

May 2019
FL788A-O
NHTSA #18V-852
Transport Canada #2018-468

Subject: FCCC Motorhome Chassis Rear PDMs

Models Affected: Specific Freightliner Custom Chassis X-Line chassis manufactured November 23, 2015, through June 29, 2018, and equipped with a certain PDM.

General Information

Daimler Trucks North America LLC, on behalf of its wholly owned subsidiary, Freightliner Custom Chassis Corporation, has decided that a defect that relates to motor vehicle safety exists on the vehicles mentioned above.

There are approximately 12,316 vehicles involved in this campaign.

On certain X-Line multiplexed chassis, the rear marker, brake lights, or left turn signal lights may cease to function while driving. Brake lights that do not function correctly may not notify motorists of a braking event, which may increase the risk of a crash.

Rear Power Distribution Modules (PDMs) will be tested and replaced as needed.

Additional Repairs

Dealers must complete all outstanding Recall and Field Service campaigns prior to the sale or delivery of a vehicle. A Dealer will be liable for any progressive damage that results from its failure to complete campaigns before sale or delivery of a vehicle.

Owners may be liable for any progressive damage that results from failure to complete campaigns within a reasonable time after receiving notification.

Work Instructions

Please refer to the attached work instructions. Prior to performing the campaign, check the vehicle for a completion sticker (Form WAR260).

Replacement Parts

Replacement parts are now available and can be obtained by ordering the part number(s) listed below from your facing Parts Distribution Center.

If our records show your dealership has ordered any vehicles involved in campaign number FL788, a list of the customers and vehicle identification numbers will be available in OWL. Please refer to this list when ordering parts for this recall.

Table 1 - Replacement Parts for FL788

Campaign Number	Part Number	Part Description	Qty
FL788A & H	A66-05172-000	MODULE-POWER DIST ASSY,CUM,X	1 ea
FL788B & K	A66-05172-001	MODULE-POWER DIST ASSY CUM AUX X ,	1 ea
FL788C & L	A66-05172-005	POWER DIST MODULE-ASSY,CUM,GRID,X	1 ea
FL788D & M	A66-05172-006	MODULE-POWER DIST,ASSY,ISX,XCP,NMR	1 ea
FL788E & N	A66-05172-002	MODULE-POWER DIST ASSY CUM AIR LVL	1 ea
FL788F & O	A66-05172-004	MODULE-POWER DIST,ASSY,ISX,XCP	1 ea
FL788G	A66-05172-008	PWR DIST MOD,ASSY,DDC,AUX,X	1 ea
FL788A-O	WAR260	BLANK COMPLETION STICKER	1 ea

Table 1

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Removed Parts

U.S. and Canadian Dealers, please follow Warranty Failed Parts Tracking shipping instructions for the disposition of all removed parts. Export distributors, please destroy removed parts unless otherwise advised.

Labor Allowance

Table 2 - Labor Allowance

Campaign Number	Procedure	Time Allowed (hours)	SRT Code	Corrective Action
FL788A-O	Inspect/Test Rear PDM	0.2	996-R067A	06-Inspect
FL788A-O	Inspect/Test and Replace Rear PDM	0.6	996-R067B	12-Repair Recall/Campaign
FL788A-O	Inspect/Test and Replace Rear PDM; Call for PDM location assistance	1.1	996-R067C	12-Repair Recall/Campaign
FL788A-O	Inspect/Test Rear PDM; Call for PDM location assistance	0.7	996-R067D	06-Inspect

Table 2

IMPORTANT: When the Recall has been completed, locate the base completion label in the appropriate location on the vehicle, and attach the red completion sticker provided in the recall kit (Form WAR260). If the vehicle does not have a base completion label, clean a spot on the appropriate location of the vehicle and first attach the base completion label (Form WAR259). If a recall kit is not required or there is no completion sticker in the kit, write the recall number on a blank sticker and attach it to the base completion label.

