



advanced FLOW engineering
Instruction Manual P/N: 42-13041

DFS 780

Make: **Ford** Model: **F-250/F-350/F-450** Year: **2011-2016** Engine: **V8-6.7L (td)**
Fuel Pressure: **8-10 psi (relay controlled - supplements factory fuel pump)**



- 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	05-60748
B	1	Filter, Fuel	44-FF019
C	1	Bowl, Water Separator	05-60487
D	1	Bracket, Frame; Carbon Steel	05-60554
E	1	Bolt, 1/2" -13 x 1.50"	03-50464
F	2	Washer, 1/2"	03-50494
G	1	Locknut, 1/2"	03-50495
H	4	Bolt, M6 x 1.0 x 50mm	03-50443
I	4	Washer, M6 (Fiber)	03-50457
J	6	Washer, M6	03-50444
K	5	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	05-60737
P	18	Ties, Nylon Cable, 12"	05-60167
Q	1	Harness, Power	05-60523
R	1	Hose, Fuel Inlet	05-60735
S	1	Hose, Fuel Outlet	05-60736
T	1	Bracket, Parking Brake Cable	05-60702
U	4	Washers, M8	03-50065
V	2	Locknut, M8	03-50244
W	2	Bolt, M8 x 1.25 x 25mm	03-50231
X	1	Bolt, M6 x 1.0 x 20mm	03-50241





- On the driver's side of the truck, under the rear door, you will see an oval hole. Use this hole to mount the supplied carbon steel frame bracket to the frame



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

Hardware

(x1) ½"-13 x 1.50" bolt

(x2) ½" washers

(x1) ½" locknut



- Remove the bolt holding the parking brake cable guide from the truck.



- Install the supplied parking brake cable bracket with the supplied hardware and tighten.

Hardware

- (x1) M6 x 1.0 x 20mm bolt
- (x2) M6 washers
- (x1) M6 flanged locknut
- (x1) M8x1.25x25mm bolt
- (X2) M8 washers
- (X1) M8 locknut

- Reinstall the parking brake cable guide onto the parking brake cable bracket with the supplied hardware and tighten.

Hardware

- (x1) M8x1.25x25mm bolt
- (x2) M8 washers
- (x1) M8 locknut



- 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.

