



Revised June 2015

Dealer Service Instructions for:

Safety Recall P65 / NHTSA 14V-635 Diesel Fuel Heater Electrical Connector

NOTE: An inspection of the 2010 model year vehicle fuel filter assembly has been added to the service procedure. Also a new labor operation number has been added to the "Completion Reporting and Reimbursement" section.

Models

2010 (DC) RAM **3500** Cab Chassis

(DM) RAM 4500/5500 Cab Chassis

2010 – 2014 (DJ) RAM 2500 Pick-Up Truck

(D2) RAM 3500 Pick-Up Truck

2011 – 2014 (DD) RAM 3500 Cab Chassis

(DP) RAM 4500/5500 Cab Chassis

NOTE: This recall applies only to the above vehicles equipped with a 6.7L Cummins Turbo Diesel engine (sales code ETJ or ETK) built through September 05, 2013 (MDH 090506).

IMPORTANT: Some of the involved vehicles may be in dealer new vehicle inventory. Federal law requires you to complete this recall service on these vehicles before retail delivery. Dealers should also consider this requirement to apply to used vehicle inventory and should perform this recall on vehicles in for service. Involved vehicles can be determined by using the VIP inquiry process.

Subject

The diesel fuel heater electrical connector on about 314,000 of the above vehicles may overheat and cause a fuel leak. The diesel fuel heater housing at the fuel heater electrical connector may overheat, leading to the failure of the O-rings that seal the male electrical terminals in the diesel fuel filter/heater assembly. A leaking diesel fuel filter/heater could cause underhood smoke and/or an engine compartment fire.

Repair

The diesel fuel filter/heater and wire harness electrical connector on 2010 models must be inspected and replaced if required.

The diesel fuel heater wire harness electrical connector must be replaced on all 2011 through 2014 model year vehicles and the diesel fuel filter/heater housing must be inspected for fuel leaks. If a fuel leak is found, the diesel fuel filter/heater assembly must be replaced.

Alternate Transportation

Dealers should attempt to minimize customer inconvenience by placing the owner in a loaner vehicle if inspection determines that diesel fuel filter housing replacement is required and the vehicle must be held overnight.

Parts Information

Part Number Description

CBUMP651AA Fuel Heater Connector Wiring Package

Each package contains the following components:

Quantity	<u>Description</u>
1	Wire, Red
1	Wire, Black
2	Crimp, Brass
2	Tube, Shrink
1	Body, Electrical Connector (2-way)
1	Lock, Blue Wire

<u>Each dealer</u> to whom vehicles in the recall were assigned will receive enough Fuel Heater Connector Wiring Packages to service about 20% of those vehicles.

	Part Number	• Description
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CBDMP652AA Fuel Filter/Heater Assembly

<u>Each dealer</u> to whom vehicles in the recall were assigned will receive enough fuel filter/heater assemblies to service about 20% of those vehicles.

Part Number	Description
04778138	Tape, Wire Harness (NOTE: One role of wire harness tape can repair 30 trucks)
56001144	Strap, Double Ended Tie (NOTE: Order two tie straps per vehicle being repaired)
05013781AA	Grease, Dielectric (NOTE: One tube of grease can repair 30 trucks)

Parts Return

No parts return required for this campaign.

Special Tools

The following special tool is required to perform this repair:

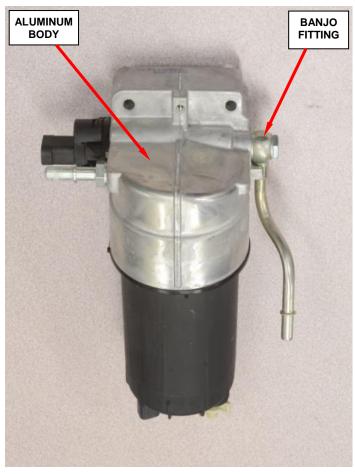
- ➤ 10042* Wire splice crimp tool
- *NOTE: One wire splice crimp tool was mailed to each Chrysler/Jeep/Dodge dealer free of charge in June, 2007.

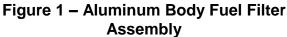
Additional wire splice crimp tools can be purchased, at dealer expense, by calling Mopar Essential Tools at 1-855-298-2687 during regular business hours. Contact Mopar Essential Tools regarding warranty issues on any purchased tools.

