



advanced FLOW engineering

Instruction Manual P/N: 42-12041

Make: RAM **Model:** 1500 EcoDiesel **Year:** 2014-2016 **Engine:** V6-3.0L (td)
Supported HP: 2000 +

Does NOT Replace Factory (OEM) Fuel Pump.

*Crew Cab Application Only



- Please read the entire instruction manual before proceeding.
- Ensure all components listed are present.
- If you are missing any of the components, call customer support at 951-493-7185.
- 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	Fuel Manifold Assembly	05-60748
B	1	Filter, Fuel	44-FF018
C	1	Bowl, Water Separator	05-60786
D	1	Bracket, Frame; Carbon Steel	05-60730
E	2	Screw, Socket Hd Cap: 3/8" - 16 x 1"	03-50229
F	2	Washer, Flat: 3/8"ID, 1.25"OD	03-50488
G	4	Screw, Socket Hd Cap: M6	03-50443
H	4	Washer, M6 (Fiber)	03-50457
I	4	Washer, M6	03-50444
J	4	Nut, Flanged Nyloc: M6	03-50445
K	2	Fitting, Fuel Manifold: 3/8" NPT -6 AN	05-60634B
L	1	Harness, Stand Alone Relay	05-60551
M	1	Adapter, Fuse; Add a Harness w/ 15A	05-60691
N	1	Hose, Fuel Return	05-60743
O	18	Ties, Nylon Cable, 12"	05-60167
P	1	Harness, Power	05-60632
Q	1	Hose, Fuel Inlet	05-60741
R	1	Hose, Fuel Outlet	05-60742

Warranty Information available at <https://afepower.com/contact#warranty>

Emissions Disclaimer: This product is not currently CARB exempt and is not available for purchase in California or for use on any vehicle registered with the California Department of Motor Vehicles.





Step 1: Looking at the driver's side of the truck, at the back of the cab on the outside of the frame rail, you will see a body mount with two (2) holes on the outer lip.

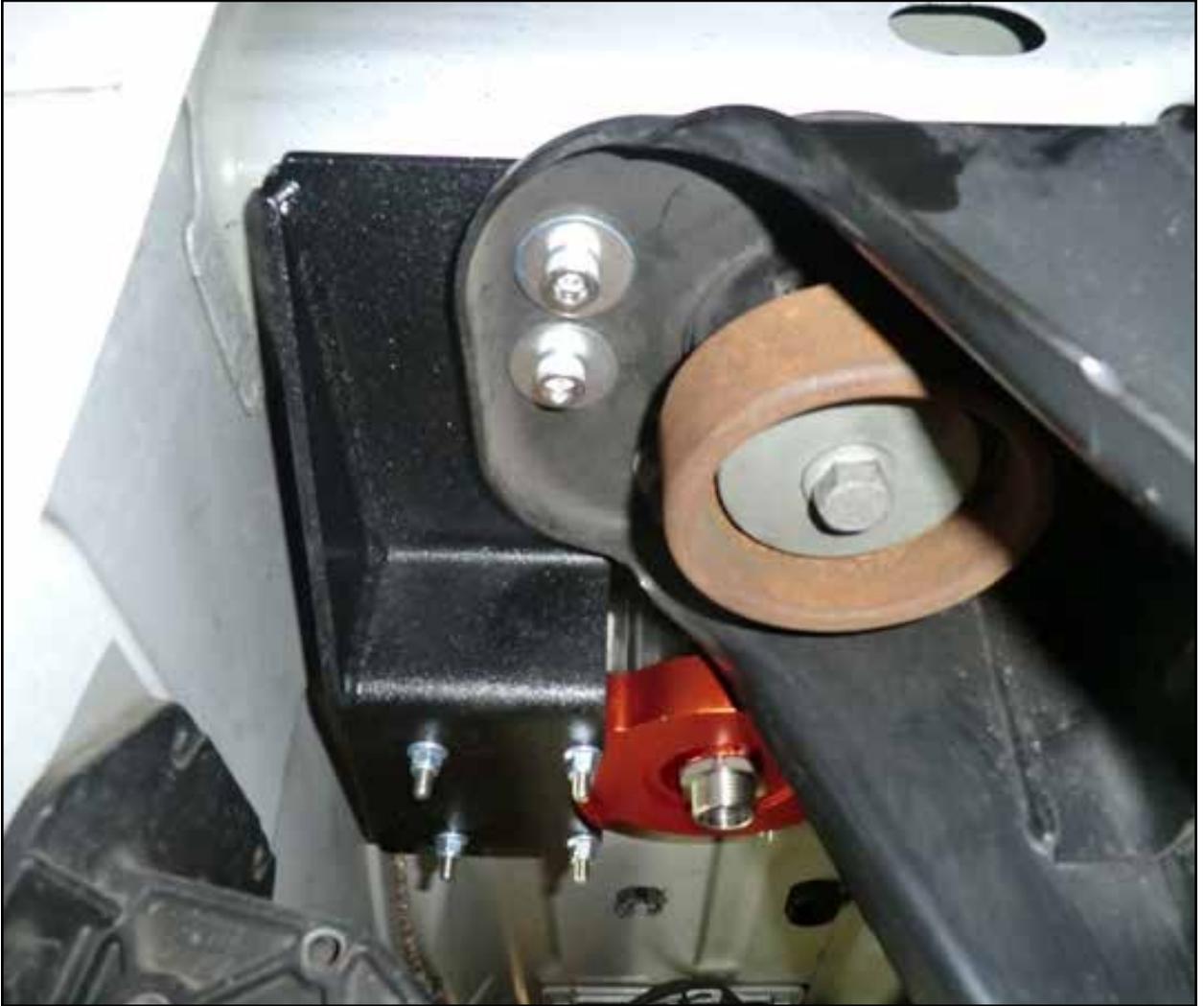
Step 2: The two (2) marked holes represent where the supplied carbon steel frame bracket will mount.



