

## advanced FLOW engineering

### Instruction Manual P/N: 42-12032/34

Make: **Dodge** Model: **Diesel Trucks** Year: **2005-2010** Engine: **L6-5.9L / 6.7L (td)**

Make: **RAM** Model: **Diesel Trucks** Year: **2011-2012** Engine: **L6-6.7L (td)**



- Please read the entire instruction manual before proceeding.
- Ensure all components listed are present.
- Ensure you have all necessary tools before proceeding.
- Do not attempt to work on your vehicle when the engine is hot.
- Disconnect the negative battery terminal before proceeding.
- Retain factory parts for future use.

| Label | Qty. | Description                            | Part Number                   |
|-------|------|--|-------------------------------|
| A     | 1    | <a href="#">Fuel Manifold Assembly</a> | 05-60565                      |
| B     | 1    | Filter, Fuel                           | 44-FF019                      |
| C     | 1    | Bowl, Water Separator                  | 05-60487                      |
| D     | 1    | Bracket, Frame; Carbon Steel           | 05-60504                      |
| E     | 1    | Spacer, Bracket                        | 05-60577                      |
| F     | 2    | Washer, 5/8"                           | 03-50458                      |
| G     | 1    | Nut, Hex: 5/8"-11                      | 03-50450                      |
| H     | 4    | Screw, Socket Head Cap M6x1.0x50mm     | 03-50443                      |
| I     | 4    | Washer, M6 (Fiber)                     | 03-50457                      |
| J     | 4    | Washer, M6                             | 03-50444                      |
| K     | 4    | Nut, Flanged Nyloc: M6                 | 03-50445                      |
| L     | 2    | Fitting: 3/8" NPT to AN (Installed)    | 05-60509                      |
| M     | 1    | Harness, Pressure Switch               | 05-60540                      |
| O     | 1    | Hose, Fuel Return                      | 05-60570 (32) / 05-60629 (34) |
| P     | 1    | Screw, Cap: 5/8"-11 x 8"               | 03-50449                      |
| Q     | 12   | Ties, Nylon Cable, 12"                 | 05-60167                      |
| R     | 1    | Harness, Power                         | 05-60523                      |
| S     | 1    | Hose, Fuel Inlet                       | 05-60568 (32) / 05-60628 (34) |
| T     | 1    | Hose, Fuel Outlet                      | 05-60569 (32) / 05-60631 (34) |
| U     | 1    | Switch, Pressure                       | 05-60542                      |
|       |      |  |                               |
|       |      |  |                               |
|       |      |  |                               |

**Note:** Legal in California for use on race vehicles only. The use of this device on vehicles used on public streets or highways is strictly prohibited in California and others states that have adopted California emission regulations.



**Figure 1**

Step 1: Connect the bracket to the manifold using the four (4) supplied M6x1.0 x 50mm bolts, M6 washers and M6 flange nuts.