Service Procedure

A. Inspect the Fuel Filter Assembly

- 1. Determine the model year of the vehicle:
 - ➤ If the vehicle is a 2011 through 2014 model year vehicle, continue with Section B. Inspect Diesel Fuel Heater for Leaks.
 - ➤ If the vehicle is a 2010 model year vehicle, continue with Step 2 of this procedure.
- 2. Inspect the fuel heater assembly:
 - ➤ If the fuel filter assembly looks like Figure 1, no further action is required. Close the hood and return the vehicle to the customer.
 - ➤ If the fuel filter assembly looks like Figure 2, continue with **Section B. Inspect Diesel Fuel Heater for Leaks.**





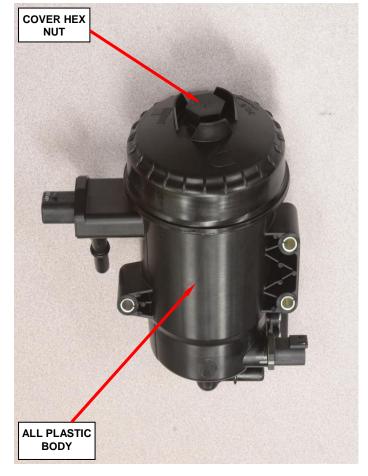


Figure 2 – All Plastic Body Fuel Filter Assembly

B. Inspect Diesel Fuel Heater for Leaks

- 1. Open the hood.
- 2. Disconnect the negative battery cable from both batteries.
- 3. Separate the engine harness electrical connector from the edge of the cowl wiring trough and set connector aside (Figure 3).

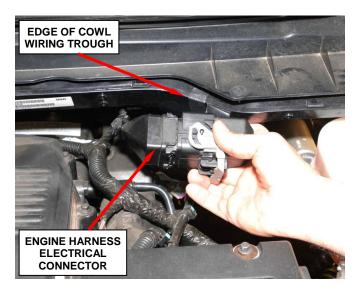


Figure 3 - Engine Harness Connector

NOTE: Temporarily relocating the engine harness connector will increase accessibility to the fuel filter/heater assembly and wiring.

- 4. Disconnect the fuel heater electrical connector at the fuel heater assembly (Figure 4).
- 5. Disconnect the transmission 8-way electrical connector.
- 6. Cut the plastic tie straps that hold the wire harness to the engine oil dipstick tube (Figure 4).
- 7. <u>If equipped</u>, pull the foam injector cover back to gain access to the fuel rail pressure sensor.

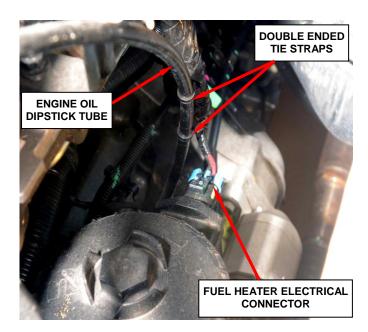


Figure 4 – Fuel Heater Electrical Connector

8. Disconnect the electrical connector from the fuel rail pressure sensor (Figure 5 or 6).

NOTE: Extreme patience and perseverance is required to disconnect the fuel pressure sensor electrical connector.

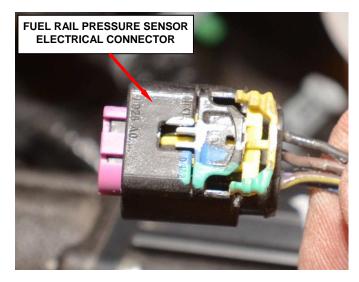


Figure 5 – Fuel Pressure Sensor Electrical Connector (2013 & 2014 Models)

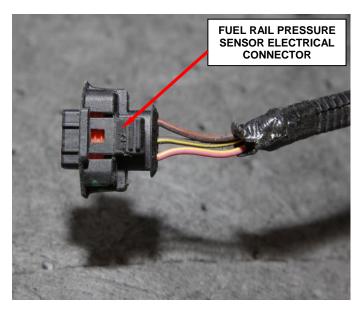


Figure 6 - Fuel Pressure Sensor Electrical Connector (2010 through 2012 Models)

- 9. Disconnect the grey wire harness electrical connector(s) (Figure 7).
- 10. Pull the wire harness stud clips off of the studs.
- 11. Place the harness so the fuel heater electrical connector can be inspected.