Claims for Credit

You will be reimbursed for your parts, labor, and handling (landed cost for Export Distributors) by submitting your claim through the Warranty system within 30 days of completing this campaign. Please reference the following information in OWL:

- Claim type is **Recall Campaign**.
- In the FTL Authorization field, enter the campaign number and appropriate condition code (e.g. **FL788-A, FL788-B, etc.**).
- In the Primary Failed Part Number field, enter **25-FL788-000**.
- In the Parts field, enter the appropriate part number(s) as shown in the Replacement Parts Table.
- In the Labor field, first enter the appropriate SRT from the Labor Allowance Table. Administrative time will be included automatically as SRT 939-6010A for 0.4 hours for RVs.
- **If replacing the PDM, a two page "PDM Inspection and Test" form must be completed and attached to the recall claim.** This form is found at the end of the work instruction on pages 10 and 11. **Removed PDMs will be returned following Warranty Failed Parts Tracking shipping instructions for the disposition of all removed parts.**
- The VMRS Component Code is **034-004-273** and the Cause Code is **A1 - Campaign**.
- **U.S. and Canada -- Reimbursement for Prior Repairs.** When a customer asks about reimbursement, please do the following:
 - Accept the documentation of the previous repair.
 - Make a brief check of the customer's paperwork to see if the repair may be eligible for reimbursement. (See the "Copy of Owner Letter" section of this bulletin for reimbursement guidelines.)
 - Submit an OWL Recall Pre-Approval Request for a decision.
 - Include the approved amount on your claim in the Other Charges section.
 - Attach the documentation to the pre-approval request.

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- If approved, submit a based on claim for the pre-approval.
- Reimburse the customer the appropriate amount.

IMPORTANT: OWL must be viewed prior to performing the recall to ensure the vehicle is involved and the campaign has not been previously completed. Also, check for a completion sticker prior to beginning work.

U.S. and Canadian dealers, contact the Warranty Campaigns Department via Web inquiry at DTNACConnect.com / WSC, or the Customer Assistance Center at (800) 385-4357, after normal business hours, if you have any questions or need additional information. Export distributors, submit a Web inquiry or contact your International Service Manager.

U.S. and Canadian Dealers: To return excess kit inventory related to this campaign, U.S. dealers must submit a Parts Authorization Return (PAR) to the Memphis PDC. Canadian dealers must submit a PAR to their facing PDC. All kits must be in resalable condition. PAR requests must include the original purchase invoice number. Export Distributors: Excess inventory is not returnable.

The letter notifying U.S. and Canadian vehicle owners is included for your reference.

Please note that the National Traffic and Motor Vehicle Safety Act, as amended (Title 49, United States Code, Chapter 301), requires the owner's vehicle(s) be corrected within a reasonable time after parts are available to you. The Act states that failure to repair a vehicle within 60 days after tender for repair shall be prima facie evidence of an unreasonable time. However, circumstances of a particular situation may reduce the 60 day period. Failure to repair a vehicle within a reasonable time can result in either the obligation to (a) replace the vehicle with an identical or reasonably equivalent vehicle, without charge, or (b) refund the purchase price in full, less a reasonable allowance for depreciation. The Act further prohibits dealers from selling a vehicle unless all outstanding recalls are performed. Any lessor is required to send a copy of the recall notification to the lessee within 10 days. Any subsequent stage manufacturer is required to forward this notice to its distributors and retail outlets within five working days.

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Copy of Notice to Owners

Subject: FCCC Motorhome Chassis Rear PDMs

For the Notice to U.S. Customers: This notice is sent to you in accordance with the National Traffic and Motor Vehicle Safety Act. **For the Notice to Canadian Customers:** This notice is sent to you in accordance with the Canada Motor Vehicle Safety Act.

