BOLLINGER MOTORS

Technical Service Bulletin

Release Date: 07/11/2026

Bulletin Title: Fleet Maintenance

Description: Service action for removing CAN Bus resistors, cleaning & preventing DC to DC converter 12-volt cable corrosion, improving the location and visibility of the First Responders Cut Loop Labels, and improving the Motor Control Unit (MCU) high voltage cable dual clamp cable-ties locations.

Bulletin Number: TSB-725-01

Affected Vehicle & Model Information

Make: Bollinger
Model: B4
Year: 2025
Production Date Range: N/A

VIN(s):

7WE45CN57SL000038	7WE45CN52SL000027	7WE45CN55SL000040	7WE45CN57SL000033
7WE45CN52SL000058	7WE45CN5XSL000034	7WE45CN55SL000023	7WE45CN57SL000035
7WE45CN52SL000044	7WE45CN58SL000033	7WE45CN55SL000054	7WE45CN57SL000036
7WE45CN51SL000052	7WE45CN50SL000060	7WE45CN57SL000069	7WE45CN57SL000037
7WE45CN59SL000025	7WE45CN53SL000022	7WE45CN55SL000071	7WE45CN5XSL000034
7WE45CN50SL000057	7WE45CN50SL000043	7WE45CN59SL000073	7WE45CN52SL000027
7WE45CN59SL000056	7WE45CN59SL000039	7WE45CN57SL000055	7WE45CN5XSL000020
7WE45CN58SL000047	7WE45CN53SL000053	7WE45CN56SL000046	7WE45CN54SL000028
7WE45CN54SL000045	7WE45CN53SL000070	7WE45CN59SL000042	7WE45CN50SL000026
7WE45CN57SL000041	7WE45CN57SL000024	7WE45CN57SL000072	7WE45CN58SL000002
7WE45CN52SL000013	7WE45CN54SL000014	7WE45CN58SL000016	7WE45CN5XSL000020
7WE45CN53SL000019	7WE45CN57SL000030	7WE45CN56SL000029	

Subject:

- Controller Area Network (CAN) termination enhancement, ensuring optimal CAN BUS stability.
- Inspection of the DC to DC converter 12-volt connection and removal of the dust cover.
- Repositioning the First Responders flag ensures maximum visibility and improved placement.
- Improving the position of the MCU high voltage cable dual clamping cable-ties.

Symptom:

- CAN BUS instability.
- Potential corrosion of the DC to DC Converter 12-Volt power cable due to dust cover orientation.
- Improved location of the First Responders Cut Loop Label.
- Improved the MCU high voltage cable dual clamp cable-tie position.

Discussion:

- To reduce CAN instabilities, three termination resistors should be removed, which will bring the overall bus resistance closer to the target of 60 ohms.
- The dust cover orientation for the DC to DC Converter 12-volt cable connection may trap debris and moisture, which could lead to corrosion and result in a poor connection.
- Improving the location of the First Responders Cut Loop Labels.
- Improving the location of the MCU high-voltage dual clamp cable ties.

Labor & Parts Information

Labor Operation:	Labor Operation Code	Labor Operation Time
A. CAN Bus Resistor Removal – 3 Resistors in total		
• Removing Resistors	1015.1060	.2 hour
• Removing the Grille	1765.1060	.3 hour
B. Removal of the terminal cap, Inspection of the 12-volt terminal (DC to DC Converter), and applying corrosion inhibitor (battery terminal protectant)		
• Removal of terminal cap, cleaning, & applying battery terminal protectant	1015.1060	.2 hour
• DC to DC Converter Shield Removal	1015.1060	.2 hour
• DC to DC Converter Shield Installation	1015.1060	.2 hour
C. Remove and replace the First Responder Cut Loop Labels and secure in the improved locations	1015.1060	.2 hour
D. MCU High Voltage Cable Dual Clamp Cable-Tie, Improved Position	1015.1060	.2 hour

Labor Time Allocation: Total – 1.5 hours

Parts / Kits Required, Included and Provided:

Quantity	Part / Kit Number	Part Group Name	Description
1	S129205A	Service Kits	Fleet Maintenance Kit

Parts Included in Kit:

Quantity	Part / Kit Number	Part Group Name	Description
3 †	S129097A	Electrical / Wiring	Electrical seal cap for CAN termination locations
3 †	S116577A	Labels	Emergency First Responders Cut Label
3 †	S096425A	Electrical / Wiring	Dual Clamp Cable Tie

† Note: 1 extra item included

Parts NOT Included in Kit:

Quantity	Part / Kit Number	Description
1	Corrosion Spray	DC to DC 12-volt cable dust cap removal, inspection, cleaning & corrosion treatment. Corrosion spray from dealer shop supplies; reimbursement provided in labor time calculation.

