



advanced FLOW engineering

DFS 780

Instruction Manual P/N: 42-14021

Make: **GM** Model: **2500/3500** Year: **2011-2016** Engine: **V8-6.6L (td)**

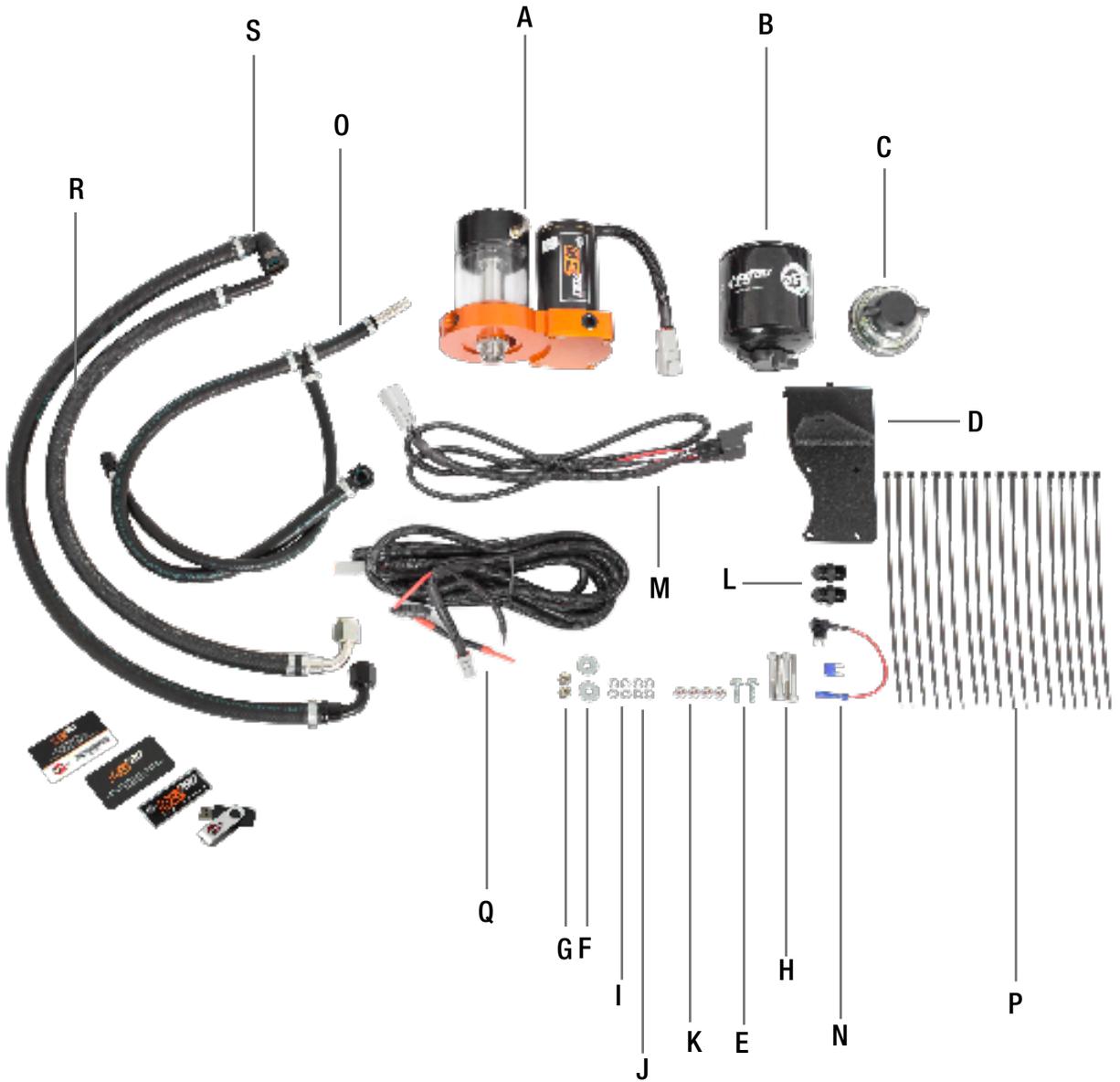
Fuel Pressure: **8-10 psi (relay controlled)**