Daimler Trucks North America LLC (DTNA), on behalf of its wholly owned subsidiary, Freightliner Custom Chassis Corporation, has decided that a defect that relates to motor vehicle safety exists on specific Freightliner Custom Chassis X-Line chassis manufactured November 23, 2015, through June 29, 2018, and equipped with a certain PDM.

On certain X-Line multiplexed chassis, the rear marker, brake lights, or left turn signal lights may cease to function while driving. Brake lights that do not function correctly may not notify motorists of a braking event, which may increase the risk of a crash.

Rear Power Distribution Modules (PDMs) will be tested and replaced as needed.

This is the second of two notices regarding this recall. Parts are now available. Please contact an authorized Daimler Trucks North America dealer to arrange to have the Recall performed. To locate an authorized dealer, search online at www.Daimler-TrucksNorthAmerica.com. On the menu tab, select "Contact," scroll down to "Find a Dealer," and select the appropriate brand. The Recall will take approximately one hour and will be performed at no charge to you.

You may be liable for any progressive damage that results from your failure to complete the Recall within a reasonable time after receiving notification.

If you do not own the vehicle that corresponds to the identification number(s) which appears on the Recall Notification, please return the notification to the Warranty Campaigns Department with any information you can furnish that will assist us in locating the present owner. If you have leased this vehicle, Federal law requires that you forward this notice to the lessee within 10 days. If you are a subsequent stage manufacturer, Federal law requires that you forward this notice to your distributors and retail outlets within five working days. If you have paid to have this recall condition corrected prior to this notice, you may be eligible to receive reimbursement. Please see the reverse side of this notice for details.

For the Notice to U.S. Customers: If you have questions about this Recall, please contact the Warranty Campaigns Department at (800) 547-0712, 7:00 a.m. to 4:00 p.m. Pacific Time, Monday through Friday, e-mail address DTNA.Warranty.Campaigns@Daimler.com, or the Customer Assistance Center at (800) 385-4357 after normal business hours. If you are not able to have the defect remedied without charge and within a reasonable time, you may wish to submit a complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE., Washington, DC 20590; or call the Vehicle Safety Hotline at (888) 327-4236 (TTY: 800-424-9153); or to <http://www.safercar.gov>. **For the Notice to Canadian Customers:** If you have questions about this Recall, please contact the Warranty Campaigns Department at (800) 547-0712, 7:00 a.m. to 4:00 p.m. Pacific Time, Monday through Friday, e-mail address DTNA.Warranty.Campaigns@Daimler.com, or the Customer Assistance Center at (800) 385-4357 after normal business hours.

We regret any inconvenience this action may cause but feel certain you understand our interest in motor vehicle safety.

WARRANTY CAMPAIGNS DEPARTMENT

Enclosure

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Reimbursement to Customers for Repairs Performed Prior to Recall

If you have already **paid** to have this recall condition corrected you may be eligible to receive reimbursement.

Requests for reimbursement may include parts and labor. Reimbursement may be limited to the amount the repair would have cost if completed by an authorized Daimler Trucks North America LLC dealer. The following documentation must be presented to your dealer for consideration for reimbursement.

Please provide original or clear copies of all receipts, invoices, and repair orders that show:

- The name and address of the person who paid for the repair
- The Vehicle Identification Number (VIN) of the vehicle that was repaired
- What problem occurred, what repair was done, when the repair was done
- Who repaired the vehicle
- The total cost of the repair expense that is being claimed
- Proof of payment for the repair (such as the front and back of a cancelled check or a credit card receipt)

Reimbursement will be made by check from your Daimler Trucks North America LLC dealer.

Please speak with your Daimler Trucks North America LLC authorized dealer concerning this matter.

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Work Instructions

Subject: FCCC Motorhome Chassis Rear PDMs

Models Affected: Specific Freightliner Custom Chassis X-Line chassis manufactured November 23, 2015, through June 29, 2018, and equipped with a certain PDM.

