

SERVICE PROCEDURE

**18502
APRIL, 2018**

SUBJECT: SAFETY RECALL
Fuel system relay on certain CE commercial bus models built on 28 February 2017 and on 11 October 2017 with feature code 12PAA or 12PAB – PSI 8.8L Liquid Propane Gas (LPG) engine.

DEFECT DESCRIPTION

The fuel system relay for the propane booster pump and scavenge pump may experience intermittent continuity, causing the fuel pump to stop running and resulting in unintended stalling, no start, or hard start conditions. In bus applications, unintended stalling conditions may result in evacuation concerns when students must be transferred to another bus near the roadway.

MODELS INVOLVED

This safety recall involves certain CE commercial bus models built on 28 February 2017 and on 11 October 2017 with feature code 12PAA or 12PAB – PSI 8.8L Liquid Propane Gas (LPG) engine.

ELIGIBILITY

This procedure applies ONLY to vehicles marked in the International® Service PortalSM with Safety Recall 18502. Also complete any other open campaigns listed on the Service Portal at this time.

PARTS INFORMATION

Part Number	Part Description	Quantity
1688314C1	Relay	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 either direction.

WARNING! To prevent property damage, personal injury, and / or death, if the vehicle must be raised, do not work under the vehicle supported only by jacks. Jacks can slip or fall over.

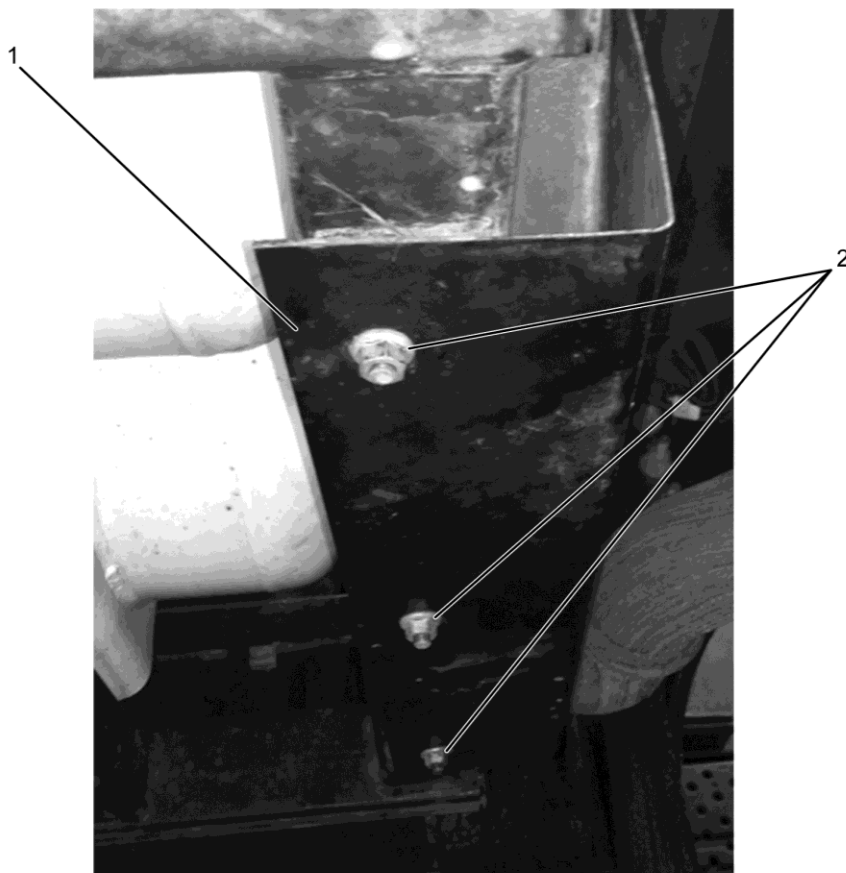
WARNING! To prevent personal injury and / or death, always wear safe eye protection when performing vehicle maintenance.

