



Preliminary Information

PIT5985 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
Cadillac	CT4	2020 - 2023	All	All	All	All
Cadillac	CT5	2020 - 2023	All	All	All	All
Cadillac	Lyriq	2023	All	All	All	All
Cadillac	Escalade Models	2021 - 2023	All	All	All	All
Chevrolet	Corvette	2020 - 2023	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	All	All	All	All
Chevrolet	Suburban	2021 - 2023	All	All	All	All
Chevrolet	Tahoe	2021 - 2023	All	All	All	All
GMC	HUMMER EV	2022 - 2023	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	All	All	All	All
GMC	Yukon Models	2021 - 2023	All	All	All	All

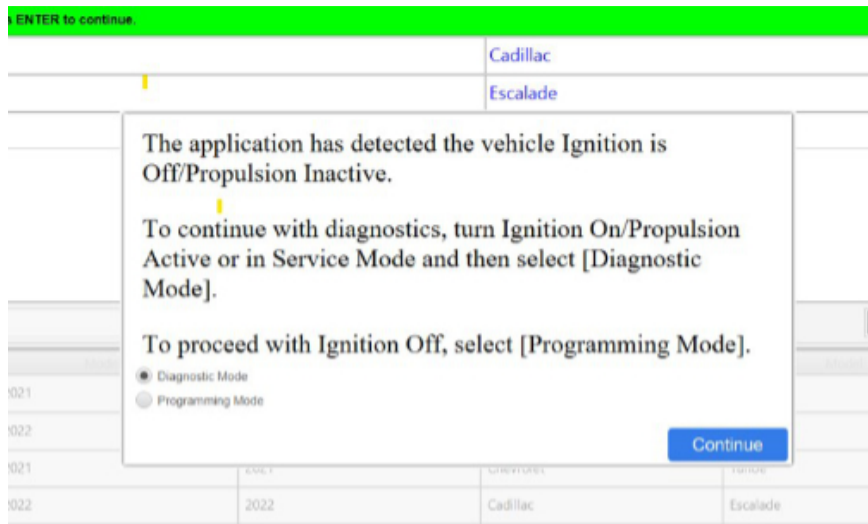
Involved Region or Country	North America
Condition	<p>Some technicians may experience one or more of the following concerns:</p> <ol style="list-style-type: none"> 1. No Start 2. Vehicle will not crank 3. Vehicle will not enter into Key On, Engine Off mode (Service Mode) 4. Vehicle's Instrument Panel Cluster will not illuminate 5. Vehicle will not shut Off. <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.



