



INSTRUCTION SHEET K6855569AC

Severe Duty Filtration Kit For Cummins Equipped Vehicles

Subject:

Installation process for severe duty, add on frame mounted fuel filtration kit and wiring.

Models:

2007 - 2012 DC, DD (3500 Only) Cab Chassis - Cummins Equipped Vehicles
2004.5 - 2012 DR, DH, DJ, D1, D2 Pickup - Cummins Equipped Vehicles

Overview:

A Severe Duty Filtration Kit (SDFK) has been developed to provide the best possible fuel filtration process to the engine. For Severe Duty fuel tank ventilation protection, install extended fuel tank vent hose kit and vent filter kit. Refer to TSB 14-004-11 (or later bulletin).

IMPORTANT INFORMATION:

The maintenance intervals for the fuel filters (factory equipped filter and added frame mounted SDFK) are at 15,000 miles, 12 months or 400 hours of engine operation, (whichever occurs first). If Water in Fuel (WIF) light illuminates, all fuel filters should be replaced as soon as possible. Please print the last page of these instructions and place in the vehicle for the owner/operator.

Parts Required:

- (1) 68083851AB - DC, DD 2007 - 2012 Cab/Chassis 6.7L SDFK
- (1) 68083853AB - DH, DJ, DR, D1, D2 2004½ -2012 Pick Up 5.9L* or 6.7L SDFK

***NOTE: 2004½ - 2007 Pick Ups equipped with a 5.9L engine, an additional WIF sensor wiring adaptor KIT P/N 68026934AB is required. Order this separately.**

*(AR) 68026934AB - DH, DR, D1 2004½ -2007 Pick Up 5.9L WIF Sensor Wiring Adaptor

Driver information sheet included. Please print the last page of these instructions and leave a copy on the Driver's seat for future reference.

Filter and Support Bracket Installation Procedure:

1. Remove contents from box and separate components.

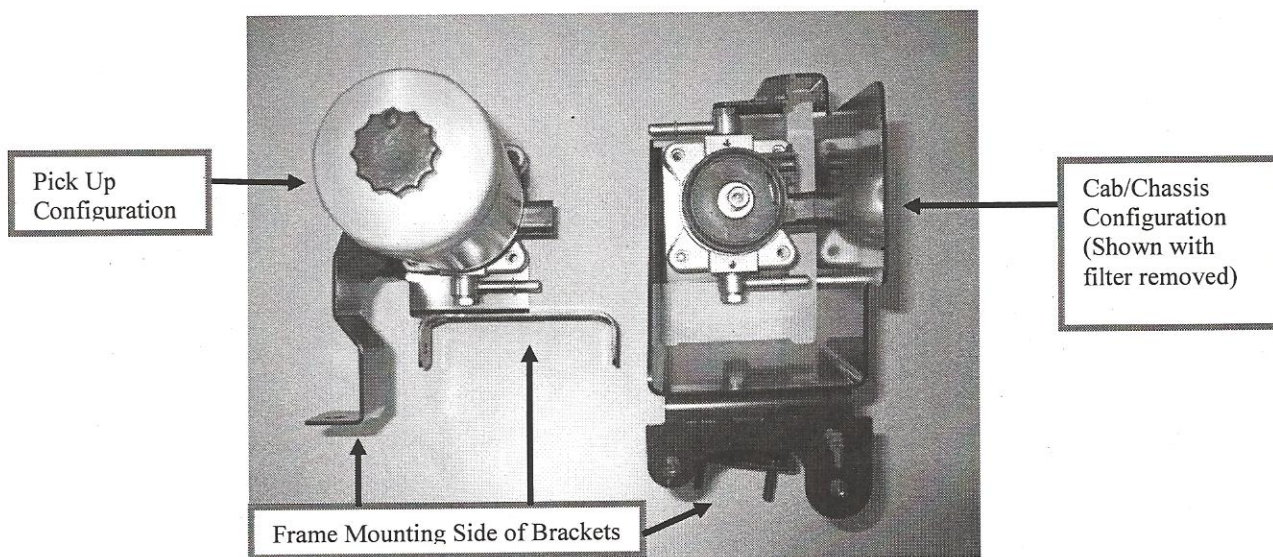


Figure 1 (Bottom View)

2. Locate mounting position on the frame (For Pick Up models, see Figure 2). (For Cab Chassis models, see Figure 3).

NOTE: Short wheel base Pick Up models require fuel tank removal.

