

# Front Brake Caliper Sound and Uneven Pad Wear



*There may be a front caliper brake noise or uneven front brake pad wear on some 2023-2026 Colorado and Canyon trucks*



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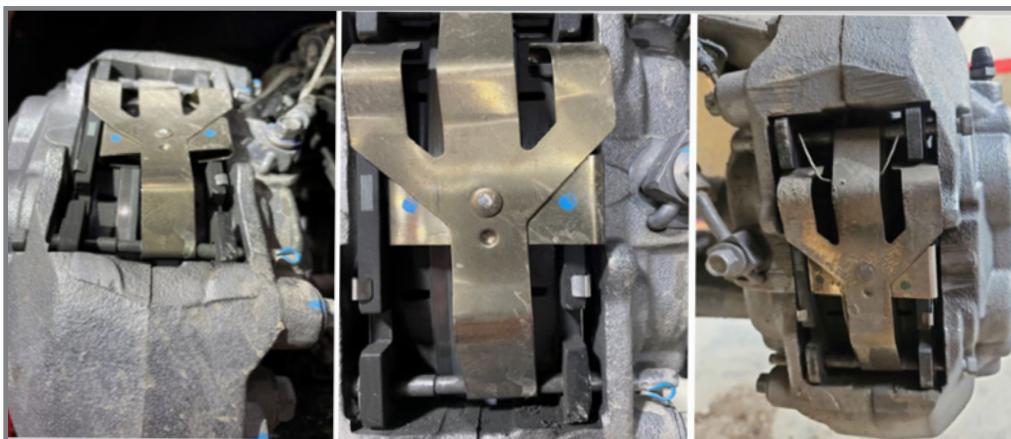
# Front Brake Caliper Sound and Uneven Pad Wear

There may be a squeal or tick (rotational type noise) heard coming from the front brake calipers when the brakes are not applied on some 2023-2026 Colorado and Canyon trucks. In addition, the front brake pads may appear to be wearing unevenly.



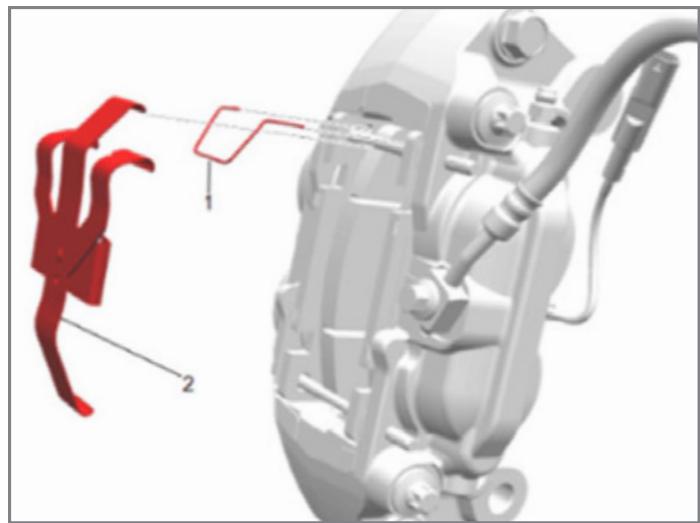
Front brake caliper (Colorado shown)

The brake sound and pad wear conditions may be due to a missing front brake caliper spring or an incorrectly positioned front disc brake pad retainer.



Front brake caliper spring missing and front disc brake pad retainer in the incorrect position

Inspect the front brake assembly and if the front brake caliper spring or the front disc brake pad retainer spring is not



1. Front brake caliper spring
2. Front disc brake pad retaining spring

positioned correctly, reinstall the caliper spring or the front pad retainer spring in the proper location. With the spring correctly positioned, recheck if the sound occurs with the vehicle moving and the brakes not applied.

If the front brake caliper spring is missing, or if the front brake pad thickness on one or both pads is less than 7mm, replace the front disc brake pads.

Ensure that the front brake caliper spring and front disc brake pad retainer spring are positioned correctly when installing the new brake pads. Install the front disc brake pad retaining spring with the three-tab side first.

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# FSE Technician

## RECOGNITION AWARDS

### 4TH QUARTER 2025

The GM Field Service Engineer (FSE) Technician Recognition Awards (U.S.) celebrate the skill and dedication of dealership technicians who have recently worked with FSEs on challenging repairs.