**Note: The bed will need to be removed or the fuel tank needs to be removed prior to step number 1.**

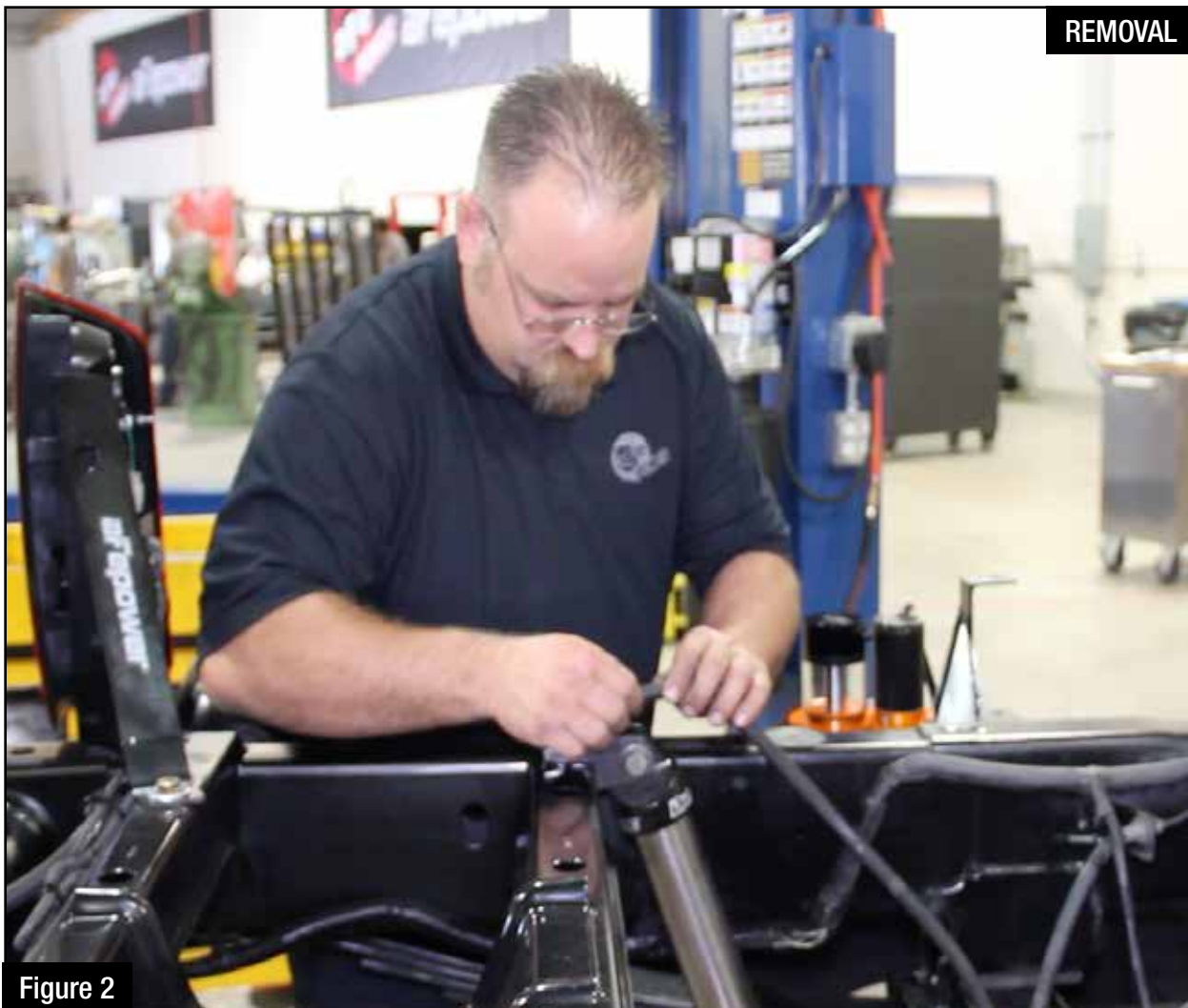


Figure 2

Step 2: Remove the rear differential vent hose from the shock tower.





Figure 3

Step 3: Remove the factory wire harness from the two mounting holes. (As circled above)



Figure 4

Step 4: Install the bracket onto the frame.



Step 5: Install the supplied 5/8"-11 x 8" bolt, and 5/8" washer through the bottom of the bracket into the factory hole in the frame.





Figure 6

Step 6: Install the other supplied 5/8" washer and 5/8" nut onto the bolt and tighten using a 15/16" wrench and socket.



