



VEHICLE RECALL

G-03506
March 2003

SUBJECT: VEHICLE RECALL (U.S., EXPORT)
ALTERNATOR CABLE TERMINAL MAY BREAK OFF
9100i, 9200i, 9400i, and 9900i models built 6/8/2001
through 11/4/2002

DEFECT DESCRIPTION

The electrical terminal at the alternator end of the cable that runs from the starter to the battery stud on the alternator may break off, due to vibration in the cable, if the wire harness is not routed and clipped correctly.

RISK TO MOTOR VEHICLE SAFETY

If the terminal breaks off, the cab will lose all power, resulting in complete electrical failure and engine shutdown, which may result in an accident and potentially cause **property damage, personal injury, or death**.

DESCRIPTION OF VEHICLES INVOLVED

9100i, 9200i, 9400i, and 9900i models built from 6/8/01 through 11/4/02 with a Detroit Diesel engine and a Leece Neville alternator are involved.

OWNER NOTIFICATION

International Truck and Engine Corporation will notify owners of these vehicles about this campaign. A copy of the owner letter is attached. During the recall process, a listing of owner names and addresses will be furnished to the involved dealers to enable dealers to follow up with owners and have the vehicles corrected. You must limit the use of this listing 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.

SERVICE PROCEDURE

INTRODUCTION: This procedure involves some cutting, splicing and rerouting of the alternator harness, at the alternator end, to prevent terminal breakage.

Before performing the service, please read and understand the following instructions completely.

WARNING: To prevent serious eye injury, always wear safe eye protection when you perform vehicle maintenance or service.

1. **WARNING:** Block the wheels to prevent the vehicle from moving. If a vehicle moves unexpectedly or suddenly, the result could be serious personal injury or death.

WARNING

Batteries expel explosive gases. Keep sparks, flames, burning cigarettes, and other ignition sources away at all times. Always wear safety glasses and a face shield when working near batteries to prevent personal injury.

2. Remove the negative ground cable from the batteries.
3. Remove the tie straps as necessary and pull the conduit on the alternator harness back to the yellow locator tape as shown in Fig 1.
4. Remove all tie straps and tape on the alternator cables from the terminal ends to the yellow locator tape. See Figure 1.

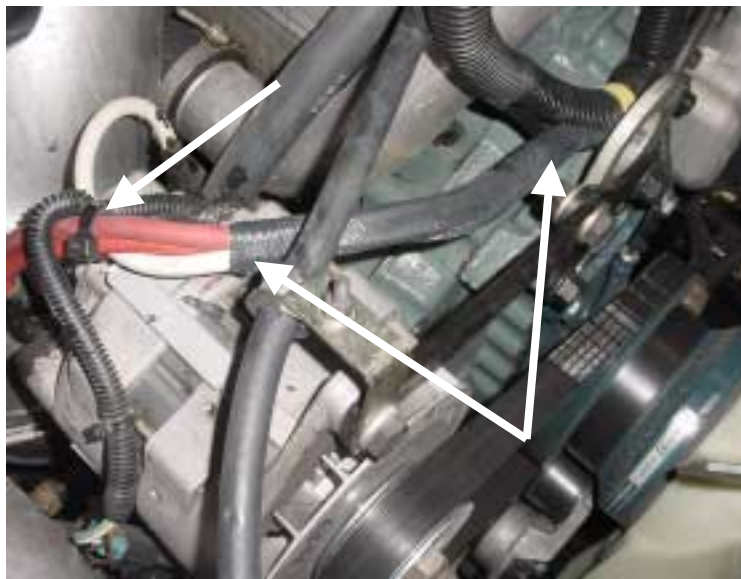


Figure 1

5. Cut both red cables 3 ½" from the lift bracket (See Figure 2). Remove the cut red number 14 cable from the alternator and discard.



Figure 2

6. Trim back the insulation on all 3 cut ends of the red cables so 0.75 inches of wire is exposed as shown in Figure 3.



Figure 3

7. Using a 3/O barrel splice (AMP #3306), insert all three red cable ends as shown in Figure 4, with the bare wire ends aligned inside the barrel connector. Make sure the number 2 cable is long enough to reach the alternator stud as shown in Figures 7 and 8 and that it can be secured as described in step 16, Figure 8, so it will not vibrate. Do not crimp the connector. Disconnect both the positive and the negative cables from the alternator.
8. Inspect the terminal eye on the alternator end of cable number 2 for cracks. Replace the terminal if there are any signs of cracking.