Technicians at GM dealerships are selected for recognition based on a variety of factors, including their focus on safety, customer satisfaction, personal accountability, training achievements, diagnostic abilities and the level of repair documentation.

Each recognized technician receives a Service Excellence magnetic plaque and an Excellence in Service Award certificate.

#### 4th Quarter 2025 Technician Recognition Award Winners



**Technician:** Dan McLaughlin

**Dealership:** Gateway Chevrolet Cadillac, Fargo, North Dakota

**FSE:** Brady Huebsch

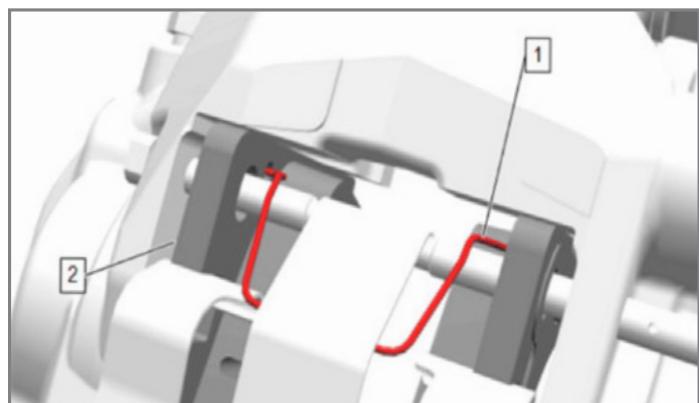


#### Service Excellence:

Dan McLaughlin brings unmatched skill, commitment and professionalism to every job. Specializing in light-duty diesel and medium-duty trucks, Dan combines deep technical knowledge with a true passion for his trade. He always puts the customer first by taking time to communicate clearly, listening to concerns,

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FRONT BRAKE, FROM PAGE 2



Front brake caliper spring (1) installed in the correct holes in the front disc brake pads (2)

The front brake caliper spring should be installed in the correct holes in the front disc brake pads.

Refer to Front Disc Brake Pads Replacement in the appropriate Service Information.

For more details, including part numbers, check out Bulletin #25-NA-365.

► Thanks to Jonathan Johnson

and ensuring every repair meets the highest standard. Dan's dedication shows in his work. He doesn't cut corners, he doesn't guess, and he refuses to settle for "good enough." He consistently goes above and beyond to diagnose issues accurately the first time, saving customers time and money while earning their trust in General Motors and our service team. Smart, friendly, and relentlessly focused on doing the job right, Dan embodies everything a General Motors technician should be.

Dan McLaughlin has assisted with multiple cases in the past, but one that stands out most involved a repeat DTC P22FB concern on a 2022 Silverado. Dan thoroughly completed all diagnostic steps, including performing intake and exhaust leak tests and repairing all leaks found. When retesting indicated NOx Sensor 1 replacement again, Dan paused and reached out for further discussion instead of simply replacing parts. Utilizing OBD-II Diagnostic Parameters and Mode 6 data in Service Information, Dan identified that DTC P22FB sets when NOx Sensor 1 reads < -51% or > 70% of the NOx model. At that time, the estimated NOx (NOx model) value was not available in GDS, creating uncertainty in the next diagnostic step. Working with FSE support and developing a VSPY script to display the NOx model, it revealed that NOx Sensor 1 was reading 300–400 ppm higher than the calculated model. This confirmed a skewed sensor input to the ECM. Dan then graphed additional input sensors and identified that the MAF sensor remained almost stationary at approximately 5,200 Hz (72 g/s) for 20 seconds prior to setting DTC P22FB. Further inspection revealed debris on the MAF filament causing erratic MAF readings. The MAF sensor was replaced, corrected operation was confirmed, and the vehicle was successfully returned to the customer.

This case not only highlighted Dan's deep diagnostic ability but also reinforced the need to add the NOx model parameter to GDS — which has since been incorporated. Dan has continued to apply this method to properly diagnose multiple vehicles on the first attempt, ensuring customer satisfaction. He also shares his knowledge with other technicians in the shop, strengthening overall capability in diagnosing exhaust aftertreatment concerns.



