



Service Bulletin

Bulletin No.: 22-NA-113

Date: January, 2023

TECHNICAL

Subject: Head Up Display (HUD) Blank, Non-Responsive to Brightness, Aim, or Page Controls, DTC U0158 Set

Brand:	Model:	Model Year:		VIN:		Engine:	Transmission:
		from	to	from	to		
Cadillac	CT4	2020	2023	—	—	—	—
	CT5						

Involved Region or Country	North America, Middle East, Israel, Palestine, Japan, Cadillac Korea (South Korea)
Additional Options (RPOs)	Equipped with Head Up Display (RPO UV6)
Condition	Some customers may comment on the Head Up Display (HUD) being inoperative, blank, or that it won't respond to adjustments in brightness, aim, or page controls. Some customers may also comment that the HUD could become operational after an ignition cycle. Technicians may find DTC U0158 set in the Instrument Cluster as a current or history DTC.
Cause	The cause of the condition may be the timing of certain data messages on the LIN bus while the HUD is transitioning into standby mode, which may cause the HUD to be stuck in this mode until reset.
Correction	Reprogram the Instrument Panel Cluster (IPC) then remove and reinstall the fuse powering the HUD. Follow the Service Procedure below.

Service Procedure

Important: Service agents must comply with all International, Federal, State, Provincial, and/or Local laws applicable to the activities it performs under this bulletin, including but not limited to handling, deploying, preparing, classifying, packaging, marking, labeling, and shipping dangerous goods. In the event of a conflict between the procedures set forth in this bulletin and the laws that apply to your dealership, you must follow those applicable laws.

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.

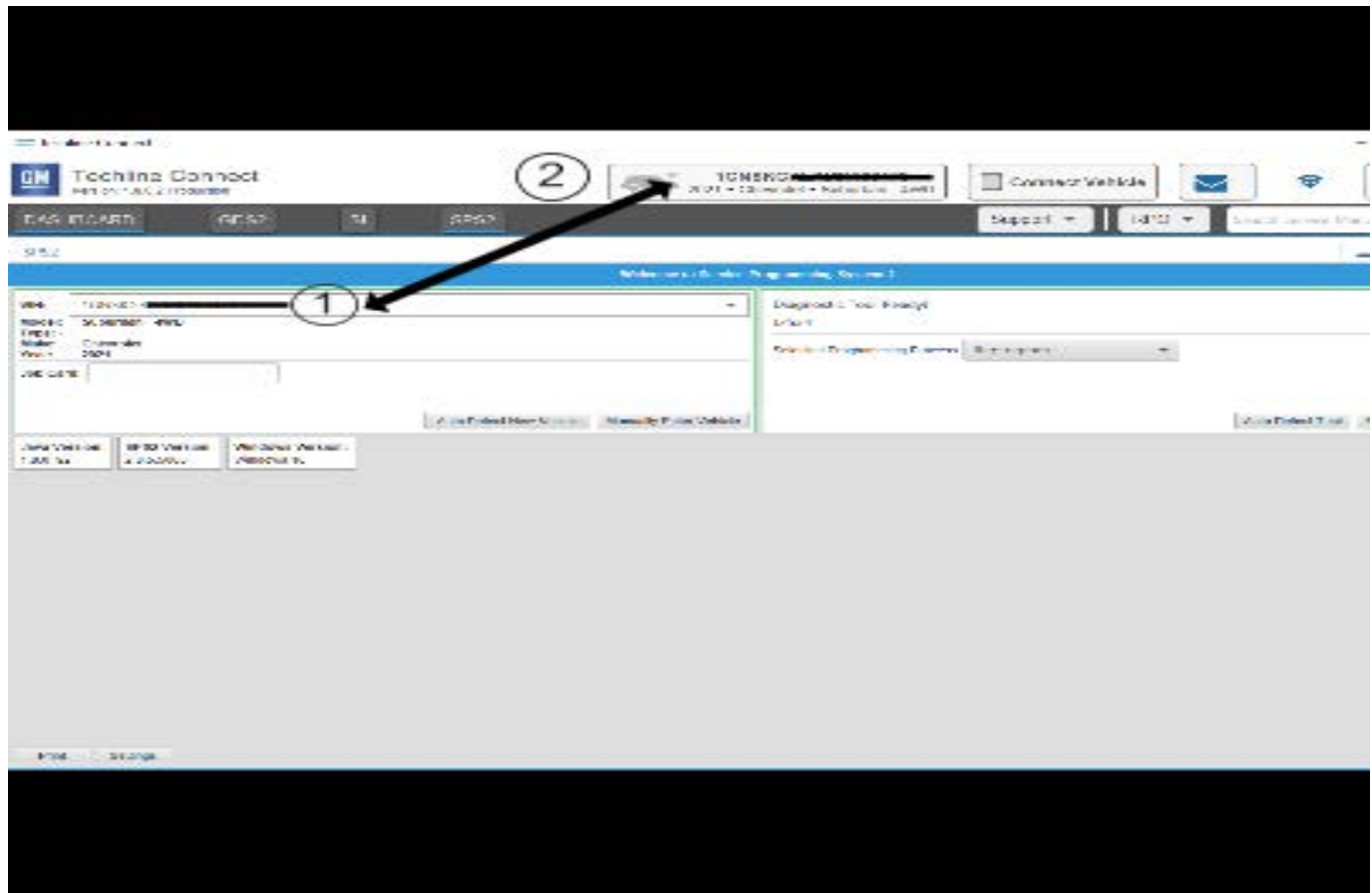
- " Ensure the programming tool is equipped with the latest software and is securely connected to the data link connector. If there is an interruption during programming, programming failure or control module damage may occur.

