

advanced FLOW engineering

Instruction Manual P/N: 46-10071-1 / 46-10072/ 46-10073-1

Make: **Dodge/RAM** Model: **2500/3500** Year: **2007.5-2016** Engine: **L6-6.7L (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.
- 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	Manifold, Intake	05-60086
B	1	Bracket	05-60131
C	2	Plug, Hex Hd Socket: 1/8"	03-50029
D	1	Plug, Hex Hd Socket: 3/8"	03-50158
E	4	Screw, Socket Hd Cap: M8 x 1.25 x 30	03-50225
F	2	Screw, Socket Hd Cap: M8 x 1.25 x 16	03-50171
G	1	Screw, Socket Cap: M8 x 1.25 x 90	03-50257
H	1	Screw, Socket Cap: M8 x 1.25 x 100	03-50156
I	8	Washer, Flat S/S	03-50228
J	1	Tool (6mm Hexagon Rod, 6 in. length)	03-50161
K	1	Gasket, Throttle Body (46-10073-1 Only)	05-60209
L	2	Gasket, EGR Valve (46-10073-1 Only)	05-60208
M	1	Gasket, Manifold (46-10073-1 Only)	05-60146

Installation will require the following tools: 7/16 deep socket, 10mm deep socket, 8mm socket, 3/16 allen-wrench, 5/16 allen wrench, 6mm allen, 6mm socket, flat head screw driver or T15 torx driver, panel popper, and extension.





Refer to Figure A for steps 1-2

Step 1: Disconnect batteries before installation.

Step 2: Remove engine cover by removing the oil dipstick and the four screws circled in white with an 8mm socket.