**Technician:** Jeremy Stern

**Dealership:** Cuesta GMC,  
San Luis Obispo, California

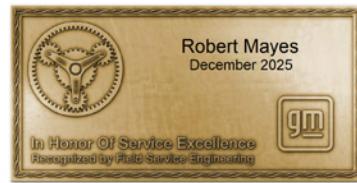
**FSE:** Shane Collins

#### **Service Excellence:**

Jeremy recently worked on a very difficult to diagnose LM2 emissions concern that had been going in circles around an issue with the Exhaust Gas Recirculation (EGR) Differential Pressure

Sensor (DPS). The DPS was replaced, but we could not get the DPS to read appropriately. Testing driving the vehicle caused a myriad of other symptoms. After the better part of the day testing various things and driving the vehicle with no apparent change to the sensor function, we were ready to throw in the towel after making no progress. Through sheer persistence, Jeremy found the root cause of this nagging issue the next day. He finally located an obstruction in one of the EGR DPS tubes, causing a flow sensing issue. Immediately after clearing the obstruction the DPS started reading closer to what was expected a new EGR cooler.

The fact that Jeremy cared enough about this customer to take some additional information provided to him about system operation and jump right back into a truck he already had spent many hours working on showed what "It's on Me" is all about. Since Jeremy identified the root cause of this issue, we have fixed many more trucks exhibiting similar DTC P2383 and P11CC issues. Jeremy's attitude and willingness to keep trying one more thing are worthy of recognition.



**Technician:** Robert Mayes

**Dealership:** Capital  
Chevrolet, San Jose,  
California

**FSE:** Paul French

#### **Service Excellence:**

Robert exemplifies the best of the best. He goes above and beyond to support the technicians who he works with and is always willing to share his knowledge to assist them in improving their own skills. Robert's breathe of knowledge means every case he brings to my attention pushes me to my best. Robert faces every new case with enthusiasm and attention to detail.

One difficult vehicle concern Robert worked on was a 2023 Silverado LZO Duramax that would not complete the tamper test. The ECM would not unlatch the service emissions message on the DIC and no DTCs were set. After repeated testing and phone/video messages, Robert discovered the forward-facing heat shield on the exhaust was interfering with the back-pressure actuator rod. He moved the heat shield away for the rod and finally fixed the truck.

#### ► **Thanks to Hank Poelman**

# Blank Screen Display Diagnostic Tips

A blank or black screen display affecting the instrument cluster, infotainment screen, or both, on some 2022-2026 Silverado, Tahoe, Suburban, HUMMER EV, Sierra, Yukon; 2024-2025 XT4; 2024-2026 Encore GX, Envision, Envista, LYRIQ, Blazer EV, Colorado, Equinox, Equinox EV, Silverado HD, Silverado EV, Sierra HD, Sierra EV, Trailblazer, Traverse, Trax, Acadia, Canyon; 2025 CT5; 2025-2026 Enclave, CELESTIQ, Escalade, ESCALADE IQ, OPTIQ, Terrain; and 2026 VISTIQ models may be due to several possible issues, including software as well as hardware concerns. These infotainment and instrument cluster displays include the RPO IVA, IVD, IVE and IOK systems.



Display screen issues may be due to software or hardware concerns.

The latest version of #PIC6629 recommends a number of diagnostic tips and provides references to additional PI resources for the following issues:

- Physical damage
- The entire display or both displays are blank
- Only one display is blank
- Radio and/or Instrument Panel Cluster (IPC) display is flickering or goes blank but comes back
- Radio display touchscreen does not respond to touch inputs or is unresponsive
- Volume knob, Home button, and/or Power/Mute button are inoperative
- One or multiple HVAC hard buttons are inoperative

**TIP:** If a vehicle has a display that went blank or black at some point, but is currently not blank or black, update the radio to the latest software, clear any DTCs and attempt to duplicate the customer's concern before continuing with diagnosis.

The specific display conditions that may be found on a vehicle and the related diagnostic procedures covered in #PIC6629 include:

**Display is backlit but there is no image** – If a back light is present, but there is no display, the display is powered on, but there may be a poor signal from the radio or a bad connection.



Display appears powered off.

**Display appears powered off (no backlight)** – If the radio is powered on and communicating with the scan tool, there may be an issue with the radio, not the display.