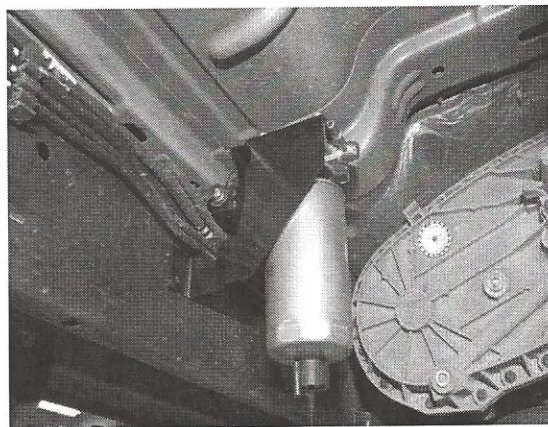


Figure 2



Figure 3

3. Temporarily install the bracket/filter assembly with supplied fasteners to specified frame location and **do not tighten** fasteners at this time. Temporary cross member removal **may** be necessary for ease of installation.
4. Mark the fuel supply line approximately 6" in front of bracket **AND** approximately 6" behind the bracket in a straight area of tubing suitable for a compression fitting. This is where the line will be cut to remove a section approximately 18" - 20" long on Pickups and 16" - 18" on Cab Chassis. (Figure 4 and Figure 5).

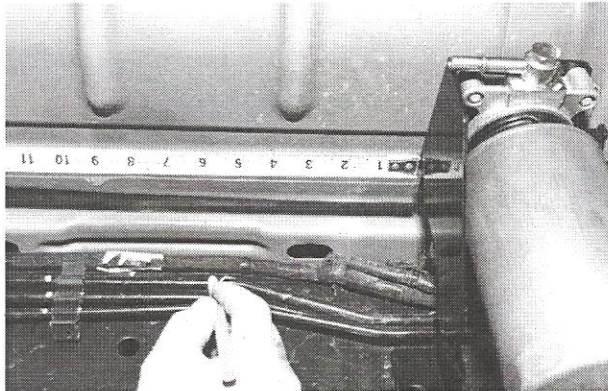


Figure 4

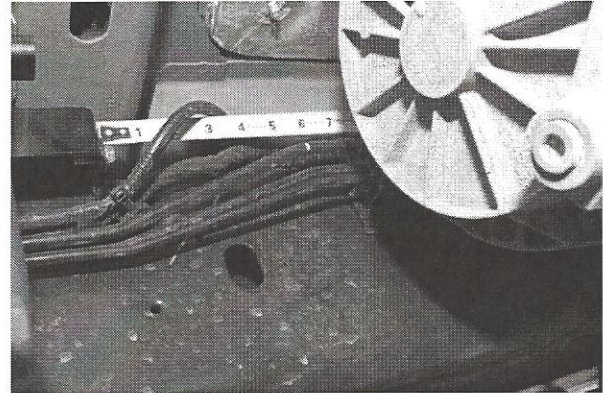


Figure 5

5. Remove the temporarily installed filter assembly.
6. Cut the fuel supply line at the two locations. Locate cut in a manner that a compression fitting will install on a straight portion of line.
7. Remove black protective coating $\frac{3}{4}$ " from cut end: Cut through the black coating around circumference of line $\frac{3}{4}$ " from end. Cut from that point to the end of the line. Peel or file off coating.
8. Using emery cloth, sand the exposed line smooth and remove all debris.
9. Install compression and tighten fittings on the end of the cut lines.
10. Apply single step primer or equivalent to any exposed fuel lines after installing the compression fittings.
11. Install the filter/bracket assembly with supplied fasteners to specified frame location for specific SDFK. Tighten to 30 ft-lb (See Figure 2 & 3).
12. Attach the quick connect lines to filter head:
 - a. Install the 90° fitting on the inboard side of filter head and directed back toward frame of the vehicle, (See Figure 6).
 - b. Install the straight fitting on the outboard side of the filter head forward, toward engine.
13. Measure and cut the correct length of hose for each of the lines, (inlet and outlet of filter) and connect to appropriate fittings.
14. Secure hose ends to fittings with 4 clamps. Finished installation shown in Figure 6 for Pickup, (Cab/Chassis similar).