NOTE: Let engine completely cool before working

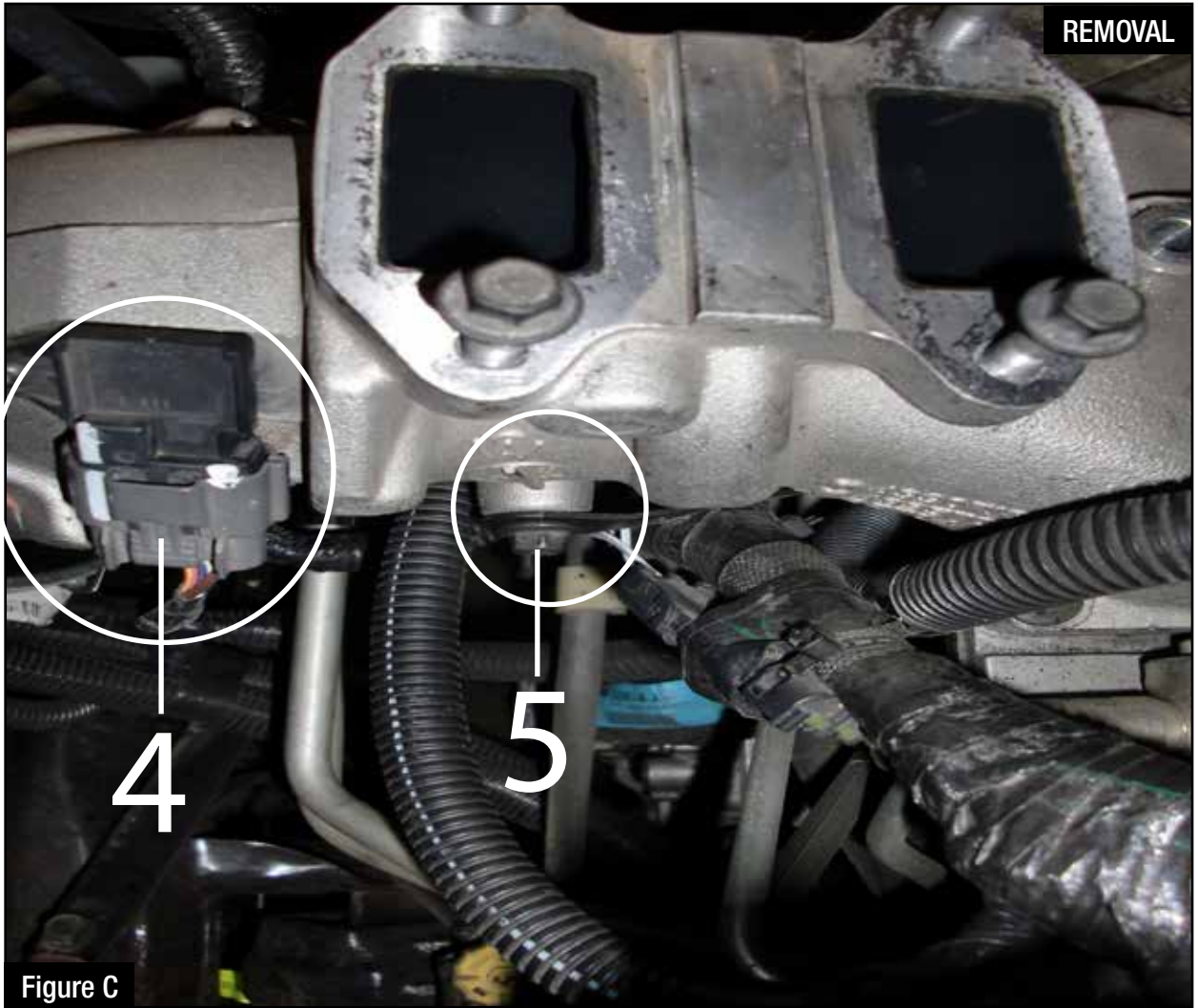


Figure B

Refer to Figure B for steps 3-4

Step 3: Disconnect the two sensor plugs (1 & 2). NOTE: Plug (1) has a red tab that needs to be pushed to the side to unlock it. Then it will be easy to remove from sensor plug.

Step 4: Remove the wire retainer from the bolt using panel poppers (3).



Refer to Figure C for steps 5-6

Step 5: Disconnect the sensor harness located on the back on the intake manifold (4).

Step 6: Using a 10mm socket or wrench, remove the bolt holding the wiring harness from the manifold.

You may need to use a panel popper on some of the wiring harnesses to gain access to the bolt head (5).