Rear PDM Circuit Test

IMPORTANT: The two page "PDM Inspection and Test" form must be completed and attached to the recall claim. This form is found at the end of the work instruction on pages 10 and 11. **Removed PDMs will be returned following Warranty Failed Parts Tracking shipping instructions for the disposition of all removed parts.**

NOTE: The PDM tester contains a battery. If the battery is low, BAT appears on the tester.

1. Check the base label (Form WAR259) for a completion sticker for FL788 (Form WAR260) indicating this work has been completed. The base label is usually located on the front wall under the dash. If a sticker is present, no work is needed. If there is no sticker, proceed with the next step.

DANGER

When working on the vehicle, shut down the engine, set the parking brake, and chock the tires. Before working under the vehicle, always place jack stands under the frame rails to ensure the vehicle cannot drop. Failure to follow these steps could result in serious personal injury or death.

2. Park the vehicle on a level surface, shut down the engine, and set the parking brake. Chock the tires.
3. If needed, raise the vehicle and support it with jack stands.

NOTE: The PDM can be located in numerous chassis locations past the rear axle. If the PDM can not be found, contact either FCCC at 1-800-FTL-HELP (1-800-385-4357) or the applicable body builder for assistance.

4. Locate the PDM to be tested and check the serial number located on the PDM label. See [Fig. 1](#). If the vehicle has less than 1500 miles (2414 km) and the PDM serial number is less than 18103500 do not perform the rear PDM circuit test—go to 'PDM Replacement' on page 9 ,for instructions to replace the PDM . **Applicable sections of the two-page form must be filled out for the new PDM and the form must be attached to the recall claim. Removed PDMs will be returned following Warranty Failed Parts Tracking shipping instructions for the disposition of all removed parts.**

If the PDM serial number is greater than 18103500, go to step 18 on page 9.

If the vehicle has more than 1500 miles (2414 km) and the PDM serial number is less than 18103500, continue to step 5.

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Fig. 1, PDM Label

IMPORTANT: The tester will work with a PDM connected to the vehicle or removed and placed on a work bench. If the PDM is being bench tested (PDM is not on the vehicle), ensure that 12V of power is supplied to the battery terminal. See [Fig. 2](#), item 1.

5. Remove the PDM cover and locate the circuits to be tested. See [Fig. 2](#).
6. Remove the two fuses and one relay from the PDM. See [Fig. 2](#), items 2 and 5.

NOTE: The following instructions will separately test the voltage drop of the solder joint on pins 6 and 7 through connectors J6 and J9. The display reads in millivolts.

7. Connect the tester to the PDM. This includes three J-connectors and the test probe, along with the power and ground terminals. See [Fig. 3](#). Not shown in [Fig. 3](#) is the ground terminal connected to the negative terminal on the battery.
8. With the test probe plugged into the F6 and F7 locations of the PDM, ensure that the tester rocker switch is on the J6 location. See [Fig. 4](#), ref. A and item 1.
9. Move the momentary toggle switch on the tester to the ON-PIN6 location. See [Fig. 4](#), ref. B and item 2. This will read the voltage drop on the J6 connector in the Pin 6 location.

Failure criteria is a voltage reading greater than 55MV or a meter reading of 1 or -1V (it is an open circuit). If any of these readings are shown go to 'PDM Replacement' for instructions.

If the voltage reading is less than 55MV, go to the next step.

10. Move the momentary toggle switch to the ON-PIN7 location. See [Fig. 4](#), ref. B and item 2. This will read the voltage drop on the J6 connector in the Pin 7 location.

Failure criteria is a voltage reading greater than 55MV or a meter reading of 1 or -1V (it is an open circuit). If any of these readings are shown go to 'PDM Replacement' for instructions.

If the voltage reading is less than 55MV, go to the next step.