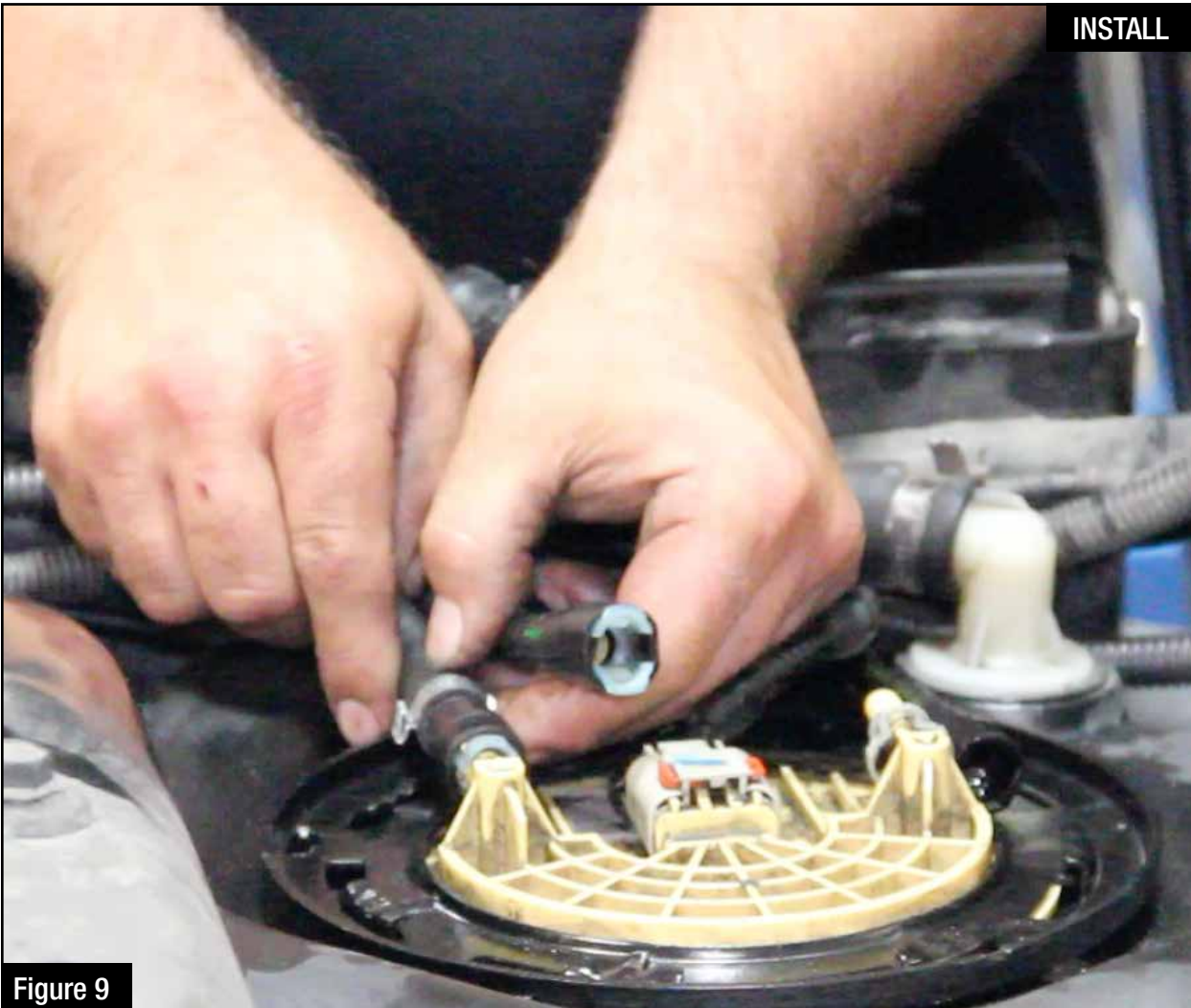
Figure 7

Step 7: The mounting tab located on the stock wire harness, needs to be cut off.  
(Location shown above)



Step 8: Reattach the differential vent tube back onto the shock tower. Reinsert the stock wire harness back into the stock mounting location.



**Figure 9**

Step 9: Remove the stock fuel feed line and return line from the fuel pump sender assembly.

Step 10: Install the supplied inlet fuel line (with silver "AN" fitting) onto the larger (outlet) side of the fuel pump sender assembly.

**Note: 2005-2010 Fuel pump sender assembly shown in picture.  
2011-2012 models slightly different from picture above.**