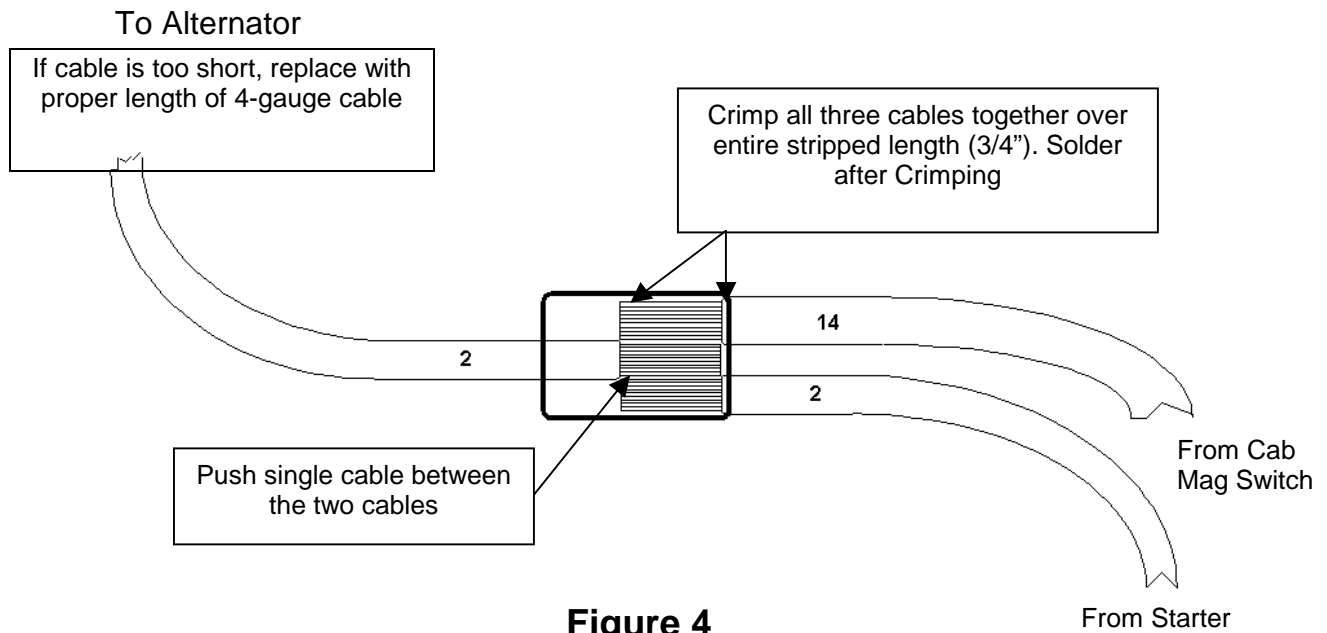


Figure 4

9. With the cable ends positioned as shown in Figure 4, crimp the barrel splice over the area where the bare cable ends overlap.
10. Solder the wires in the barrel splice connector using a propane torch and 60/40-rosin core solder. Make sure the joint is hot enough to allow the solder to flow evenly between the three cables. Make certain the heat from the torch does not melt or ignite other components.
11. Center a 3 inch long piece of $\frac{3}{4}$ inch diameter heat shrink tubing over the barrel splice and heat the tubing uniformly with a heat gun until it has shrunk tightly around the splice and wires. See Figure 5.



Figure 5

12. Tape over the heat shrink tubing and 1 inch beyond both ends of the tubing as shown in Figure 6.



Figure 6

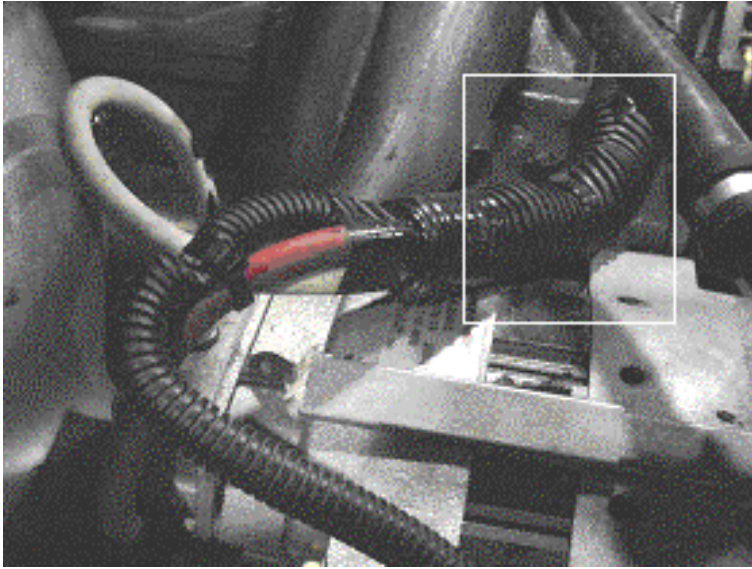
13. Tape all the wires from the yellow locator tape to the alternator as shown in Figure 7.



