

5/14/2020
CAL FTL 54-007

**Subject: Cab-to-Chassis Redundant Ground
Strap Installation - FTL Service Bulletin 54-
318.**

**Models Affected: On New Cascadia vehicles Penske/Black Horse
units built prior to May 23, 2019.**

Our records indicate that you are the owner of certain vehicles, and DTNA has decided to share the following documentation with you.

On New Cascadia vehicles built prior to May 23, 2019, cab wiring can be damaged with an incorrect ground location or loose ground connections. This can result in inoperable LIN bus-related steering wheel switches, cruise control dropout, poor AM/FM radio reception, and an inoperable steering wheel clockspring. Installing a redundant ground strap from the main ground junction block (MGJB) to the frame will protect the vehicle from unexpected loss of cab grounding, and restore proper operation of the steering wheel switches, the radio, and the steering wheel clockspring .

Please see the attached communication in this email. We hope you find this information helpful.

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Work Instructions

Subject: Cab-to-Chassis Redundant Ground Strap Installation - FTL Service Bulletin 54-318.

Models Affected: On New Cascadia vehicles Penske/Black Horse units built prior to May 23, 2019.

Redundant Ground Strap Installation

1. Park the vehicle on a level surface, apply the parking brakes, and shut down the engine. Chock the tires.
2. Disconnect the batteries.
3. Use a 13-mm socket to remove the capscrew located below the bulkhead module connector on the main ground junction block (MGJB), located on the left-hand side of the frontwall. See [Fig. 1](#).



Fig. 1, Removing the Capscrew

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4. Scrape a small amount of paint off of the bracket so that the face of the capscrew will have metal-to-metal contact. See [Fig. 2](#). This ensures that the ground strap and the MGJB have continuity with the frontwall when the nut is installed.

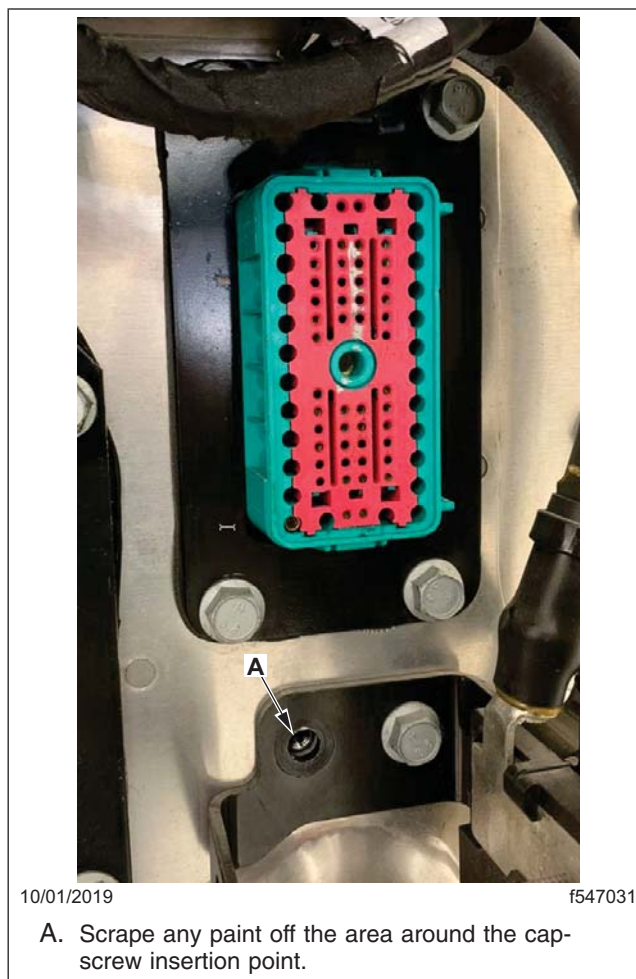


Fig. 2, Cleaning the Area Around the Bracket

NOTE: Both sleeper cabs and day cabs with an under-cab battery box mounting have the same frame-mounted power ground (GNDP) stud. See [Fig. 3](#).

