



Service Bulletin

Bulletin No.: 22-NA-209

Date: March, 2023

TECHNICAL

Subject: Articulating Running Board Inoperable

Brand:	Model:	Model Year:		Build Date:		Engine:	Transmission:
		from	to	from	to		
Cadillac	Escalade Escalade ESV	2021	2023	SOP	February 1, 2023		
Chevrolet	Tahoe	2021	2023				
	Suburban						
GMC	Yukon Yukon XL	2021	2023				

Involved Region or Country	United States, Canada, Mexico, Middle East, Europe
Additional Options (RPOs)	
Condition	<p>Some customers may comment on the articulating running board being inoperable, not functioning with door operation or HMI setting.</p> <p>Technician should verify some conditions:</p> <ul style="list-style-type: none"> • No DTCs set • Ensure the HMI setting “Automatic Articulating Running Boards” is enabled • Check if the Left or Right Assist Step position count is 65535 • Check if the Left or Right Assist Step position is unknown <p>Note: Ensure vehicle is not in Transport Mode as Automatic Assist step are not designed to function in Transport Mode.</p> <p>Ensure no doors are ajar while programming. Once completed then open doors to verify assist steps function properly.</p>
Cause	The cause of the condition may be software anomalies with the internal running board.
Correction	<p>DO NOT replace the motor or the articulating board.</p> <p>For Model Years 2022 and 2023 reprogram the Assist Step Control Module.</p> <p>For Model Year 2021 software has NOT released yet, perform a relearn for the assist step. Refer to <i>Assist Step Learn</i> in SI.</p>

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.

The assist step learn procedure for the **2021 Model Year** can be completed using the following steps

1. Install a scan tool to the vehicle.
2. Ignition On/Vehicle in Service Mode.

3. Select Configuration/Reset Functions from the assist step control module menu.
4. Select the appropriate Left Assist Step Motor or Right Assist Step Motor from the Control Functions menu and perform the Auto Learn procedure.
5. Open and close a door on each side of the vehicle to verify that the assist steps are operating correctly.

For **Model Years 2022 and 2023** follow the procedure below

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 12 V 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.
- 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.

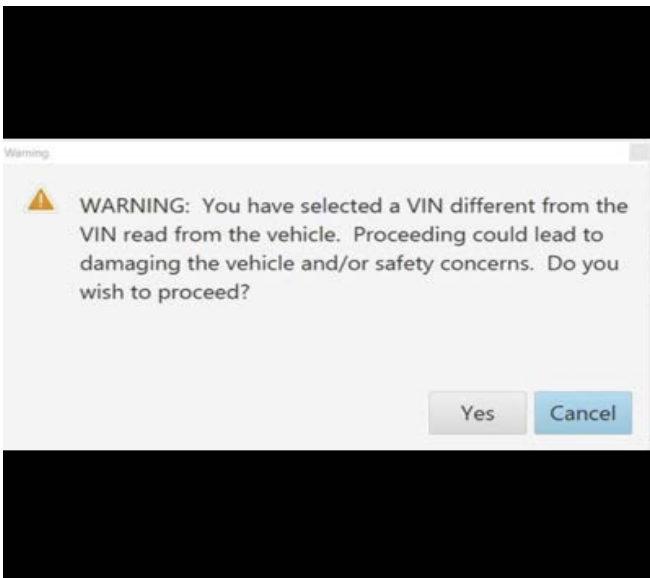
- For the TLC application, service technicians need to always ensure that the power mode (ignition) is "ON" before reading the VIN from the vehicle's VIN master module and that they do not select a VIN that is already in the TLC application memory from a previous vehicle.
- If the VIN that shows up in 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 screens shown above.

Important: If the same calibration/software warning is noted on the TLC 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. No further action is required. Refer to the Warranty section of the bulletin.

1. Reprogram the Assist Step Control Module. Refer to *K4 Assist Step Control Module: Programming and Setup in the Service Manual*.



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

Warranty Information

For vehicles repaired under warranty, use:

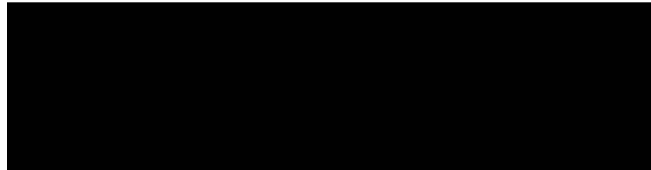
Labor Operation	Description	Labor Time
*2889028	2021 Model Year Assist Step Control Relearn for Inoperable Assist Steps	0.2 hr
2811715	2022 and 2023 Model Years K4 Assist Step Control Module Reprogramming with SPS	Use Published Labor Operation Time