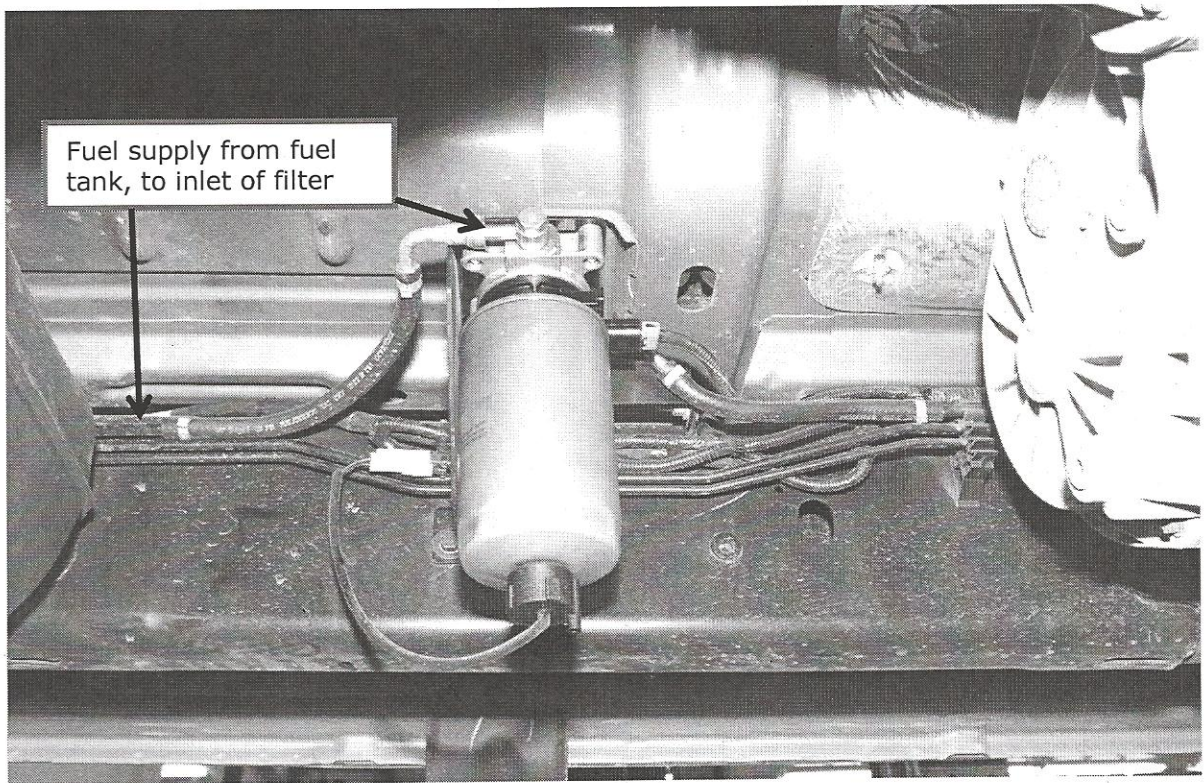


Figure 6

Wiring Harness Installation Procedure:

1. With vehicle hood open, route the wiring harness behind the left battery downward toward the factory equipped, engine mounted fuel filter.
2. From under vehicle, route wiring harness along the path of the fuel bundle lines (See Figure 7).



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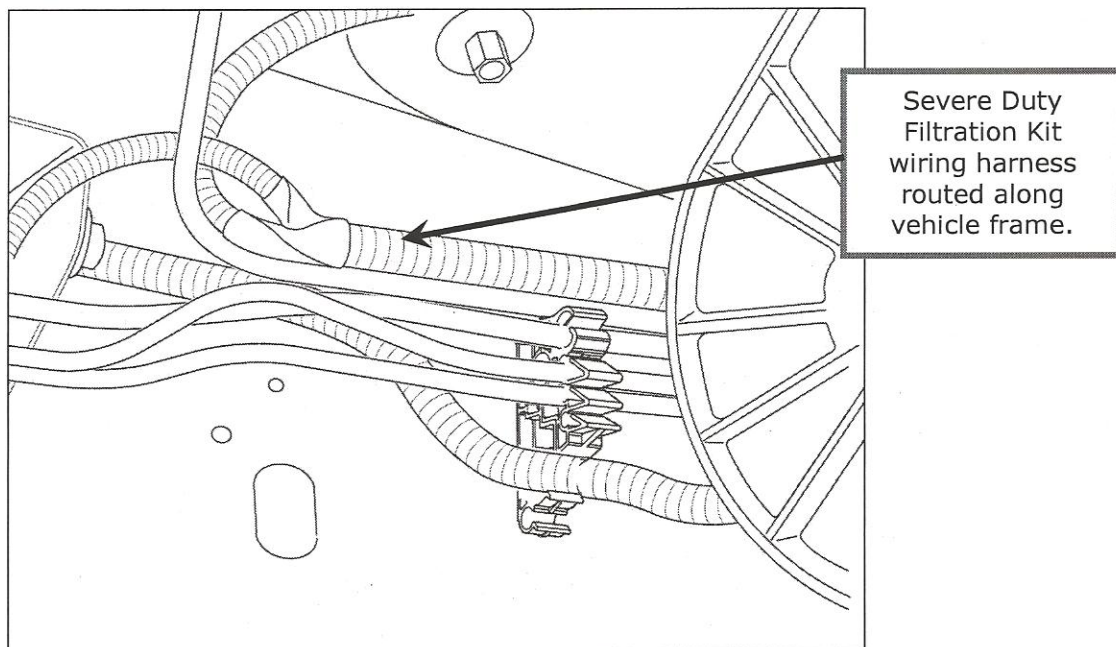