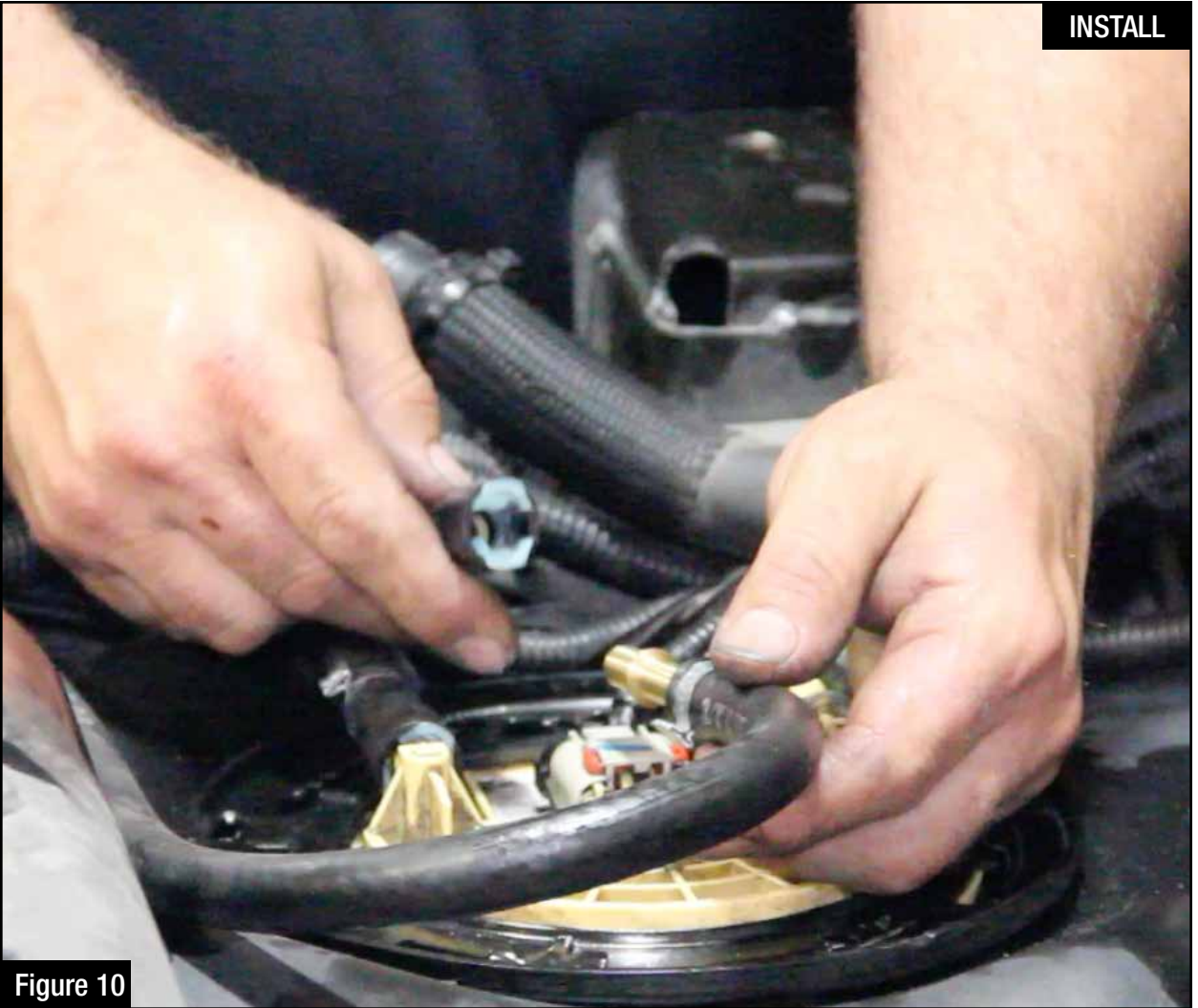


Figure 10

Step 11: Install the 3/8" quick disconnect fitting on the supplied outlet fuel line (with black "AN" fitting) into the quick disconnect fitting on the stock fuel feed line.





Figure 11

Step 12: Install the supplied inlet fuel line (silver “AN” fitting) onto the fuel inlet port of the DFS780.