Figure D

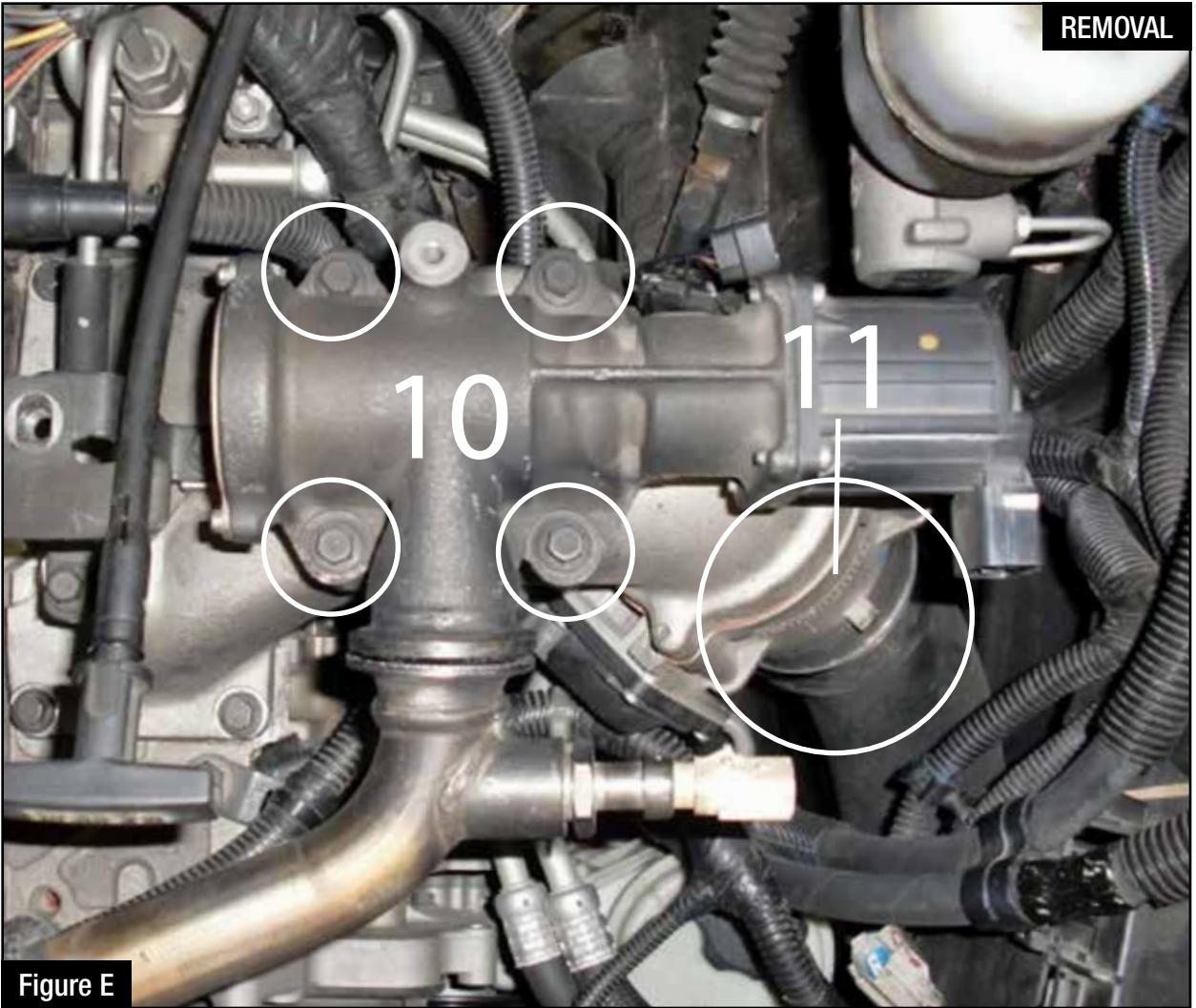
Refer to Figure D for steps 7-9

Step 7: Using a 10mm socket, remove the bolt from the dipstick tube (6).

Step 8: Using a 10mm socket, remove the bolts which retain the dipstick tube bracket (7) & (8).

Step 9: Using a 7/16" deep socket, loosen the EGR tube clamp on the drivers side and remove.

Remove the gasket. Loosen the clamp on the passenger side. This will allow you to pull the tube away from the manifold (9). Save the gasket and clamp. They will be reused.



Refer to Figure E for steps 10-11

Step 10: Using a 10mm socket, remove the four bolts on the EGR. Then remove the EGR valve (10).

Step 11: Using a 7/16" deep socket, loosen the clamp connecting the hump hose to the intake manifold.

Disconnect the boost tube from that intake manifold (11).



Figure F

Refer to Figure F for step 12

***Please read this carefully before you start**

Step 12: Using a 10mm socket, remove the five bolts from the intake manifold and remove the manifold slowly. There is a group of wires still connect to the manifold. As you pull the manifold out of the engine bay, turn it over and unplug the wires from the intake butterfly gate (12) .

**Figure G****Refer to Figure G for step 13-15**

- Step 13: Using a flat head screwdriver or a T15 torx driver remove the MAP sensor from the manifold (13).
Save this part as it will be reused.
- Step 14: Using a 10mm deep socket remove the stud from the manifold (14).
On some manifolds there will be two studs. Remove both. Save these parts as they will be re-used.
- Step 15: Using an 8mm socket remove the four bolts on the butterfly gate from intake manifold (15).
Save these parts as they will be reused.



