

# ***SERVICE PROCEDURE***

22516  
SEPTEMBER 2022

**SUBJECT: SAFETY RECALL**

Alternator Ground Location on certain International® LT® Series trucks built 12/15/2015 thru 09/07/2020 and 2018 thru 2021 International® LoneStar® Series trucks built 07/21/2017 thru 08/24/2020 with Cummins® engines, feature codes 0008G XK, 0008GHJ and 0008GWY (high output alternators 275 to 375 amp output), and feature codes 0016UZL and 0016VLN (no idle HVAC), or 008XDM and 008XLD (DC to AC power inverter)

**CUSTOMER LETTER**

Print ready (PDF file) copy of the [Customer Letter](#)

**DEFECT DESCRIPTION**

During high electrical demand, the cables that ground the batteries to the vehicle frame can carry the full system current and may result in excessively hot battery ground cables and in some cases, battery post separation. Excessively hot battery ground cables can cause personal injury during battery maintenance repairs or a battery post that separates from the battery can result in engine shut down without warning and increase the risk of a vehicle crash.

**MODELS INVOLVED**

This Safety Recall involves certain International® LT® Series trucks built 12/15/2015 thru 09/07/2020 and 2018 thru 2021 International® LoneStar® series trucks built 07/21/2017 thru 08/24/2020 with Cummins® engines, feature codes 0008G XK, 0008GHJ and 0008GWY (high output alternators 275 to 375 amp output), and feature codes 0016UZL and 0016VLN (no idle HVAC), or 008XDM and 008XLD (DC to AC power inverter).

## **ELIGIBILITY**

This procedure applies ONLY to vehicles marked in the International® Service Portal<sup>SM</sup> with Safety Recall 22516. Also complete any other open campaigns listed on the Service Portal at this time.

## **PARTS INFORMATION**

**NOTE: There are two Parts kits for this campaign. One for vehicles built with No Idle HVAC and one for all others.**

<b>Part Number</b>	<b>Part Description</b>	<b>Quantity</b>
8900300R91	Kit, Alternator Ground Harness – With No Idle HVAC	1
8900301R91	Kit, Alternator Ground Harness – Without No Idle HVAC	1
NPN	Softener Gel, Red Paint, and Blue Dielectric Grease	As Needed

**8900300R91** contains the following parts:

<b>Part Description</b>	<b>Quantity</b>
Harness, Charging – With No Idle	1
Nut, Battery Terminal	2
Strap, Cable Lock	17
Strap, Cable Lock 250	2

**8900301R91** contains the following parts:

<b>Part Description</b>	<b>Quantity</b>
Harness, Charging – Without No Idle HVAC	1
Nut, Battery Terminal	2
Strap, Cable Lock	17
Strap, Cable Lock 250	2

## SERVICE PROCEDURE

**WARNING!** To prevent personal injury and / or death , or damage to property, park vehicle on hard flat surface, turn the engine off, set the parking brake and install wheel chocks to prevent the vehicle from moving in both directions.

**WARNING!** To prevent personal injury and / or death, always wear safe eye protection when performing vehicle maintenance.

**WARNING!** To prevent personal injury and / or death, or damage to property, allow components in engine compartment to cool before servicing engine or vehicle.

**WARNING!** To prevent personal injury and / or death, or damage to property, keep flames or sparks away from vehicle and do not smoke while servicing the vehicle's batteries. batteries expel explosive gases.

**WARNING!** To prevent personal injury and / or death, or damage to property, remove the ground cable from the negative terminal of the battery batteries before disconnecting any electrical components. Always connect the ground cable last.

1. Park vehicle on flat surface.
2. Shift transmission to Park or Neutral and set parking brake.
3. Turn vehicle ignition to Key OFF position.
4. Install wheel chocks.
5. If necessary, remove driver-side vehicle side skirt. Refer to appropriate service information.
6. Disconnect and isolate negative battery cable from main vehicle battery. Discard nut.
7. Unlatch and open hood.
8. Remove driver-side front fender extension. Refer to appropriate service information for detailed instruction.

9. Obtain access to the vehicle alternator and starter.

**CAUTION!** To prevent damage to property or vehicle components, red sealant paint must be thoroughly softened and fully removed from bolt and threads. Avoid drip onto unwanted surfaces. Do not apply to rubber, wire insulation and the like, only metallic surfaces.

10. Using paint brush, apply gel softener onto all RED coated alternator and starter harness cable nuts and studs.

**NOTE: A longer set time will yield better results.**

11. Allow gel softener to sit for 10 to 15 minutes to soften the RED coating.
12. Remove air cleaner intake tube. Refer to appropriate service information for detailed instruction.
13. Record alternator harness routing and clipping points.
14. Remove and discard cable tie wraps securing alternator harness.