Figure 12

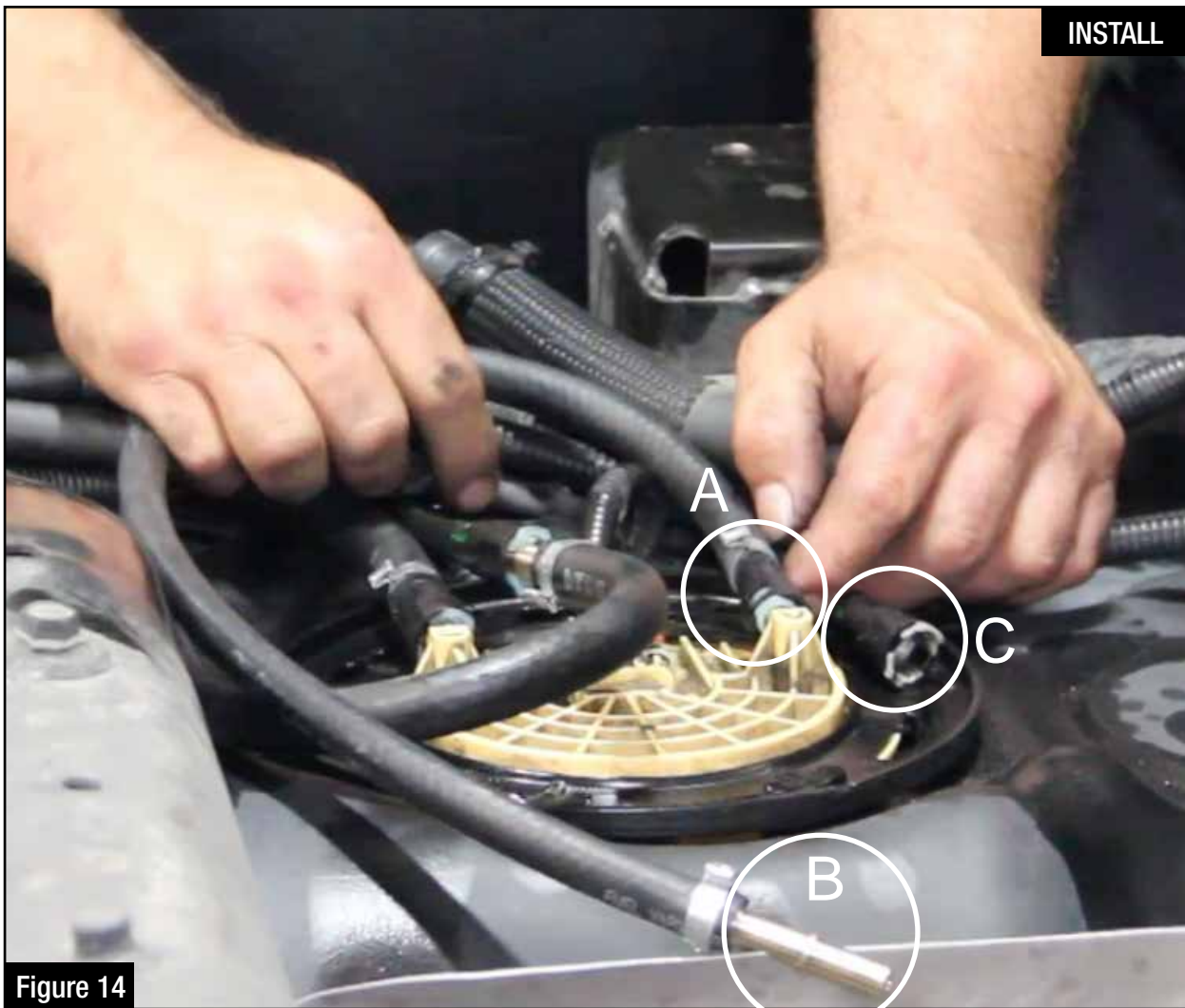
Step 13: Install the supplied outlet fuel line (black "AN" fitting) onto the fuel **outlet** port of the DFS780.



Figure 13

Step 14: Turn sight glass to the desired angle and using a 1-1/4" wrench, tighten the center nut under the DFS780 manifold.





**Figure 14**

Step 15: Install the supplied return line (-4 AN fitting) onto the top of the DFS780.

Step 16: Route the return line along the frame following the new fuel lines.

Step 17: Install the new return line onto the smaller (inlet) side of the fuel pump sender assembly.  
(as shown in circle A)

Step 18: Install the 5/16" fitting (as shown in circle B) onto the quick disconnect fitting on the stock return line (as shown in circle C)



Figure 15

Step 19: Attach supplied water separator bowl onto the supplied fuel filter. Using a light oil, lube the gasket on the fuel filter before installation.