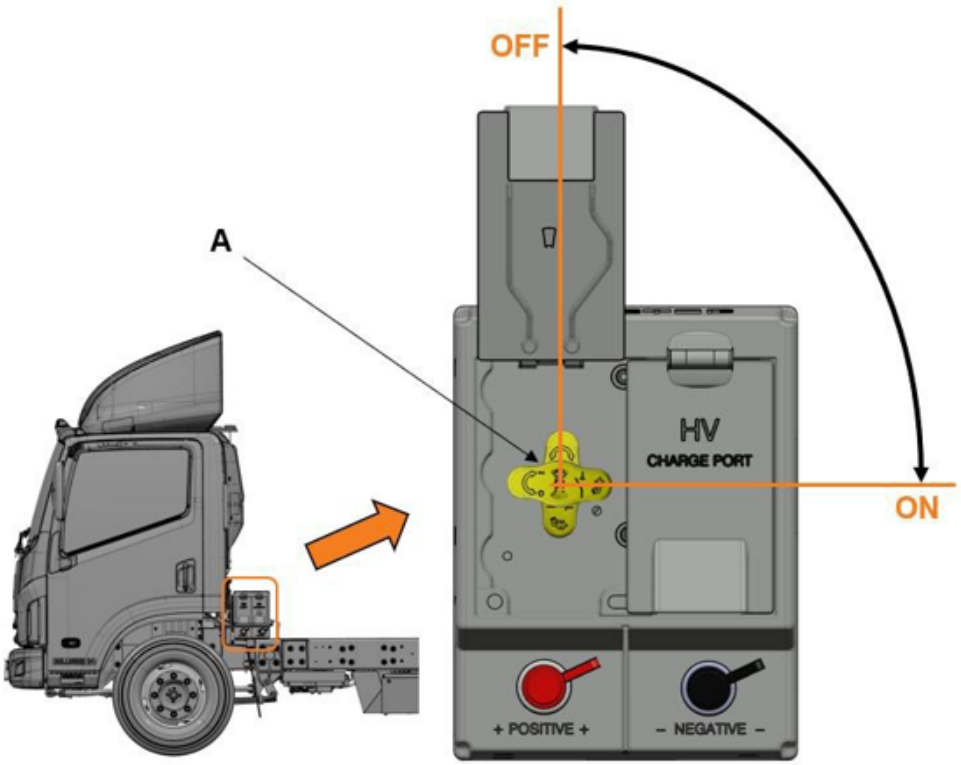
Bulletin Repair Procedure Details

HIGH VOLTAGE DISABLING PROCEDURE

WARNING: TO PREVENT THE RISK OF HIGH-VOLTAGE SHOCK, PRECISELY FOLLOW ALL WARNINGS, INCLUDING INSTRUCTIONS TO DISABLE THE HIGH VOLTAGE SYSTEM. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH.

Always exercise caution and follow proper procedures when working with electric vehicles. If you are ever unsure, seek professional guidance or call for assistance.

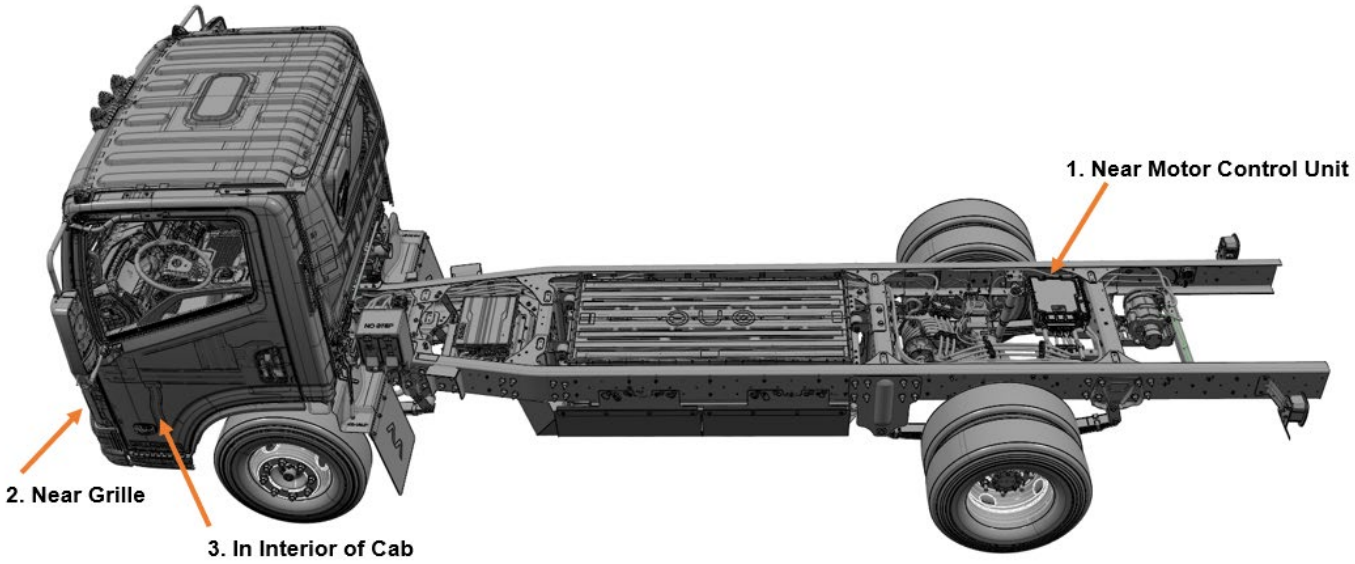
1. **Turn High Voltage Shut-Off Switch to OFF (A)**
   - Rotate the High Voltage Shut-Off Switch counterclockwise to the OFF position.
2. **Disconnect the 12-Volt Battery or Auxiliary Power**:
   - When working on high-voltage components, it is crucial to disable the electric vehicle first.
   - Start by disconnecting the 12-volt or auxiliary power. This action stops any systems from turning on and prevents activation of relays or high-voltage components.
3. **Wait at Least 10 Minutes**:
   - Even after disabling the system, some high-voltage components may retain energy due to capacitors.
   - Wait for at least 10 minutes to allow the energy to dissipate fully.
   - Remember that you are still dealing with a high-voltage system, so prioritize safety throughout the process



WARNING: THE HIGH VOLTAGE DISABLING PROCEDURE MUST BE COMPLETED BEFORE PERFORMING ANY WORK ON, WITH, OR IN PROXIMITY TO ANY HIGH VOLTAGE COMPONENT, CABLE, OR CONNECTION. COMPLIANCE WITH ALL APPLICABLE PERSONAL PROTECTIVE EQUIPMENT ("PPE") REQUIREMENTS AND PRESCRIBED SAFETY PROCEDURES IS MANDATORY.