5. Determine the location for the redundant ground strap.
 - 5.1 Check to see if the battery box is mounted between the frame rail. On vehicles that have a battery box mounted between the frame rail, there is a ground strap running from the flywheel housing to the left-hand side frame rail. This is the most accessible frame rail stud for mounting the redundant ground strap. See [Fig. 4](#).
 - 5.2 If the vehicle has an under-cab battery box, check for a ground stud on the left side outer frame rail. There will be a difference between applications with frame rail battery box mounting and an under-cab battery box mounting, depending on the 282 data code for the build. Vehicles with an under-cab battery box mounting will not have the ground mounting stud, as shown in [Fig. 5](#). In this case, the best location is the GNDP stud shown in [Fig. 4](#).

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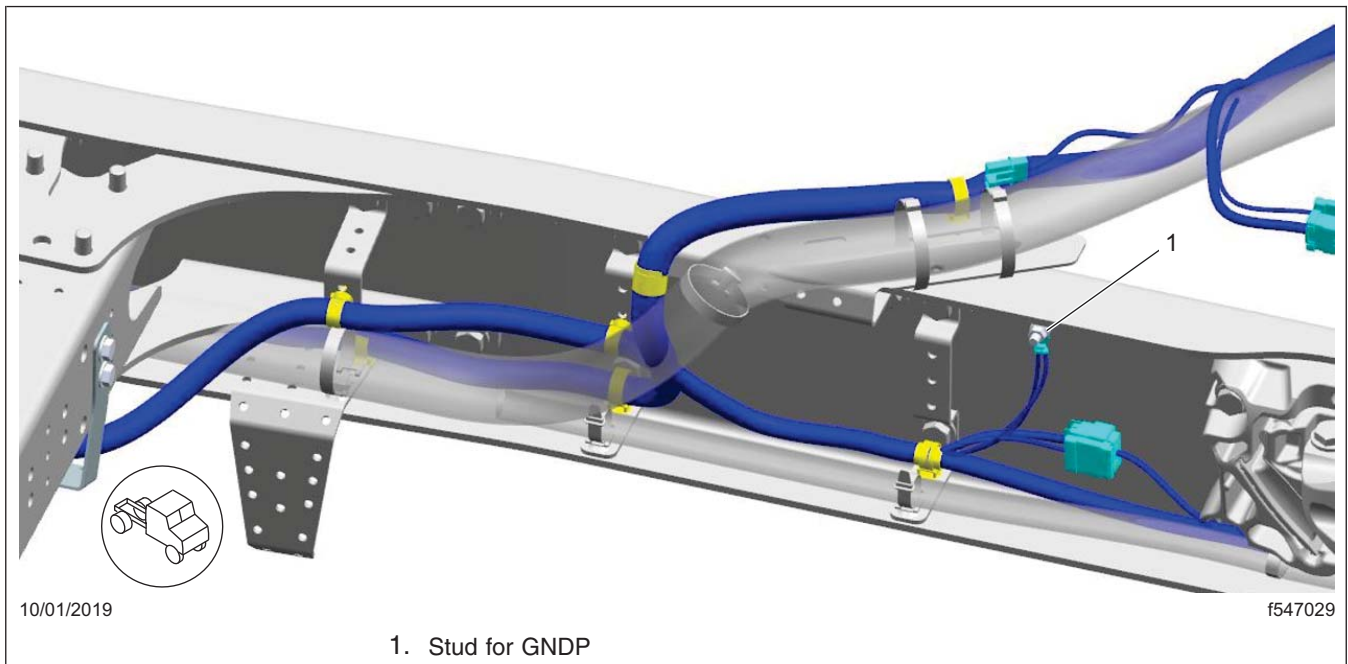