Figure 16

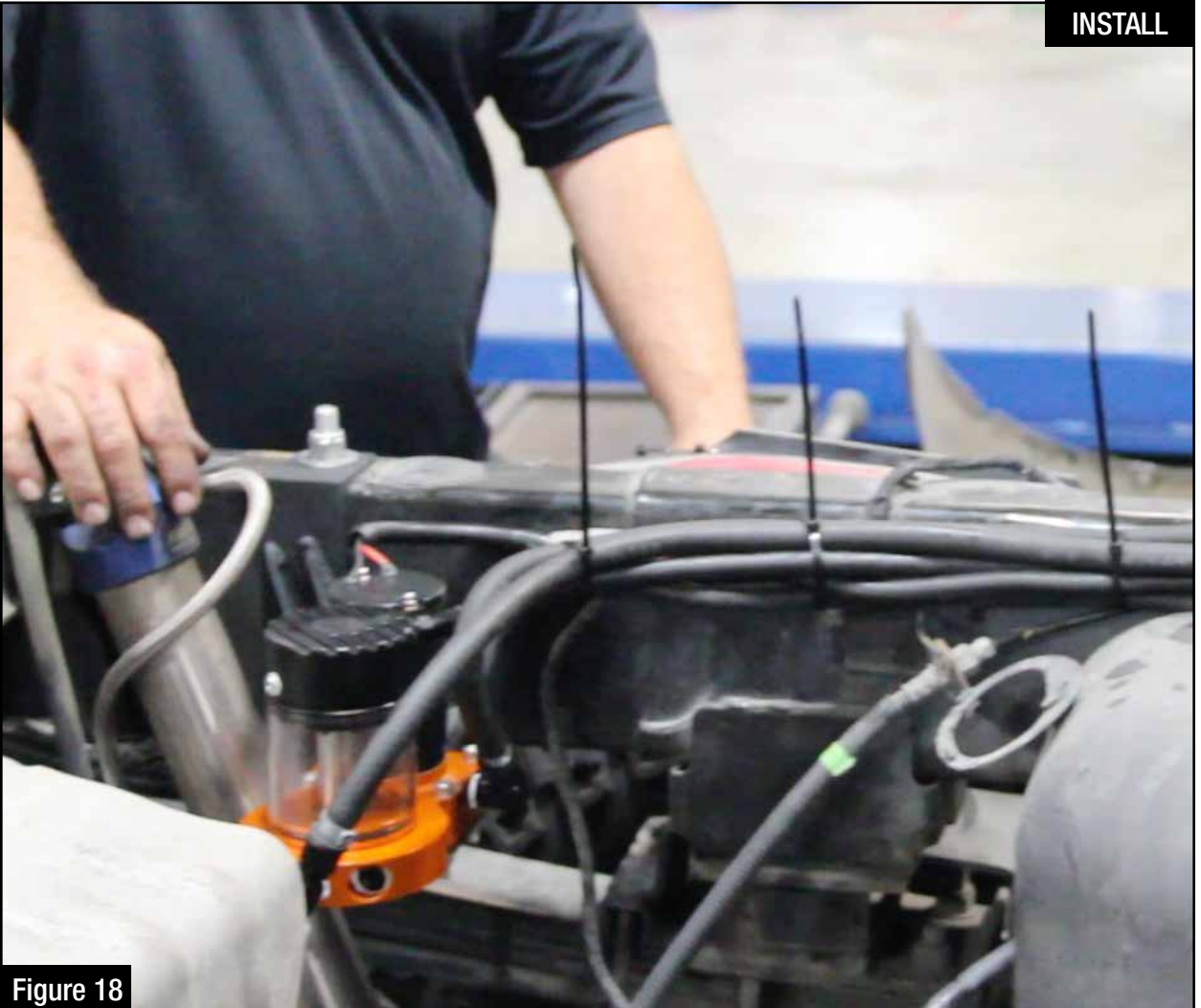
Step 20: Screw the fuel filter assembly onto the manifold and tighten.



**Figure 17**

Step 21: Route the supplied wiring harness along the frame.

Step 22: Plug the Deutsch connector into the mating connector on the DFS780.



**Figure 18**

Step 23: Organize the wire harness and fuel lines and secure with the supplied zip ties.





Figure 19

Step 24: Run the remaining wire harness along the frame to the engine compartment. Secure using supplied zip ties.



Figure 20

Step 25: Connect the black wire ring terminal to the negative side on the battery.





Figure 21

Step 26: Connect the red wire ring terminal to the positive side of the battery.