Figure H

Refer to Figure H for step 16-19

Step 16: Using a 10mm socket install the stud(s) in the aFe intake manifold (16).

Step 17: Install the stock butterfly gate to the aFe Intake Manifold (17) using a gasket and the stock bolts. Tighten bolt using an 8mm socket.

Step 18: With a 3/16 allen wrench, Install the two 1/8" npt plugs on the aFe Intake manifold (opposite side is shown).

Step 19: Install the MAP sensor using the stock hardware and tighten using a T15 torx driver or flat head screwdriver.



Figure 1

Refer to Figure 1 for step 20

Step 20: Clean and prep the mating surface using a scraper or scotchbright.



Figure J

Refer to Figure J for step 21-22

***Please this instruction before installation**

Step 21: Install the gasket to the aFe intake manifold outlet.

Step 22: Place one M8x1.25x30mm and one washer in the aFe Intake Manifold before installation.

Insert the bolt through the top of the center hole of the manifold. Insert the washer in the bottom of the manifold and slide the bolt through. Use the supplied long 6mm allen key to hold it in place.

**Figure K****Refer to Figure K for step 23-25**

Step 23: Plug the butterfly gate into the stock wire harness before installing the aFe Intake Manifold into the truck

Step 24: Use the 6mm allen key to start the bolt installed in Step 22. Install the aFe Intake Manifold in the truck using the supplied three M8x1.25x30mm, one M8x1.25x90mm, one M8x1.25x100mm and five washers. Tighten all six bolts using a 6mm allen wrench. Install the 3/8 npt plug (18) and tighten with a 5/16 allen wrench.

Step 25: Plug in the MAP sensor. Slide the factory wire harness retainers over the studs on the aFe Intake Manifold.