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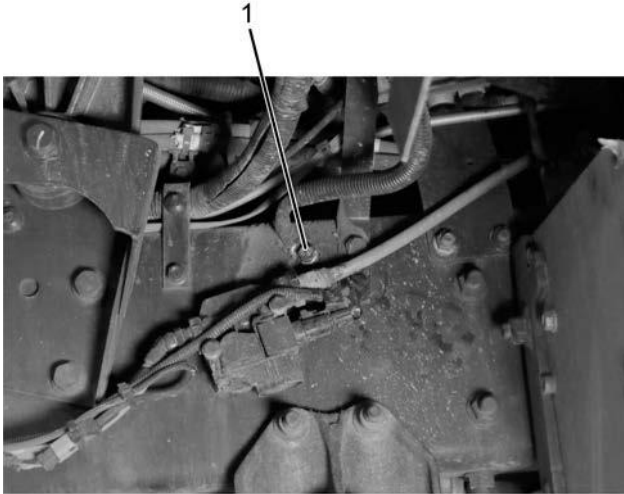
**Figure 1. Harness Retaining Bracket**

1. Bracket

15. If necessary, reposition harness retaining bracket (Figure 1, Item 1). Save fasteners for reuse.

**NOTE: Ensure removal of RED gel coat on mating surface of eyelet connectors, nut, washers, threads, or any contact surface that may disrupt continuity.**

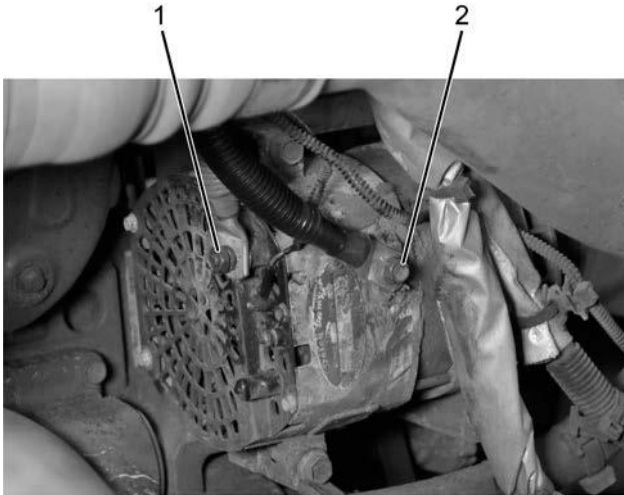
16. Using a wire brush and rag remove RED coating from alternator and starter harness cable nuts and studs.
17. Remove alternator positive and negative terminal bolts / nuts. Save fasteners for reuse.



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## **Figure 2. Ground Cable Location**

1. Alternator ground cable bolt
18. Remove alternator ground cable bolt (Figure 2, Item 1) and nut at frame connection. Save bolt and nut for reuse.
19. Using bolt and nut removed in Step 18, secure engine block ground cable to frame and tighten nut to 23 lb-ft (31 N•m).
20. Disconnect positive and ground cable nuts at starter. Save nuts for reuse.
21. Disconnect alternator positive cable from starter.
22. Remove old alternator positive and negative cables from engine that were disconnected in previous step.



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### Figure 3. Alternator Cable Location

1. Alternator positive cable bolt
  2. Alternator ground cable bolt
23. Starting at alternator, connect alternator positive (Figure 3, Item 1) and ground (Figure 3, Item 2) cables. Do not fully tighten retaining bolt / nut at this time.
  24. Using cable tie straps and original clipping points, route cables around front of engine and down to starter. Do not fully tighten cable tie straps at this time.
  25. Connect alternator positive and ground cables to starter positive and ground terminals and install nuts.
  26. Tighten starter ground nut to 32 lb-ft 43 N•m).
  27. Tighten starter positive nut to 15 lb-ft (25 N•m).
  28. Tighten alternator positive nut to 80-125 lb-in (9-14 N•m).
  29. Tighten alternator ground bolt to 60-90 lb-in (6.8-10.2 N•m).
  30. If necessary, position harness retaining bracket (Figure 1, Item 1) using previously-saved fastener. Tighten fastener securely.

**NOTE: Ensure newly installed harness does not come into contact with adjacent components.**

31. Tighten all cable tie straps securing alternator positive and negative harnesses. Remove and discard excess material.
32. Apply RED sealant paint and thoroughly coat frame bolt, alternator positive and negative terminals, starter positive and negative terminals.
33. Install air cleaner intake tube. Refer to appropriate service information for detailed instruction.
34. Using wire brush, electronic contact cleaner, and compressed shop air, clean negative battery terminal components.
35. Apply BLUE dielectric grease to battery terminal stud, negative battery cable ring terminal, and threads of new battery stud nut.
36. Using new battery stud nut, reconnect negative battery cable to negative terminal on main vehicle battery.
37. Using torque wrench, tighten battery stud nut to 12-15 lb-ft (16-20 N•m).
38. If necessary, install driver-side vehicle side skirt. Refer to appropriate service information.
39. Remove wheel chocks.

