SERVICE PROCEDURE

16508
October, 2016

SUBJECT: SAFETY RECALL
CUBE FUSE on certain ProStar® models built 11 June 2013 thru 19 May 2016 with feature 08WSP (battery box mounted between the frame rails).

DEFECT DESCRIPTION

The battery terminal mounted cube fuse connection that supplies power to the cab may possibly break, resulting in loss of power to the cab. A loss of power to the cab may result in unexpected engine shutdown without warning and the inability to restart the engine.

MODELS INVOLVED

This Safety Recall involves certain ProStar® models built 11 June 2013 thru 19 May 2016 with feature 08WSP (battery box mounted between the frame rails).

ELIGIBILITY

This procedure applies ONLY to vehicles marked in the International® Service Portal℠ with Safety Recall 16508. Also complete any other open campaigns listed on the Service Portal at this time.

PARTS INFORMATION

Part Number	Part Description	Quantity
8900272R91	Service Cable Kit; Cummins® Engines	1

8900272R91 contains the following parts:

Part Description	Quantity
BLOCK, FUSE, POWER PDM, 200/200 FUSES	1
CABLE, BATTERY, POS 000 GA SGR N/SEALED	1
BOLT, HEX FLG HD METRIC M8 X 30	2
NUT, HEX LOCK M8, CAD	2
NUT, HEX FLG LOCK, M10-1.5, SST	2
GUIDE,BRK HOSE & CABLE, SWIVEL	1
STRAP, CABLE LOCK	2
STRAP, CABLE LOCK, 20 IN. CABLE TIE	4

Part Number	Part Description	Quantity
8900273R91	Service Cable Kit; Navistar® Engines	1

8900273R91 contains the following parts:

Part Description	Quantity
BLOCK, FUSE, POWER PDM, 250/250 FUSES	1
SUPPORT, POWER BRACKET ASSEMBLY	1
CABLE, BATTERY, POS 0000 GA SGR N/SEALED	1
BOLT, HEX FLG HD METRIC M8 X 25	2
NUT, HEX LOCK M8, CAD	1
NUT, HEX METRIC PREV TORQ NUT, FLNG HD M12	2
STRAP, CABLE LOCK, 20 IN. CABLE TIE	2
NUT, HEX FLG LOCK, M10-1.5, SST	2
GUIDE,BRK HOSE & CABLE, SWIVEL	2
STRAP, CABLE LOCK	4
HEX FLG LOCK, M8-1.25, SST	1

SERVICE PROCEDURE

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

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

NOTE: The service procedures depicted in this document differ between Cummins equipped vehicles and N13 equipped vehicles.

1. Bring vehicle into shop and park on flat surface.
2. Shift transmission to Park or Neutral and set parking brakes.
3. Install wheel chocks.
4. Unlatch and open main battery box.
5. Disconnect ground cable from negative terminal of main vehicle battery.

CUMMINS EQUIPPED VEHICLES

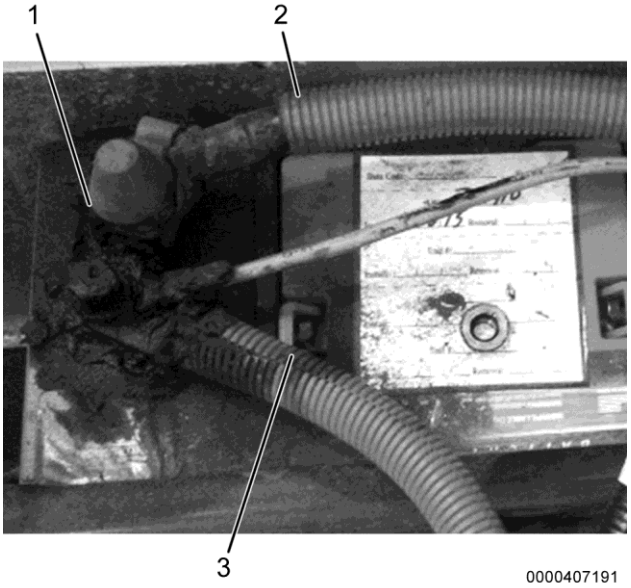

Figure 1. Battery Cables and Fuses

1. Cube fuse
2. Cab power cable
3. Main positive battery cable

6. Disconnect cab power cable (Figure 1, Item 2) from cube fuse.
7. Disconnect main positive battery cable (Figure 1, Item 3) from battery.
8. Remove cube fuse assembly (Figure 1, Item 1) from battery. Discard cube fuse.