11. Move the test probe to the location for relay 18. See [Fig. 5](#). This will test the J9 connector Pin 6 and Pin 7.

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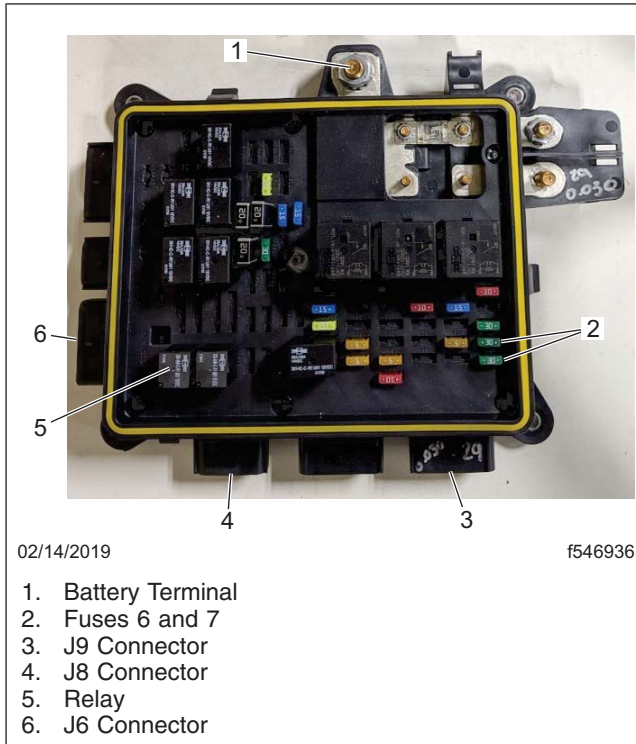