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

Important: **To avoid warranty transaction rejections, carefully read and follow the instructions below:



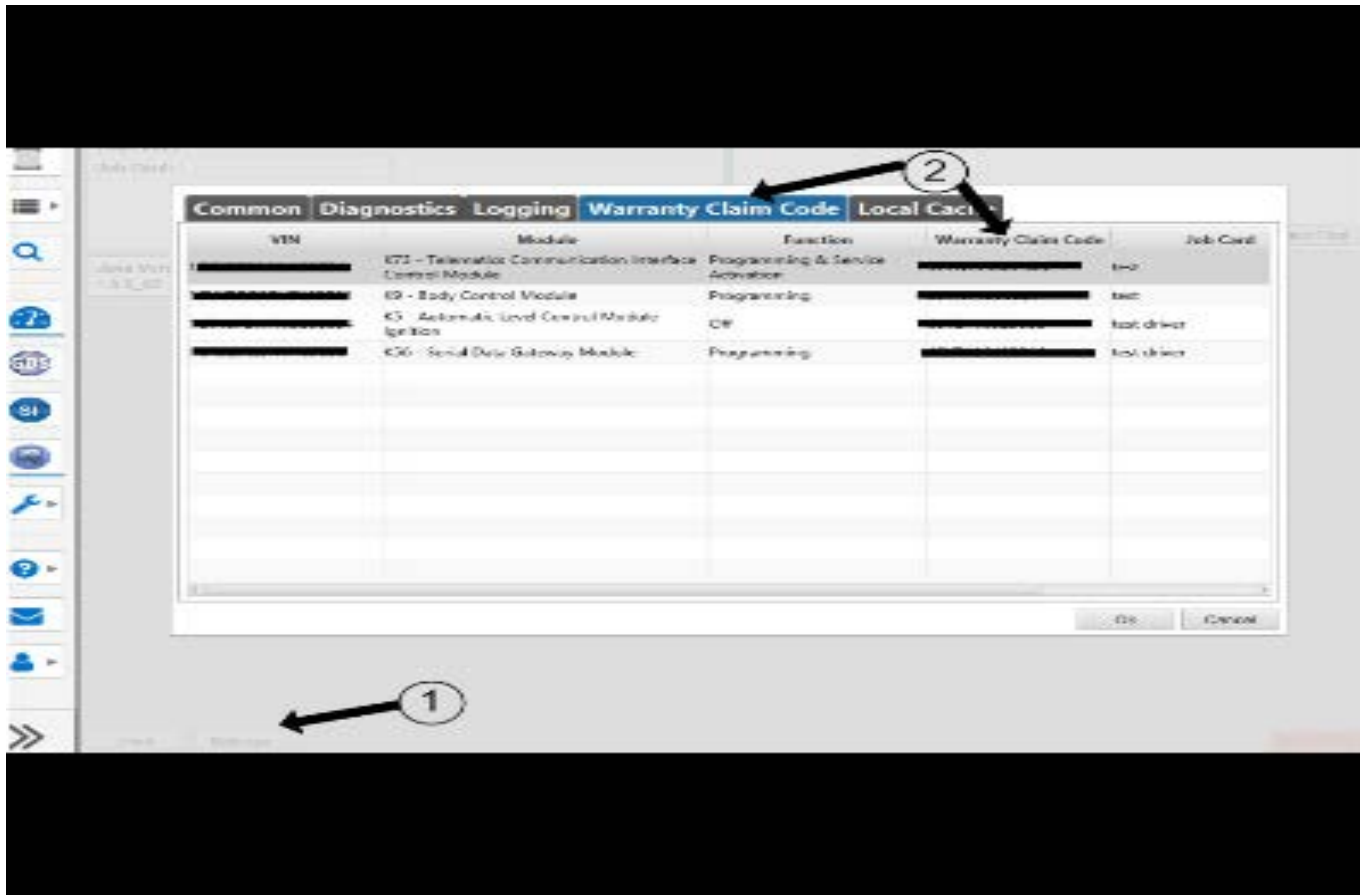
Labour Time [\[Top\]](#)
 Labour Operation Code: _____
 Additional labour op code information: _____ SPS Warranty Claim Code:



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- The Warranty Claim Code must be accurately entered in the “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 “Warranty Claim Code” field of the transaction, otherwise the transaction will reject. It is best practice to enter the FINAL code provided by SPS2.

Warranty Claim Code Information Retrieval



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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 (1).
4. Select the Warranty Claim Code tab (2).

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 October 21, 2022 Revises March 23, 2023 – Adding breakpoint date and Programming Procedure for 2022 and 2023 Model Years