Step 3: Mount the supplied fuel manifold assembly to the carbon steel frame bracket using the supplied hardware and tighten.

- (4) M6x1.0 x 50mm bolts
- (4) M6 washers
- (4) M6 fiber washers
- (4) M6 flanged locknuts

Note: The fiber washers go between the fuel manifold assembly and the carbon steel bracket.



Step 4: Mount the carbon steel frame bracket and the supplied fuel manifold assembly to the frame using the supplied hardware and tighten.

- (2) 3/8 x 16 x 1 bolts
- (2) 3/8 washers

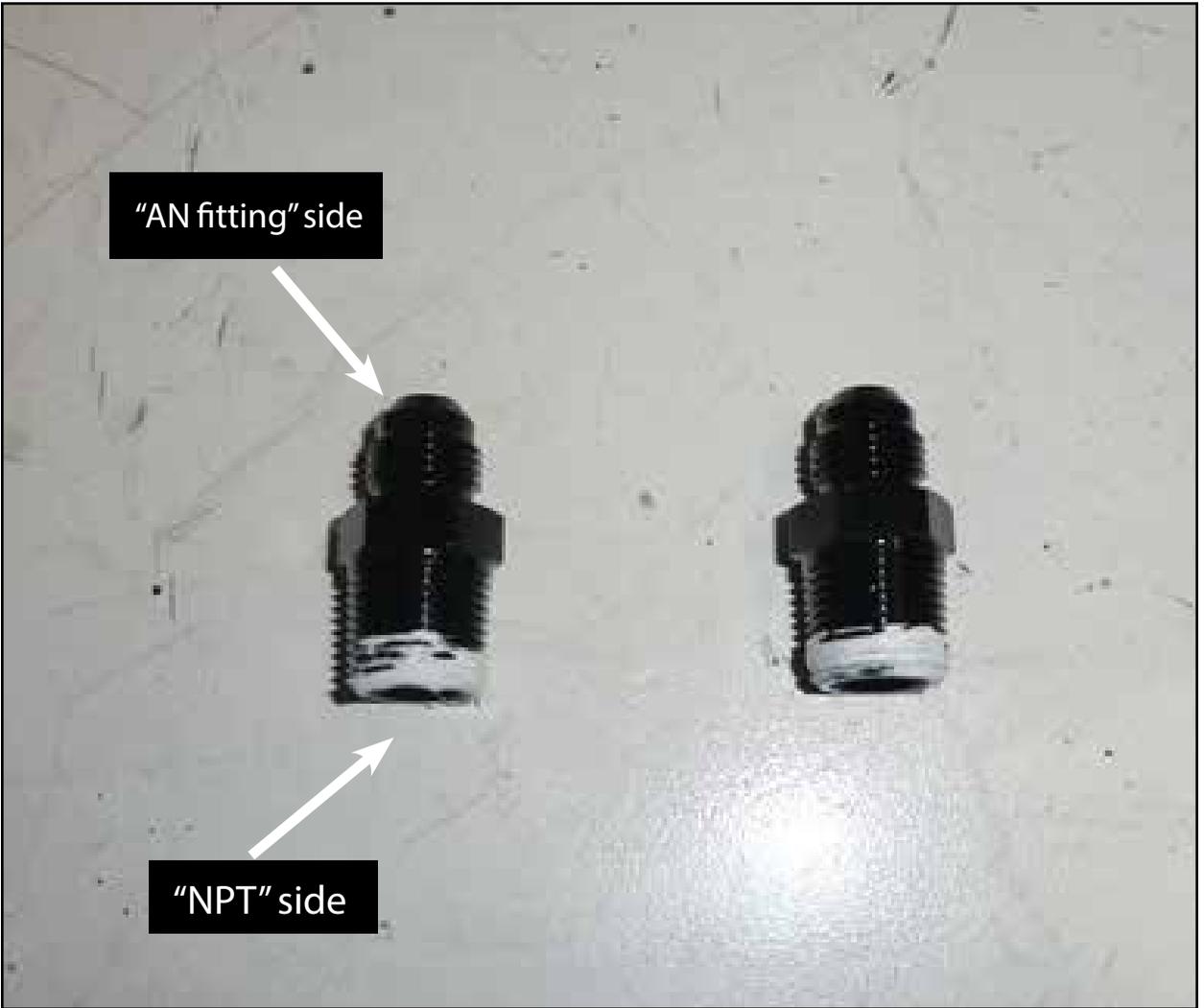


Step 5: Turn the sight glass to the desired angle and using a 1-1/4" wrench, tighten the center nut under the fuel manifold assembly.

Note: The pump should look like the picture above.