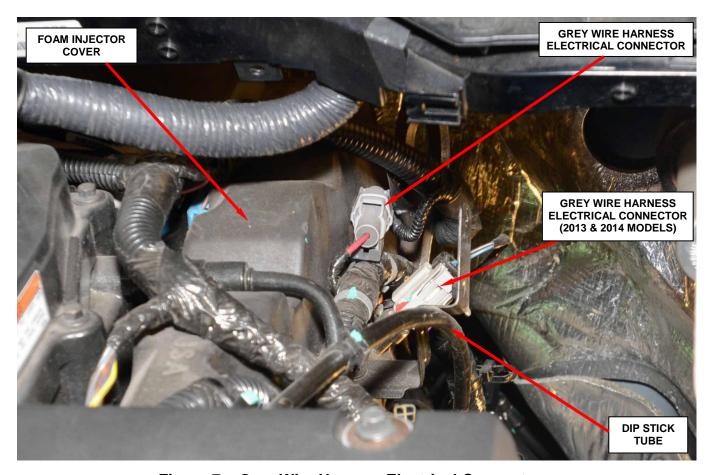


Figure 7 - Grey Wire Harness Electrical Connectors

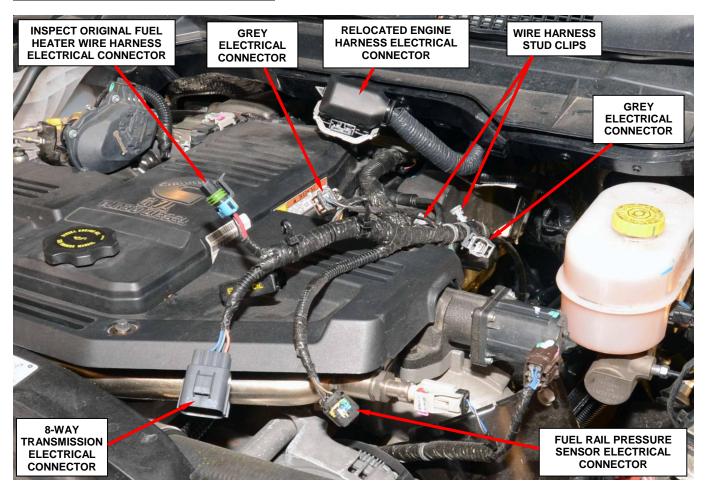


Figure 8 - Fuel Filter/Heater Wiring Harness Electrical Connectors

- 12. Inspect the fuel heater wire harness electrical connector (Figure 8):
 - ➤ If diesel fuel <u>is found</u> in the fuel heater wire harness electrical connector and/or the electrical connector terminal(s) <u>are burnt</u>, continue with <u>Section C. Replace Diesel Fuel Filter/Heater Assembly</u>.
 - ➤ If diesel fuel <u>is not found</u> in the fuel heater wire harness electrical connector and the electrical connector terminal(s) <u>are not burnt</u>, continue with <u>Section</u> D. Replace Diesel Fuel Heater Electrical Connector.

C. Replace Diesel Fuel Filter/Heater Assembly

- 1. Place a drain pan under the fuel filter/heater assembly.
- 2. Disconnect the diesel fuel inlet tube at the diesel fuel filter/heater assembly inlet port (Figure 9).
- 3. Open the diesel fuel filter drain valve ¼ turn and allow the diesel fuel filter assembly to fully drain and then close the drain valve (Figure 9).
- 4. Disconnect the "Water in Fuel" sensor electrical connector (Figure 9).

