

## **Preliminary Information**

## PIT5985A 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

<u>Models</u>

Duranda	Madala		VIN:		Engine	<b>—</b>	
Brand:	Model:	Model Years:	from	to	Engine:	Transmissions:	
Buick	Envision	2021 - 2023	All	All	All	All	
Brightdrop	EV600	2022	All	All	All	All	
Cadillac	СТ4	2020 - 2023	All	All	All	All	
Cadillac	СТ5	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
	Some technicians may experience one or more of the following concerns:
	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
Condition	5. Vehicle will not shut Off.
	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.
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.

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.

		Cadillac				
_		Escalade				
Off/Propuls To continue Active or in Mode]. To proceed	sion Inactive e with diagno a Service Mo with Ignitio	ostics, turn Ignition On/I ode and then select [Diag	Propulsion gnostic ing Mode].	Refugael.		
-	16. I	1 LINEVICED	Continue			
		Cadillac	Escalade			
	Off/Propuls To continue Active or in Mode]. To proceed Diagnostic Mode	Off/Propulsion Inactive To continue with diagno Active or in Service Mo Mode]. To proceed with Ignitio	Escalade The application has detected the vehicle Ignition Off/Propulsion Inactive. To continue with diagnostics, turn Ignition On/I Active or in Service Mode and then select [Diag Mode]. To proceed with Ignition Off, select [Programm © Diagnostic Mode Programming Mode	Escalade The application has detected the vehicle Ignition is Off/Propulsion Inactive. To continue with diagnostics, turn Ignition On/Propulsion Active or in Service Mode and then select [Diagnostic Mode]. To proceed with Ignition Off, select [Programming Mode].  © Diagnostic Mode Programming Mode Continue		

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						
	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.

	<u>R</u>		- 6	X
Select Controller				
Code				
Z4	Vehicle wide Capture of Module Identification Data			ĉ
ZFA	Vescom Multimodule Coordinated Sequence			
T3	Audio Amplifier			
K5	Automatic Level Control Module			
K9	Body Control Module			
K160	Brake System Control Module			
K38	Chassis Control Module			
K60	Column Lock Module			
K164	Differential Control Module			
K40D	Driver Seat Adjuster Memory Module			
K20	Engine Control Module			
Select Programm	ng Type			
Normal	ng Type			
	ng Type			
Normal	ng Type		VIN: 1GY S4FKL	MMR2006.98

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.

= Techli	ine Connect \$(pomversion) Production				~			-		×
gm	GD52							_		×
	Stored Data Review							Create R	eport	
*	OTC Display Bookmarks System Information Selected Vehicle Configuration 800									
(III)	Control Module	Туре	DTC	Symptom Byte		Description	Symptom Description	Status		
Ξ	Chassis Control Module - Audiliary		U1962	00	Unable to Authenticate	Serial Data Message			Curren	nt ^
	Transmission Control Module		U0151	00	Lost Communication wi	ith Restraints Control Module			Curren	nt
	Transmission Control Module		U0452	00	Invalid Data Received fr	rom Restraints Control Module			Curren	nt
6	Transmission Control Module	0	U1962	00	Unable to Authenticate Se	vial Deta Message			Currer	-
an.	Transfer Case Control Module		U0452	00	Invalid Data Received fr	rom Restraints Control Module			Curren	nt
	Transfer Case Control Module		U1962	00	Unable to Authenticate	Serial Data Message			Curren	nt
	Brake System Control Module	0	U0452	00	Invalid Data Received fr	rom Restraints Control Module			Curren	nt
	Brake System Control Module	0	U1962	00	Unable to Authenticate Serial Data Message				Curren	sut
	Power Steering Control Module		U1962	00	Unable to Authenticate	Serial Data Message			Curren	nt 🗸
	Category Decoded Value									
	DTC Statue					Current				
	This Operating Cycle					Faled Faled				

## Additional SI Keywords

U1960 U1961 U1962

## <u>Version History</u>

Version	2
	02/28/2023 - Created on
Modified	03/06/2023- Updated to add Brightdrop Model EV600



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