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

WARNING! To prevent property damage, personal injury, and / or death, keep flames or 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.

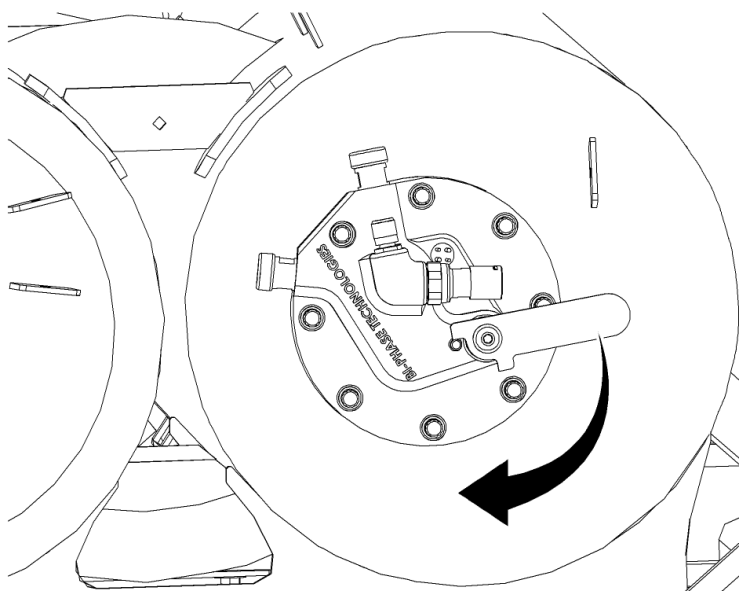
1. Park vehicle on flat surface.
2. Shift transmission to Park or Neutral and set parking brake.
3. Turn vehicle ignition to key OFF position.
4. Install wheel chocks.
5. Unlatch and open main battery box.
6. Disconnect ground cable from negative terminal of main vehicle battery.
7. If necessary, raise rear of vehicle and support on suitable jack stands.



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Figure 1. Propane Delivery Module Access Plate

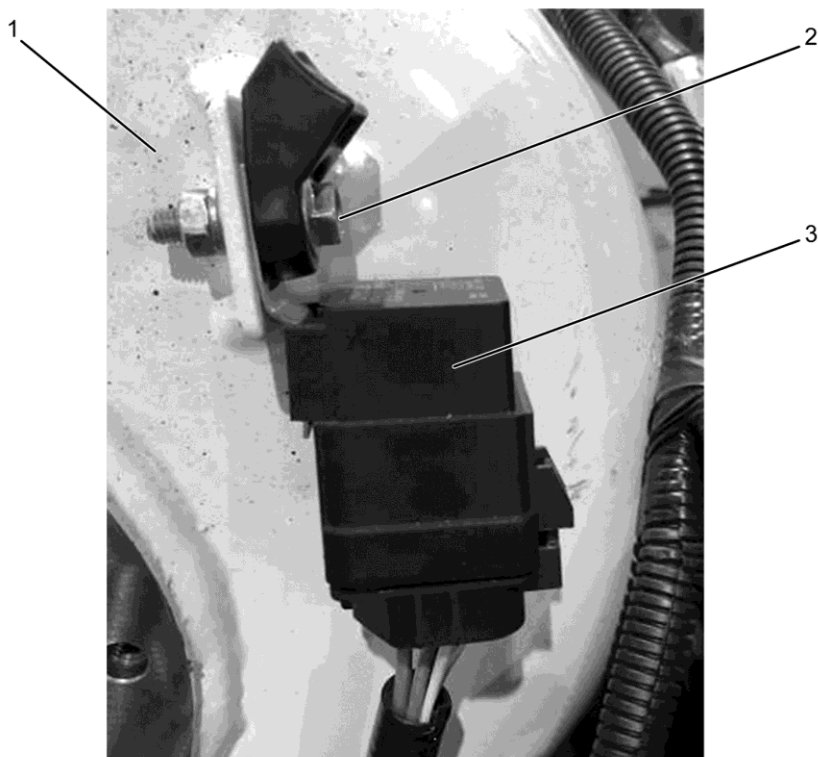
1. Access plate
 2. Fastener (5) (2 not pictured)
-
8. Locate access plate (Figure 1, Item 1) covering Liquid Propane Delivery Module (LPDM) on front of driver-side fuel tank.
 9. Remove five fasteners (Figure 1, Item 2) securing access plate. Set access plate and fasteners aside for reuse.