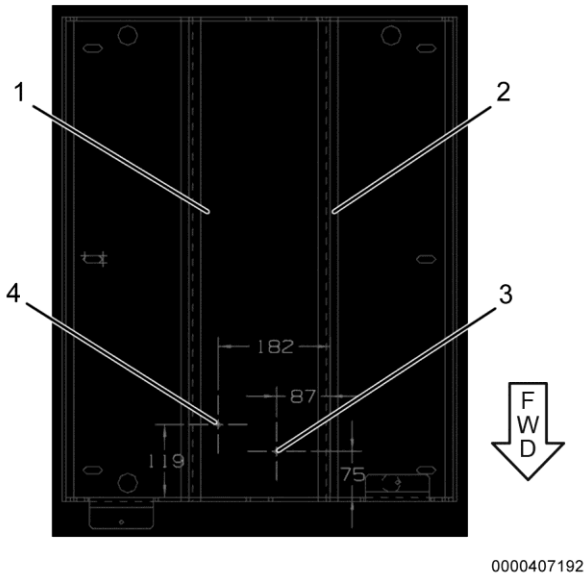

Figure 2. Drill Locations

1. Raised center section
2. Operator-side edge
3. Drill location (3 inch / 75 mm)
4. Drill location (4 5/8 inch / 119 mm)

9. Using a marker, tape measure, ruler, or equivalent, mark drill locations:

    - Start from operator-side edge (Figure 2, Item 2) of raised center section (Figure 2, Item 1) of battery box and measure inward 3½ inches (87 mm). Starting at front edge of raised center section of battery box, measure 3 inches (75 mm) to establish drill location (Figure 2, Item 3). Mark this location.

    - Start from operator-side edge (Figure 2, Item 2) of raised center section (Figure 2, Item 1) of battery box and measure inward 7 1/8 inches (182 mm). Starting at front edge of raised center section of battery box, measure 4 5/8 inches (119 mm) to establish drill location (Figure 2, Item 4). Mark this location.

10. Using a 1/8 inch bit, drill pilot holes into battery box at previously marked drill locations.

11. Using a 7/16 inch bit, drill holes into battery box into both drill locations.

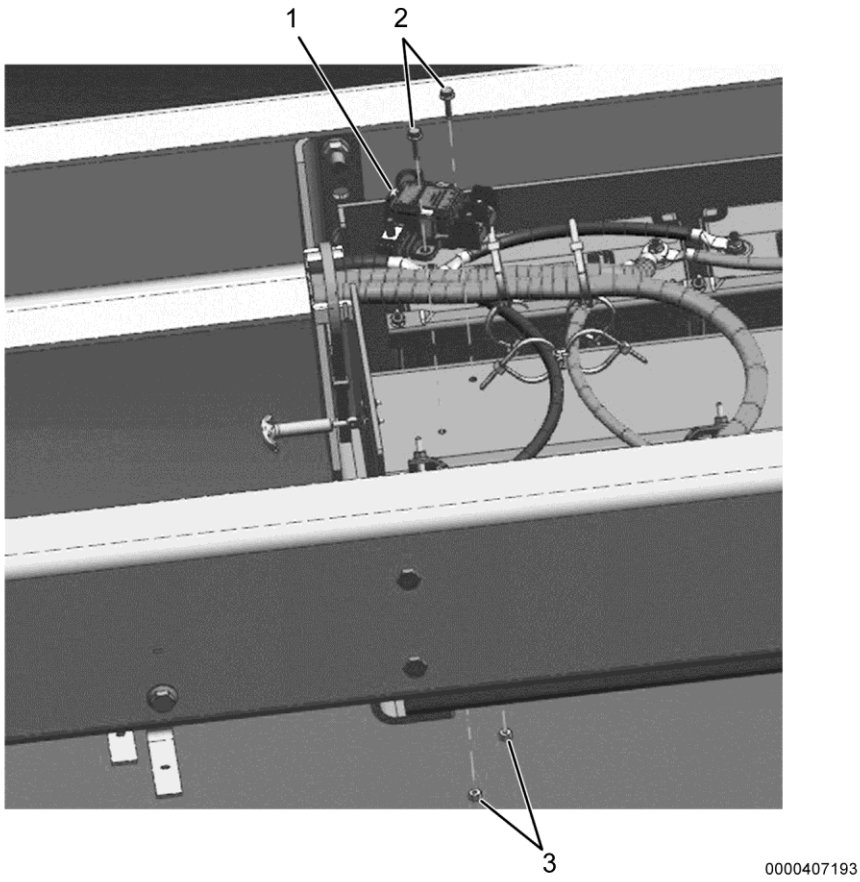

Figure 3. Power Distribution Module (PDM)

1. PDM
2. M8 x 30 bolt (2)
3. M8 nut (2)

12. Align PDM assembly (Figure 3, Item 1) with drilled holes. Install two bolts and two nuts (Figure 3, Items 2 & 3), and secure to box. Tighten fasteners securely.