Fig. 2, PDM Components

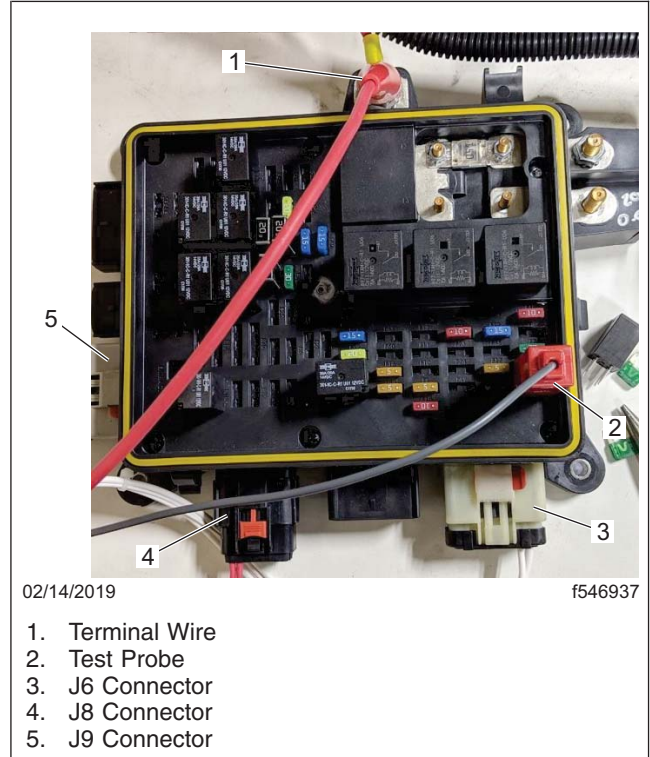


Fig. 3, Tester Connected to the PDM

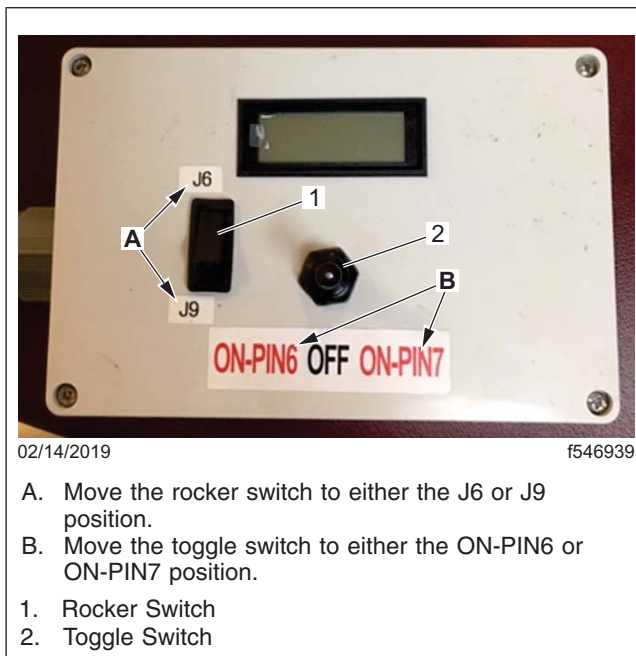


Fig. 4, Tester Components

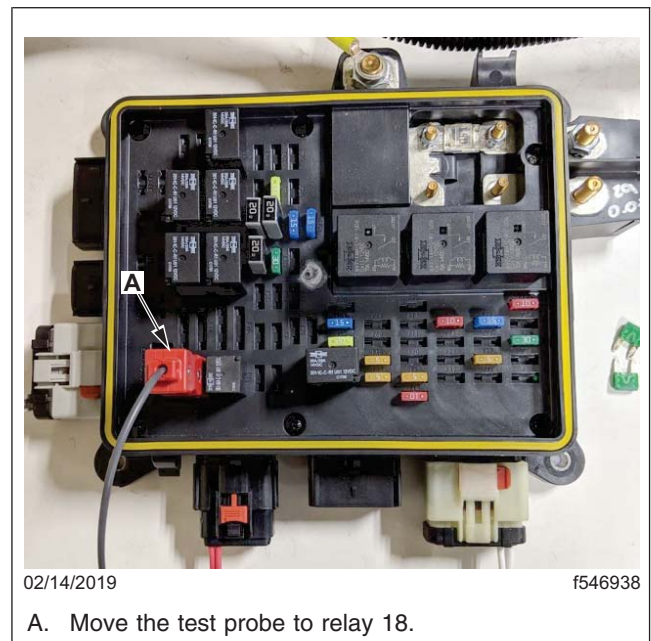


Fig. 5, Test Probe Moved to Relay 18

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12. With the test probe plugged into relay 18, ensure that the tester rocker switch is on the J9 location. See [Fig. 4](#), ref. A and item 1.
13. Move the momentary toggle switch on the tester to the ON-PIN6 location. See [Fig. 4](#), ref. B and item 2. This will read the voltage drop on the J9 connector in the Pin 6 location.

Failure criteria is a voltage reading greater than 55MV or a meter reading of 1 or -1V (it is an open circuit). If any of these readings are shown go to 'PDM Replacement' for instructions to replace the PDM.

If the voltage reading is less than 55MV, go to the next step.
14. Move the momentary toggle switch to the ON-PIN7 location. See [Fig. 4](#), ref. B and item 2. This will read the voltage drop on the J9 connector in the Pin 7 location.

Failure criteria is a voltage reading greater than 55MV or a meter reading of 1 or -1V (it is an open circuit). If any of these readings are shown go to 'PDM Replacement' for instructions to replace the PDM.

If the voltage reading is less than 55MV, go to the next step.
15. Remove all of the test box connectors and install the relay and fuses removed earlier. For relay and fuse locations see [Fig. 2](#).
16. Replace the PDM cover.
17. Lower the vehicle and remove the jack stands.
18. Clean a spot on the base label (Form WAR259). Write the recall number, FL788, on a completion sticker (Form WAR260), and attach it to the base label to indicate this recall has been completed.

PDM Replacement

IMPORTANT: The two page "PDM Inspection and Test" form must be completed and attached to the recall claim. This form is found at the end of the work instruction on pages 10 and 11. **Removed PDMs will be returned following Warranty Failed Parts Tracking shipping instructions for the disposition of all removed parts.**

1. Disconnect the chassis battery ground cable.
2. Disconnect all electrical connections to the PDM.
3. Remove the mounting fasteners attaching the PDM to chassis and remove the PDM.