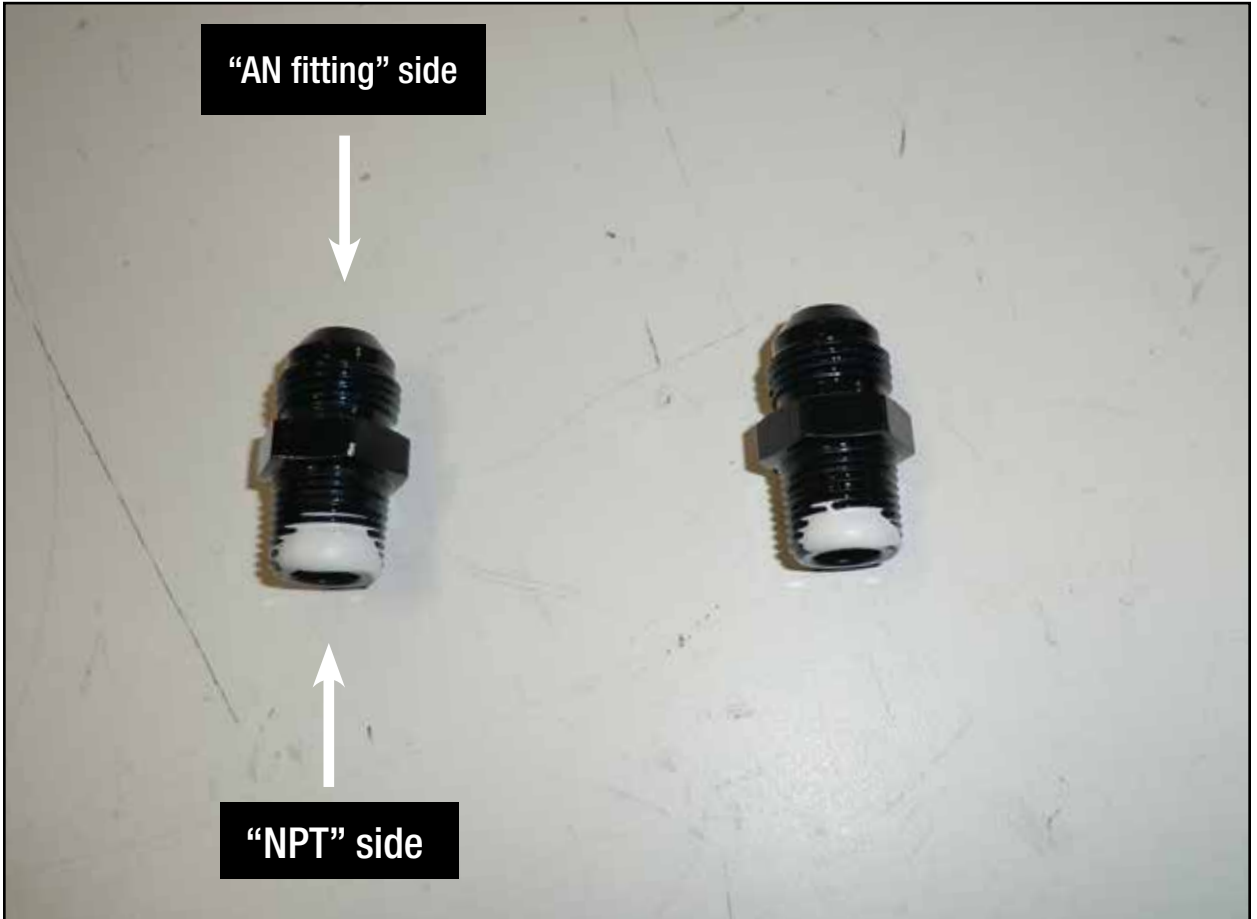


- Turn the sight glass to the desired angle and using a 1-1/4" wrench, tighten the center nut under the fuel manifold assembly.

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).



- Clean the area around the stock fuel pump (located on the driver's side, inside the frame) to prevent dirt and debris from going into the lines.



- Disconnect the fuel supply and the fuel return line.



- 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.





- Install the straight 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 pump.





- Install the straight male quick disconnect fitting on the supplied fuel return line (as shown below) into the female side of the stock fuel return line.





- Install the 90° female quick disconnect fitting on the fuel return line (as shown below) onto the male connection of the stock fuel pump.





Note: This is what the connections at the fuel pump should look like after all the supplied hoses are connected.



- 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.



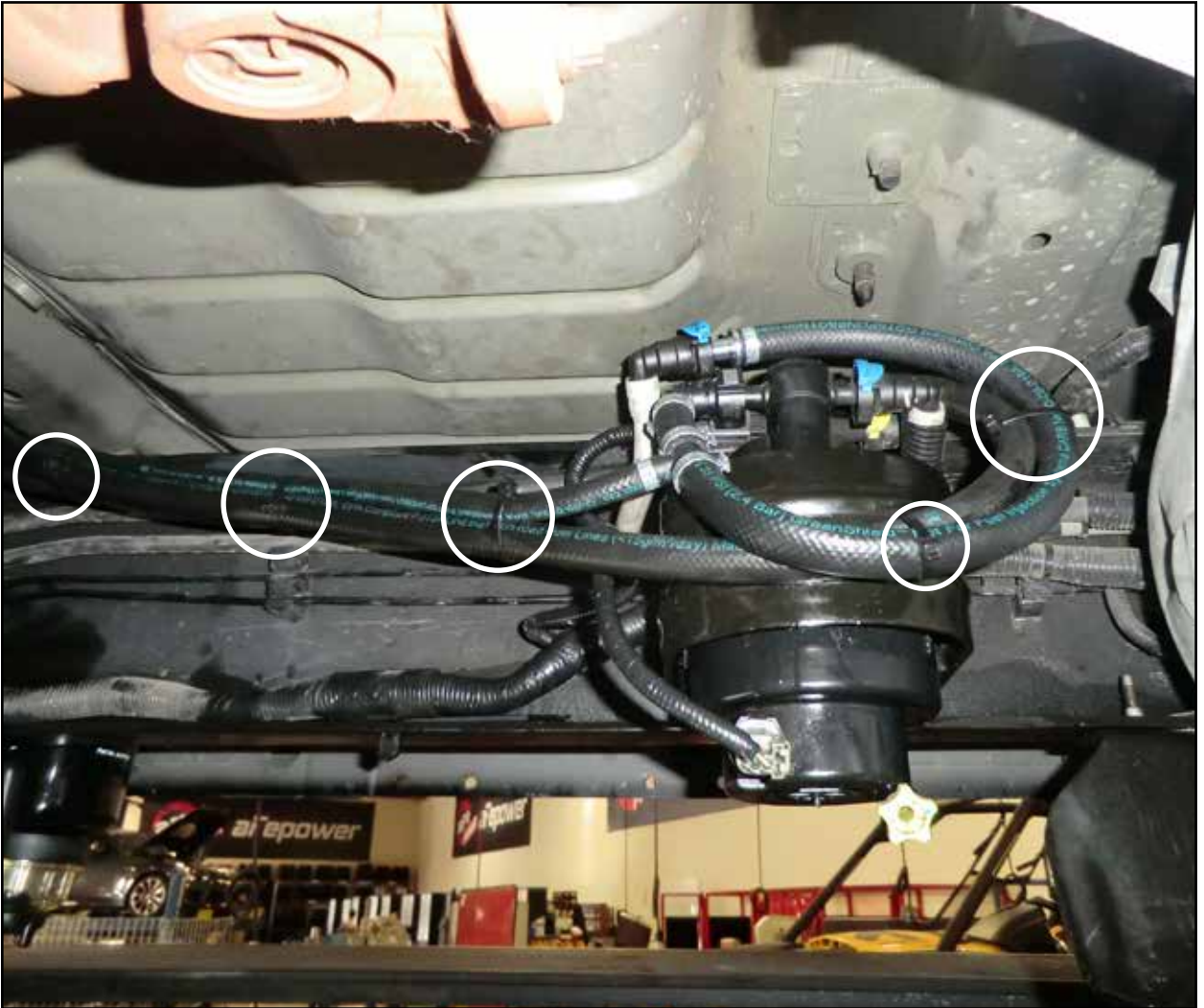
- Install the fuel outlet hose (black 90°-8 AN fitting) onto the male -8 AN fitting on the fuel outlet port of the fuel manifold assembly.