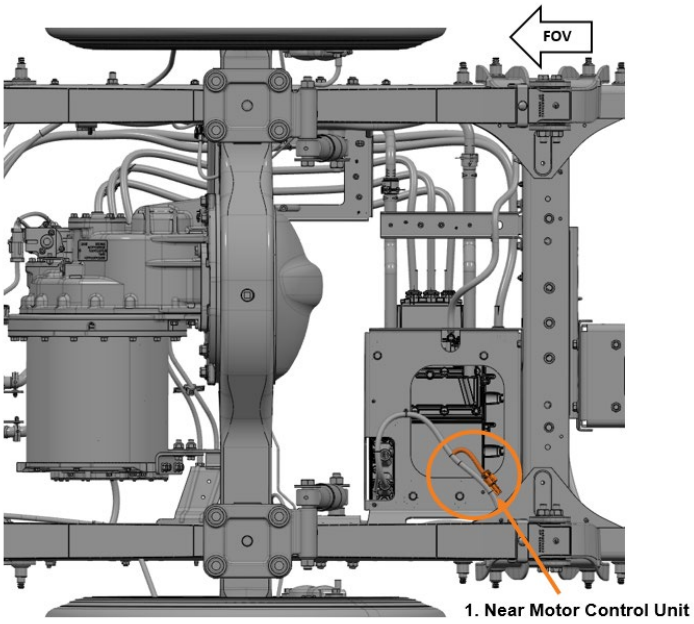
A. CAN Bus Resistor Removal – 3 Resistors in total.

Resistor locations:

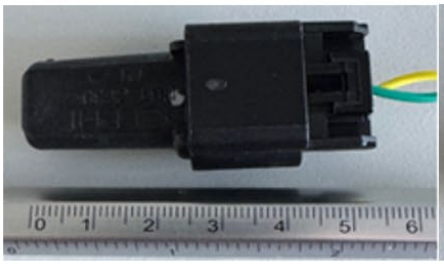


Resistor 1:

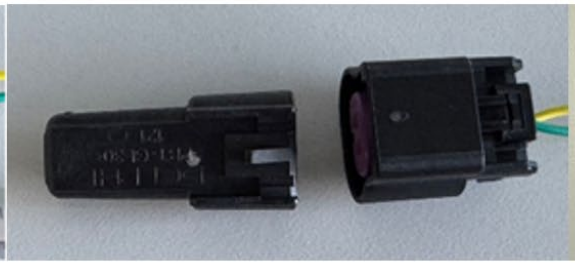
1. Locate and remove the CAN termination resistor. This resistor is located near the rear of the vehicle underneath the MCU, as indicated by the orange arrow below. Press the release tab on the wire harness side of the connector to detach the resistor. Once removed, dispose of the resistor properly.



2. Replace the resistor with the provided cap to protect the connector.



Old Resistor in Harness



Old Resistor and Mating Connector

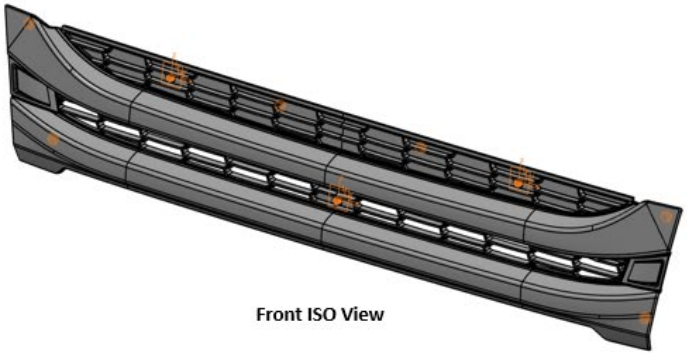
New Cap - Top and Bottom View

Resistor 2:

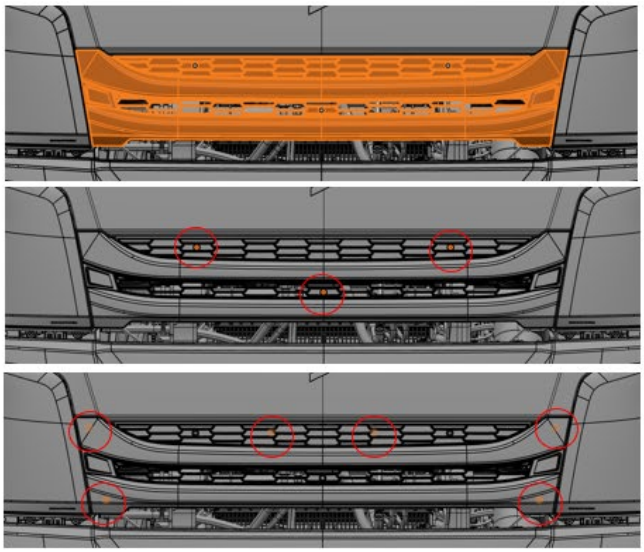
1. Locate and remove the CAN termination resistor. This resistor is located in front of the vehicle and behind the grille. The grille must be removed to access the resistor. This can be accomplished by removing the three 10 mm bolts and disengaging the nine pushpins as indicated below.

Service - Body Panels - Removal

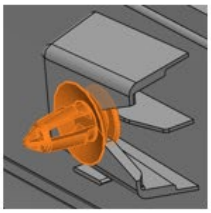
- ❑ **Remove the Grille**
  - ❑ Remove three fasteners.
  - ❑ Using a trim panel removal tool, carefully pry to unsnap the six pushpins to remove the grille.