- 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 951-493-7100.
- 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	05-60565
B	1	Filter, Fuel	44-FF019
C	1	Bowl, Water Separator	05-60487
D	1	Bracket, Frame; Carbon Steel	05-60554
E	2	Bolt, M8 x 1.25 x 25mm	03-50442
F	2	Washer, M8	03-50065
G	2	Locknut, M8	03-50244
H	4	Bolt, M6 x 1.0 x 50mm	03-50443
I	4	Washer, M6 (Fiber)	03-50457
J	4	Washer, M6	03-50444
K	4	Locknut, Flanged; M6	03-50445
L	2	Fitting; 3/8" NPT to AN -8 (Black, Straight)	05-60685
M	1	Harness, Relay	05-60551
N	1	Adapter, Fuse; Add a harness	05-60583
O	1	Hose, Fuel Return	05-60689
P	12	Ties, Nylon Cable, 12"	05-60167
Q	1	Harness, Power	05-60523
R	1	Hose, Fuel Inlet	05-60673
S	1	Hose, Fuel Outlet	05-60681

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





- Looking at the driver's side of the truck, on the inside of the frame rail, you will see a bracket in front of the fuel tank.
- The two (x2) marked holes represent where the supplied carbon steel frame bracket will mount.



- Mount the carbon steel frame bracket to the frame with the supplied hardware and tighten.

Hardware

- (x2) M8 x 1.25 x 25mm bolts
- (x2) M8 washers
- (x2) M8 locknuts



NOTE: Make sure the pin in the bracket goes through the bracket on the frame (shown above).



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

Hardware

- (x4) M6x1.0 x 50mm bolts
- (x4) M6 washers
- (x4) M6 flanged locknuts
- (x4) M6 fiber washers

