



## Preliminary Information

### PIT5985B Diagnostic Tip: No Start/ Ignition Will Not Turn ON/ No Power Due To A CAN bus 2 Issue/Lightning Strike/ Failed Over The Air Update

#### Models

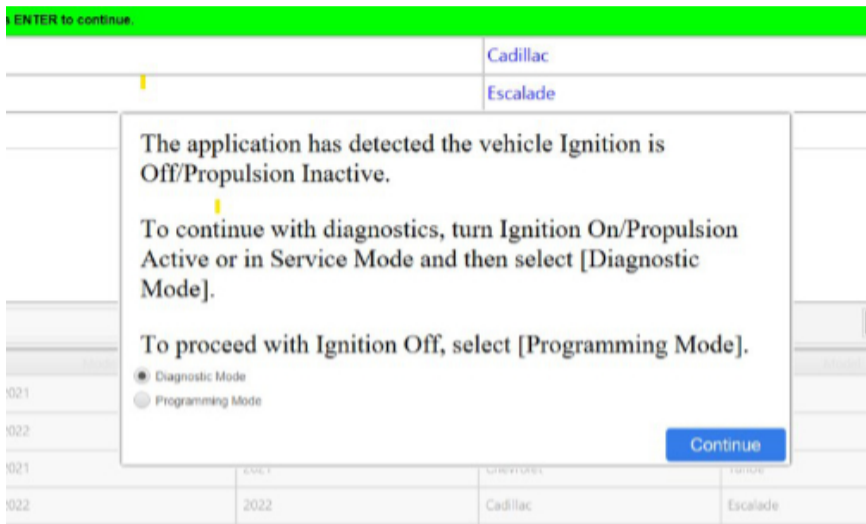
| Brand:     | Model:  | Model Years: | VIN: |     | Engine: | Transmissions: |
|------------|---|--------------|------|-----|---------|----------------|
|            |   |              | from | to  |         |                |
| Buick      | Envision  | 2021 - 2023  | All  | All | All     | All            |
| Brightdrop | EV600   | 2022         | All  | All | All     | All            |
| Cadillac   | CT4   | 2020 - 2024  | All  | All | All     | All            |
| Cadillac   | CT5   | 2020 - 2024  | All  | All | All     | All            |
| Cadillac   | Escalade Models                                     | 2021 - 2024  | All  | All | All     | All            |
| Cadillac   | LYRIQ   | 2023 - 2024  | All  | All | All     | All            |
| Cadillac   | XT4   | 2024         | All  | All | All     | All            |
| Chevrolet  | Blazer EV   | 2024         | All  | All | All     | All            |
| Chevrolet  | Colorado  | 2023         | All  | All | All     | All            |
| Chevrolet  | Corvette  | 2020 - 2024  | All  | All | All     | All            |
| Chevrolet  | Silverado 1500 New (RPO J22, VIN Digit 12 = A or D) | 2022         | All  | All | All     | All            |
| Chevrolet  | Silverado 1500                                      | 2023 - 2024  | All  | All | All     | All            |
| Chevrolet  | Silverado 2500HD/3500HD                             | 2024         | All  | All | All     | All            |
| Chevrolet  | Suburban  | 2021 - 2024  | All  | All | All     | All            |
| Chevrolet  | Tahoe   | 2021 - 2024  | All  | All | All     | All            |
| GMC        | Canyon  | 2023         | All  | All | All     | All            |
| GMC        | HUMMER EV   | 2022 - 2023  | All  | All | All     | All            |
| GMC        | HUMMER EV SUV                                       | 2024         | All  | All | All     | All            |
| GMC        | Sierra 1500 New (RPO J22, VIN Digit 12 = A or D)    | 2022         | All  | All | All     | All            |
| GMC        | Sierra 1500   | 2023 - 2024  | All  | All | All     | All            |
| GMC        | Sierra 2500HD/3500HD                                | 2024         | All  | All | All     | All            |
| GMC        | Yukon Models  | 2021 - 2024  | All  | All | All     | All            |

|                            |  |
|----------------------------|--|
| Involved Region or Country | North America  |
| Condition                  | <p>Some technicians may experience one or more of the following concerns:</p> <ol style="list-style-type: none"> <li>1. No Start</li> <li>2. Vehicle will not crank</li> <li>3. Vehicle will not enter into Key On, Engine Off mode (Service Mode)</li> <li>4. Vehicle's Instrument Panel Cluster will not illuminate</li> <li>5. Vehicle will not shut Off.</li> </ol> <p>In addition to the above concerns, when using GDS2 to connect to the vehicle, the pop up message seen below will be displayed, prompting to turn the ignition on, but the ignition can not be turned on. In some cases, after several ignition button presses, the ignition may turn on. Then, the customer or dealer technician may notice that blower motor turns on at a higher speed and then the ignition will not be able to be turn Off.</p> |
| Cause                      | This may be caused by either an issue with Can Bus 2, the vehicle received an "Over The Air" (OTA) update that has failed/ or the vehicle's electrical system was damaged by a voltage spike such as a lightning strike or an incorrect jump start procedure.  |