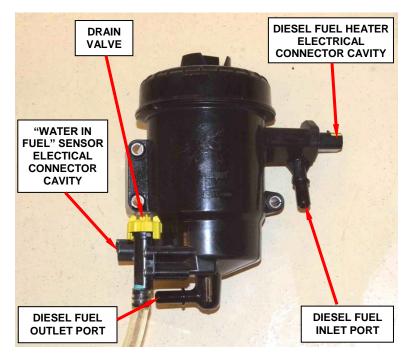


Figure 9 - Diesel Fuel Filter/Heater Assembly

- 5. Disconnect the diesel fuel outlet tube connection at the diesel fuel filter/heater assembly (Figure 9).
- 6. Remove and save the three diesel fuel filter/heater assembly mounting bolts.
- 7. Remove and discard the original diesel fuel filter/heater assembly.
- 8. Place the new diesel fuel filter/heater assembly into position.
- 9. Install the three diesel fuel filter/heater assembly mounting bolts. Tighten the bolts to 18 ft. lbs. $(24 \text{ N} \cdot \text{m})$.
- 10. Connect the diesel fuel outlet tube to the diesel fuel filter/heater assembly.
- 11. Connect the diesel fuel inlet tube to the diesel fuel filter/heater assembly.
- 12. Connect the electrical connector for the "Water in Fuel" sensor to the diesel fuel filter/heater assembly.
- 13. Continue with Section D. Replace Diesel Fuel Heater Electrical Connector.

D. Replace Diesel Fuel Heater Electrical Connector

- 1. Use the following procedure to assemble the diesel fuel heater electrical connector kit:
 - a. Cut both wires in the kit so they are approximately 6 in. (152 mm) long (Figure 8).
 - b. Strip approximately ¼ in. (6 mm) of insulation from the end of the wires.
 - c. Install the red wire terminal into the new electrical connector body cavity "A" (Figure 10).
 - d. Install the black wire terminal into the new electrical connector body cavity "B" (Figure 10).
 - e. Install the blue wire lock onto the body of the electrical connector (Figure 10).

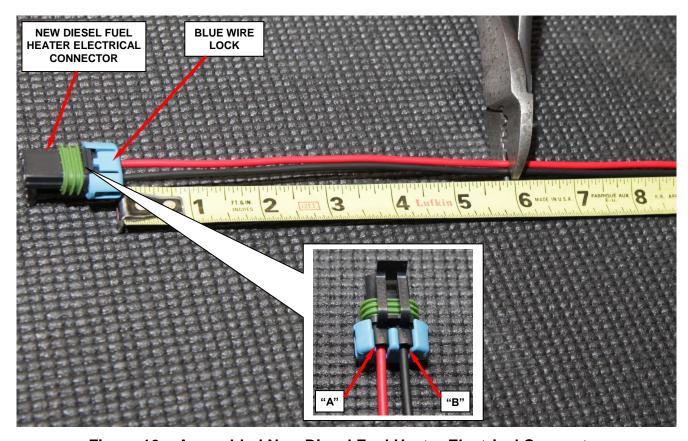


Figure 10 – Assembled New Diesel Fuel Heater Electrical Connector

2. Carefully cut off and discard the **original** diesel fuel heater electrical connector from the engine wire harness (Figure 11).

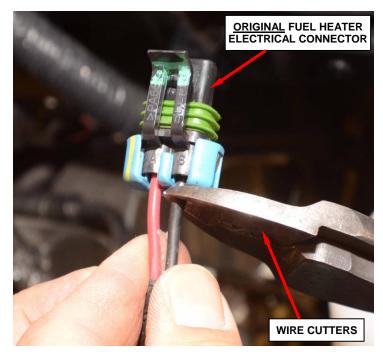


Figure 11 – Original Diesel Fuel Heater Electrical Connector

3. Carefully trim back the electrical tape on the wire harness (Figure 12).

CAUTION: Do not cut the wire insulation when trimming back the electrical tape.