Figure 7

3. Connect wiring connectors to the SDFK WIF sensor and fuel heater (See Figure 8).

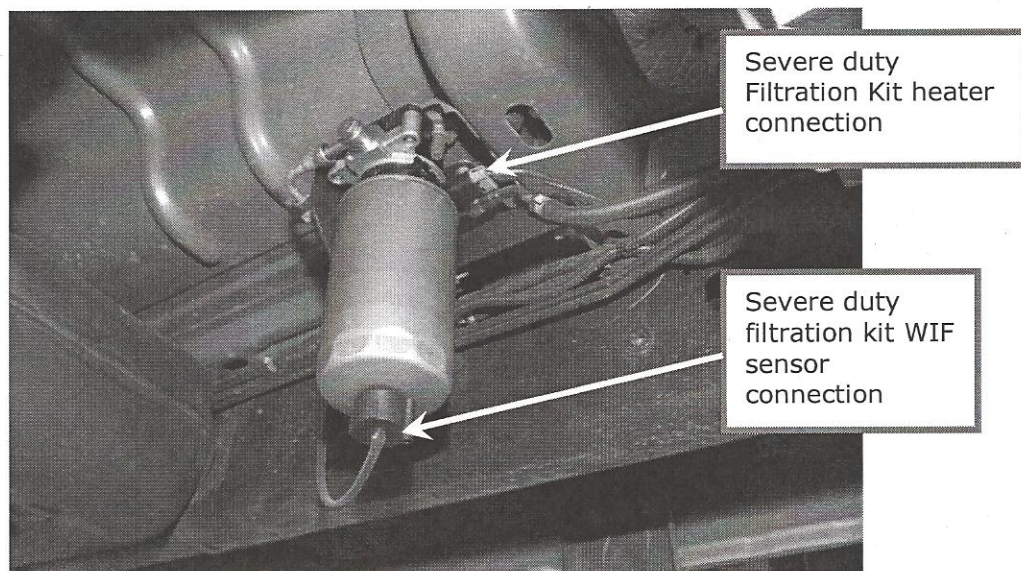


Figure 8



NOTE: 2010 (and newer) Pickup truck vehicles and 2011 (and newer) Cab Chassis vehicles do NOT support the use of two WIF sensors. On these vehicles, the factory equipped, on engine WIF sensor should NOT be plugged in and the sensor and pigtail connector should be filled with dielectric grease and sealed with electrical tape to seal out any moisture. Connecting the front WIF sensor on these vehicles may cause an erroneous WIF lamp.

4. Is the vehicle equipped with a 5.9L engine?
 - a. Yes >>> Proceed to Step 5.
 - b. No >>> Proceed to Step 10.
5. Disconnect engine WIF sensor connection at the factory equipped fuel filter.
6. Place a drain pan under the factory equipped fuel filter.
7. Remove WIF sensor from fuel filter and discard.
8. Install the WIF sensor supplied in kit p/n 68026934AB (required for 5.9L application).
9. Install the pigtail harness adaptor, also supplied in p/n 68026934AB into this WIF sensor.
10. Connect SDFK wiring harness WIF sensor connector to the WIF sensor (or pigtail on 5.9L) located on the factory equipped fuel filter (See Figure 9).
11. Connect SDFK wiring harness connection to vehicle harness WIF connection (See Figure 9).

