

## advanced FLOW engineering

### Instruction Manual P/N: 42-13021

Make: **Ford** Model: **F-250/F-350** Year: **2003-2007** Engine: **V8-6.0L (td)**

Fuel Pressure: **8-10 psi (relay controlled - supplements factory fuel pump)**

Supported Horsepower: **2000+**



- 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	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	4	Washer, M6	03-50444
K	4	Locknut, Flanged; M6	03-50445
L	2	Fitting; 3/8" NPT to AN -6 (Black, Straight)	05-60634B
M	1	Harness, Relay	05-60551
N	1	Adapter, Fuse; Add a harness	05-60583
O	1	Hose, Fuel Return	05-60696
P	12	Ties, Nylon Cable, 12"	05-60167
Q	1	Harness, Power	05-60523
R	1	Hose, Fuel Inlet	05-60697
S	1	Hose, Fuel Outlet	05-60698

**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.





- You will need to loosen the bed or drop the fuel tank to begin installation of the DFS780 Fuel System.
- 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



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

**Hardware**

- (x4) M6 x1.0 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.





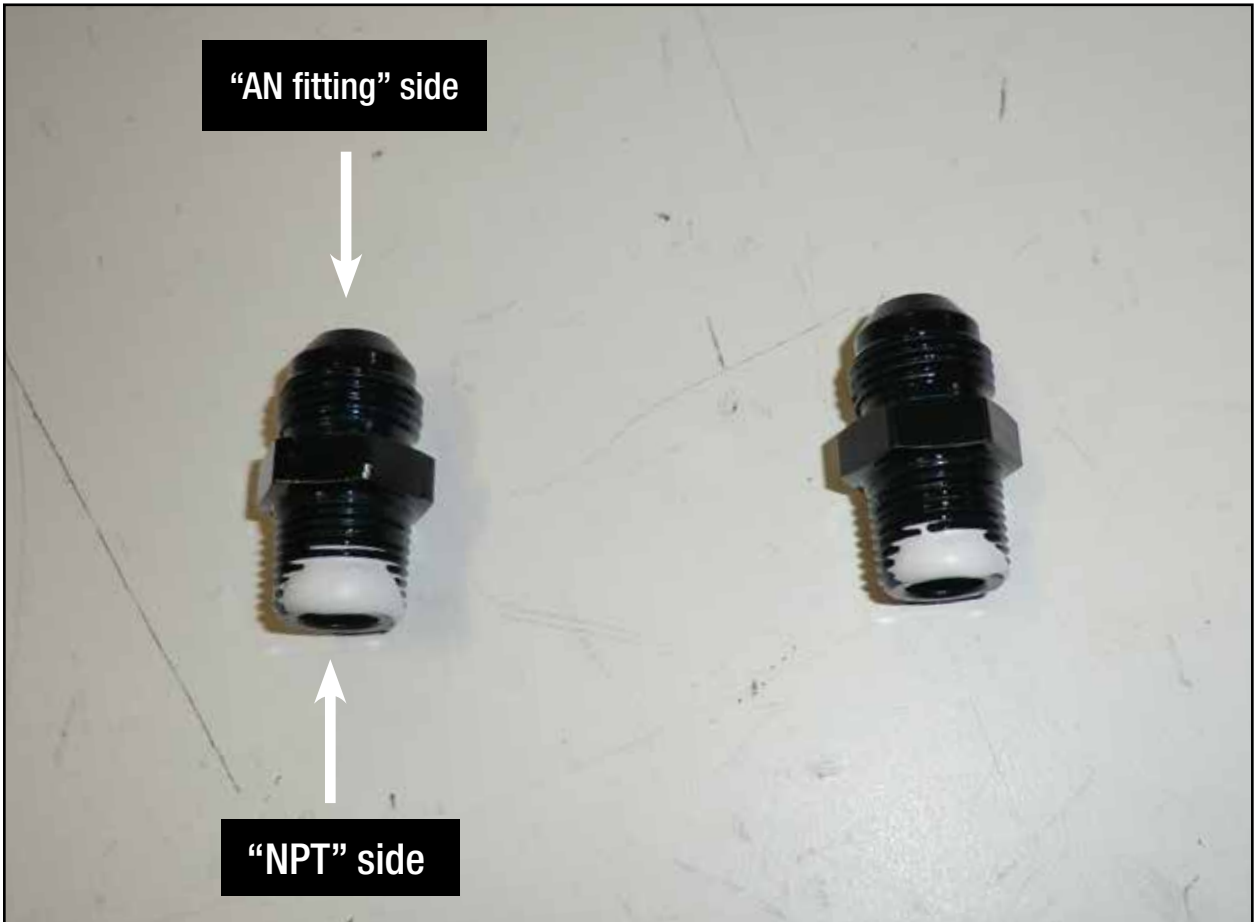
- Turn the sight glass to the desired angle and using a 1-1/4" wrench, tighten the center nut under the fuel manifold assembly.