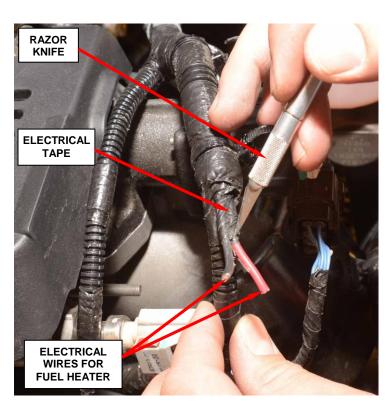
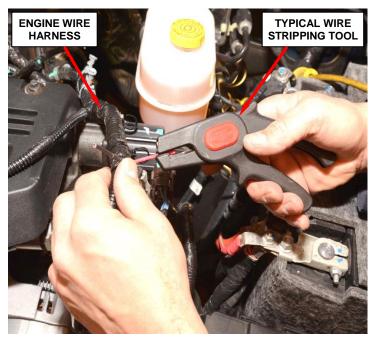


Figure 12 - Trim Back Electrical Tape

- 4. Strip approximately ¼ in. (6 mm) of insulation from the end of the red and black wires (Figure 13).
- 5. Place one piece of shrink tube onto each of the new electrical connector wires (Figure 14).
- 6. Using crimp tool 10042 and a supplied brass crimp, crimp the red wire to the red wire for terminal "A" of the new electrical connector (Figure 14).
- 7. Using crimp tool 10042 and a supplied brass crimp, crimp the black wire to the black wire for



black wire to the black wire for Figure 13 – Strip Insulation from Harness Wires terminal "B" of the new electrical connector (Figure 14).

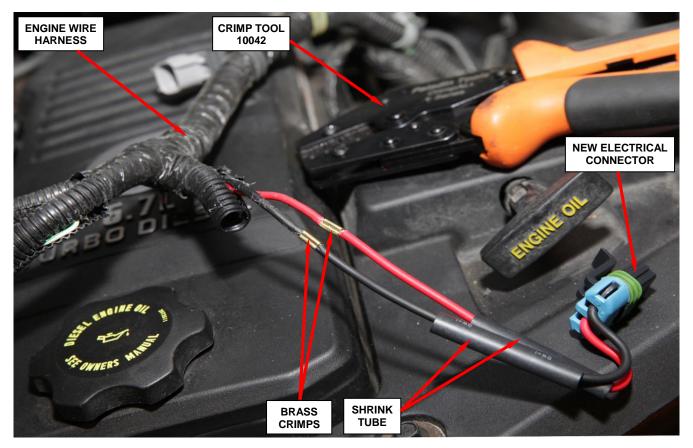


Figure 14 - New Connector Wire Connections

8. Using rosin core solder, solder each of the brass crimps (Figure 15).

9. Slide the shrink tube over the soldered brass crimps.



Figure 15 - Solder Brass Crimps

10. Using a heat gun, shrink the heat shrink tubes to seal the splice joints (Figure 16).

NOTE: Apply heat to the shrink tube until glue comes out of both ends of the shrink tube.

11. Using wire harness tape, wrap the electrical wiring for the diesel fuel heater.

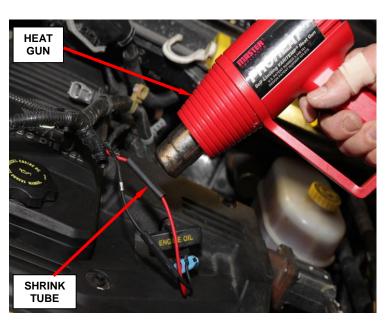


Figure 16 – Install Heat Shrink Tube

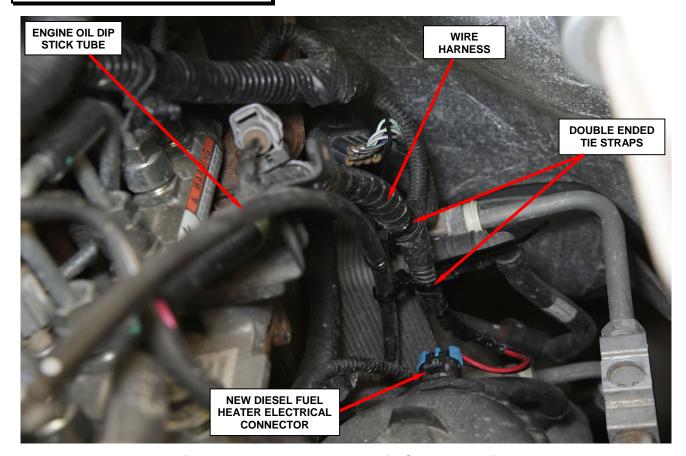


Figure 17 - Double Ended Tie Strap Location

12. Cut off the original tie straps on the wire harness and install the new double ended tie straps in the same location on the wire harness (Figure 17).