**One or both displays are flickering and going blank but come back** – The power and ground connections at the displays or the LVDS cable between the display and radio may have a connection issue.

**Radio display touchscreen does not respond to inputs or radio appears to be restarting** – Check the connections at the display as well as disconnect and reconnect the battery.

**Inoperative Volume knob, Home button, and/or Power/Mute button** – Verify the steering wheel buttons are operable before continuing diagnosis.



One or both displays are flickering and going blank.

**HVAC hard buttons are inoperable** – Verify control of the HVAC system through the touchscreen display.

During diagnosis, be sure to always check for DTCs and, if the display recovers, update the radio to the latest software.

Refer to #PIC6629 for complete instructions.

► Thanks to Steve Morri

# TCSC Top Issues This Week

The Techline Customer Support Center (TCSC) is available to help dealerships with diagnostic and programming issues related to Techline Connect (TLC) and the Service Programming System (SPS).

TCSC has now released their latest tips to help technicians when using Techline Connect applications. Look for the latest tips on TechLink each week.

To get the most out of Techline Connect, be sure to review the following items before making a call to the TCSC.

**The following information covers current issues and trends facing dealerships as of December 18, 2025.**

## WEEKLY ISSUES

### 1. Radio USB Update Unsuccessful on 2024 LYRIQ

Engineering has released calibrations that have corrected the issue with unsuccessful radio USB updates on 2024 LYRIQ models. Refer to #PIC6635 (Document ID: 7036914) for additional troubleshooting information.

### 2. Failure to Program Standalone Image Processing Control Module

Changes have been made in SPS to improve the success rate of this programming event. If E-4491 failures during programming are encountered, reattempt programming up to 2 times before reaching out to TCSC for support. If E-4399 failures are encountered, cycle the fuse for the module before reattempting programming.

Refer to #PIT6462 for additional troubleshooting assistance.

### 3. 2025 T1XX LD Trucks Software Reconfiguration Issue

There is an issue with 2025 T1XX LD Trucks BCM software that does not allow TCSC to reconfigure the following accessories or reconfigurations:

- Fast Flash (bulb outage detection) Removal (ZW9)
- Remote Start Add
- Speed Governor Changes (adding or removing)
- Police Vehicle Reconfigurations

- High Idle (UF3)
- Engine Timeout Disable (SK4)

Engineering is working to resolve this issue. There currently is no ETA for a fix. Refer to #PIT6443 for more information.

Note: Tire reconfigurations are still supported for these vehicles.

### 4. 2025 HD Trucks Wireless Keypad Accessory Issue

There is an issue with Wireless Keypad Accessory adds on 2025 HD Trucks where the keypad will fail to learn to the vehicle. The error "Communication Could Not Be Established" and/or "Write Failure" may be seen.

This is a known issue, and engineering is currently researching a solution. There is no ETA for a fix.

**Note:** All other T1XX LD/HD keypad issues have been resolved. Before performing the wireless keypad learn, the BCM must be programmed to receive the latest calibrations.

### 5. Front-View Camera Programming or Camera Learn Issues Specific to 2024 Colorado and Canyon (ZR2)

There is currently a known issue with the Front-View Camera involving ONLY 2024 Colorado/Canyon built with ZR2 and UHY, and without UWI, UKW, or ULV.

The Front-View Camera may fail to program or set loss of communication codes such as DTC U0265. The Camera Learn also may fail in GDS2 with various errors.

A VCI is required to correct this problem. Please reach out to TCSC for this fix.

## COMMON ISSUES

### 1. 2024+ Silverado 2500HD/3500HD and Sierra 2500HD/3500HD Adding ZW9 (Bed Delete) Support

Engineering has confirmed that there are not any compatible calibrations that support both RPO ZW9 (Bed Delete) and RPO UV2 (HD Surround Vision Camera). RPO ZW9 cannot be added to vehicles with RPO UV2 regardless of trim level.

Note: RPO ZW9 is supported for both long and short bed models and is also supported regardless of 17/18/20/22-inch tire sizes.