IMPORTANT: When replacing the PDM, remove the cover from the new PDM and compare the fuse and relay configurations with the PDM being replaced. Body builders may have added optional fuses and relays after the chassis was built. If this is the case, make certain to remove and reinstall the additional fuses and relays in the same location on the new PDM and replace the cover.

4. Using the mounting fasteners removed earlier, attach the PDM to the chassis.
5. Connect all electrical connections to the PDM.
6. Connect the chassis battery ground cable.
7. Clean a spot on the base label (Form WAR259). Write the recall number, FL788, on a completion sticker (Form WAR260), and attach it to the base label to indicate this recall has been completed.

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PDM Inspection & Test	
Performed by:	Date:
Vehicle Serial #:	Mileage:
PDM Serial #:	
Record PDM Serial #, Vehicle Serial # and Mileage of vehicle. Serial # > 18103500 is not affected and does not need to be tested or replaced.	
If the vehicle mileage is less than 1500 miles, replace the PDM unit. Do not proceed with inspection or test. Record Serial # of new PDM unit.	New PDM Serial #:
If the mileage is more than 1500 miles, proceed with the inspection and test.	
Remove the cover of the PDM and inspect for missing or damaged fuses or relays. Replace components before proceeding.	
Record if any fuses or relays are missing or damaged:	
Inspect all connectors and harnesses to the PDM for damage. If damaged, replace or repair connections prior to testing.	
Record if any connectors or harnesses are damaged:	
Verify that there is no paint or substance affecting the input connection. Remove any paint or substance to ensure a good connection prior to testing.	
Record if any paint or substance was found on the input connection:	
Do not remove the battery input voltage connection to the PDM.	
Measure the battery voltage with a multi-meter/volt meter.	Measured Battery Voltage:
If the voltage is less than 12.3V, use an external battery with a voltage at least 12.3V for test. If using an external battery, remove the vehicle's battery connection and make connection from external battery to the PDM unit.	

Fig. 6, PDM Inspection and Test Form (page 1 of 2)

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<p>Disconnect connectors J6, J8, and J9. If needed, all other connectors may be removed to gain access. Remove wire ties as necessary.</p> <p>Remove fuse F5 and F6. Connect the fuse probe connectors at F5 and F6 and relay R18.</p> <p>Connect the tester input voltage connector to the Input Stud of the PDM. Connect the tester ground connector to the known ground of the vehicle.</p> <p>Turn the switch to J6 to begin the tester.</p>	
<p>Toggle the selector switch to the ON-PIN6 and ON-PIN7 position and record the voltage reading.</p>	<p>J6-6 Voltage Reading: J6-7 Voltage Reading:</p>
<p>If the voltage reading is greater than 0.055V, replace the PDM unit.</p>	
<p>If not already done, remove relay R18. Connect the fuse probe connectors at relay R18.</p> <p>Turn the switch to J9 to begin the tester.</p>	
<p>Toggle the selector switch to the ON-PIN6 and ON-PIN7 position and record the voltage reading.</p>	<p>J9-6 Voltage Reading: J9-7 Voltage Reading:</p>
<p>If the voltage reading is greater than 0.055V, replace the PDM unit.</p>	
<p>Switch tester to OFF position.</p>	
<p>If PDM unit is required to be replaced, record serial # of PDM unit.</p>	<p>New PDM Serial #:</p>
<p>Remove tester connections and reconnect vehicle connections. Replace fuse F5 and F6 and relay R18. Confirm that loads are working correctly.</p> <p>Send replaced PDM unit to the following address with a copy of this form.</p> <p>Attach this form to the warranty claim.</p>	

Fig. 7, PDM Inspection and Test Form (page 2 of 2)