**Note: Check the fuse to make sure it is already installed in the connector.**



Step 27: Organize any of the loose wire harness and secure with the remaining zip ties.

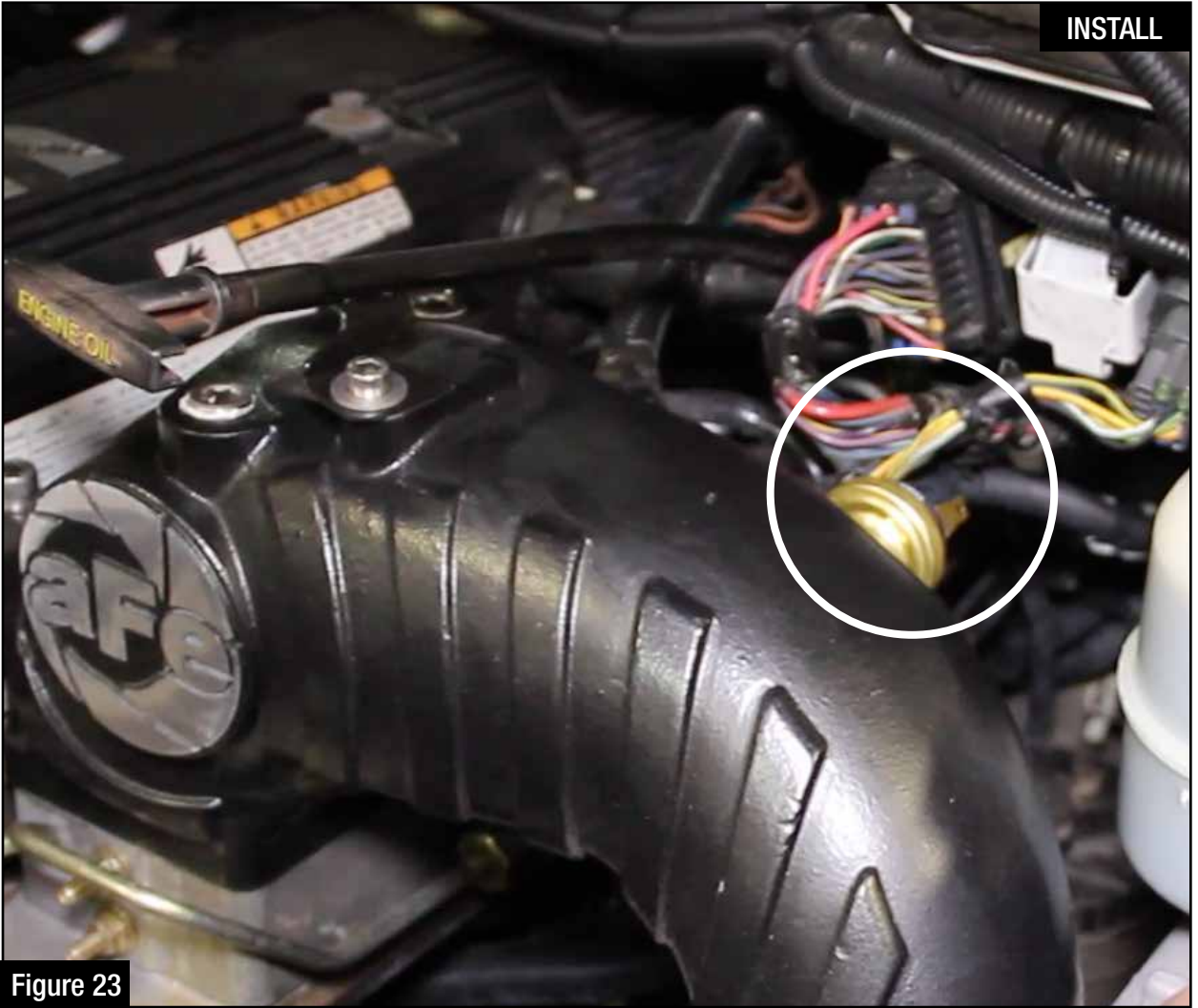


Figure 23

Step 28: Install the supplied pressure sensor into the intake manifold.