Step 6: Using a light oil, lube the gasket on the supplied fuel filter and install on the fuel manifold assembly. Thread the supplied water separator bowl onto the fuel filter.



Step 7: Apply Teflon tape with PTFE or Teflon paste with PTFE to the 2 x 3/8" NPT to -6 AN fittings.

Note: Only apply Teflon to the NPT side of the fitting.



Step 8: Install the 2 x 3/8" NPT to -6 AN fittings into the fuel manifold assembly (as shown above).



Step 9: It will be necessary to lower the fuel tank or remove the bed to gain access to the top of the fuel tank.

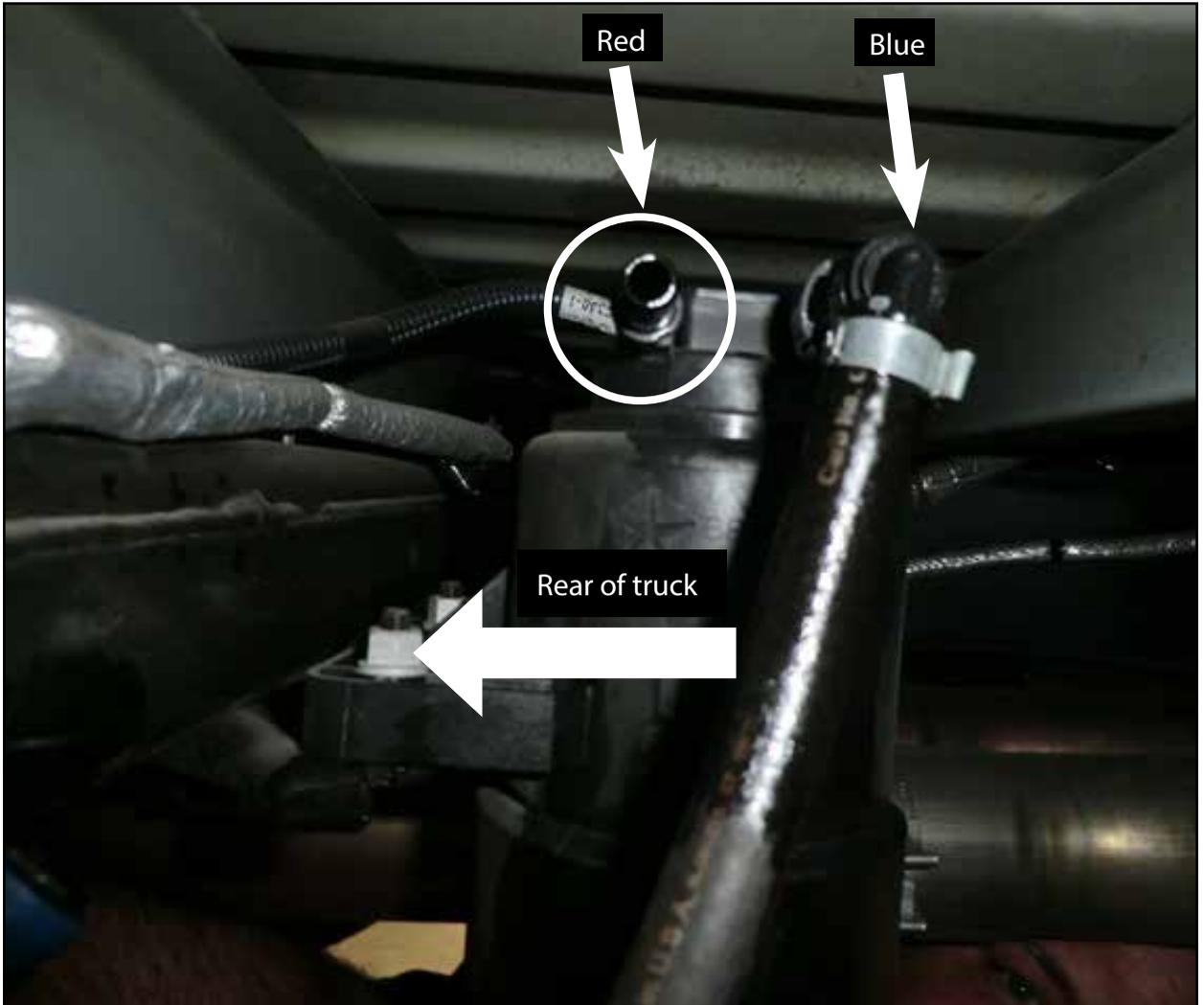
Note: The fuel tank straps are shown in the picture above. These will need to be removed for the tank to be lowered.