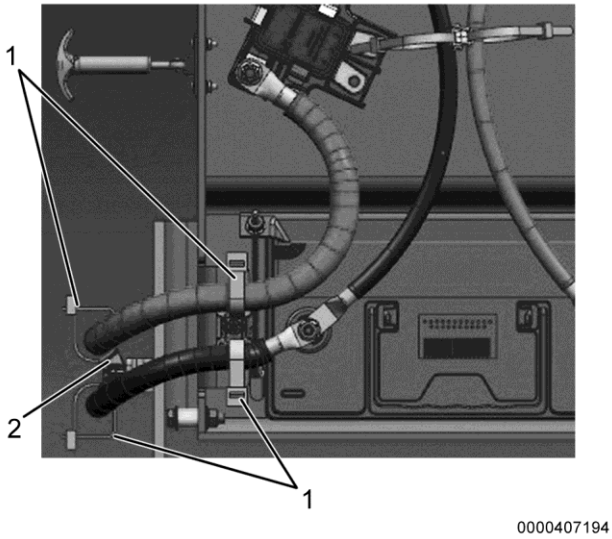

Figure 4. Cab Feed and Frame Ground Cables

1. Cable tie wrap (4)
2. Saddle

13. Apply Grafo dielectric grease to cab feed cable terminal. Connect to PDM and secure using M10-1.5 SST nut. Using torque wrench, tighten to 8.8 lb-in (30 N•m).

NOTE: Cab feed cable must be positioned inboard of frame ground cable.

14. Using cable tie wraps (Figure 4, Item 1), secure cab feed and frame ground cable to saddle (Figure 4, Item 2) located on side of box.

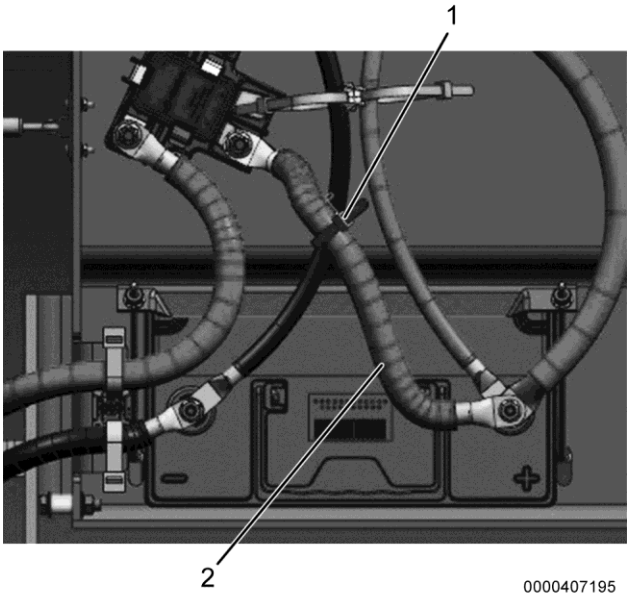

Figure 5. Jumper Cable and Cable Separator

1. Cable separator
2. Jumper cable

15. Apply Grafo dielectric grease to angled terminal end of cable jumper cable (Figure 5, Item 2). Connect to PDM and secure with M10-1.5 SST nut. Using torque wrench, tighten to 8.8 lb-in.

16. Route cable over top of negative interconnect. Install cable separator (Figure 5, Item 1) and cable tie wrap to prevent cables from rubbing.

17. Apply Grafo dielectric grease to opposite end of jumper cable (Figure 5, Item 2). Connect to positive terminal on battery post and install nut. Using torque wrench, tighten to 142 - 177 lb-in (16 - 20 N•m).

