



## advanced FLOW engineering **Instruction Manual** P/N: 42-13042

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Make: **Ford** Model: **F-250/F-350** Year: **2011-2016** Engine: **V-8 6.7L (td)**  
Fuel Pressure: **8-10 psi (boost operated - supplements factory fuel pump)**  
Supported Horsepower: **2000+**

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	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, Pressure Switch	05-60701
N	1	Switch, Pressure	05-60542
O	1	Hose, Fuel Return	05-60737
P	18	Tie, 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	Washer, 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
Y	1	Jumper, Priming	05-70004

**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.

- 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





Picture 1 (-106)

1. 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.



Picture 2(-3)

2. Mount the carbon steel frame bracket to the frame with the supplied hardware and tighten.
  - (1)  $\frac{1}{2}$ "-13 x 1.50" bolt
  - (2)  $\frac{1}{2}$ " washers
  - (1)  $\frac{1}{2}$ " locknut



Picture 3(-5)

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



Picture 4 (-7)

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

- (1) M6 x 1.0 x 20mm bolt
- (2) M6 washers
- (1) M6 flanged locknut
- (1) M8x1.25x25mm bolt
- (2) M8 washers
- (1) M8 locknut

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

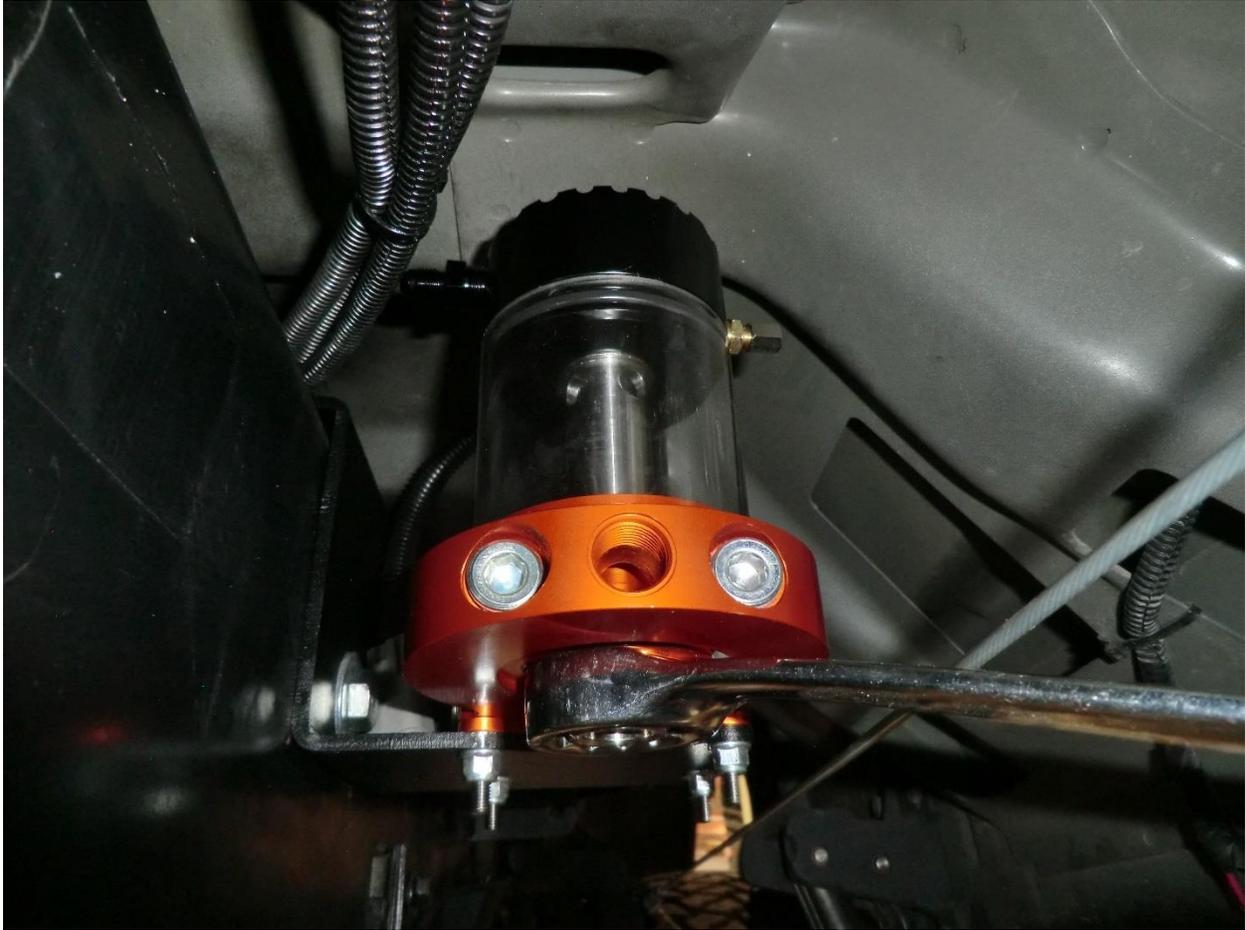
- (1) M8x1.25x25mm bolt
- (2) M8 washers
- (1) M8 locknut