**Correction:**

The following are some diagnostic tips to help isolate the concern:

1) Dealership technicians will notice that they are unable to access GDS data to review DTC's or check the network communication status. They may experience the following pop up box, shown below, and will be unable to get past this screen. You will need to keep hitting the continue button 5-6 times and then it will allow you to get past this screen and then it will be possible to go into vehicle diagnostics to check DTC's and CAN bus status.



2) Next, use GDS2 Network Communication Status and check each CAN bus (1-8) to determine which modules are communicating and which modules are not communicating. This is similar to the Detected State feature of the Data Bus Diagnostic Tool (DBDT), but the DBDT will not work on these models. The GDS2 Network Communication Status can be found by following this GDS2 path: Vehicle Diagnosis/Vehicle Communication Diagnostics/Network Communication Status.

Go through each CAN bus tab (CAN bus 1 -8) and note/document the communication status of each module. When switching from tab to tab you may want to wait 25-30 seconds to see if modules show up. The picture below shows an example of CAN bus 2 status.

Diagnosis and repair any modules that are not communicating. If a module fails to communicate due to a failed OTA, first try to recover the module by reprogramming the module using SPS. Then clear all DTC's and recheck for concern.

GDS2

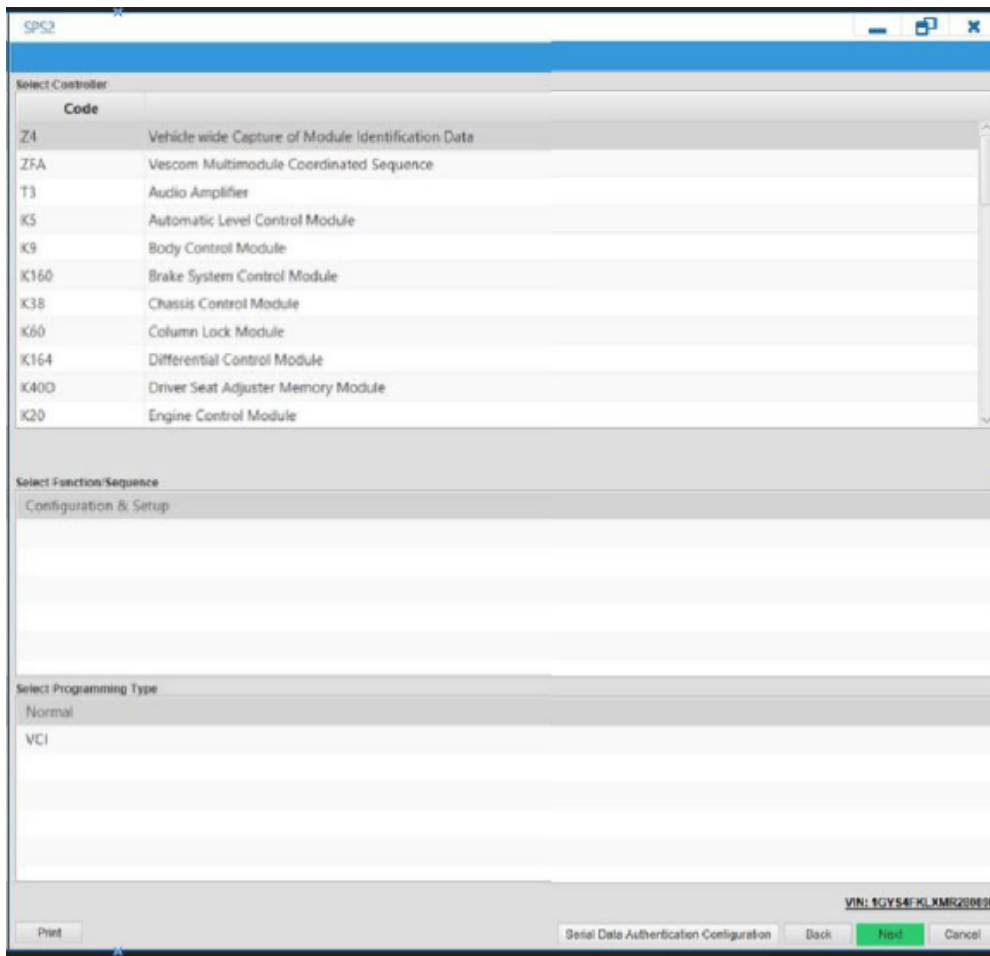
Network Communication Status

CAN Bus 1 | CAN Bus 2 | CAN Bus 3 | CAN Bus 4 | CAN Bus 5 | CAN Bus 8

Continuously Update Network Communication Status

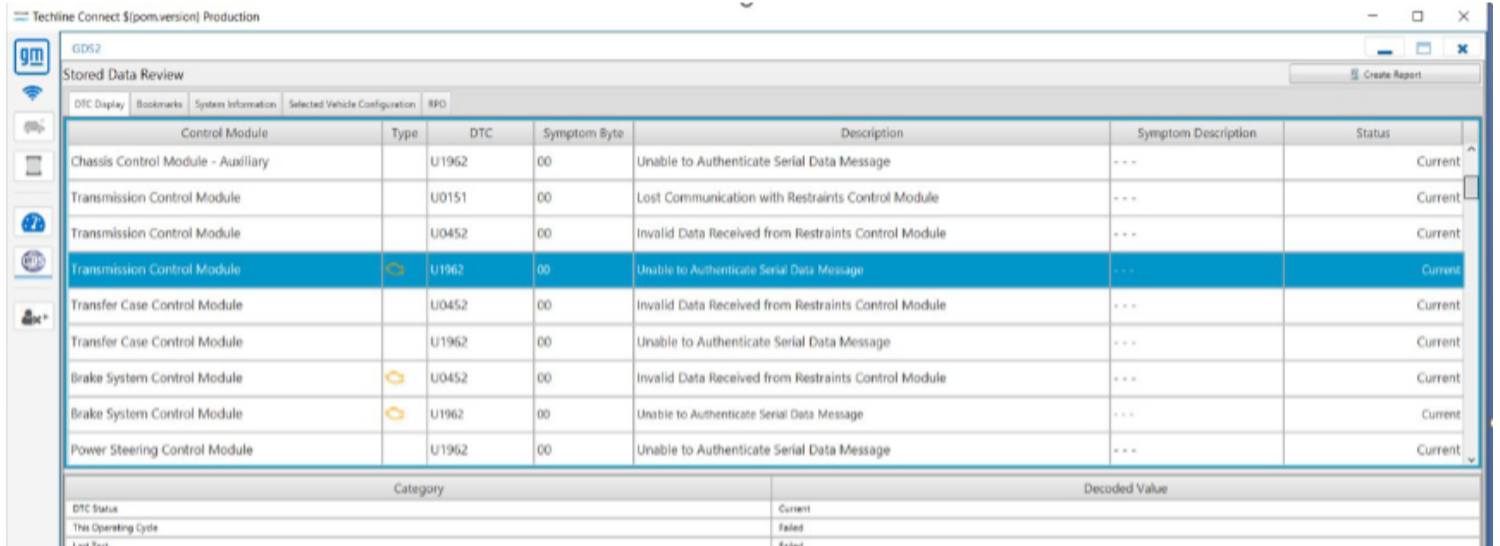
| Control Module Name                | Control Module Communication Status |
|------------------------------------|-------------------------------------|
| Engine Control Module              | Communicating                       |