18. Connect ground cable to negative terminal of main vehicle battery.

19. Proceed to Step 37.

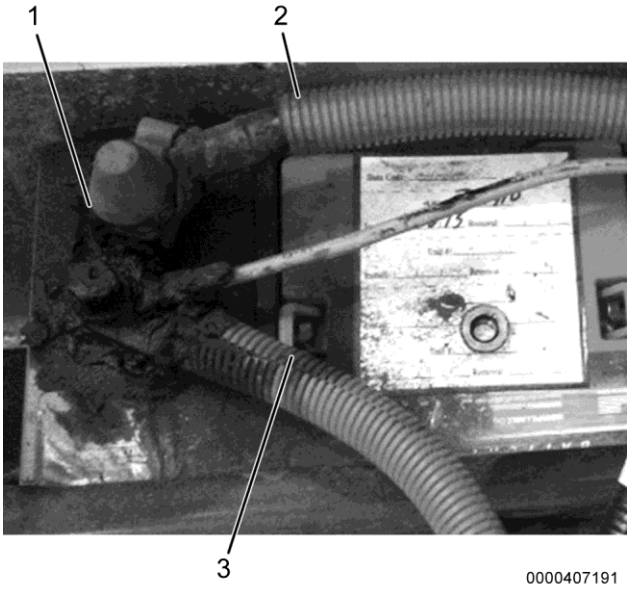

Figure 6. Removing Cables and Fuses

1. Cube fuse
2. Cab power cable
3. Main positive battery cable

20. Remove cab power cable (Figure 6, Item 2) from cube fuse.

21. If trailer lift gate wiring is present in battery box, remove lift gate feed from 2nd cube fuse.

22. Disconnect main positive battery cable (Figure 6, Item 3) from battery.

23. Remove cube fuse assembly (Figure 6, Item 1) from battery. Discard cube fuse.

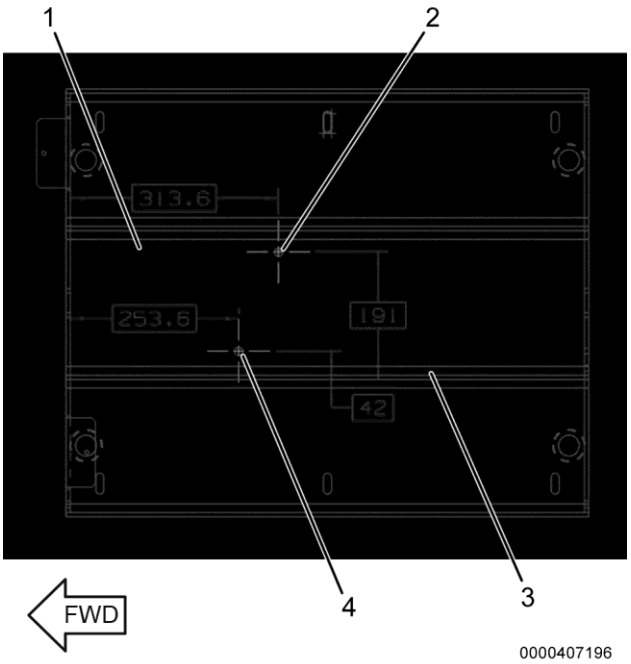

Figure 7. Drill Locations

1. Raised center section
2. Drill location (12 3/8 inch / 314 mm)
3. Operator-side edge
4. Drill location (10 inch / 254 mm)

24. Using a marker, tape measure, ruler, or equivalent, mark drill locations:

    - Start from operator-side edge (Figure 7, Item 3) of raised center section (Figure 7, Item 1) of battery box and measure inward 1 5/8 inches (42 mm). Starting at front edge of raised center section of battery box, measure 10 inches (253.6 mm) to establish drill location (Figure 2, Item 4). Mark this location.

    - Start from operator-side edge (Figure 7, Item 3) of raised center section (Figure 7, Item 1) of battery box and measure inward 7½ inches (191 mm). Starting at front edge of raised center section of battery box, measure 12 3/8 inches (313.6 mm) to establish drill location (Figure 2, Item 2). Mark this location.

