

*advanced FLOW engineering*

**Instruction Manual** P/N: 46-70080/81/82

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Make: **FORD** Model: **F-250/350** Year: **94.5-12** Engine: **V8-7.3/6.0/6.4/6.7L (td)**



- 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
A1	1	Differential Cover	05-60070 (Black Fins: 46-70081)
A2	1	Differential Cover	05-60071 (Machined Fins: 46-70082)
B	1	Porthole View Guage	03-50224 (Pre-Installed)
C	1	Plug: 3/4"-14 NPTF, Magnet	03-50223
D	1	O-Ring	05-60111
E	1	Plug: 1/2"-14 NPTF, Magnet	03-50242
F	2	Plug: 1/8"	03-50029
G	10	Socket Head Cap Screws	03-50229
H	10	Flat Washers	03-50230

Installation will require the following tools:

Oil Drain Pan (12 QT. Capacity Minimum), 9/16" socket wrench and driver, 5/16" allen socket (3/8" drive), 6" extension (3/8" drive), 3/8" drive torque wrench, gasket scraper, smooth flat file

A1



A2



C



D



E



F



G



H


**Figure A**

**Refer to Figure A for steps 1-5**

Step 1: Park your truck on level ground and apply the parking brake.

Step 2: Position a drain pan under the front differential cover to catch the oil.

Step 3: Remove the bottom 8 bolts. Take loose the top 2 leaving them in place.

Step 4: Using a gasket scraper, start at the bottom and carefully insert between the cover and the differential housing. Pry the cover off. (Do not gouge the differential sealing surface)

Step 5: Allow all the oil to drain.



**Figure B**

**Refer to Figure B for steps 6-7**

Step 6: Using a gasket scraper, carefully remove the old gasket material till the sealing surface is clean.

Be careful not to round off the flat gasket surface.

Step 7: Using a lint-free rag, wipe all remaining oil and old gasket from differential housing.


**Figure C**

**Refer to Figure C for step 8-14**

- Step 8: Using new gear oil, apply a thin layer to the o-ring on the aFe differential cover.
- Step 9: Position the cover by aligning the bolt holes. Start one of the new allen head bolts at the top bolt hole. Continue around the cover till all bolts are started.
- Step 10: Using a 5/16" allen socket, torque all allen head bolts (to 12-16 ft.-lbs.) in a cross tight pattern.
- Step 11: If installing a temperature sensor, do so at this time in the 1/8" npt on top. Be sure to use all purpose anti-seize or equivalent on the sensor's threads.
- Step 12: Apply teflon pipe sealant tape on the threads of all the plug components before installing.
- Step 13: Using a 3/16 allen wrench, install 1/8" NPT (torque to 30 in.-lbs.).
- Step 14: Using a 1/2" ratchet torque wrench, install the drain plug on the bottom of aFe differential cover (torque to 50 ft.-lbs.).



Figure D

**Refer to Figure D for step 15-16**

Step 15: Fill the aFe differential cover with new gear oil.

Step 16: Use aFe sight glass to check oil level. (Oil level should be about half way)

**Figure E****Refer to Figure E for step 17-19**

Step 17: If your vehicle has been modified or “lifted” and the axle has been rotated, you will need to establish the correct oil level for your vehicle. Note: if fluid is overfilled, it can be drained to the proper level through the side oil level port.

Step 18: Once oil level is correct, install magnetic fill plug (torque to 50 ft.-lbs.) using a 1/2" ratchet torque wrench. **DO NOT OVER TIGHTEN!**

Step 19: Your installation is now complete. Drive at least 25 miles and check oil level using aFe sight glass and fill if necessary.



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Torque Converter



P/N: 43-13021

Transmission Pan



P/N: 46-70102

Exhaust System



P/N: 49-03001NM

Air Intake



P/N: 54-10792

Air Intake



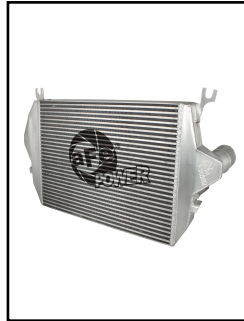
P/N: 50-73002

Programmer



P/N: 77-43006

Intercooler



P/N: 46-20091

Intercooler



P/N: 54-41262

# Warranty

## General Terms:

- aFe warrants their products to be free from manufacturer's defects due to workmanship and material.
- This warranty applies only to the original purchaser of the product and is non-transferrable.
- Proof of purchase of the aFe product is required for all warranty claims.
- Warranty is valid provided aFe instructions for installation and/or cleaning were properly followed.
- Proper maintenance with regular inspections of product is required to insure warranty coverage.
- Damage due to improper installation, abuse, unauthorized repair or alteration is not warranted.
- Incidental or consequential damages or cost, including installation and removal of part, incurred due to failure of aFe product is not covered under this warranty.
- All warranty is limited to the repair and/or replacement of the aFe part. To request Return Goods Authorization ("RGA"), email [RGA@afepower.com](mailto:RGA@afepower.com) or call (951)493-7100. Upon receipt of the RGA, you must return the product to the address provided in the RGA, freight prepaid and accompanied with a dated proof of purchase and the RGA. Upon receipt of the defective product and upon verification of proof of purchase, aFe will either repair or replace the defective product within a reasonable time, not to exceed thirty days.

<b>Product Category</b>	<b>P/N Prefix</b>	<b>Warranty duration</b>
Direct OE Replacement Filters	10, 11, 30, 31, 71, 73	Life of the vehicle
Racing Filters	18	1 year
Universal	21, 24, 72	2 years
Air Intake Systems	50, 51, 54, 55, 75	2 years
Exhaust Systems	49	2 years
Intercoolers & Intercooler Tubes	46-2	2 years
Intake Manifolds	46-1	2 years
Differential Cover/Transmission Pan	46-7	Life of the vehicle
Exhaust Manifolds	46	2 years
Throttle Body Spacers	46-3	2 years
Fluid Filters	44	90 days
Pre-Filters	28	2 years
Heavy Duty OE Replacement	70	2 years
PowerSports OE Replacement	81, 87	2 years
PowerSports Intake Systems	85	2 years

No other warranty expressed or implied applies nor is any person or advanced FLOW engineering authorized to assume any other warranty. Some States do not allow the exclusion or limitation of incidental or consequential damages or do not allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from State to State.



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