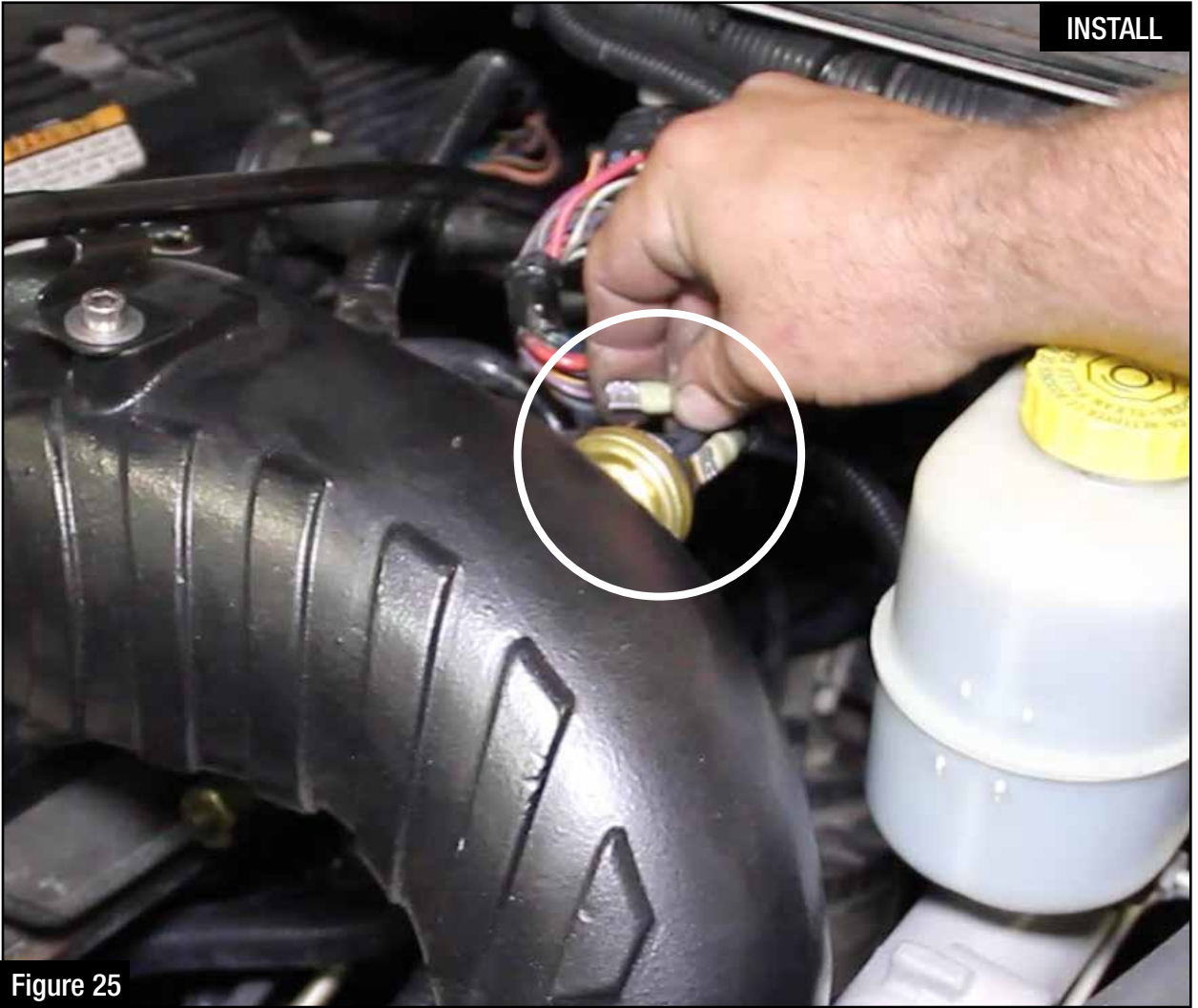




Figure 24

Step 29: Plug the supplied wire loom into the Deutsch connector.





Step 30: Plug the wire loom into the connections on the pressure sensor.



**Figure 26**

Step 31: Start the engine. The fuel system will begin to fill with fuel.

Step 32: If the pump is having trouble priming, remove the cap from the pressure port on the top of the sight glass and relieve pressure using a small screwdriver.

Step 33: Installation is now complete. Make sure that all fittings are tight and that fuel is not leaking from any of the connections made while installing.