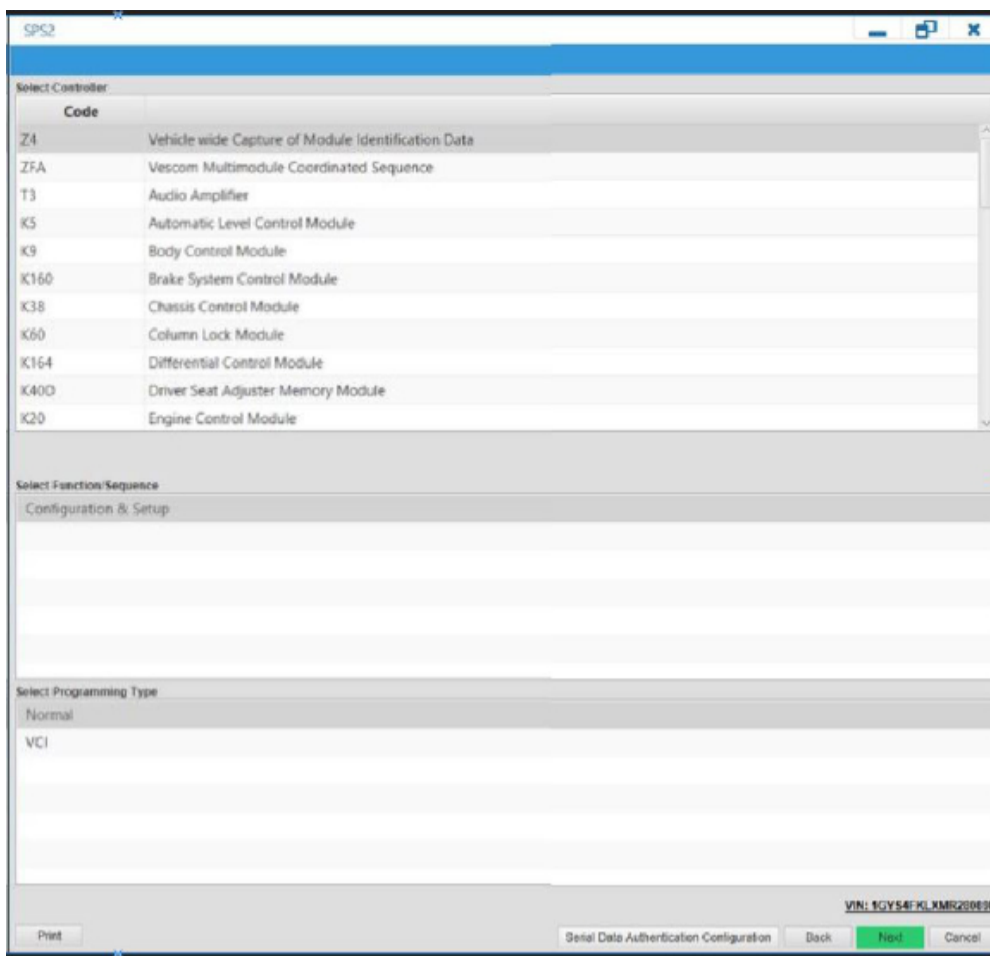
2) Next, use GDS2 Network Communication Status and check each CAN bus (1-8) to determine which modules are communicating and which modules are not communicating. This is similar to the Detected State feature of the Data Bus Diagnostic Tool (DBDT), but the DBDT will not work on these models. The GDS2 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	
<input type="radio"/> CAN Bus 1 <input checked="" type="radio"/> CAN Bus 2 <input type="radio"/> CAN Bus 3 <input type="radio"/> CAN Bus 4 <input type="radio"/> CAN Bus 5 <input type="radio"/> CAN Bus 8	
<input type="checkbox"/> 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.

The screenshot shows the 'Stored Data Review' screen in Techline Connect. It displays a table of DTCs with the following columns: Control Module, Type, DTC, Symptom Byte, Description, Symptom Description, and Status.

Control Module	Type	DTC	Symptom Byte	Description	Symptom Description	Status
Chassis Control Module - Auxiliary		U1962	00	Unable to Authenticate Serial Data Message	---	Current
Transmission Control Module		U0151	00	Lost Communication with Restraints Control Module	---	Current
Transmission Control Module		U0452	00	Invalid Data Received from Restraints Control Module	---	Current
Transmission Control Module		U1962	00	Unable to Authenticate Serial Data Message	---	Current
Transfer Case Control Module		U0452	00	Invalid Data Received from Restraints Control Module	---	Current
Transfer Case Control Module		U1962	00	Unable to Authenticate Serial Data Message	---	Current
Brake System Control Module		U0452	00	Invalid Data Received from Restraints Control Module	---	Current
Brake System Control Module		U1962	00	Unable to Authenticate Serial Data Message	---	Current
Power Steering Control Module		U1962	00	Unable to Authenticate Serial Data Message	---	Current

Below the table, there is a 'DTC Status' section with a table showing 'This Operating Cycle' as 'Failed' and 'Last Test' as 'Failed'. There is also a 'Decoded Value' section.

Additional SI Keywords

U1960 U1961 U1962

Version History

Version	1
Modified	02/28/2023 - Created on



GENERAL MOTORS