**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 -6 AN fittings.

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



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



**Note:** Picture taken from outside of frame looking towards passenger's side.

- Clean the area around the fuel lines to prevent dirt and debris from going into the lines.



**Note:** Picture taken from outside of frame looking towards passenger's side.

- Disconnect the fuel supply and the fuel return line.



**Note:** Picture taken from the passenger side looking at the driver's side.

- Install the 90° 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 tank connection.







**Note:** Picture taken from the passenger side looking at the driver's side.

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







**Note:** Picture taken from outside of frame looking towards passenger's side.

- Install the female side of the "T" quick disconnect fitting on the supplied fuel return hose (shown below) onto the male side of the stock fuel return tank connection.
- Lock the fitting.





**Note:** Picture taken from outside of frame looking towards passenger's side.

- Install the factory female fuel return line onto the male side of the "T" quick disconnect fitting on the fuel return hose (shown below).





- 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.



- 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.



- 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 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.

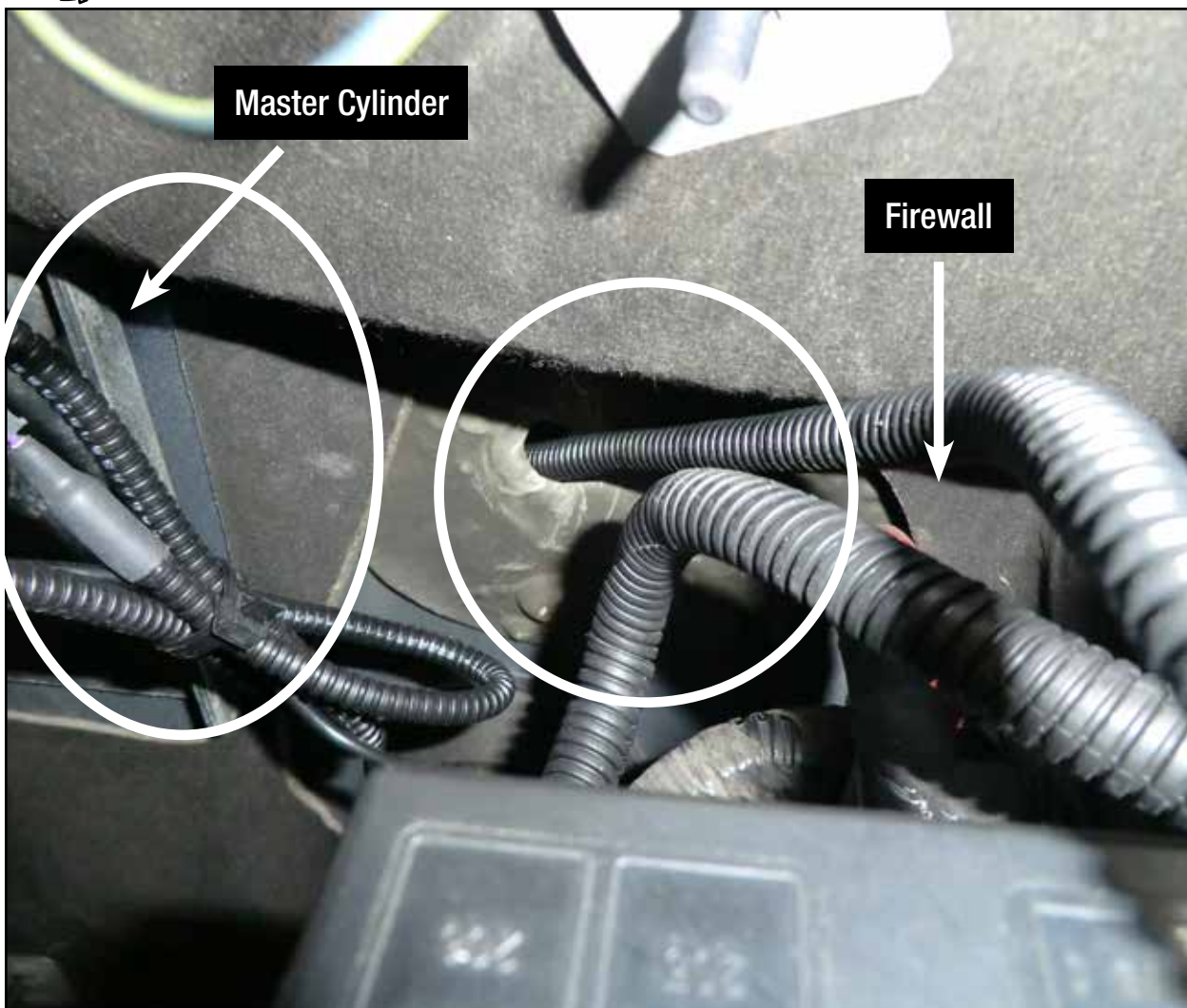


- Plug the supplied relay harness into the Deutsch connector on the power harness.





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



- Run the relay power wire into the cab of the truck through the existing upfitter hole near the master cylinder.