Picture 5(-11)

6. 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.**



Picture 6 (-13)

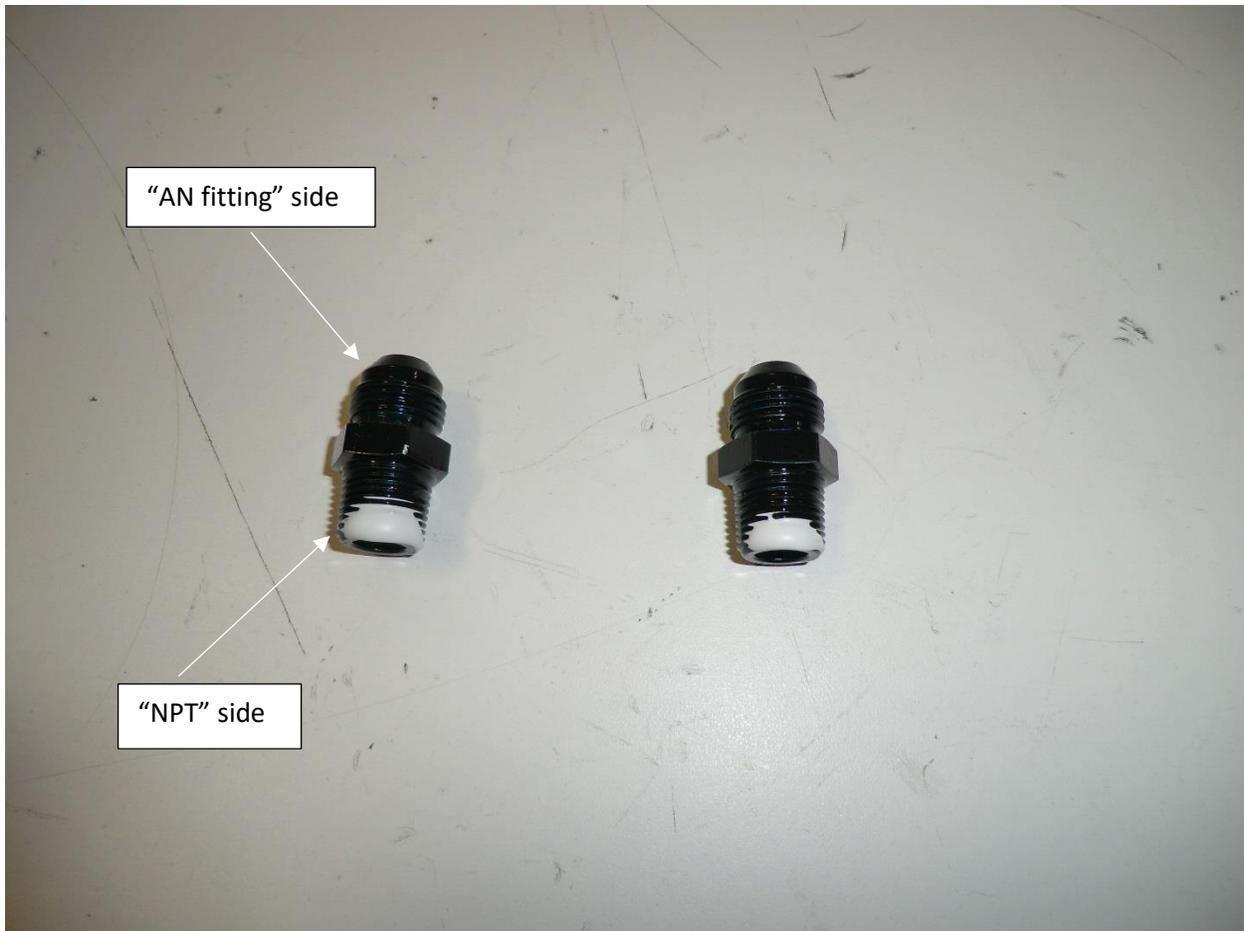
7. Turn the sight glass to the desired angle and using a 1-1/4" wrench, tighten the center nut under the fuel manifold assembly.