Step 10: Clean the area around the fuel lines (located in front of the fuel tank) to prevent dirt and debris from going into the lines.



Step 11: Disconnect the factory fuel line from the fuel line near the frame (blue).



Step 12: Disconnect the factory fuel line (blue) from the factory fuel filter. Remove the line from the truck. The (red) fuel line will stay in the factory location.

Step 13: Install the female quick disconnect fitting on the supplied fuel inlet hose (silver 90° -6 AN fitting - shown below) onto the male side of the stock fuel filter feed line.





Step 14: Install the female quick disconnect fitting on the supplied fuel outlet hose (black 90° -6 AN fitting - shown below) onto the male side of the stock fuel feed line.





Step 15: Disconnect the factory return fuel line from the return connection on the tank.



Step 16: Install the 90° female quick disconnect fitting onto the male fuel return connection on the tank.





Step 17: Install the straight male quick disconnect fitting on the supplied fuel return hose into the female side of the stock fuel return line.





Step 18: Install the fuel inlet hose (silver 90° -6 AN fitting) onto the male -6 AN fitting on the fuel inlet port of the fuel manifold assembly and tighten.



Step 19: Install the fuel outlet hose (black 90° -6 AN fitting) onto the male -6 AN fitting on the fuel outlet port of the fuel manifold assembly and tighten.



Step 20: Install the fuel return hose (-4 AN fitting) onto male -4 AN fitting on the top of the sight glass cover and tighten.



Step 21: Using the supplied nylon cable ties, secure the new hoses (as shown above).



Step 22: Plug the Deutsch connector on the supplied power harness into the mating connector on the fuel pump motor.

Step 23: Route the power harness along the frame towards the front of the vehicle.

Step 24: Organize the power harness and secure with the supplied nylon cable ties.



Step 25: Reinstall the tank and tighten / Reinstall the bed and tighten.



Step 26: Move the power distribution box out of the way by carefully pulling straight up on it.



Step 27: Run the other end of the power harness along the frame into the engine compartment.



Step 28: Reinstall the power distribution box back in its factory location.



Step 29: Connect the red wire ring terminal on the power harness to the positive side of the battery.

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



Step 30: Connect the black wire ring terminal on the power harness to the negative side of the battery.



Step 31: Plug the supplied relay harness into the Deutsch connector on the power harness.



Step 32: Secure the supplied relay using a supplied nylon cable tie.



Step 33: Remove the fuse box cover.