Fig. 3, Frame-Mounted Stud for GNDP

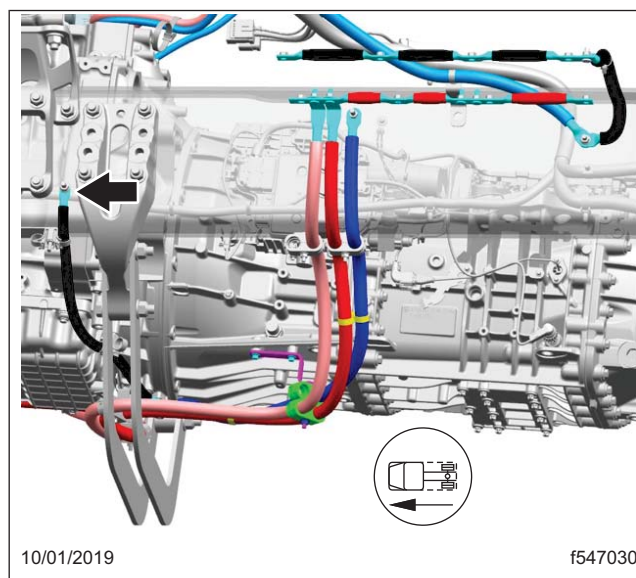


Fig. 4, Location for the Ground Strap

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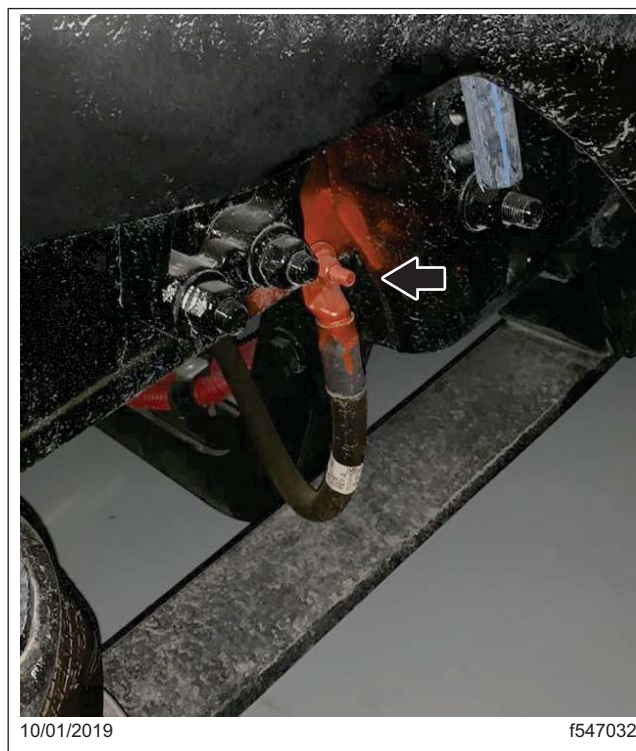


Fig. 5, Ground Stud on the Left-Hand Side of the Vehicle

6. Once the stud for the redundant ground strap is determined, remove the nut from the stud. Clean off the anti-corrosion spray as necessary to ensure clean contact with the face of the existing cable. Install the ring eye of the new ground cable on the stud, and install the nut. Tighten the nut to 26 lbf·ft (35 N·m).

Determine the correct new redundant ground cable length from the two lengths found in [Table 1](#). Install, route, and secure the redundant ground cable as needed to avoid rubbing on other components.

IMPORTANT: If the GNDP stud is used for this redundant strap installation, the original GNDP ring eye must be clean, secure, and tightened properly.

7. Install the other end of the new ground cable to the frontwall using the original capscrew, and tighten 11 to 17 lbf·ft (15 to 23 N·m).
8. Cover the stud on the frame used for this jumper with anti-corrosion spray.
9. Connect batteries.

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10. Verify the repair. Use a voltmeter to make sure that there is no voltage present between the frontwall and the frame in both key ON and key OFF positions.

Parts

Parts are available at the PDCs. See [Table 1](#) for required parts.

NOTE: Only one ground cable is required for this procedure.

Parts Required		
Part Name	Part Number	Quantity
Ground Cable, 52-inch (132 cm)	A06-59499-052	1
Ground Cable, 70-inch (178 cm)	A06-59499-070	1
1-Inch (2.5 cm) Section Shrink Tubing	—	2

Table 1, Parts Required