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

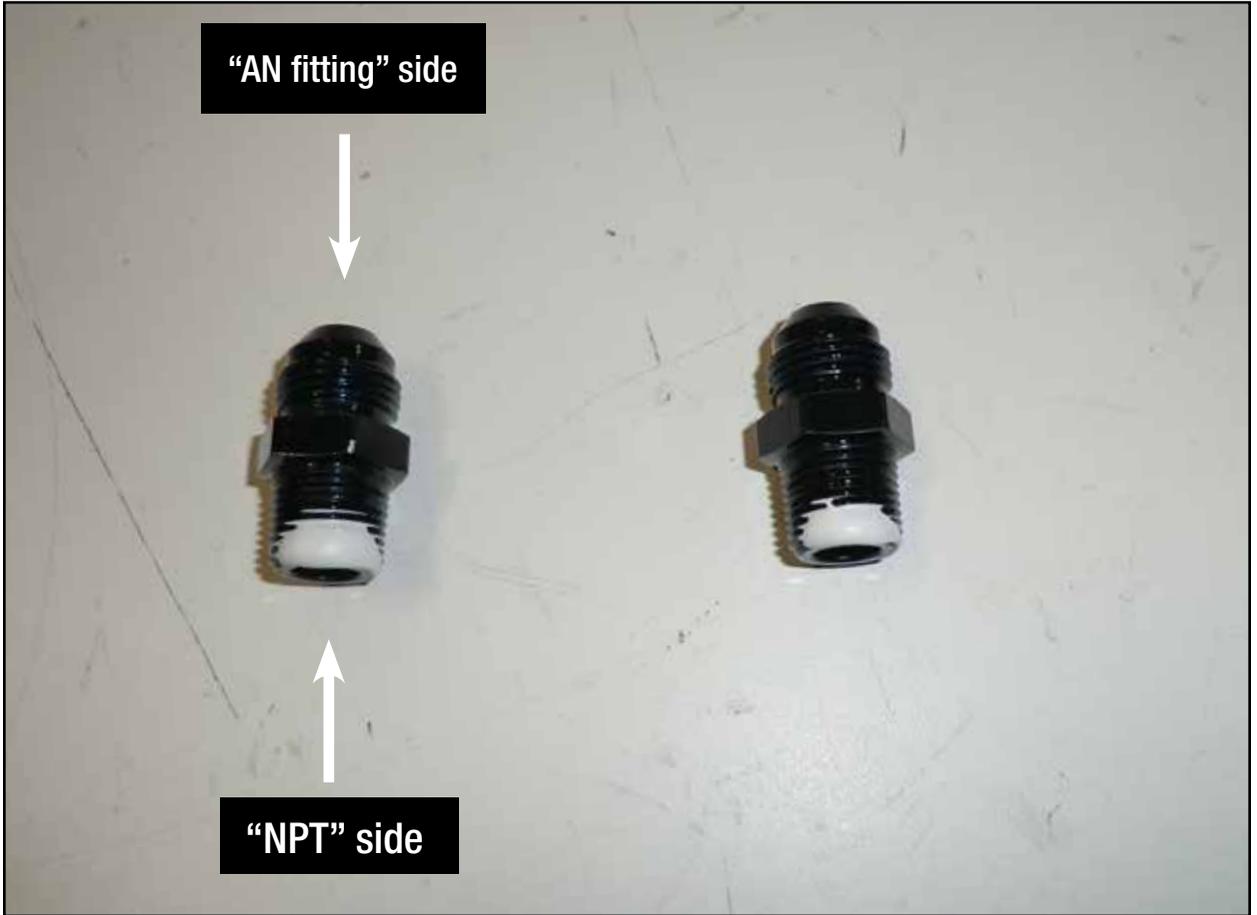


- Turn the sight glass to the desired angle and using a 1-1/4" wrench, tighten the center nut under the fuel manifold assembly.

Note: The pump should look like the picture above.



- 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.