- " 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 12V jumper or booster pack disconnected from the AC voltage supply. DO NOT connect a battery charger.
- " Follow the on-screen prompts regarding ignition power mode, but ensure that anything that drains excessive power (exterior lights, HVAC blower motor, etc) is off.
- " Please verify that the radio time and date are set correctly before inserting USB drive into vehicle for programming, otherwise an error will result.
- " Clear DTCs after programming is complete. Clearing powertrain DTCs will set the Inspection/Maintenance (I/M) system status indicators to NO.

Important: The service technician always needs to verify that the VIN displayed in the TLC left side drop down menu and the top center window match the VIN plate of the vehicle to be programmed prior to using Service Programming System 2 (SPS2) for programming or reprogramming a module.

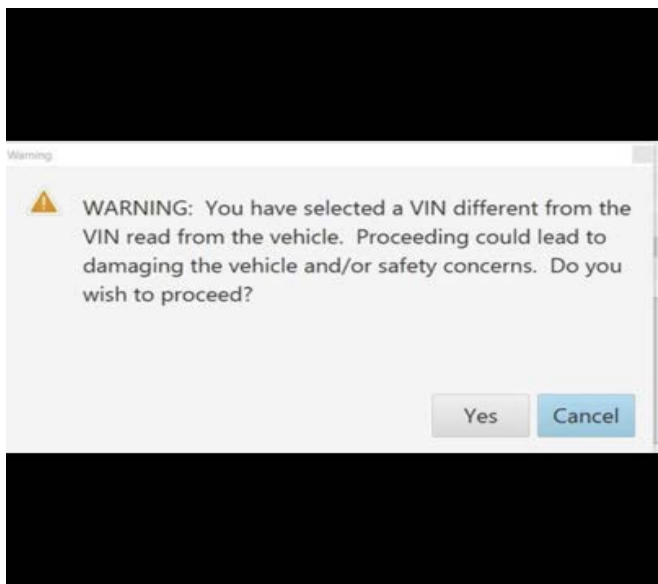
- " For the TLC application, service technicians need to always ensure that the power mode (ignition) is "ON" before reading the VIN from the vehicle's VIN master module and that they do not select a VIN that is already in the TLC application memory from a previous vehicle.
- " If the VIN that shows up in the TLC top center window after correctly reading the VIN from the vehicle does not match the VIN plate of the vehicle, manually type in the VIN characters from the vehicle VIN plate into the TLC top center window and use these for programming or reprogramming the subject module with the correct vehicle VIN and software and/or calibrations.
- " The Engine Control Module (ECM) is the master module (for VIP vehicles) that TLC reads to determine the VIN of the vehicle. If the VIN read from the vehicle by TLC does not match the VIN plate of the vehicle, the ECM also needs to be reprogrammed with the correct VIN, software and calibrations that match the vehicle's VIN plate.
- " The Body Control Module (BCM) is the master module (for GEM vehicles) that TLC reads to determine the VIN of the vehicle. If the VIN read from the vehicle by TLC does not match the VIN plate of the vehicle, the BCM also needs to be reprogrammed with the correct VIN, software and calibrations that match the vehicle's VIN plate.

Caution: Be sure the VIN selected in the drop down menu (1) is the same as the vehicle connected (2) before beginning programming.