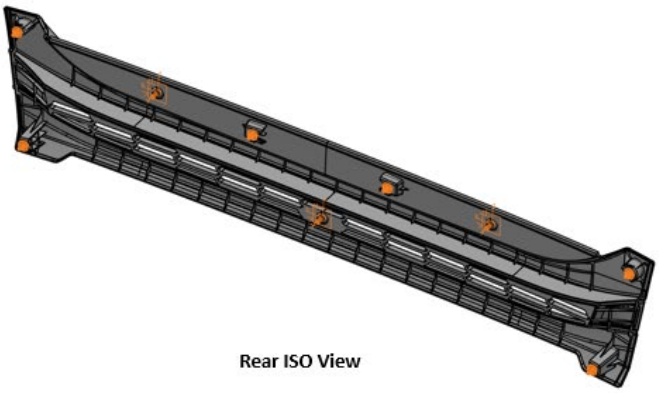


Front ISO View

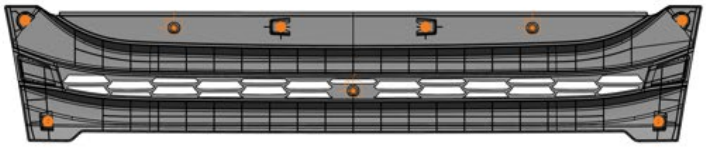


Front View



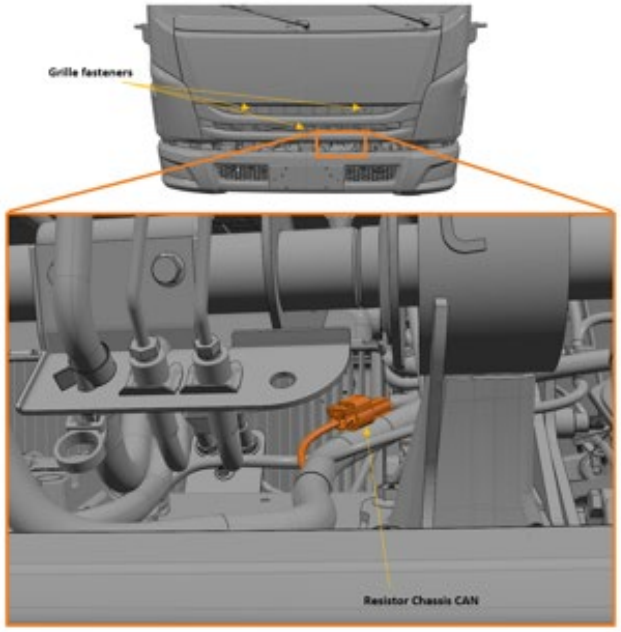


Rear ISO View

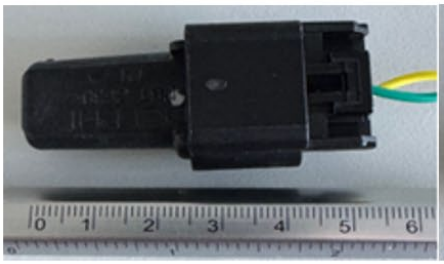


Rear View

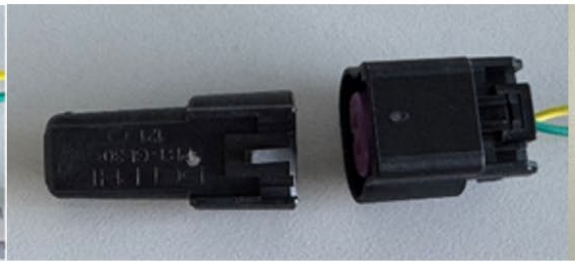
2. Once the CAN termination resistor is accessible, verify that the white ID reads "Resistor Chassis CAN". Remove the tape securing the connector and press the release tab on the wire harness side of the connector to detach the resistor from the harness. Once removed, dispose of the resistor properly.



3. Next, replace the resistor with the provided cap to protect the connector. Using electrical tape, safely secure the harness takeout to prevent damage to the harness.



Old Resistor in Harness



Old Resistor and Mating Connector

New Cap - Top and Bottom View

Resistor 3:

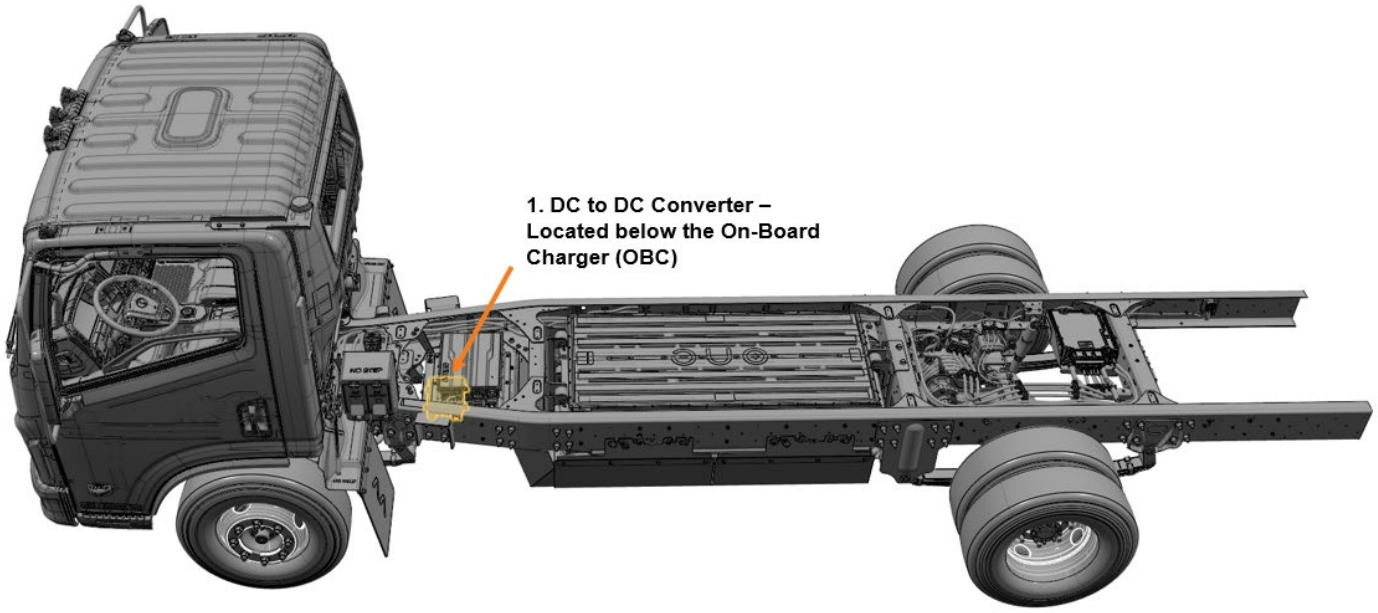
1. Locate and remove the CAN termination resistor (Figure 1). This resistor is located on the driver's side of the interior cab, near the OBD port. Resistor 3 is grey, as opposed to resistors 1 and 2, which are black. Resistor 3 will have electrical tape wrapped around it. Carefully remove the electrical tape and disconnect the grey resistor from the white electrical connector.

Figure 1 - Location of CAN resistor

Figure 2 - New Cap – Top and Bottom View

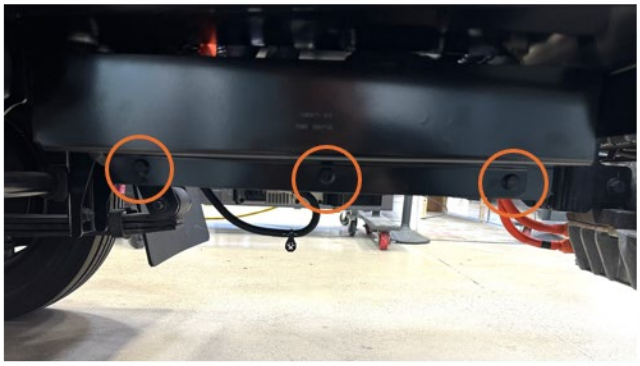
2. Press the release tab on the wire harness side of the connector to detach the resistor from the harness. Once removed, dispose of the resistor properly.
3. Next, replace the resistor with the provided cap to protect the connector (Figure 2). Using electrical tape, safely secure the harness takeout back to the harness. Please use the images above for reference.

B. Removal of the terminal cap, Inspection of the 12-volt terminal (DC to DC Converter), and applying corrosion inhibitor (battery terminal protectant)

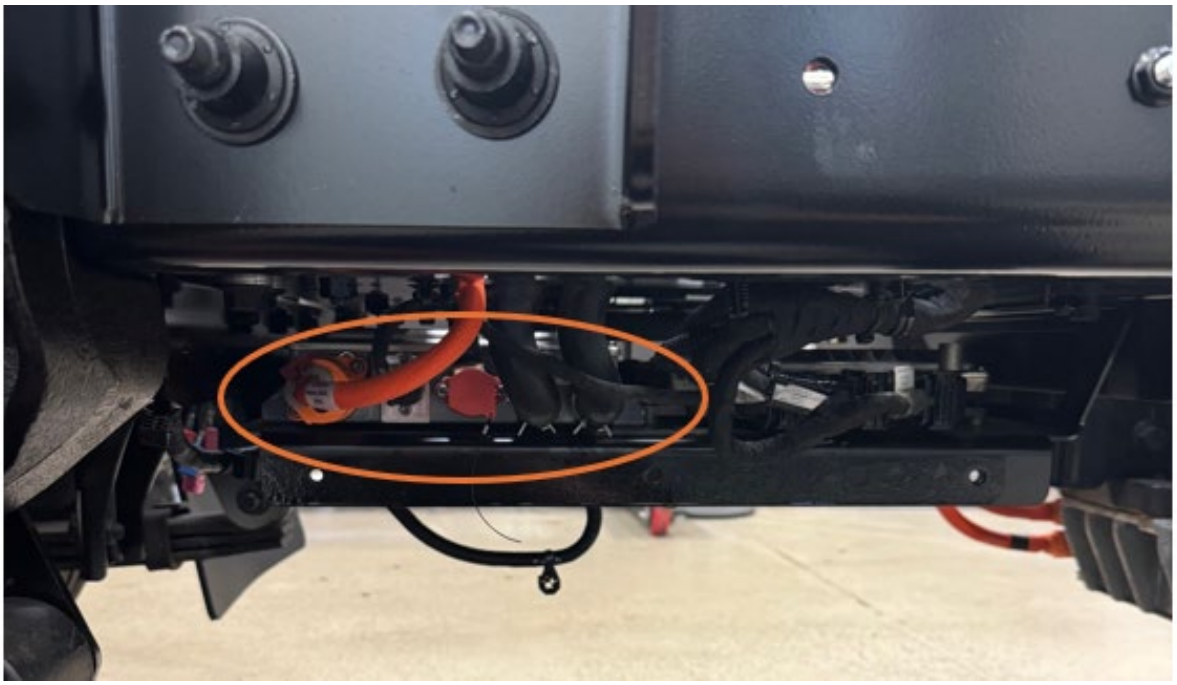


Note: Refer to the HIGH VOLTAGE DISABLING PROCEDURE found on page 3 of this technical bulletin before performing any service or repair.