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

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



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



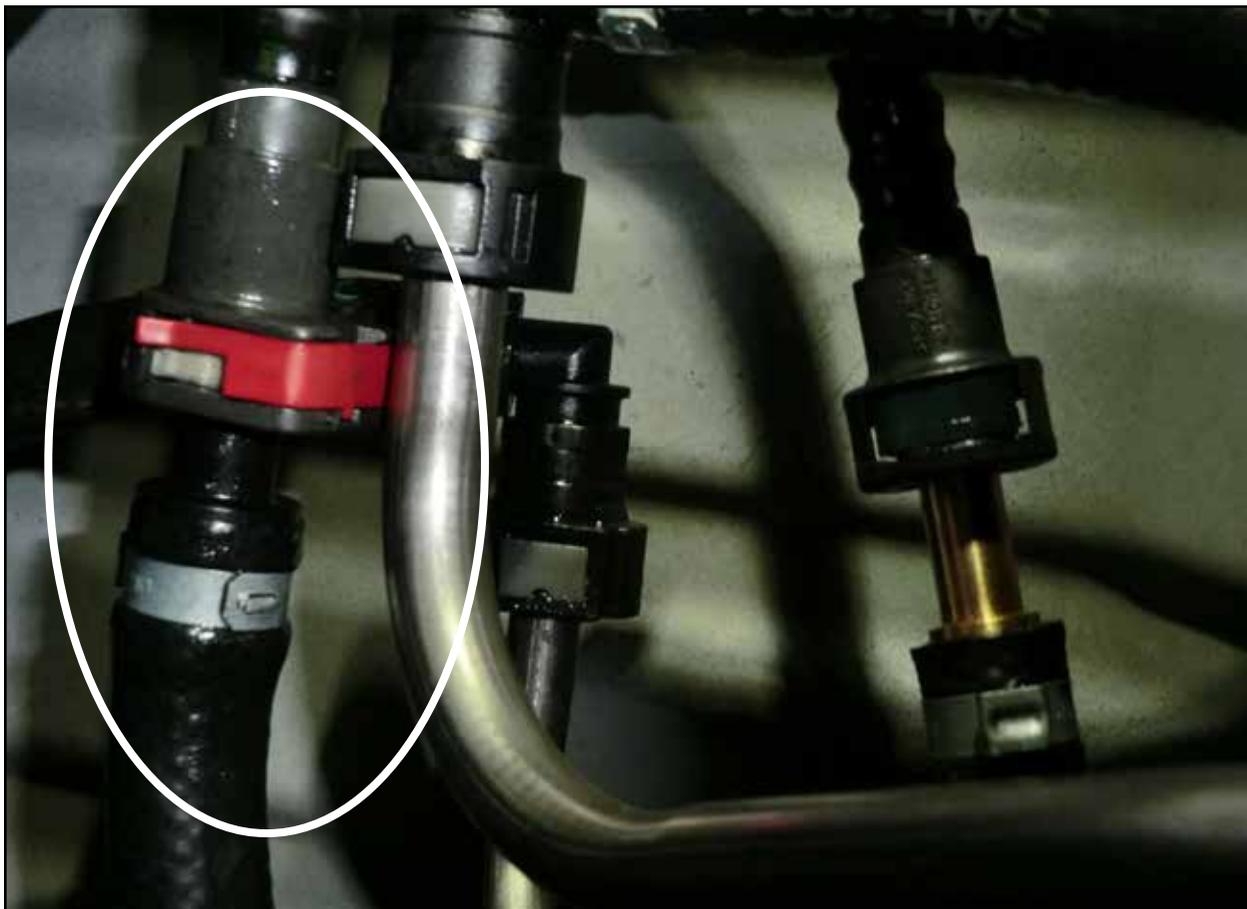
Note: 2011 model shown in the pictures

- Clean the area around the fuel lines (located in front of the fuel tank) to prevent dirt and debris from going into the lines.
- Remove the red quick connection locks (shown above).



Note: 2011 model shown in the pictures

- Disconnect the factory fuel lines.



Note: 2011 model shown in the pictures

- Install the straight male quick disconnect fitting on the supplied fuel inlet hose (silver 90° -8 AN fitting - shown below) into the female side of the stock fuel feed line.
- Reinstall the red quick connection lock.





Note: 2011 model shown in the pictures

- Install the 90° female quick disconnect fitting on the supplied fuel outlet hose (black 90° -8 AN fitting - shown below) onto the male side of the stock fuel feed line.





Note: 2011 model shown in the pictures

- Install the straight male quick disconnect fitting on the supplied fuel return hose into the female side of the stock fuel return line.
- Reinstall the red quick connection lock.





Note: 2011 model shown in the pictures

- Install the 90° female quick disconnect fitting on the fuel return hose onto the male side of the stock fuel return line.





- Install the fuel inlet hose (silver 90° -8 AN fitting) onto the male -8 AN fitting on the fuel inlet port of the fuel manifold assembly.



- Install the fuel outlet hose (black 90° -8 AN fitting) onto the male -8 AN fitting on the fuel outlet port of the fuel manifold assembly.