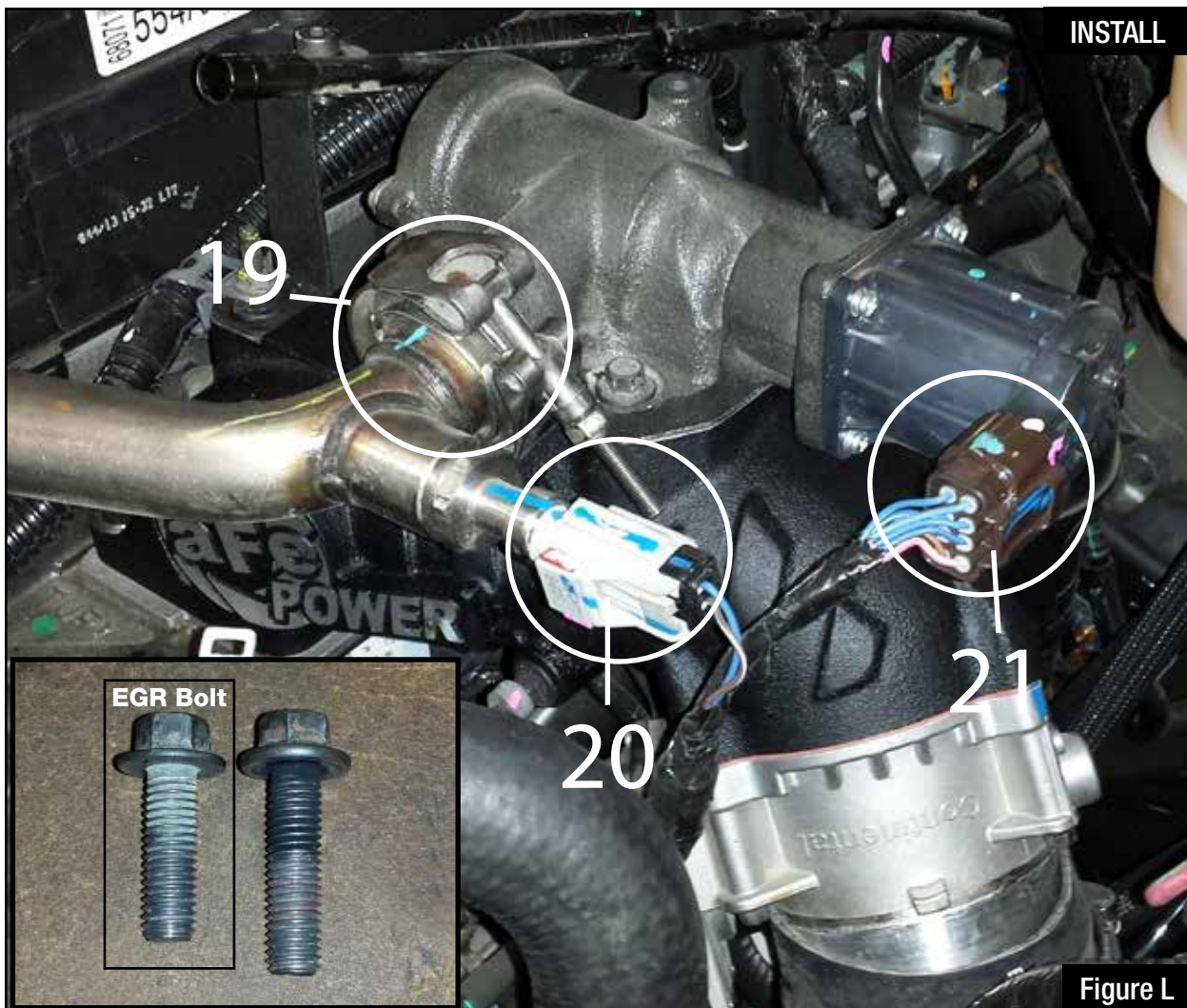


Figure L

Refer to Figure L for step 26-29

Note: Make sure to use the factory EGR bolts or the EGR will not seal correctly.

Step 26: Install the EGR valve onto the aFe Intake Manifold using the stock hardware and tighten.

Step 27: Install the Gasket pulled out in Step 9 on the EGR tube. Slide the EGR tube back on the EGR valve and tighten the clamp using a 7/16 deep socket. (THE CLAMP MUST LOOK LIKE THE PICTURE FOR THE ENGINE COVER TO FIT PROPERLY). Tighten the clamp on the passenger side (19).