## **END OF SERVICE PROCEDURE**

### **LABOR INFORMATION**

<b>Operation Number</b>	<b>Description</b>	<b>Time</b>
A40-22516-1	Replace Alternator Positive and Ground Cables	1.4 hrs

## CAMPAIGN IDENTIFICATION LABEL

Each vehicle corrected in accordance with this campaign must be marked with a CTS-1075 Campaign Identification Label.

Complete the label and attach on a clean surface next to the vehicle identification number (VIN) plate.



## ADMINISTRATIVE / DEALER RESPONSIBILITIES

### WARRANTY CLAIMS

Warranty claim expense is to be charged to Warranty. Claims are to be submitted in the normal manner, making reference to Safety Recall 22516.

Section 7 of the Warranty Policy and Procedures manual contains further information related to the submission and processing of AFC/Recall claims.

As with all claim submissions, items acquired locally must be submitted in the "Other Charges" tab. The cost of any bulk items (such as a bag of cable tie straps, roll of wire, a barrel of oil, or a tube of silicone) should be prorated for the cost of the individual pieces / amount used during each repair.

	GROUP	NOUN	C	WARR.	TP	PAD

GROUP — Enter number ←

NOUN — Leave blank ←

C (CAUSE) — Enter either 1, 2, 3. (See below)

1. Inspected (No repair required).
2. Inspected and repaired.
3. Defective part from parts stock.

WARRANTY — (Warranty Code) Enter 40. ←

TYPE PART — Enter P for type part causing failure. ←

PAD — Enter 100 ←

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## **UNITED STATES AND POSSESSIONS**

The National Traffic and Motor Vehicle Safety Act, as amended, provides that each vehicle that is subject to a vehicle recall campaign must be adequately repaired within a reasonable time after the owner has tendered it for repair. A failure to adequately repair within 60 days after a tender of a vehicle is prima facie evidence of failure to repair within a reasonable time. If the condition is not adequately repaired within 60 days, the owner may be entitled to replacement with an identical or reasonable equivalent vehicle at no charge, or to a refund of the purchase price less a reasonable allowance for depreciation.

Dealers must correct all vehicles subject to this campaign at no charge to the owner, regardless of mileage, age of vehicle, or ownership, from this time forward.

Dealers should proceed immediately to make necessary correction to units in inventory. All inventory vehicles subject to this recall campaign must be corrected prior to sale, transfer or delivery. If vehicles have been sold or transferred and you are in receipt of Customer Notification Letters and Authorization for Recall Service cards for those vehicles, the transfer location or customer must be notified immediately from your dealer location.

Dealers must make every effort to promptly schedule an appointment with each owner to repair his or her vehicle as soon as possible. However, consistent with the customer notification, dealers are expected to complete the repairs on the mutually agreed upon service date.

Dealers involved in the recall process will be furnished a listing of owner names and addresses to enable them to follow up with owners and have the vehicles corrected. Use of this listing must be limited to this campaign because the list may contain information obtained from state motor vehicle registration records, and the use of such motor vehicle registration data for purposes other than this campaign is a violation of law in several states.

## **CANADA**

Dealers must correct all vehicles subject to this campaign at no charge to the owner, regardless of mileage, age of vehicle, or ownership, from this time forward.

Dealers should proceed immediately to make necessary correction to units in inventory. All inventory vehicles subject to this recall campaign must be corrected prior to sale, transfer or delivery. If vehicles have been sold or transferred and you are in receipt of Customer Notification Letters and Authorization for Recall Service cards for those vehicles, the transfer location or customer must be notified immediately from your dealer location.

Dealers must make every effort to promptly schedule an appointment with each owner to repair his or her vehicle as soon as possible. However, consistent with the customer notification, dealers are expected to complete the repairs on the mutually agreed upon service date.

Dealers involved in the recall process will be furnished a listing of owner names and addresses to enable them to follow up with owners and have the vehicles corrected. Use of this listing must be limited to this campaign because the list may contain information obtained from state motor vehicle registration records, and the use of such motor vehicle registration data for purposes other than this campaign is a violation of law in several states.

## **EXPORT**

Export Distributors should proceed immediately to make necessary correction to units in inventory. All inventory vehicles subject to this recall campaign must be corrected prior to sale, transfer or delivery. If vehicles have been sold or transferred and you are in receipt of Customer Notification Letters and Authorization for Recall Service cards for those vehicles, the transfer location or customer must be notified immediately from your distributor location.

Export Distributors are to submit warranty claims in the usual manner making reference to this recall number.

Export Distributors are expected to provide full cooperation and follow-up with respect to this important subject matter. If you have any questions or need further assistance, please contact the Regional Service Manager at your regional office.

## **NAVISTAR, INC.**