**NOTE: The pump should look like the picture above.**



Picture 7 (-15)

8. 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.



Picture 8 (-151)

9. 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.**



Picture 9 (-20)

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



Picture 10 (-25)

11. 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.



Picture 11 (-30)

12. Disconnect the fuel supply and the fuel return line.



Picture 12 (-34)

13. 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.



Picture 13 (-108)



Picture 14 (-39)

14. 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.



Picture15 (-113)



Picture 16 (-43)

15. 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.



Picture 17(-110)



Picture 18(-45)

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

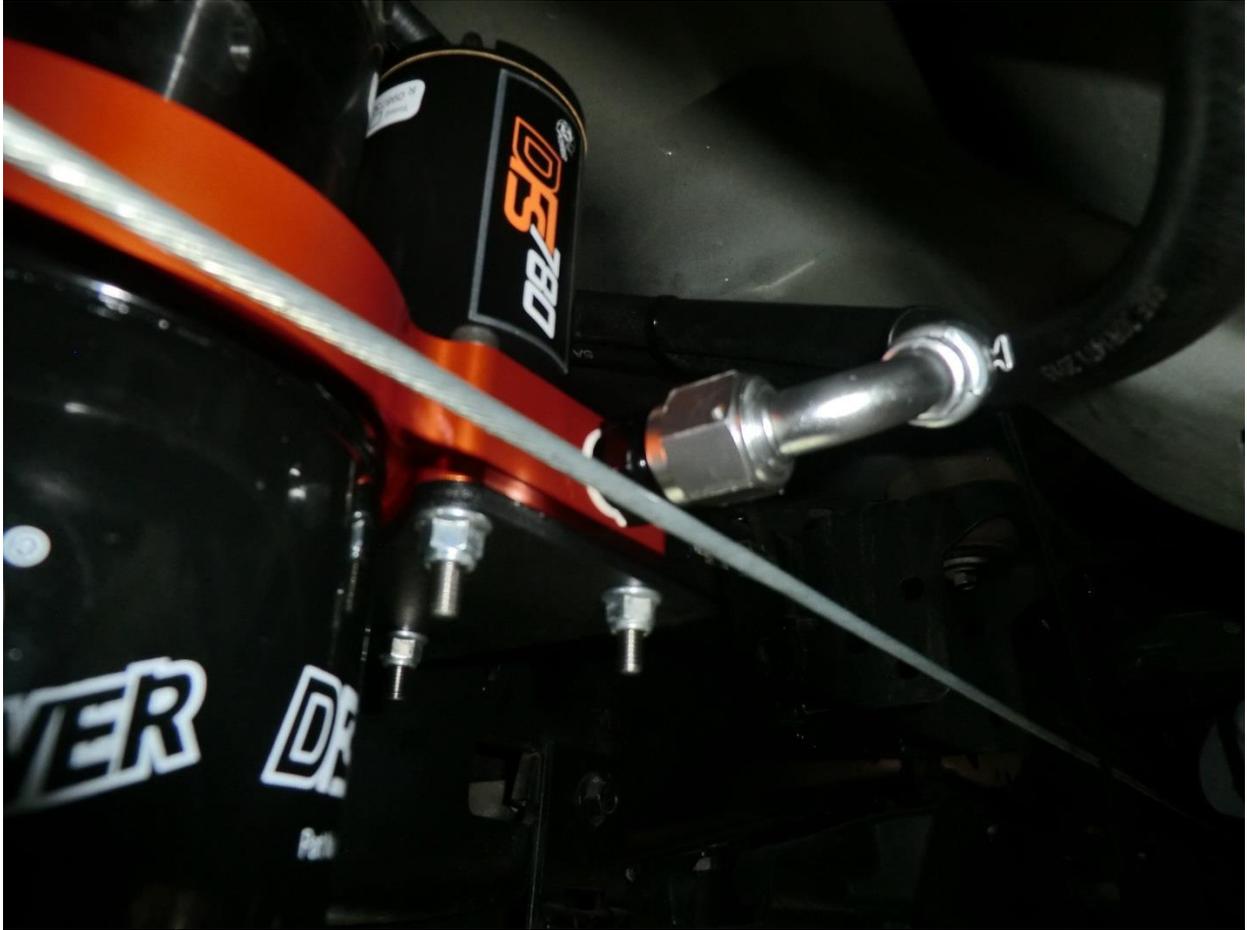


Picture 19 (-110)



Picture 20 (-59)

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



Picture 21 (-52)

17. Install the fuel inlet hose (90° silver -8 AN fitting) onto the male -8 AN fitting on the fuel inlet port of the DFS780.