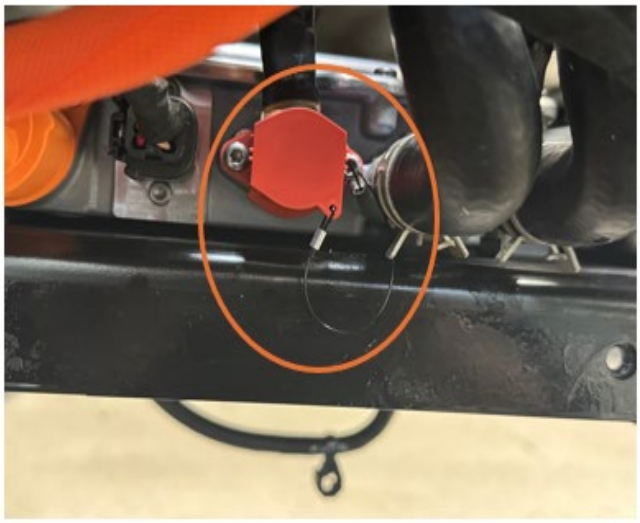
1. Remove the shield cover in front of the DC to DC converter. Use a 13mm socket or wrench to remove the five fasteners securing the cover, then remove the cover from the vehicle. Reference the images below.

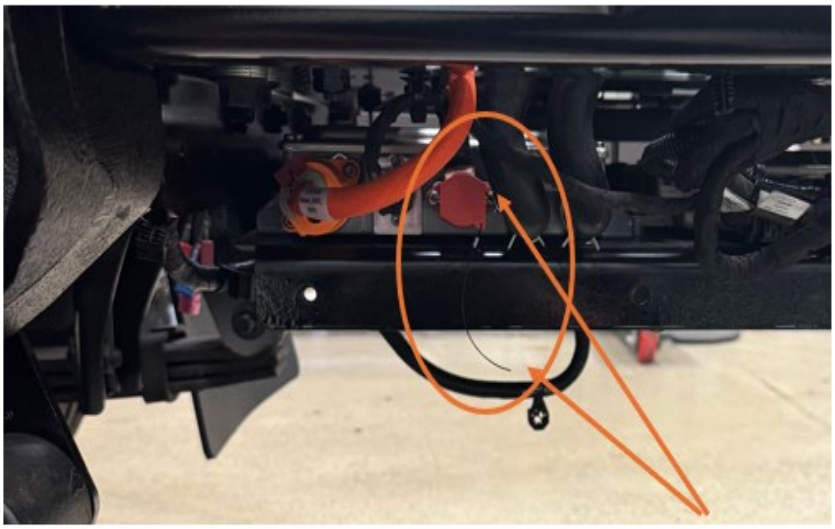


Note: After removing the cover, the DC to DC converter will be visible from under the vehicle.



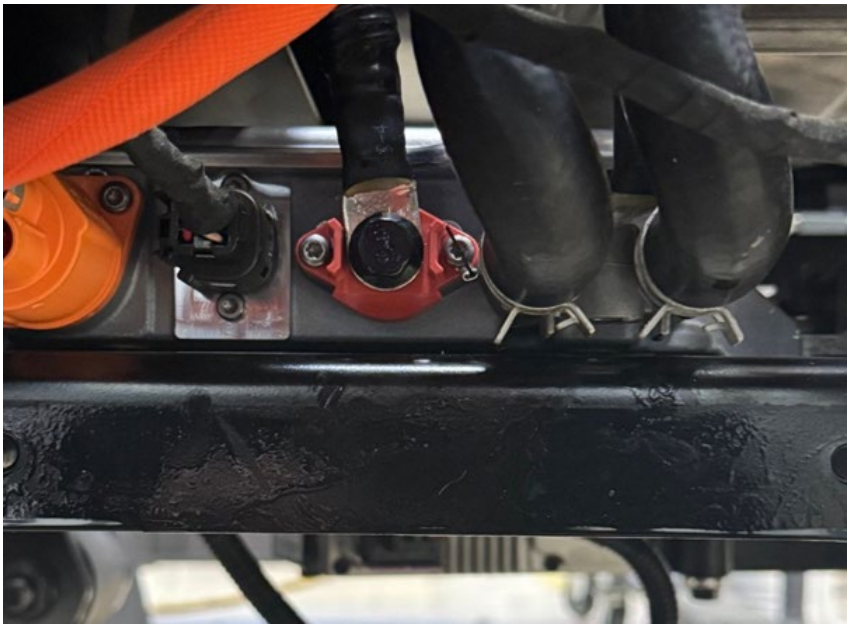
2. Locate the red plastic terminal cover shown below. This cover can be easily removed by pulling it away from the DC to DC converter. A small wire tether connects the red plastic terminal to cover the DC to DC Converter. Cut the tether close to the tether crimp to detach the protective cover entirely from the vehicle. Reference images below.