NOTE: 2010 (and newer) Pickup truck vehicles and 2011 (and newer) Cab Chassis vehicles do NOT support the use of two WIF sensors. On these vehicles, the factory equipped, on engine WIF sensor should NOT be plugged in and the sensor and pigtail connector should be filled with dielectric grease and sealed with electrical tape to seal out any moisture. Connecting the front WIF sensor on these vehicles may cause an erroneous WIF lamp.

12. Mount wiring harness relay in an upright position behind the driver's side battery.

NOTE: Refer to last page of Severe Duty Filtration Kit instructions for wiring circuit diagram, (Figure 10).

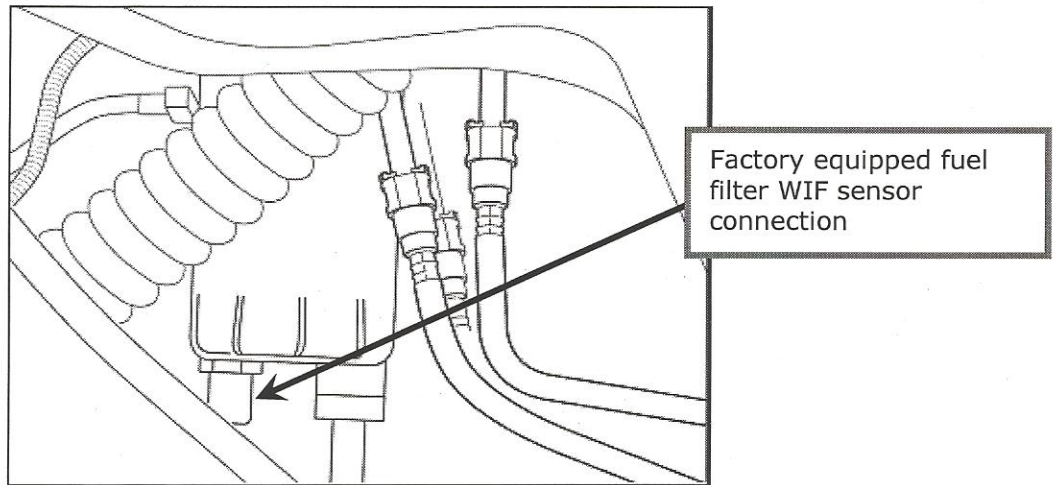


Figure 9

13. Locate battery power connection for the SDFK wiring harness. Connect the fused eyelet to battery positive (B+) supply.
14. Locate ground connection for the SDFK wiring harness. Connect to battery ground (B-) supply.
15. Locate yellow fuel heater control circuit wire in the SDFK wiring harness.
16. Locate engine wiring harness main connector, (left side of bulkhead near brake booster).
17. Connect yellow auxiliary fuel heater control circuit wire to the Fuel Heater **Output** Circuit, A961 (14 G RED) at the engine wiring to vehicle connector. {On later model vehicles, this wire will be located in the C130 connector. On 2007 – 2009 MY vehicles, the wire is located in pin A43 for M/T vehicles and pin A17 for A/T vehicles. On 2010 DJ, D2 and 2012 DD vehicles, the wire is located in pin 4 of the C130 connector. Refer to appropriate wiring diagram for each particular vehicle}.

CAUTION: Ensure the yellow wire is properly connected to vehicle fuel heater output circuit A961 only. Improper connection may cause SDFK heater to be inoperative or to fail prematurely.

Note: Refer to vehicle wiring schematic for pin-out connections. Pin out connection varies for certain vehicles, (see Figure 10).

18. Turn vehicle key ignition switch to the on position (Do not start engine).
19. Let vehicle battery power the fuel tank pump module for the pumps regulated run time (This may have to be done several times to prime the SDFK system).
20. Is the vehicle a 2004 – 2005 MY?
 - a. Yes >>> Perform Step 21, then proceed to Step 23.
 - b. No >>>> Proceed to 22, then proceed to Step 23.
21. 2004 – 2005 MY vehicles use the DRB III to enable the severe duty filtration system additional WIF sensor.