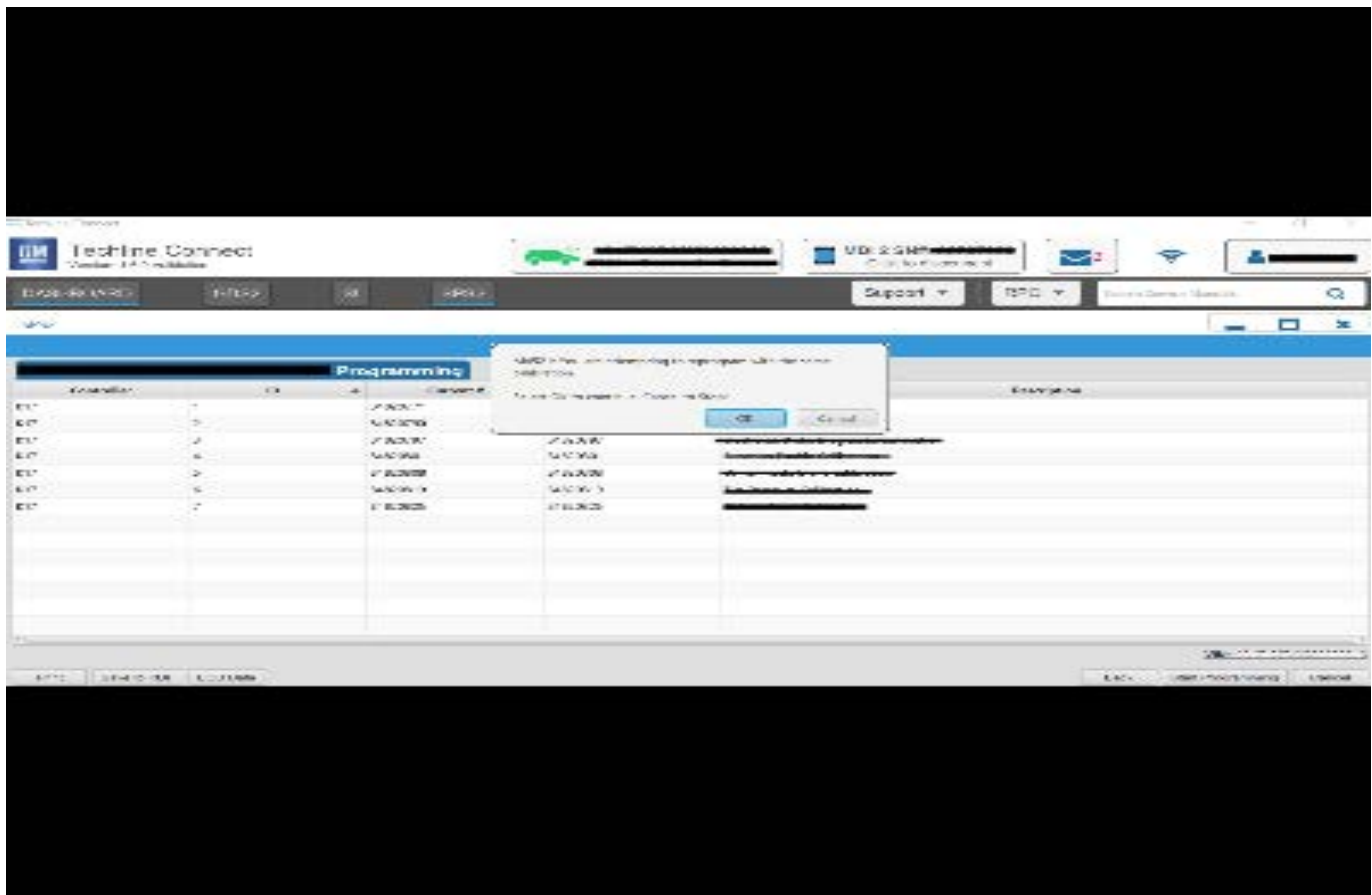


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Important: If the vehicle VIN DOES NOT match, the message below will be shown.



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Important: Techline Connect screen shown above.

Important: If the same calibration/software warning is noted on the TLC or SPS Summary screen, select OK and follow screen instructions. After a successful programming event, the WCC is located in the Service Programming System dialogue box of the SPS

Summary screen. Document the WCC on the job card. No further action is required. Refer to the Warranty Information section of this bulletin.

1. Reprogram the instrument cluster to ensure all updates are installed. As always, there may be multiple programming events required for an Instrument Cluster. Refer to P16 Instrument Cluster: Programming and Setup in SI to ensure all available cluster updates are installed.



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Note: The screenshot above is 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 Warranty Claim Code (WCC) screen shown above on the job card. Refer to callout 1 above for the location of the WCC on the screen.

2. Record the Warranty Claim Code on the job card for warranty transaction submission.
3. Locate the fuse for the HUD in the instrument panel fuse block. Refer to Head-Up Display Schematics in SI as fuse numbering can vary by model year and model.
4. With the Ignition off, remove the fuse for 30 seconds. Reinsert the fuse and verify HUD is now operational. If the HUD is operational, the repair is complete. If the HUD is still not functioning properly, proceed to step 4.
5. With the Ignition off, remove the fuse for the HUD in the instrument panel fuse block for 10 minutes. Reinsert the fuse and verify HUD is now operational.
 - " If the HUD is operational, the repair is complete.
 - " If the HUD is still not functioning properly, this service bulletin no longer applies. Refer to Head-Up Display Malfunction in SI to continue your diagnosis.

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:

Labor Operation	Description	Labor Time
2888398*	Reprogram Instrument Cluster and Cycle HUD Fuse	0.7 hr
Add	Cycle HUD Fuse an Additional 10 Minutes	0.2 hr
*This is a unique Labor Operation for bulletin use only.		
Important: To avoid warranty transaction rejections, carefully read and follow the instructions below: " The 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 Warranty Claim Code was not recorded on the Job Card, the code can be retrieved in the SPS2 system as follows:

1. Open TLC on the computer used to program the vehicle.
2. Select and start 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.

Version	2
Modified	Released May 25, 2022 Revised January 20, 2023 – Added the 2023 Model Year and an Important Statement to start of Service Procedure.