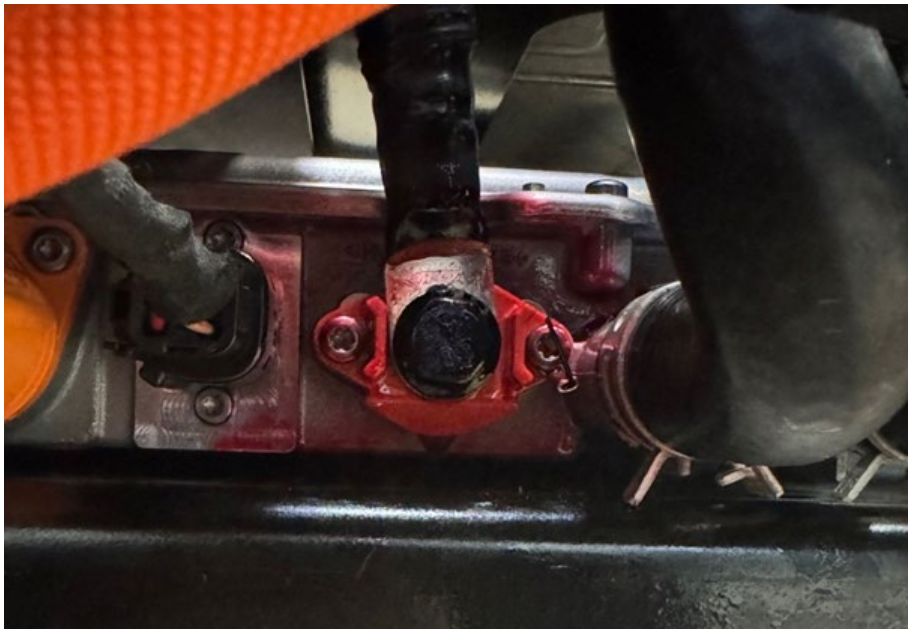


3. After carefully removing and discarding the cover, take a moment to inspect the connection for any signs of corrosion. If you notice corrosion, remove the fastener and, for best results, use a soft to medium wire brush to clean both the fastener and the terminal thoroughly. Handle everything with care to avoid causing damage.

Example – DC to DC connection with protective cover removed



4. Apply terminal corrosion protection to the connection, such as CRC Battery Terminal Protection spray or equivalent. Reassemble and torque the DC to DC Converter cable fastener to 18 Nm (13 ft-lbs.). Reapply & treat the bolt and eyelet with the battery terminal protection spray.



5. Reinstall the DC to DC Converter cover/shield, ensuring all five fasteners are correctly installed and secured to the correct torque of 21 Nm (15.5 ft-lbs.). DC to DC Converter repair is now complete.

C. Remove and replace the First Responder Cut Loop Labels and secure them in the improved locations.

Note: Refer to the HIGH VOLTAGE DISABLING PROCEDURE found on page 3 of this technical bulletin before performing any service or repair.

1. Locate the First Responders Cut Loop Labels, use the image below as a reference.

2. Using a pair of scissors, carefully remove the labels and discard them.

Note: Do not use razor blades or "box cutter knife" like tools. If used, there is a risk of damaging the wire loom sleeve or wiring insulation.

3. Place new labels at the two locations, highlighted below, using the first responder cut loop labels provided. The first label should be placed on the High Voltage Battery Crash Line, a small bundle of wires that run along the frame rail and then lead into the 12-Volt Shutoff box. (Figures 1 & 2)
4. The second label should be placed on the negative battery cable before it connects to the battery (Figure 3)

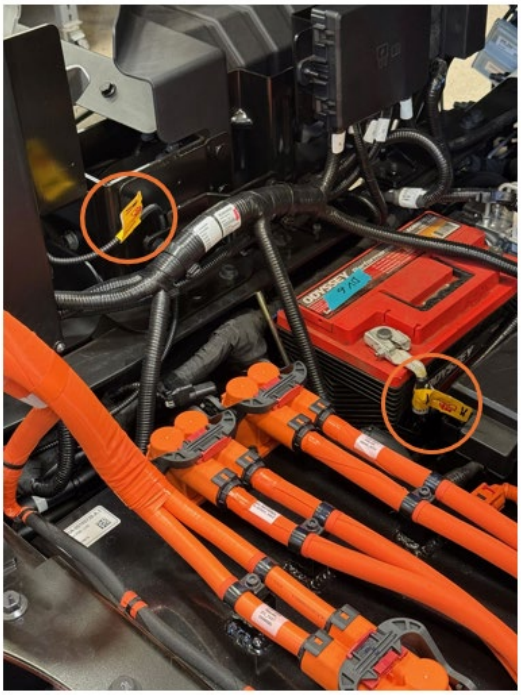


Figure 1

Figure 2

Figure 3

D. MCU High Voltage Cable Dual Clamp Cable-Tie, Improved Position

Note: Refer to the HIGH VOLTAGE DISABLING PROCEDURE found on page 3 of this technical bulletin before performing any service or repair.

Dual Clamp Cable -Ties are installed in the incorrect position shown in the red box. The dual clamp tie shall be in the green box (Figure 1). Top View (Figure 2), Bottom View)

Inspect the dual clamp tie position. If dual clamp ties are already in the correct position, there is no need to proceed to the next step.

1. Install a Dual clamp tie (BoMo Service PN - S096425A, Supplier Hellerman Tyton: PN 115-31100) at the location shown in the green box.
   a. Cable #3 dual clamp tie shall be 27 cm (10.5 in.) to 29 cm (11.5 in.) away from the motor retention bracket.
   b. Cable #2 dual clamp tie shall be 30 cm (11.8 in.) to 33 cm (13 in.) away from the motor retention bracket.
   c. There should be no movement of dual clamp ties after installation.
2. Remove the dual clamp ties in the red box using a small or pocket-style flat-tip screwdriver to release the clamp tie locking tab.