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



Note: 2011 model shown in the pictures

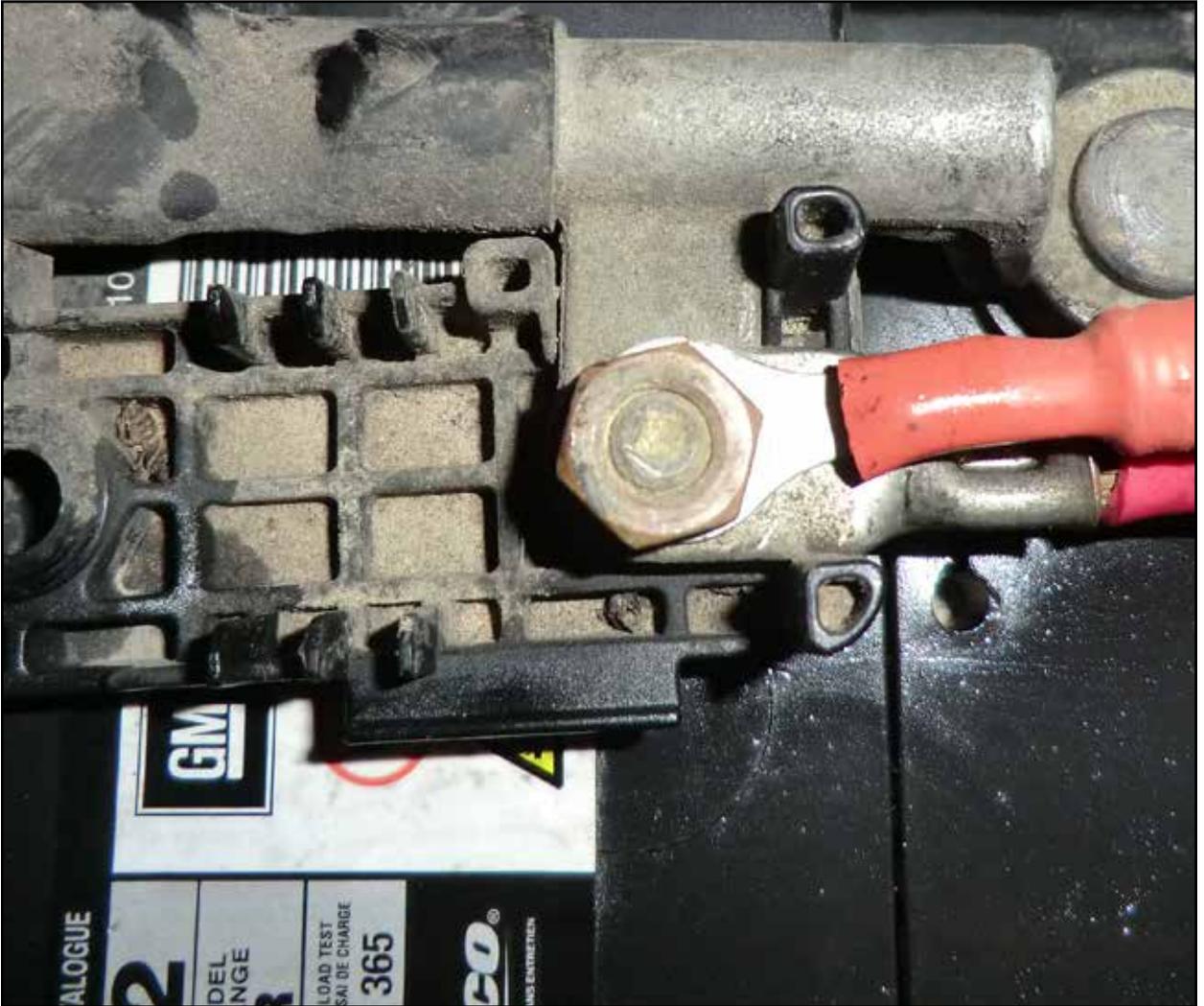
- Using the supplied nylon cable ties, secure the new hoses (as shown above).



- From the inside of the frame, plug the Deutsch connector on the supplied power harness into the mating connector on the fuel pump motor.
- Route the power harness along the frame towards the front of the vehicle.
- Organize the power harness and secure with the supplied nylon cable ties.



- Run the other end of the power harness along the frame into the engine compartment.



- 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.



- Connect the black wire ring terminal on the power harness to the negative side of the battery.



- Plug the supplied relay harness into the Deutsch connector on the power harness.



Note: 2011 model shown in the pictures

- Secure the relay harness using a supplied nylon cable tie.



Note: 2011 model shown in the pictures

- Remove the cover from the fuse box.
- 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):

2011-2016

#40

Misc Ign



Note: 2011 model shown in the pictures

- Attach the power wire from the relay to the add a harness fuse adapter.



Note: 2011 model shown in the pictures

- Install the fuse removed on page 28 into the open location on the add a harness fuse adapter (not in line with the wire).



Note: 2011 model shown in the pictures

- Install the add a harness fuse adapter (with installed fuses) into the 12-volt source location chosen on page 28.



Note: 2011 model shown in the pictures

- Carefully route the power wire outside the fuse box and reinstall the cover (making sure not to pinch the wire).
- Organize the wire harness and secure with the remaining nylon cable ties



- 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.
- 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.

NOTE: Place enclosed CARB EO sticker on or near the device on a smooth/clean surface. EO identification label is required to pass the smog test inspection.



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