramming the 1st condition is still present then refer to the 2nd Correction Section.

If the symptoms in the 2nd Condition are present (or symptoms in Condition 1 persist after performing SDGM reprogramming), then inspect the SDGM connector for any loose, bent, backed out terminals or connector damage. If a loose, bent, or backed out terminal is found, replacement of the affected terminal is required. If there is damage to the connector body, replace the connector housing per the Service Information Connector End View.

Caution: Before downloading the update files, be sure the computer is connected to the internet through a network cable (hardwired). DO NOT DOWNLOAD or install the files wirelessly. If there is an interruption during programming, programming failure or control module damage may occur.

Note: Carefully read and follow the instructions below.

- Ensure the programming tool is equipped with the latest software and is securely connected to the data link connector. If there is an interruption during programming, programming failure or control module damage may occur.
- Stable battery voltage is critical during programming. Any fluctuation, spiking, over voltage or loss of voltage will interrupt programming. Install a GM Authorized Programming Support Tool to maintain system voltage. Refer to www.gmdesolutions.com for further information. If not available, connect a fully charged 12 V jumper or booster pack disconnected from the AC voltage supply. DO NOT connect a battery charger.
- Turn OFF or disable systems that may put a load on the vehicles battery such as; interior lights, exterior lights (including daytime running lights), HVAC, radio, etc.
- Clear DTCs after programming is complete. Clearing powertrain DTCs will set the Inspection/Maintenance (I/M) system status indicators to NO.
Important:  Techline Connect and TIS2WEB screens shown above.

Important:  If the Same Calibration/Software Warning is noted on the TLC or SPS Summary screen, select OK and follow on-screen instructions. The system will generate a warranty claim code (WCC) for documentation purposes only. Perform service information (SI) diagnostics to determine the cause of the condition. Use the applicable labor operation code when submitting a warranty claim. Do NOT use the WCC with the warranty claim submission.

Important:  When programming a module in GM’s new Vehicle Intelligence Platform, or VIP, the power mode (ignition) needs to be off or errors may occur. This involves the 2020 Chevrolet Corvette, Cadillac CT5 and CT4, as well as the upcoming full-size Chevrolet, GMC, Cadillac SUVs and Buick Envision. Serial Data Message Authentication also needs to have the ignition off.

1. Reprogram the K56 Serial Data Gateway Module: Programming and Setup. Refer to K56 Serial Data Gateway Module: Programming and Setup in SI.
Note: The screenshots above are an example of module programming and may not be indicative of the specific module that is being programmed. Module selection and VIN information have been blacked out.

Important: To avoid warranty transaction rejections, you MUST record the warranty claim code provided on the SPS Warranty Claim Code (WCC) screen shown above on the job card. Refer to callout 1 above for the location of the WCC on the SPS screen.

2. Record SPS Warranty Claim Code on job card for warranty transaction submission.

Parts Information

<table>
<thead>
<tr>
<th>Causal Part</th>
<th>Description</th>
<th>Part Number</th>
<th>Qty</th>
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<tbody>
<tr>
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<td>SDGM X1 Terminated Lead</td>
<td>84619127</td>
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<tr>
<td>X</td>
<td>SDGM X2 Terminated Lead</td>
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</table>
Warranty Information
For vehicles repaired under the Bumper-to-Bumper coverage (Canada Base Warranty coverage), use the following labor operation. Reference the Applicable Warranties section of Investigate Vehicle History (IVH) for coverage information.

<table>
<thead>
<tr>
<th>Labor Operation</th>
<th>Description</th>
<th>Labor Time</th>
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<tbody>
<tr>
<td>2887018*</td>
<td>Serial Data Gateway Module Reprogramming with SPS for IPC Gauge Concerns</td>
<td>0.4 hr</td>
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<tr>
<td>Add</td>
<td>Reprogramming Failure, Inspect and Replace SDGM Terminal Wire</td>
<td>0.5 hr</td>
</tr>
<tr>
<td>5480898*</td>
<td>Inspect and Replace SDGM Terminal Wire</td>
<td>0.5 hr</td>
</tr>
</tbody>
</table>

*This is a unique Labor Operation for Bulletin use only.

**Important:**
To avoid warranty transaction rejections, carefully read and follow the instructions below:
- The SPS Warranty Claim Code must be accurately entered in the “SPS Warranty Claim Code” field of the transaction.
- When more than one Warranty Claim Code is generated for a programming event, it is required to document all Warranty Claim Codes in the “Correction” field on the job card. Dealers must also enter one of the codes in the “SPS Warranty Claim Code” field of the transaction, otherwise the transaction will reject. It is best practice to enter the FINAL code provided by SPS/SPS2.

Warranty Claim Code Information Retrieval
If the SPS Warranty Claim Code was not recorded on the Job Card, the code can be retrieved in the SPS system as follows:
1. Open TLC/TIS on the computer used to program the vehicle.
2. Select and start SPS/SPS2.
3. Select Settings.
4. Select the Warranty Claim Code tab.
The VIN, Warranty Claim Code and Date/Time will be listed on a roster of recent programming events. If the code is retrievable, dealers should resubmit the transaction making sure to include the code in the SPS Warranty Claim Code field.

<table>
<thead>
<tr>
<th>Version</th>
<th>3</th>
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</thead>
</table>
| Modified| Released October 30, 2020
Revised November 16, 2020 – Added 2018 Model Years to vehicles, clarified 2019 Chevrolet Silverado and GMC Sierra models, and updated programming information in Service Procedure Section.
Revised December 16, 2020 – Added 2017 Model Years to some vehicles. |