Step 34: Locate a 12-volt source inside the fuse box that only comes on with the key in the “run” position (see suggestion below). Once a 12-volt source is located, pull fuse from the fuse box.

Locations for inline fuse adapter plug in (underhood fuse block):

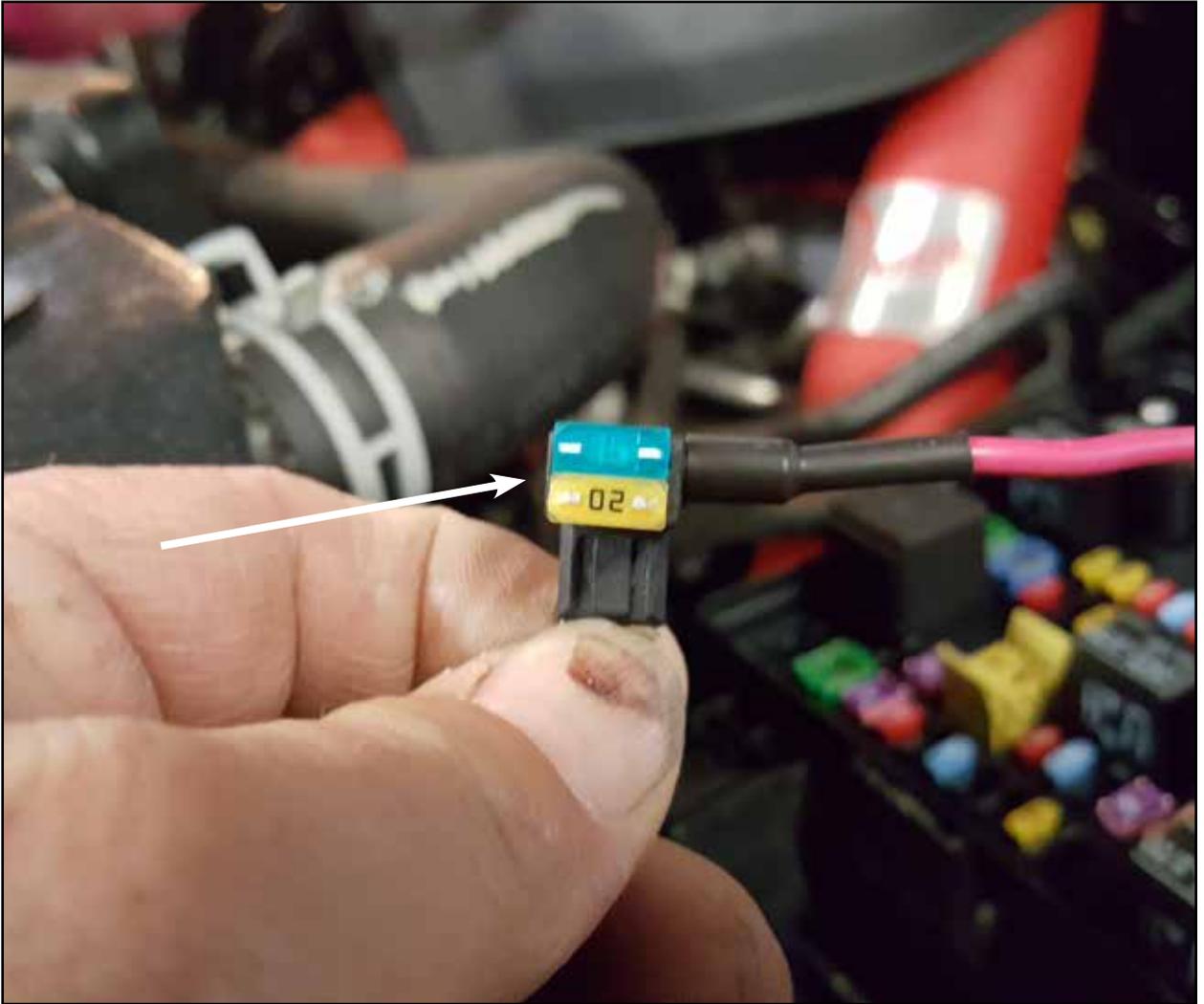
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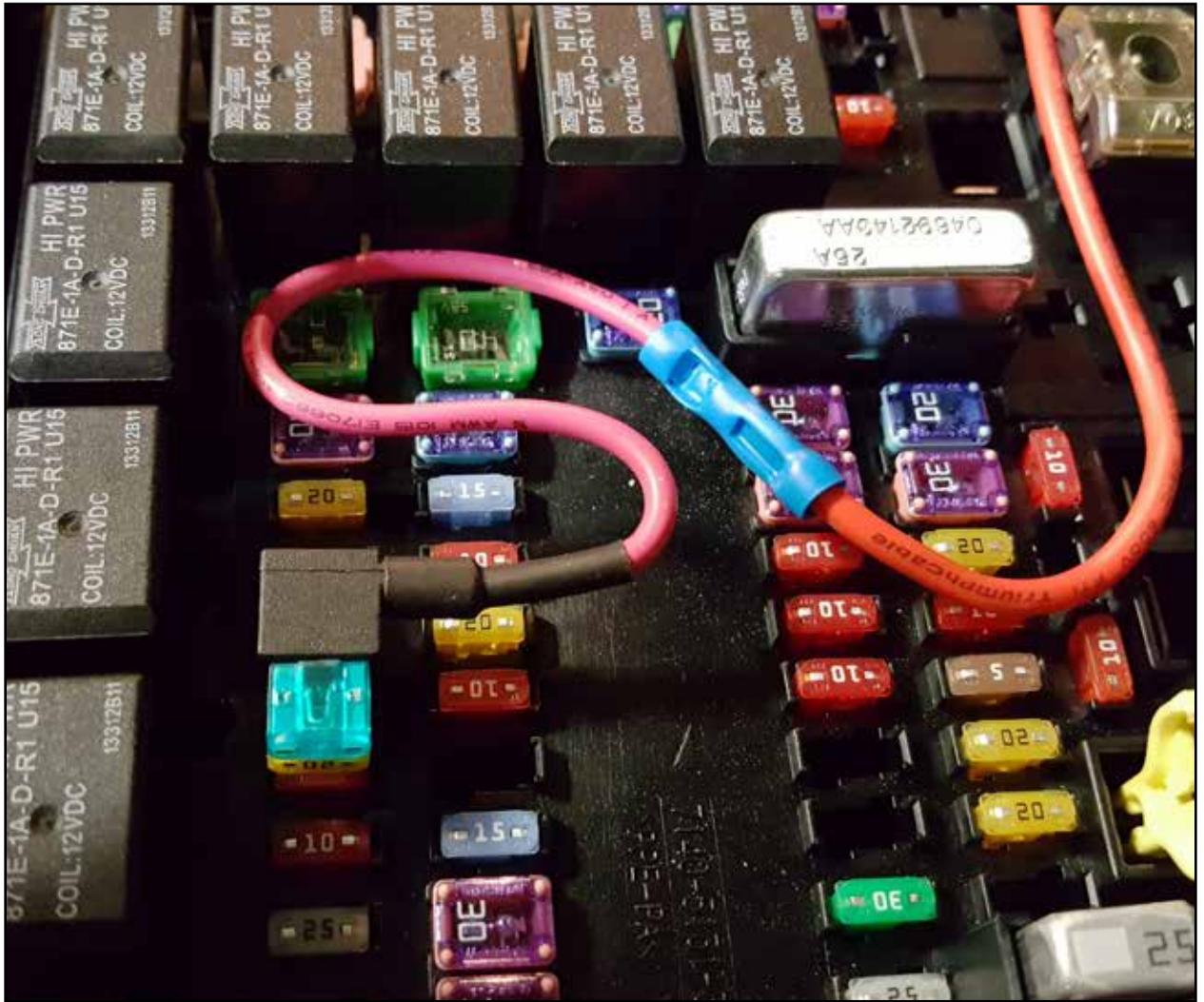
Cig Lighter



Step 35: Attach the power wire from the relay to the add a harness fuse adapter.



Step 36: Install the fuse removed in Step 34 and insert it into the open location on the add a harness fuse adapter (not in line with the wire).



Step 37: Install the add a harness fuse adapter (with installed fuses) into the 12-volt source location chosen in Step 34.



Step 38: Carefully route the power wire outside the fuse box and reinstall the cover (making sure not to pinch the wire).

Step 39: Organize the wire harness and secure with the remaining nylon cable ties.



Step 40: Turn the key to the “Run” position and watch to see if the sight glass fills with fuel. If the sight glass does not fill with fuel, use the tank valve (on the top of the sight glass cover) to release any trapped air. If the sight glass still does not fill, try starting the engine.

Step 41: 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.



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