**Note:** The hole may have a cover over it.

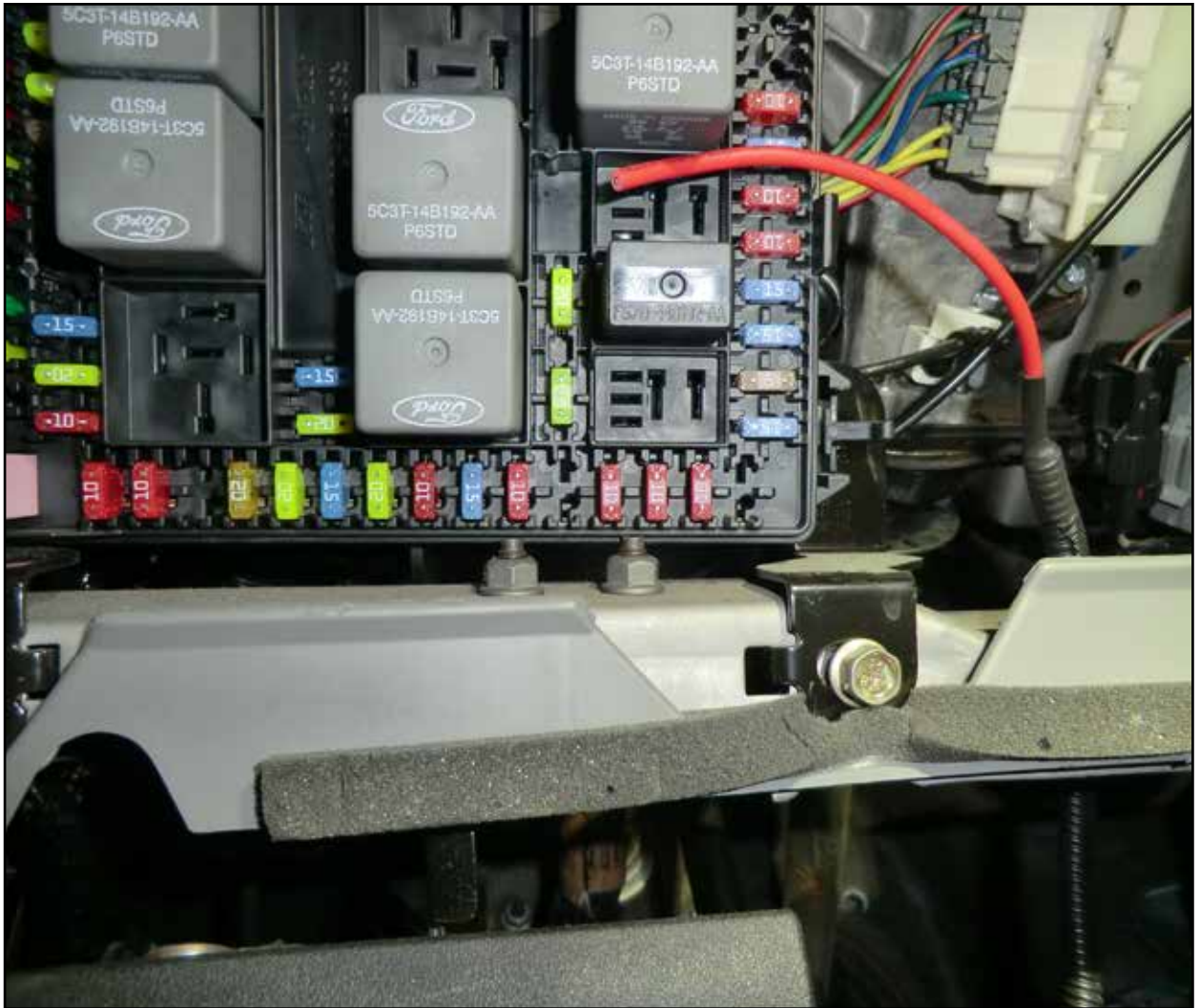


- Locate the panel under the steering wheel.
- Remove the panel by firmly pulling the handles.