NOTE: If the vehicle wire harness only had one tie strap, add a second tie strap shown in Figure 17.

- 13. Place the wire harness into position on the engine.
- 14. Secure the two wire harness stud clips to the studs.
- 15. Connect the fuel rail pressure sensor electrical connector.
- 16. Connect the 8-way transmission connector.
- 17. Connect the grey wire harness electrical connector(s).
- 18. Secure the wire harness to the dipstick tube with the installed tie straps (Figure 17).

- 19. Apply dielectric grease to the face of the diesel fuel heater electrical connector (Figure 18).
- 20. Connect the diesel fuel heater electrical connector to the diesel fuel heater assembly.
- 21. Route the diesel fuel heater wires to create a drip loop in the wire harness (Figure 19).

CAUTION: Be sure that the drip loop does not contact other underhood components.

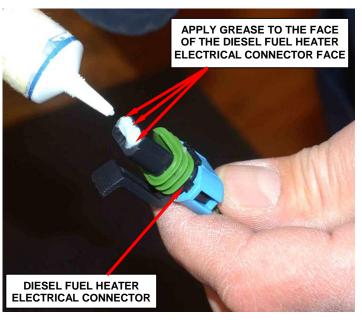


Figure 18 – Apply Dielectric Grease to Electrical Connector Face

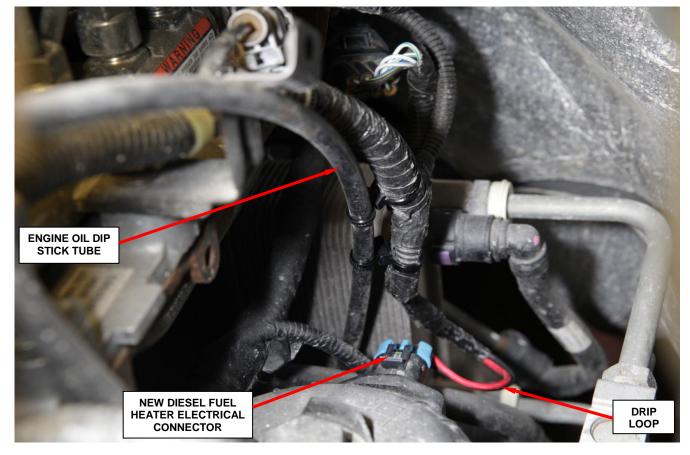
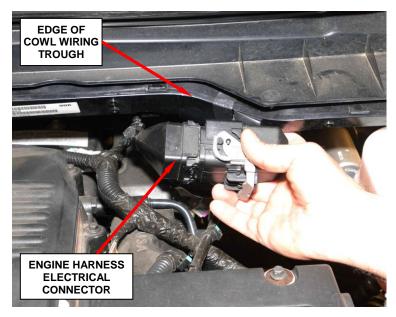


Figure 19 – Route Diesel Fuel Heater Wiring Wire with a Drip Loop

22. Connect the engine harness electrical connector to the edge of the cowl wiring trough (Figure 20).



23. Connect both negative battery cables to the batteries.

Figure 20 – Engine Harness Electrical Connector

24. Start the vehicle and check for fuel leaks at the diesel fuel filter/heater assembly.

25. Close the hood and return the vehicle to the customer.

Completion Reporting and Reimbursement

Claims for vehicles that have been serviced must be submitted on the DealerCONNECT Claim Entry Screen located on the Service tab. Claims submitted will be used by FCA to record recall service completions and provide dealer payments.

Use the following labor operation numbers and time allowances:

	Labor Operation Number	Time <u>Allowance</u>
Inspect diesel fuel filter assembly (2010 models only)	08-P6-51-81	0.2 hours
Inspect diesel fuel filter heater electrical connector area for fuel leaks and replace fuel filter heater electrical connector	08-P6-51-82	0.8 hours
Related Operation Replace fuel filter heater		
assembly	08-P6-51-50	0.5 hours
Optional Equipment		
Accessory drive belt driven Power Take Off (PTO) unit	08-P6-51-60	0.5 hours

Add the cost of the recall parts package plus applicable dealer allowance to your claim.