Figure 7

14. Connect the white ground cable and the red number 2 positive cable to the alternator.
15. Reinstall the conduit around the alternator harness. Tape the conduit at the alternator end and at the barrel splice. See Figure 8.

16. Tie strap the harness to the alternator case bolt and engine lift bracket. Use 3/8-1/2" wide tie straps. See Figure 8 and IMPORTANT NOTE below and make sure the cables do not rest against the alternator case.



IMPORTANT NOTE:
Tie strap the harness to the alternator case bolt as shown in the box in Figure 8 using a large 3/8 to 1/2 inch wide strap. This will hold the harness tight to the alternator and control vibration.

Figure 8

17. Reconnect the negative ground cable to the batteries.

PART INFORMATION

NOTE: Note not all parts listed below in Table 1 will be required for each vehicle. Please reference the usage column in Table 1.

TABLE 1

Part Description	Usage	Quantity per vehicle
Barrel splice connector: size 3/0	Every vehicle	1 piece/part
Heat shrink tubing with glue, 0.75-inch ID	Every vehicle	3 inches
Electrical tape	Every vehicle	Part of a roll
Solder: Rosin core	Every vehicle	Part of a roll/package
Wire: 4 gauge red	Some vehicles may need	2 feet
Ring terminal or Wire eyelet, eyelet size is 5/16-inch, for 4 gauge cable	Some vehicles may need	1

LABOR INFORMATION

Operation No.	Description	Time
A40-03506-1	Repair Alternator Cable	1.0 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.

DO NOT REMOVE

INTERNATIONAL

Campaign No. _____

VIN _____

Eng.# _____

COMPLETED

Service Location Code # _____

DO NOT REMOVE

ADMINISTRATIVE/DEALER RESPONSIBILITIES (U.S. & POSSESSIONS)

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 the customer must be notified **IMMEDIATELY** from your dealer location.

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.

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.

However, consistent with the customer notification, dealers are expected to complete the repairs on the mutually agreed upon service date.

To avoid having to replace a vehicle or refund the purchase price less a reasonable allowance for depreciation, every effort must be made to promptly schedule an appointment with each owner to repair his or her vehicle as soon as possible.

POSSIBLE CUSTOMER REIMBURSEMENT

There may be an occasion when a customer was charged for repairs related to this recall prior to the recall being released. The customer letter contains a statement for the customer to contact the Dealer if they believe they are entitled to reimbursement costs. The Dealer should follow the Customer Reimbursement guidelines in Warranty Policy Letter 03-001G.

The Warranty Procedures and Administrative Policies manual (CTS1100) is in the process of being updated to include the information in Policy Letter.03-001G.

WARRANTY CLAIMS

Refer to Dealer Warranty Manual for procedures to conduct Recall Campaigns.

It is important that the Recall Coding be completed properly to assist in processing the warranty claim. Complete instructions will be found in the Warranty Manual, Section 7-1. Special attention should be given to Items 39 through 44:

GROUP	NOUN	C	WARR.	TP	PAD
GROUP: Enter The Recall Number _____	NOUN: Leave Blank. _____	C: (CAUSE) Enter number 1 or 2. 1. Inspected (No Repair Required). 2. Inspected and repaired.	WARRANTY: (Warranty Code) Enter 40.	TYPE PART: Enter P for type part causing failure. _____	PAD: Enter 100. _____

ADMINISTRATIVE/DISTRIBUTOR RESPONSIBILITY (EXPORT)

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 the customer must be notified from your distributor location.

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

We ask for your full cooperation and follow-up to this important subject matter. If you have any questions or need further assistance, please contact your Regional Service Manager.

INTERNATIONAL TRUCK AND ENGINE CORPORATION