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Figure 2. 1/4 Turn Fuel Safety Shutoff Valve

10. Grab the 1/4 turn fuel safety shutoff valve firmly, and pull down a 1/4 turn (90°) until the tab on the lever contacts the dowel on the tank (Figure 2).

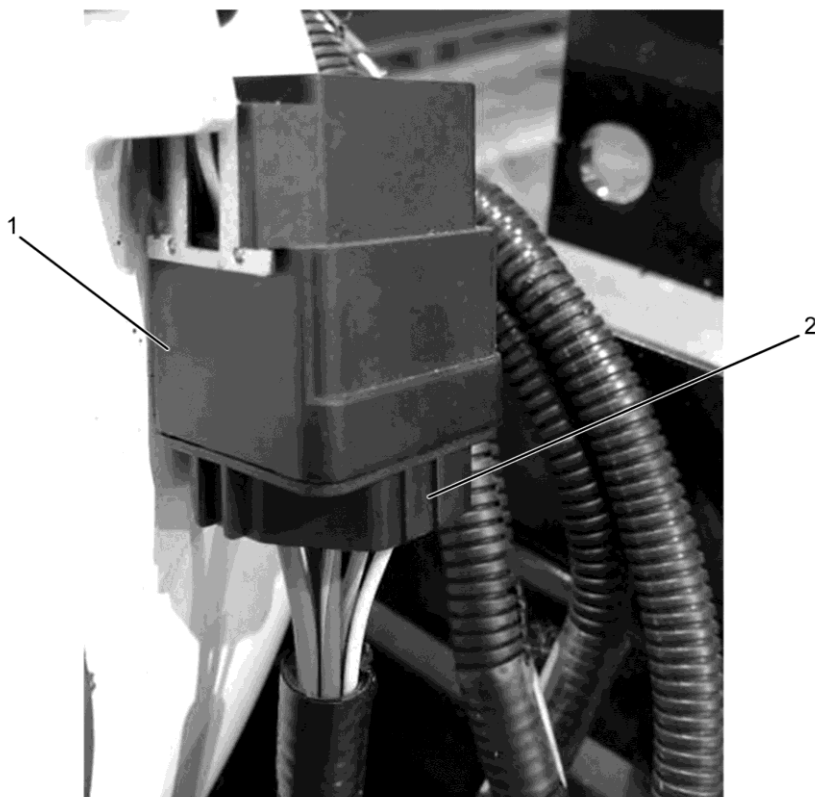


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Figure 3. Relay Fastener

1. Fuel tank
2. Fastener
3. Relay

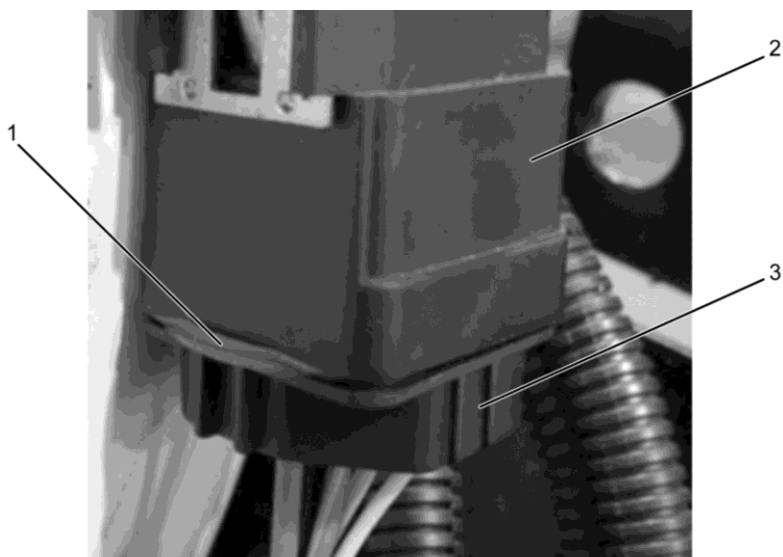
11. Remove fastener (Figure 3, Item 2) that holds the relay (Figure 3, Item 3) on fuel tank (Figure 3, Item 1). Save fastener for reuse.



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Figure 4. Relay Electrical Connection

1. Relay
 2. Electrical harness connector
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12. Disconnect old relay (Figure 4, Item 1) from electrical harness connector (Figure 4, Item 2). Discard relay.
 13. Connect new relay (Figure 4, Item 1) to electrical harness connector (Figure 4, Item 2).

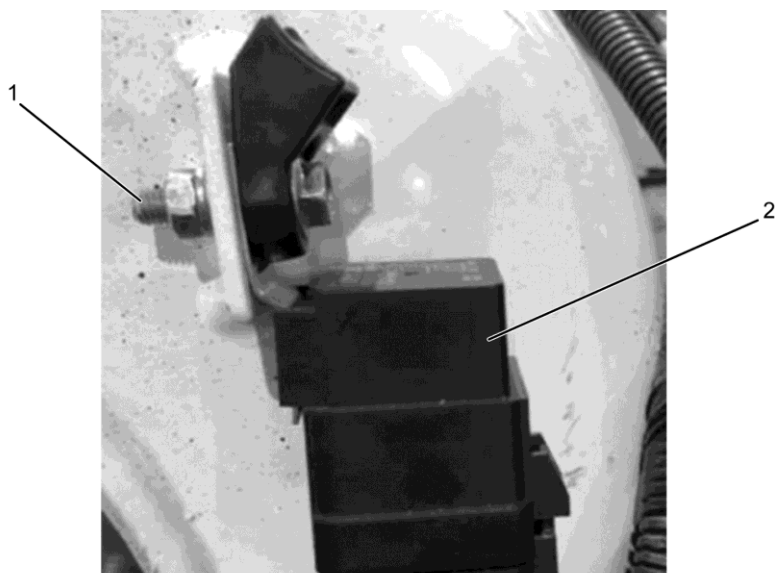


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Figure 5. Incorrect Connector Seal Insertion

1. Connector seal
2. Relay
3. Electrical harness connector

14. Verify that the connector seal is securely in relay as shown in Figure 4 rather than sticking out as shown in Figure 5, Item 1.



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Figure 6. Relay In Correct Position

1. Fastener
2. Relay

15. Position relay (Figure 6, Item 2) in correct location, install fastener (Figure 6, Item 1), and torque to 80 lb-in (9 N•m).

16. Reopen the 1/4 turn fuel safety shutoff valve by turning a 1/4 turn (90°) to the right.
17. Position access plate over Liquid Propane Delivery Module (LPDM) on front of driver-side fuel tank, and install five fasteners. Tighten fasteners to 116 - 142 lb-in (13 - 16 N•m).
18. If jack stands were installed in step 7, remove jack stands and lower vehicle.
19. Connect ground cable to negative terminal of main vehicle battery. Torque to 142 - 177 lb-in (16 - 20 N•m).
20. Close and latch battery box cover.
21. Remove wheel chocks.

END OF SERVICE PROCEDURE

LABOR INFORMATION

Operation Number	Description	Time
A40-18502-1	Replace LPDM relay	0.5 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

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 18502.

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, barrel of oil, or 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.