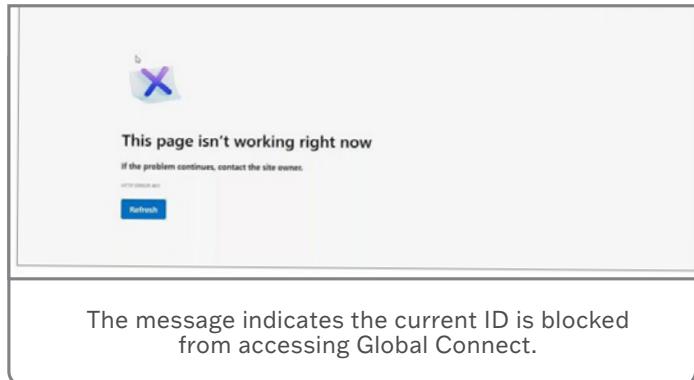
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## 2. Bulletin #24-NA-098: SPS Best Practices and Programming Error Troubleshooting

Document ID: 6662319 has been published to assist with common programming errors, descriptions and recommended helpful/general troubleshooting for SPS errors. Please refer to this page if you encounter a programming error within SPS2/TLC.

### 3. TLC Restricted Access

The following message may be seen when attempting to access Techline Connect:



The message indicates that the current ID is blocked from accessing Global Connect. This can be for several reasons but typically is due to a counterfeit MDI device.

To unblock the account, reach out to TCSC via CX Connect with the following information:

- User ID in Global Connect
- Email of User
- First and Last Name of User
- BAC/Dealer Code and Name of Dealership

TCSC will be able to reach out to the Cybersecurity team that will be able to determine the cause of the block and may be able to unblock the account. In the case of a counterfeit MDI, the counterfeit tool must be destroyed, and a legitimate Bosch device must be used to ensure the ID is not blocked again. Repeat offenders may not be unblocked from access.

### 4. E-9111/E-9113 TCM/MCVM Operation Errors

An E-9111 or E-9113 error may occur when programming the TCM, or after replacing the transmission assembly/valve body, and entering the TUN/PUN under MCVM Operations in SPS2.

The error is caused by a mismatch in data between the vehicle's TUN/PUN and the TUN/PUN uploaded in the GM database. Please ensure the complete TUN/PUN number is entered correctly, and that the TUN/PUN is in capital letters. Double check that the number zero (0) is not a letter "O" and that there are not any typos or extra characters.

If the TUN/PUN is correct, open a DCM case with TCSC and attach a clear picture of the replacement TUN/PUN in the case, as TCSC will require these to work with Engineering and have the issue addressed.

If you are receiving these errors via programming and the TUN/PUN was not replaced, TCSC may still require the TUN number.

### 5. T1XX Trucks ECM/Radio/IPC Part Missing from SPS2 Part Dropdown

When performing IPC Graphics programming, Radio USB, or ECM programming, you may be prompted in SPS2 to select "Service Hardware." However, this is misleading.

For IPC Graphics programming, use the "Boot Software Part Number 1" found in GDS2 under Identification Information.

Similarly, for the Radio USB Programming, use the "Calibration Part Number 1" (also may be called "Application Part Number 1") found in GDS2 under Identification Information.

Additionally, for the ECM, use the "Calibration Part Number 1" (also may be called "Software Module Part Number 1") found in GDS2 under Identification Information.

### 6. T1 Full-Size Trucks and SUVs Downsizing of Tires is Not Supported

Please be advised that downsizing tires of any kind is not supported on any T1 series vehicle from 2021 – Current. This includes full-size trucks (Silverado, Sierra) as well as SUVs (Tahoe, Suburban, Yukon, Escalade).

### 7. 2025+ T1XX Trucks and SUVs with 9C1/5W4 – Auto Protected Idle Requires No Changes from TCSC

These vehicles are pre-built with the correct calibration for Auto Protected Idle and no changes are required from TCSC.

If the build date of the vehicle is before August 2025, the vehicle will require a BCM update through SPS2 to receive the latest calibrations to accommodate the Auto Protected Idle.

**Note:** Auto Protected Idle does not add Extended Idle. Extended Idle is already enabled on 2025+ vehicles built with 9C1/5W4.

## HOW TO CONTACT TCSC

- **U.S. ONLY:** Assistance can be provided by using the CX Connect portal in Global Connect. If additional support is needed once the CX Connect case is created, contact TCSC at 1-800-828-6860. For U.S. only, a case is required for phone support.
- **Canada:** Contact TCSC at 1-800-828-6860 (English) or 1-800-503-3222 (French).
- **All other regions:** Contact your regional Technical Assistance team for Global Techline Support.