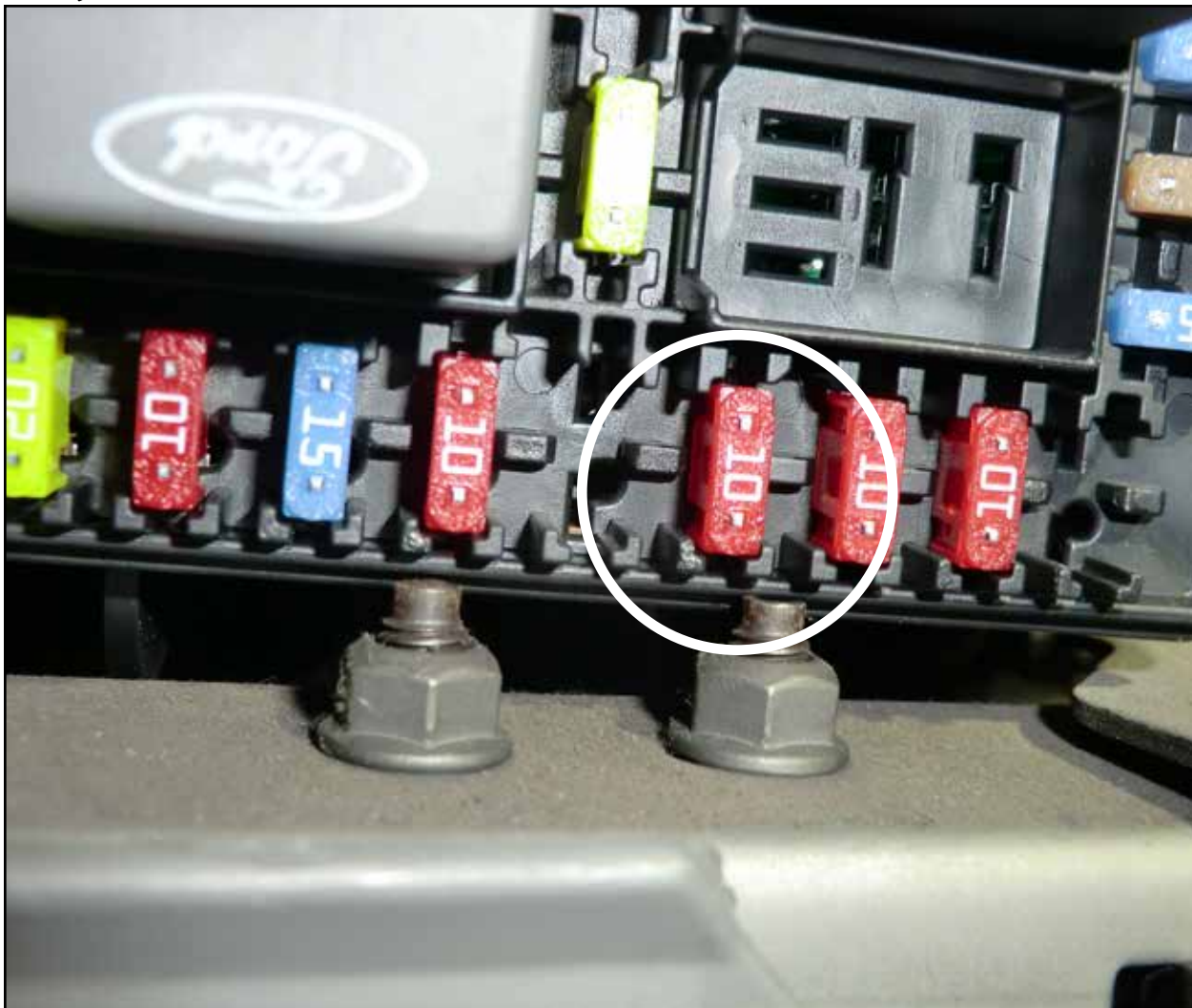


- Locate the under dash fuse box.





- 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 the fuse from the fuse box.

**Locations for inline fuse adapter plug in (under dash fuse block):**

2003 - 2007

#45

Ignition Run/START feed





- Install the fuse removed on page 32 into the open location on the supplied 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.



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



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





- 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.





Scorcher



P/N: 77-43012

EGR Cooler



P/N: 46-90087

Transmission Pan



P/N: 46-70122-1 (Black)  
46-70120-1 (RAW)

Oil Cooler



P/N: 46-80001

Intake Manifold



P/N: 49-43077-B

Torque Converter



P/N: 43-13051

Oil Cap



P/N: 79-12005

Intercooler



P/N: 46-20102

To purchase any of the items above, view airflow charts, dyno graphs, photos, and video; please go to [aFepower.com](http://aFepower.com).



# DFS FUEL SYSTEM

## “WORRY FREE” WARRANTY POLICY

Please read this warranty policy before proceeding with the installation of this advanced FLOW engineering, Inc. (aFe) product.

aFe’s obligation under the “Worry Free” Warranty is covered for two years from date of purchase. The “Worry Free” Warranty is limited to replacement of the defective or worn-out product with the same (or comparable) product in accordance with this warranty. Under no circumstances will the obligation or liability of aFe exceed the purchase price of the product as indicated on the original bill of sale. Warranties are non-transferable, contain no cash value and are only extended to the owner of the vehicle provided that the ownership has not changed since the installation of the product. This warranty does not