25. Using a 1/8 inch bit, drill pilot holes into battery box at previously marked drill locations.

26. Using a 1/2 inch bit, drill holes into battery box into both drill locations.

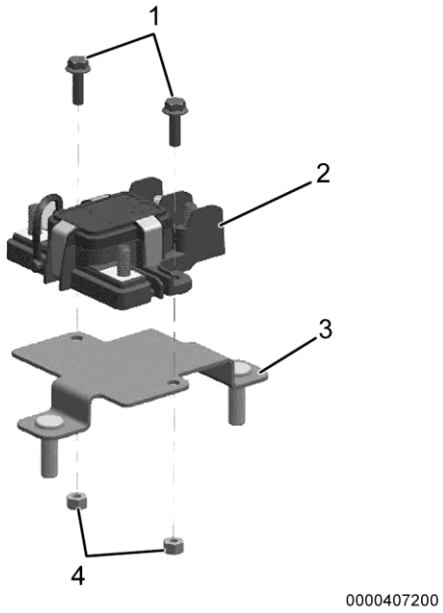

Figure 8. Attaching PDM to Support Bracket

1. M8 x 25 bolt (2)
2. PDM
3. Support bracket
4. M8 nut (2)

27. Using two bolts and two nuts (Figure 8, Items 1 & 4), attach PDM (Figure 8, Item 2) to support bracket (Figure 8, Item 3). Using torque wrench, tighten to 204 in-lb (23 N•m).

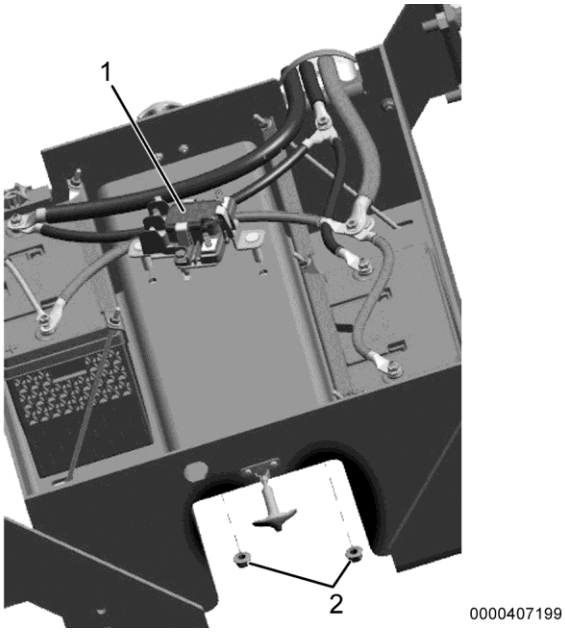

Figure 9. PDM Subassembly Mounting

1. PDM subassembly
2. M12 nut (2)

28. Position PDM subassembly (Figure 9, Item 1) into previously drilled holes. Use two nuts (Figure 9, Item 2) to secure to box. Using torque wrench, tighten nuts to 45 - 55 lb-ft (61 - 75 N•m).

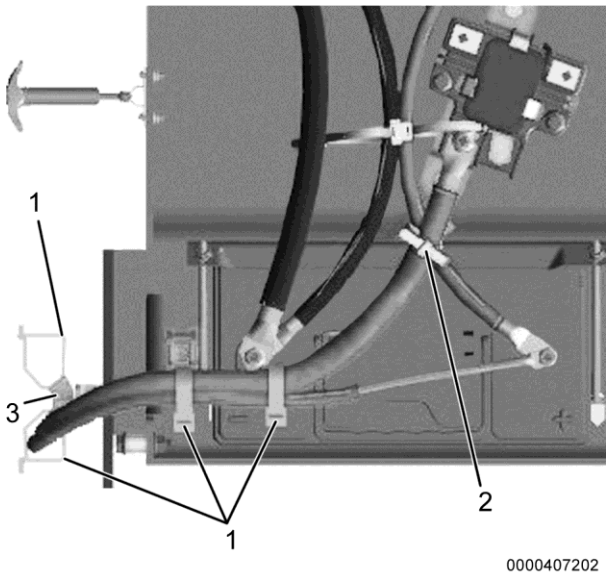

Figure 10. Cable Routing and Securing

1. Cable tie wrap (4)
2. Cable separator
3. Saddle

29. Route cab PDM feed and lift gate feed, if present, toward PDM. Ensure that power feeds are not rubbing on negative battery post. Install cable separator (Figure 10, Item 2) and cable tie wraps (Figure 10, Item 1) to separate main feed from interconnect.

NOTE: Cab feed cable must be positioned inboard of clean power feed cable.

30. Using cable tie wraps, secure cab PDM feed, clean power feed, and lift gate feed if present, to saddle (Figure 10, Item 3) at box opening. Install cable tie wrap (Figure 10, Item 1) to secure cables together.