Picture 22 (-49)

18. Install the fuel outlet hose (90° black -8 AN fitting) onto the male -8 AN fitting on the fuel outlet port of the DFS780.



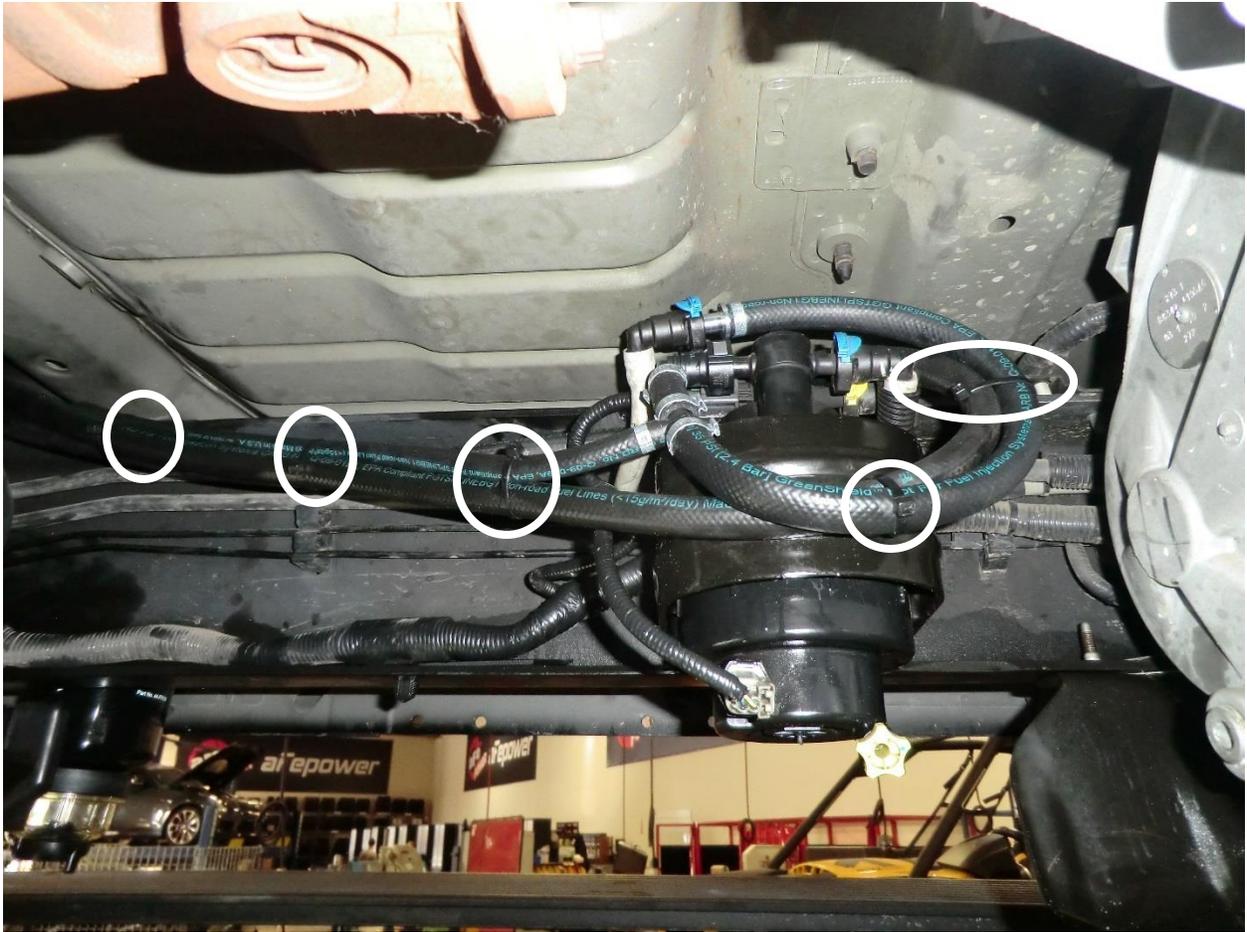
Picture 23 (-55)

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



Picture 24 (-53)

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



Picture 25 (-58)

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



Picture 26(-60)

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



Picture 27 (-63)

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



Picture 28 (-65)

26. 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.**



Picture 29 (-67)

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



Picture 30 (-96)

