

Work Instructions

Subject: New Cascadia Aluminum Battery Cable Replacement

Models Affected: New Cascadia Vehicles without Cummins engines or in-rail battery boxes built from 11/26/2018 to the present

General Information

This customer advisory letter is intended to provide parts for inspection by DTNA Engineering to finalize a technical solution for an upcoming recall: FL893/NHTSA 21V-481.

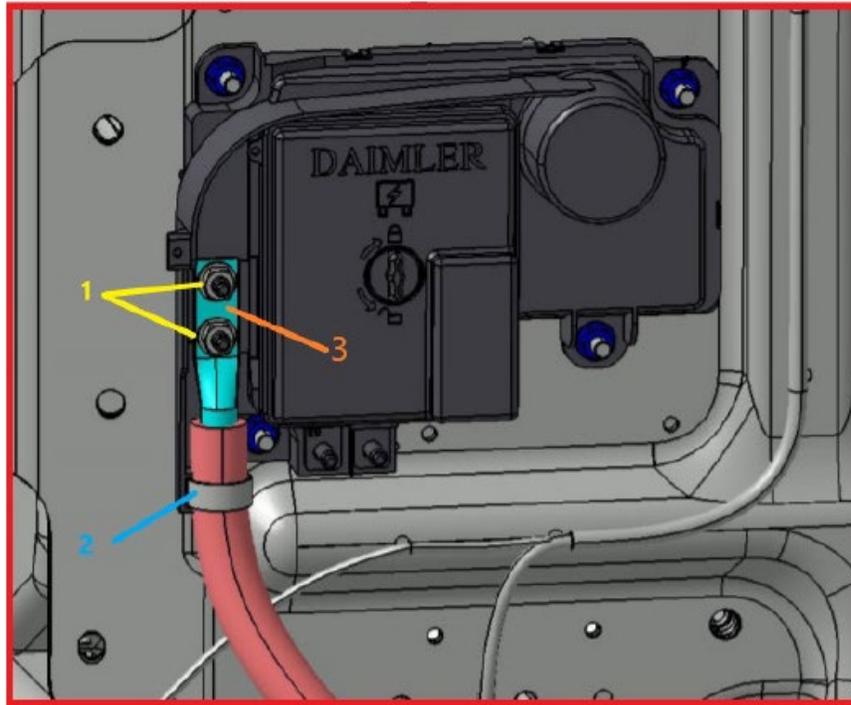
The work instructions below describe the replacement of four aluminum battery/powernet cables with copper equivalents and the installation of an updated DK clamp (part number 23-13454-001). The four cables are located in the following modules: 281, 29A, 291, 49U, 49V, 49W, and 49Y.

Please see the attached spreadsheet for a part number crossover parts list of aluminum cables to copper cables.

Work Instructions

1. Park the vehicle on a level surface, shut down the engine, set the parking brake, and remove the key from the ignition. Chock the tires.
2. Disconnect the batteries.
3. Open the hood.
4. Using PartsPro®, determine the location of the four cables to be replaced on each specific vehicle using the modules noted above.
5. Remove and set aside the negative cables at the battery location.
6. Make a note of both the part number in PartsPro and the respective length of the negative cables.

NOTE: The battery cable access (BCA) is located on the passenger side of the engine wall, facing forward. See **Fig. 1**.



1. Studs Securing Main Positive 29A cable to the BCA.
2. Zip Tie Securing Cable to BCA
3. Cable End and BCA Plate Connection

Fig. 1, Battery Cable Access Location

7. Locate the two studs that secure the main positive 29A cable to the BCA. See callout 1 in **Fig. 1**. The 29A cable may be covered in a red dielectric coating.

NOTE: Do not use power tools when removing the nuts from the studs of the BCA.

8. Hold the ends of the studs in the non-threaded area with vice grip pliers to avoid the stud spinning in the case of the BCA during removal.
9. Using a 13 mm box end wrench, turn the nuts counterclockwise to remove them from the studs.
10. Remove the 29A positive cable and set it aside.
11. Replace it with the appropriate copper cable from the crossover parts list.
12. Replace the nuts on the stud with fresh stainless steel patchlock nuts (part number 23-14592-008) or non-patchlock stainless steel equivalent. Apply a drop of LOCTITE® Blue 242 to the area of the studs the tightened nuts will overlap.

NOTE: If the stud(s) start to turn in the BCA, do not discard the BCA. The BCA will not be damaged by minor rotation of the 29A cable-mounting studs.

13. Hold the end of each stud with a vice grip pliers and tighten each nut to 10.3 to 11.8 lbf•ft (154 ±1 N•m) with a 13 mm box end wrench to secure the newly installed copper cable to the BCA.
14. Install the new DK clamp (part number 23-13454-001) to keep cables properly routed.
15. Please present your respective field service representative with any aluminum cables replaced that have not failed. Please label cables as belonging to one of the following categories:
 - a. Below 100K miles of service.
 - b. From 100K to 250K miles of service.
 - c. Over 250K miles of service.