31. Apply Grafo dielectric grease to cab main feed cable terminal. Connect to PDM and secure using M10-1.5 SST nut. Using torque wrench, tighten nut to 22 lb-ft (30 N•m).

32. If trailer lift gate wire is present, route to second fused output on PDM and secure using M8-1.25 SST nut.

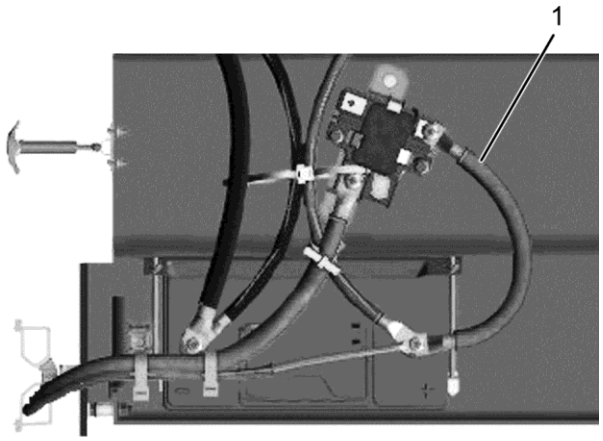

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Figure 11. Jumper Routing

1. Jumper cable

33. Apply Grafo dielectric grease to one end of jumper cable (Figure 11, Item 1) and connect to PDM. Secure with M10-1.5 SST nut. Using torque wrench, tighten to 177 lb-in (20 N•m).

34. Apply Grafo dielectric grease to other end of jumper cable and connect to positive battery terminal. Connect clean power cable and install hold down nut. Using torque wrench, tighten nut to 142 - 177 lb-in (16 - 20 N•m).

35. Connect ground cable to negative terminal of main vehicle battery. Using torque wrench, tighten to 142 - 177 lb-in (16 - 20 N•m).

36. Apply Grafo dielectric grease to all exposed metal terminals and to unused posts on PDM.

37. Close and latch battery box cover.

38. Remove wheel chocks.

END OF SERVICE PROCEDURE

LABOR INFORMATION

Operation Number	Description	Time
A40-16508-1	Replace Cube Fuse with PDM	0.5 hr

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.

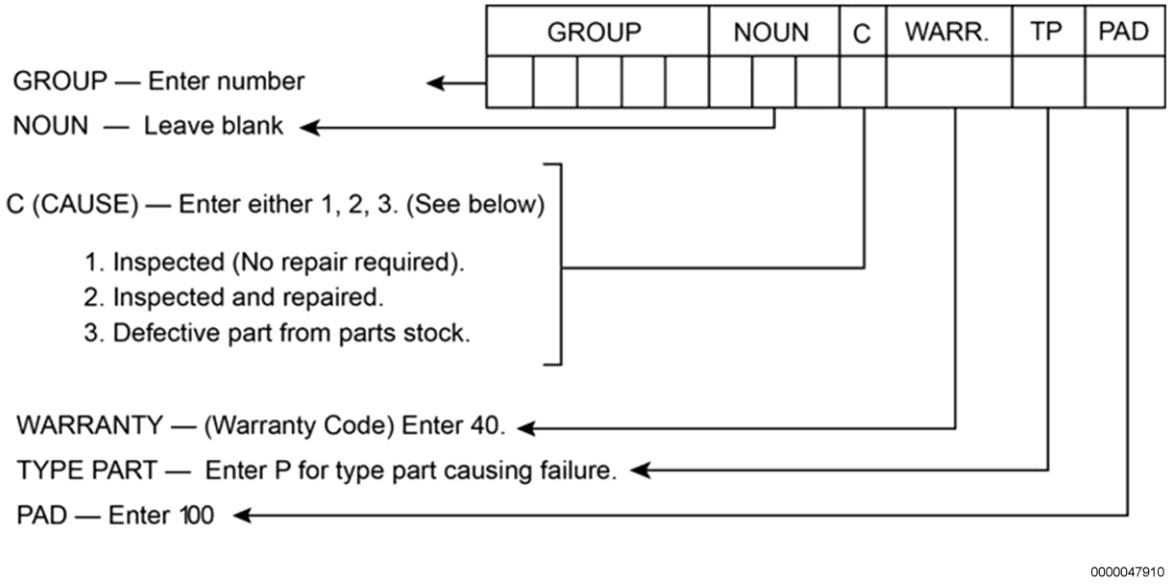
ADMINISTRATIVE / DEALER RESPONSIBILITIES

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 16508.

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.



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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.