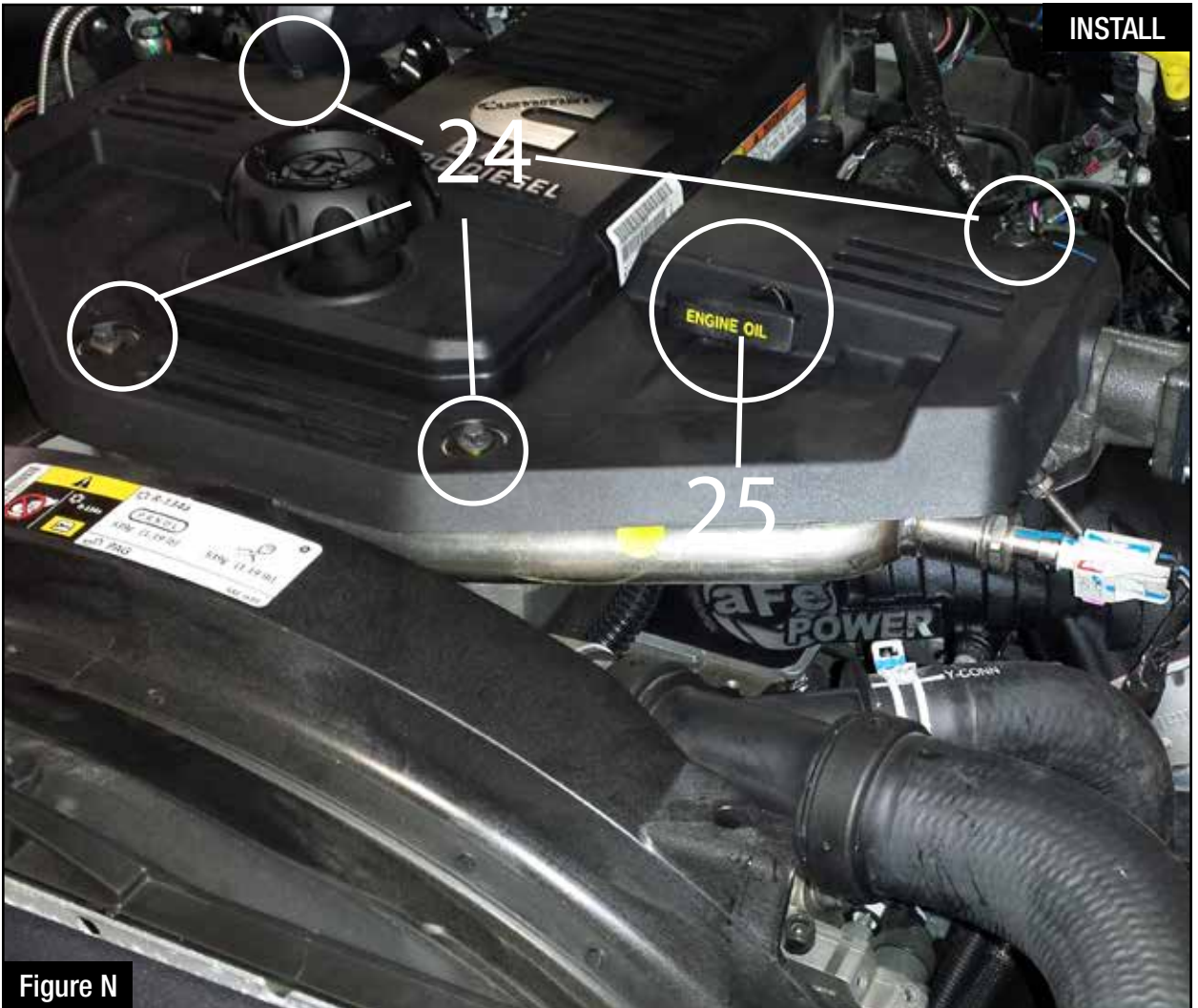
Step 28: Plug in the EGR Temperature Sensor. Lock the Tab on the plug (20).

Step 29: Plug in the EGR Valve Connector (21).

**Figure M****Refer to Figure M for step 30-31**

Step 30: Install the Dipstick Bracket on the aFe Intake Manifold using the two M8x1.25x16mm and two washers. Tighten the bolts using a 6mm allen wrench (make sure the dipstick is removed) (22)

Step 31: Slide the hump hose over the inlet of the aFe Intake Manifold. Tighten the clamp using a 7/16 deep socket (23).

**Figure N****Refer to Figure N for step 32-35**

Step 32: Install the engine cover. Use the four stocks bolts and tighten with an 8mm socket (24) .

Step 33: Install the oil dipstick (25) .

Step 34: Reconnect the batteries.

Step 35: Your Installation is now complete. Please check all electrical connections and all hardware.



aFe Race Manifold



P/N: 46-10072

aFe Intercooler w/ Tubes



P/N: 46-20082

aFe Stage-2 Si Intake



P/N: 75-82035

aFe Stage-2 Intake



P/N: 54-31342-1

aFe Front Differential Cover



P/N: 46-70041

aFe Rear Differential Cover



P/N: 46-70011

aFe Power Glide Guard



P/N: 46-70049

aFe Transmission Pan



P/N: 46-70061

aFe EGR Cooper Delete Kit



P/N: 46-90072

aFe Turbo Down-Pipe



P/N: 49-02009

aFe Race Pipe



P/N: 49-02010

aFe Intercooler Tube



P/N: 46-20089

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"). 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.

Product Category	P/N Prefix	Warranty duration
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.