► Thanks to the Techline team

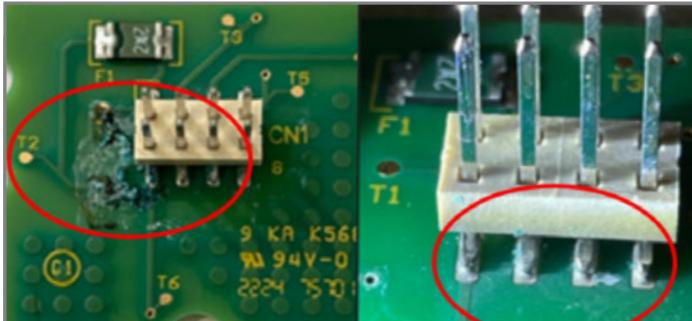
# 3rd-Row Seat Switch Diagnosis

Some 2025-2026 ESCALADE IQ models may have a 3rd-row seat that cannot be operated using the 3rd-row seat switches in the cargo area.



3rd-row seat switches

If diagnosis indicates the switch is inoperative, take the switch apart and inspect for signs of corrosion. The cause of the inoperative switch may be water leaking into the switch from the roof ditch molding area. A corroded switch will need to be replaced.

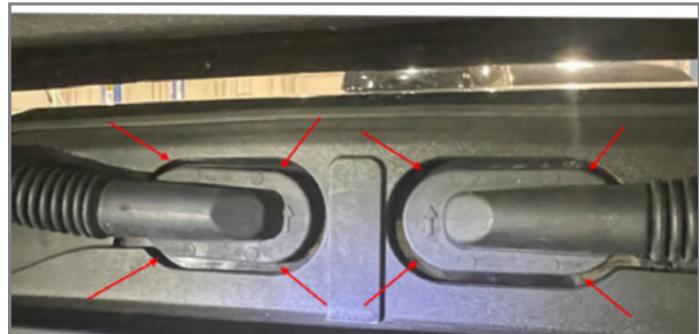


Corroded seat switch

Once the new switch is installed, check for water leaking into the vehicle. Before reinstalling the left-side D-pillar interior trim, spray water over the left-rear roof ditch molding area and inspect for a water leak in the vehicle. If water enters this area, it may run down the wiring harness that leads into the 3rd-row seat switches.

Check the following areas for a possible leak.

**Liftgate harness grommet** – Inspect the liftgate harness grommet around the entire grommet sealing surface. Reseat the grommet if needed.



Liftgate harness grommet

**Body seam** – Remove the left and right gutter trim and inspect the body seam areas for any sealant voids. Clean and reseal the seams if voids are found.



Body seam

**Trim clips** – Disengage the top gutter trim from the body and inspect the trim clips for the sealing gasket. Replace the clip if the gasket is damaged.

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Trim clip

**Liftgate weatherstrip** – Inspect the upper liftgate weatherstrip for proper sealing. Reseat if necessary.



Liftgate weatherstrip

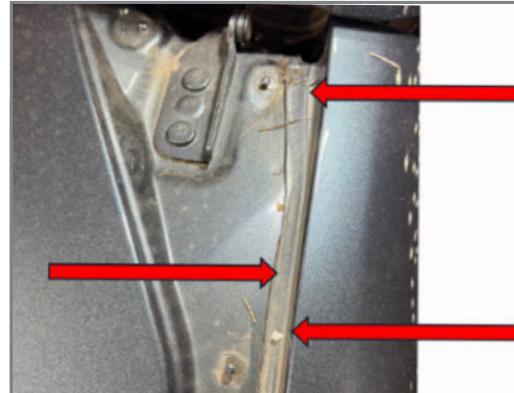


Liftgate actuator harness grommet

**Roof ditch –**

If the leak is coming from the roof ditch area, remove the liftgate hinge cover assembly and fill any missing body seams.

For more information, including the recommended seam sealer, refer to Bulletin #25-NA-342.



Roof ditch

**Liftgate actuator harness grommet** – Visually inspect the left-hand liftgate actuator harness grommet around the entire grommet sealing surface. Reseat if necessary.



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