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



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



- 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 inside of 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 inside of 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.



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



- Locate the fuse box in the engine compartment (located on the driver's side rear corner next to the master cylinder, behind the engine coolant tank).



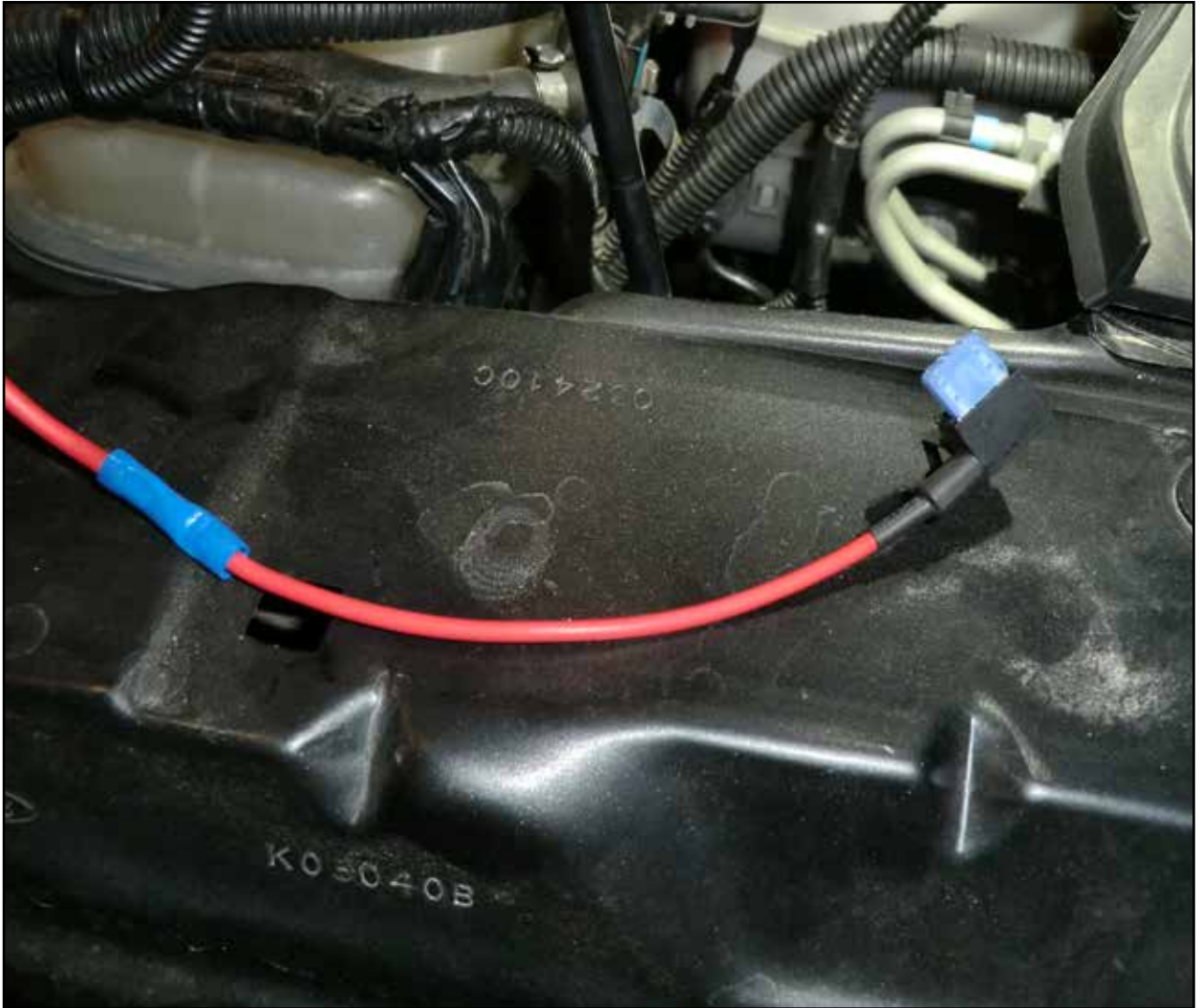
- Remove the cover from the fuse box.
- Locate a 12-volt source inside the fuse box that only comes on with the key in the “run” position. Once a 12-volt source is located, pull the fuse from the fuse box.