apply to products which have been altered, modified, damaged from neglect, abuse or from an accident, misused, improperly installed, contaminated with dirt or other contaminants, or used in applications other than recommended in our printed or digital media. aFe does not provide reimbursements for delay, shipping fees, labor, mileage, or any other costs involved in installation or re-installation of the products in question.

### **Registration Process:**

Simply register your DFS Fuel System product online at <http://www.aFepower.com/reg>

### **Claim Process:**

To file a warranty claim, customers are required to submit their information using the warranty claim form online at <http://afepower.com/inquiries/tech-warranty.php>

**All Warranty Claims require:** 1) Online registration of the product. 2) If item has not been registered online, then a copy of your original purchase receipt is required. 3) An image of the warrantied part. 4) An image showing the serial number on the warranty card or the barcode label on the box. You may be required to return the part for inspection and you may be required to purchase a new replacement part while the warranty claim is being processed. Once the warranty claim has been reviewed and approved, aFe will provide you with a refund of the replacement purchase price. aFe’s obligation under the “Worry Free” Warranty is limited to replacement of the defective or worn-out product (excluding finish) with the same (or comparable) product in accordance with this warranty. In addition this warranty does not cover fuel filters, which need to be replaced when worn. Warranty is valid provided aFe instructions for installation were properly followed.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.



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