Severe Duty Filtration Wiring Diagram

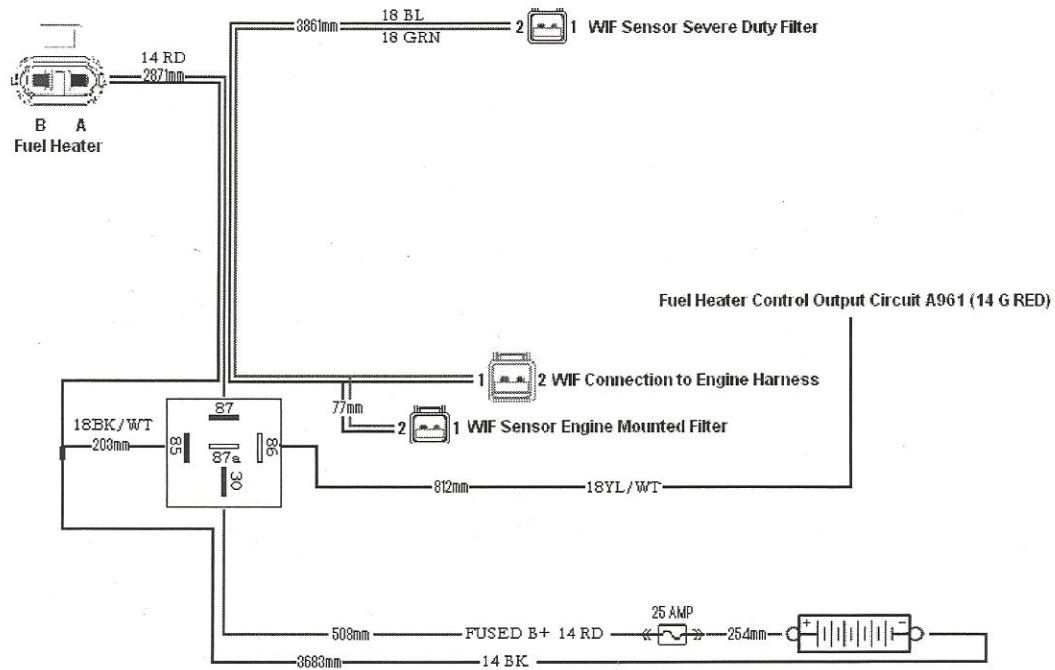


Figure 10



THANK YOU FOR PURCHASING THE MOPAR
SEVERE DUTY FILTRATION KIT
FOR CUMMINS EQUIPPED VEHICLES

The frame mounted filter is equipped with a fuel heater, Water In Fuel (WIF) sensor with an integrated water drain. The filter is designed to provide excellent water stripping and particle removing capabilities.

To ensure the best performance of your fuel filtration system and longevity of your Cummins Diesel engine, proper maintenance is required. When servicing the fuel filter(s), it is recommended to replace the factory equipped filter and the Severe Duty frame mounted filter at the same time.

The maintenance intervals for the fuel filters (the original factory equipped filter and added chassis mounted SDFK filter) are at 15,000 miles, 12 months or 400 hours of engine operation, (whichever occurs first). If the Water in Fuel (WIF) light illuminates, the vehicle should be safely stopped and both fuel filters drained. Factory equipped fuel filter instructions are in the Owner's Manual.

Your frame mounted filter is equipped with a drain/WIF sensor mounted in the bottom of the filter element, (See Figure 1). Turn the drain/WIF sensor to allow water to drain, closing when fuel runs clean.

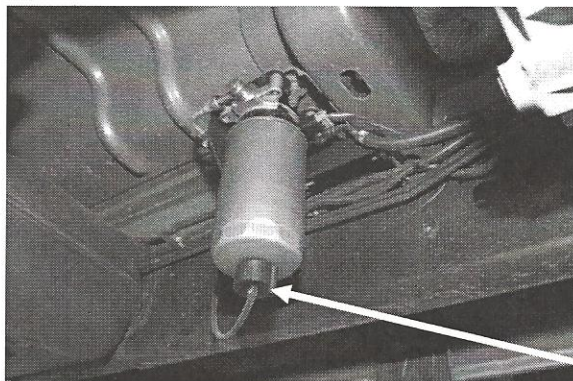


Figure 1

Drain / Water in Fuel (WIF) sensor

ALL fuel filters should be replaced as soon as possible after ANY WIF lamp illumination occurs.

Replacement filter elements are available through Mopar.
Part number – 68083826AA

PLEASE SAVE THIS INFORMATION IN THE GLOVE BOX WITH OTHER OWNER INFORMATION MATERIAL.