| Chassis Control Module - Auxiliary | Communicating                       |
| Transmission Control Module        | Communicating                       |
| Transfer Case Control Module       | Communicating                       |
| Differential Control Module        | Communicating                       |
| Brake System Control Module        | Communicating                       |
| Body Control Module                | Communicating                       |
| Lighting Control Module            | Communicating                       |
| Headlamp Control Module            | Communicating                       |
| Parking Assist Control Module      | Communicating                       |
| Image Processing Module            | Communicating                       |

3) If after all modules are communicating and you continue to have issues or current DTC: U1962, then perform a Serial Data Authentication Configuration (SDAC), which is located on the SPS controller screen in the SPS, shown below. This will have to be completed so each module recognizes each other on their respective data buses.



4) If the SDAC fails, it will attempt to run a total of 3 times. If it fails after the third attempt, an additional screen will pop up, identifying which module is causing the SDAC to fail. Be patient, as this pop-up screen may take up to 25-30 seconds to appear. Take a picture of the pop-up screen and reference the latest version of [PIT5832](#).

5) If the SDAC passes and a labor code is generated, make sure to clear all the U codes that are current or the vehicle still may not start.



### Additional SI Keywords

U1960 U1961 U1962

### Version History

| Version  | History   |
|----------|---|
| Version3 | 3   |
| Modified | <p>02/28/2023 - Created on</p> <p>03/06/2023- Updated to add Brightdrop Model EV600</p> <p><b>08/30/2023- Update to add 2024 models years and add Blazer EV and 2024 Silverado and Sierra HD models</b></p> |