NOTE: See the Warranty Administration Manual, Recall Claim Processing Section, for complete recall claim processing instructions.

Dealer Notification

To view this notification on DealerCONNECT, select "Global Recall System" on the Service tab, then click on the description of this notification.

Owner Notification and Service Scheduling

All involved vehicle owners known to FCA are being notified of the service requirement by first class mail. They are requested to schedule appointments for this service with their dealers. A generic copy of the owner letter is attached.

Enclosed with each owner letter is an Owner Notification postcard to allow owners to update our records if applicable.

Vehicle Lists, Global Recall System, VIP and Dealer Follow Up

All involved vehicles have been entered into the DealerCONNECT Global Recall System (GRS) and Vehicle Information Plus (VIP) for dealer inquiry as needed.

GRS provides involved dealers with an <u>updated</u> VIN list of <u>their incomplete</u> vehicles. The owner's name, address and phone number are listed if known. Completed vehicles are removed from GRS within several days of repair claim submission.

To use this system, click on the "Service" tab and then click on "Global Recall System." Your dealer's VIN list for each recall displayed can be sorted by: those vehicles that were unsold at recall launch, those with a phone number, city, zip code, or VIN sequence.

Dealers <u>must</u> perform this repair on all unsold vehicles <u>before</u> retail delivery. Dealers should also use the VIN list to follow up with all owners to schedule appointments for this repair.

Recall VIN lists may contain confidential, restricted owner name and address information that was obtained from the Department of Motor Vehicles of various states. Use of this information is permitted for this recall only and is strictly prohibited from all other use.

Additional Information

If you have any questions or need assistance in completing this action, please contact your Service and Parts District Manager.

Customer Services / Field Operations FCA US LLC



IMPORTANT SAFETY RECALL

P65 / NHTSA 14V-635

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Dear: (Name)

Chrysler has decided that a defect, which relates to motor vehicle safety, exists in certain **2010 through 2014 model year RAM trucks** equipped with a 6.7L Cummins Turbo Diesel engine.

The problem is...

The diesel fuel heater electrical connector on your truck may overheat and cause a fuel leak. The diesel fuel heater housing at the fuel heater electrical connector may overheat, leading to the failure of the O-rings that seal the male electrical terminals in the diesel fuel filter/heater assembly. A leaking diesel fuel filter/heater could cause underhood smoke and/or an engine compartment fire.

What your dealer will do...

Chrysler will repair your vehicle free of charge (parts and labor). To do this, your dealer will inspect/replace the diesel fuel heater electrical connector and the diesel fuel filter/heater assembly as required. The work will take up to 1.5 hours to complete. However, additional time may be necessary depending on service schedules.

What you must do to ensure your safety...

Simply **contact your Chrysler**, **Jeep**, **Dodge or RAM dealer** right away to schedule a service appointment. Ask the dealer to hold the parts for your vehicle or to order them before your appointment. **Please bring this letter with you to your dealer**.

If you need help...

If you have questions or concerns which your dealer is unable to resolve, please contact the Chrysler Group Recall Assistance Center at 1-800-853-1403.

Please help us update our records by filling out the attached prepaid postcard if any of the conditions listed on the card apply to you or your vehicle. If you have further questions go to **recalls.mopar.com**.

If you have already experienced this specific condition and have paid to have it repaired, you may mail your original receipts and proof of payment to the following address for reimbursement consideration: FCA US Customer Assistance, P.O. Box 21-8004, Auburn Hills, MI 48321-8007, Attention: Recall Reimbursement. Once we receive and validate the required documents, reimbursement will be sent to you within 60 days. If you've had previous repairs and/or reimbursement you may still need to have the recall repair performed on your vehicle.

If your dealer fails or is unable to remedy this defect without charge and within a reasonable time, you may submit a written complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Ave., S.E., Washington, DC 20590, or call the toll-free Vehicle Safety Hotline at 1-888-327-4236 (TTY 1-800-424-9153), or go to http://www.safercar.gov.

We're sorry for any inconvenience, but we are sincerely concerned about your safety. Thank you for your attention to this important matter.

Customer Services / Field Operations FCA US LLC