28. Install the supplied pressure switch into the intake manifold (1/8" NPT).

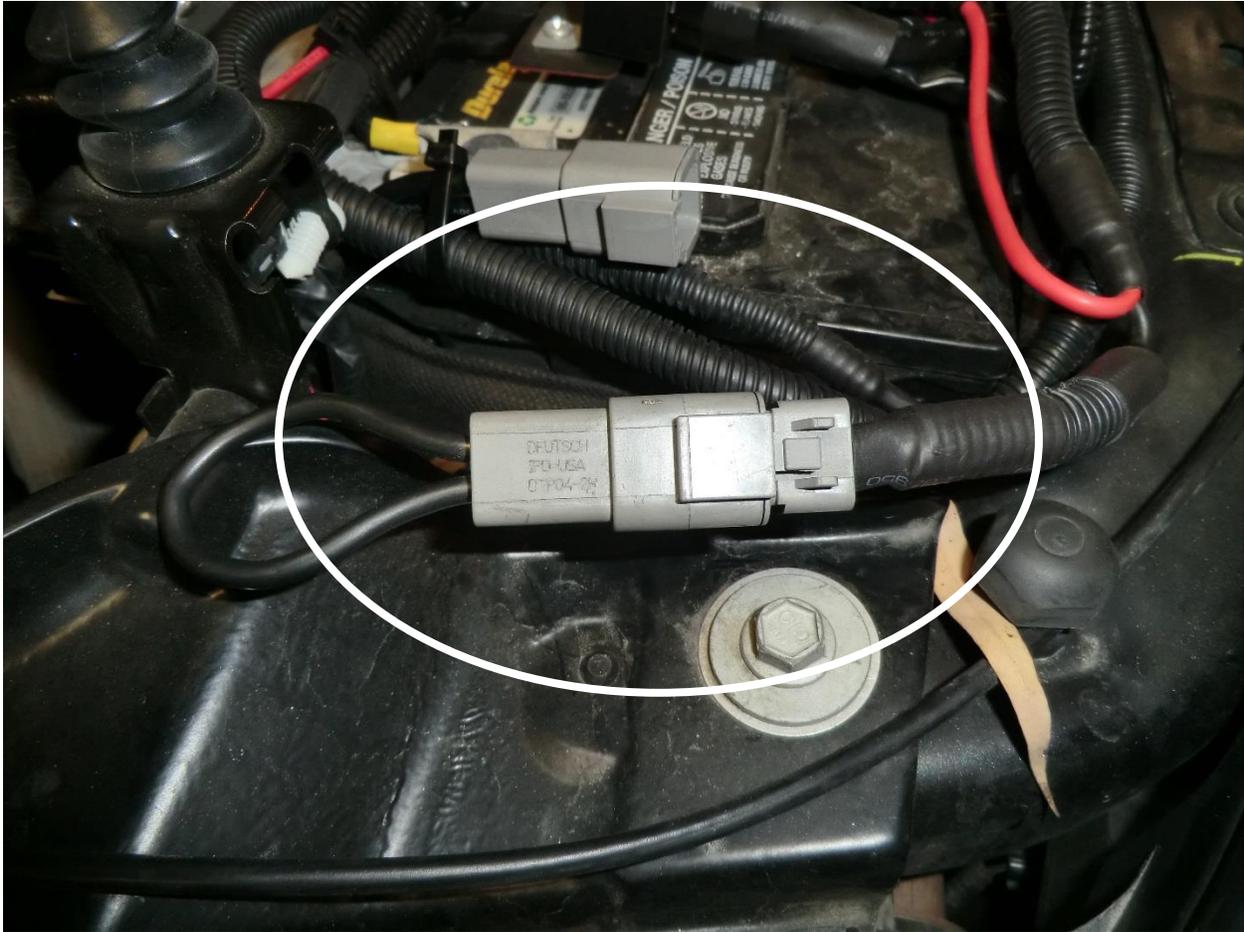
**NOTE:** This step may require you to drill and tap a 1/8" NPT hole.

**Use Caution: DO NOT allow any metal chips to enter the engine.**



Picture 31 (-104)

29. Connect the supplied pressure switch harness to the pressure switch (either wire can be attached to either terminal).



Picture 32 (-100).

30. Make sure that all fittings are tight. Install the priming jumper onto the Deutsch connector on the power harness. The fuel pump motor will turn on. 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. Check for any leaks.
31. Once the system is primed, and the truck is running, remove the priming jumper from the power harness and shut the truck off.

**NOTE: Failure to remove the priming jumper will result in the fuel pump motor continuing to run, even with the vehicle shut off. This could result in a dead battery.**



Picture 33 (-102)

32. Plug the pressure switch harness into the Deutsch connector on the power harness.
33. Organize any of the loose wire harnesses and secure with the remaining nylon cable ties.



Picture 34 (-114)

34. Start the truck and let idle while checking for any leaks.

35. 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.