Location for add a harness fuse adapter:

2011-2016

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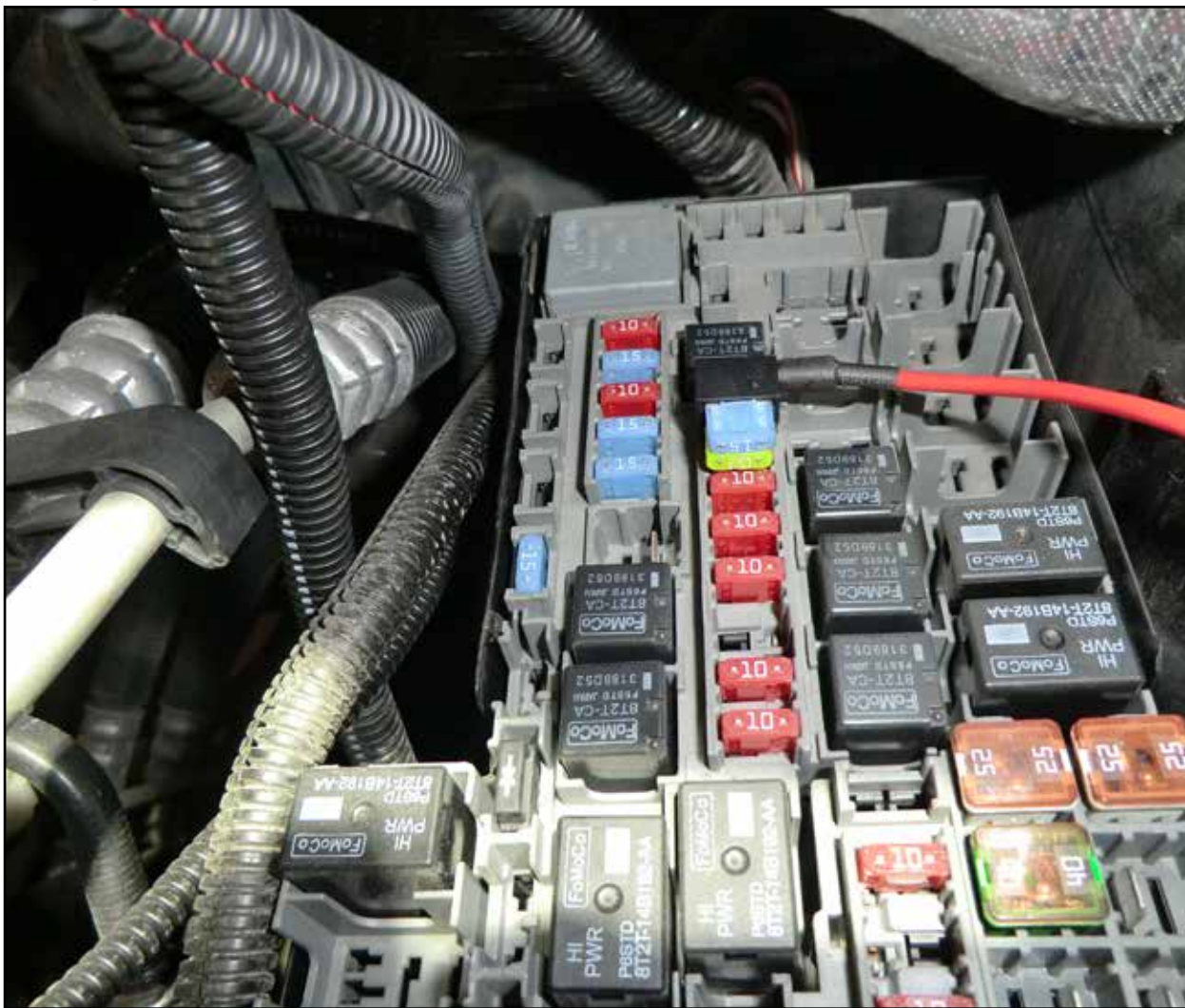
Passenger Compartment fuse panel run/start



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



- Install the fuse removed on page 32 into the open location on the add a harness fuse adapter (not in line with the wire).



- Install the add a harness fuse adapter (with installed fuses) into the 12-volt source location chosen on page 32.



- 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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