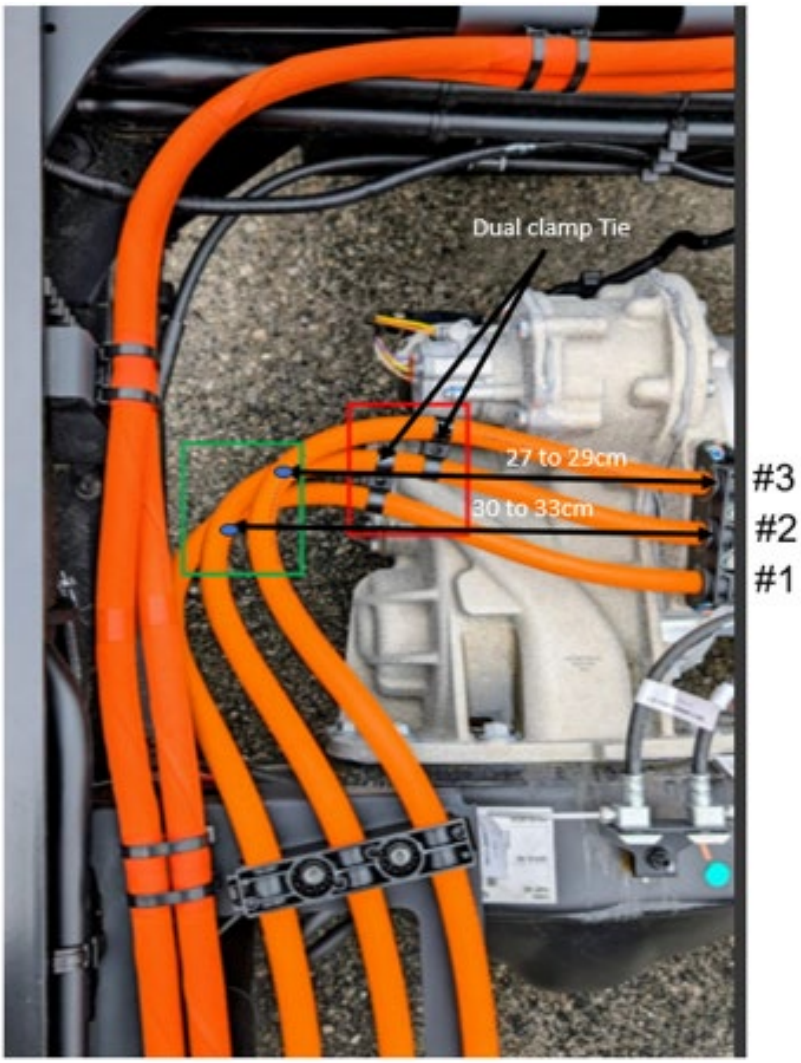


Figure 1 – Top View

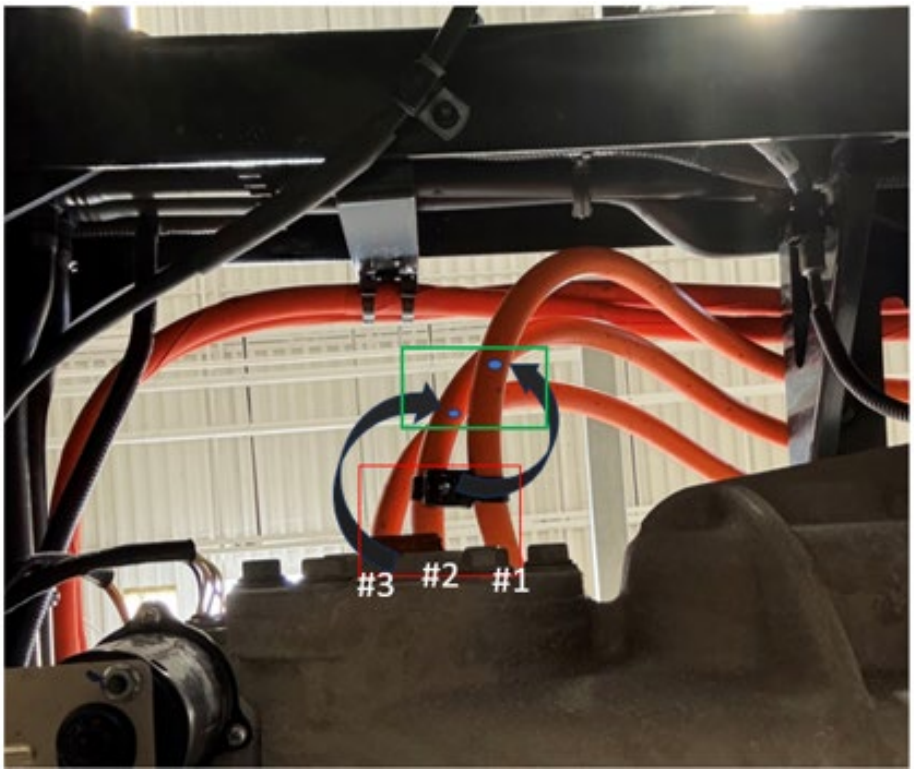


Figure 2 – Bottom View

Post-Repair Actions

1. **Verification**:
    - Image verification of DC to DC Converter 12-volt cable cleaned, and spray protectant applied.
    - Image of First Responder Cut Loop Labels installed in the improved locations.
    - Image of dual clamp cable ties in the improved positions.
2. **Documentation**: Images of verification steps provided with the claim, TSB PDF, and repair order as attached to the warranty claim.
3. **Warranty Submission**: To submit the warranty, claim for this technical service bulletin, select Dealer Stock Unit (not PDI) as the Service Type on the claim for all dealer stock units and the Warranty service type for all non-dealer stock units. Select Complaint, Cause, Corrective Action, and add descriptions. Attach a copy of the TSB and the repair order to the claim.