

advanced FLOW engineering
Instruction Manual P/N: 77-86206

Make: JEEP Model: Wrangler (JL) Year: 2018-2020 Engine: I4-2.0L (t)

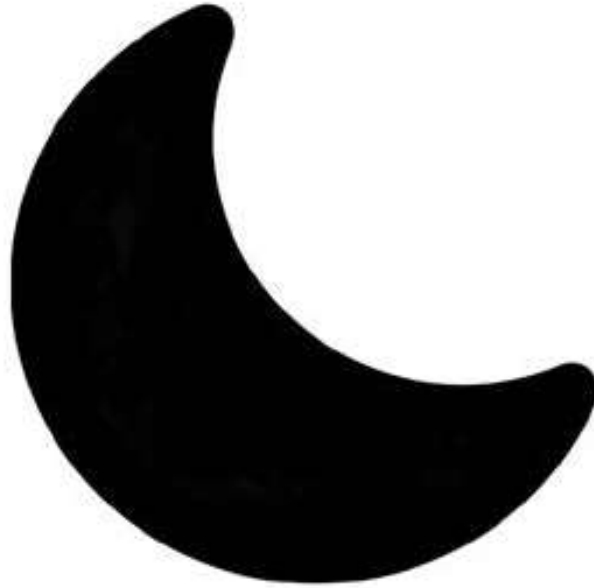


- Please read the entire instruction manual before proceeding.
- Ensure all components listed are present.
- If you are missing any of the components, call customer support at 951-493-7100.
- Ensure you have all necessary tools before proceeding.
- Do not attempt to work on your vehicle when the engine is hot
- Disconnect the negative battery terminal before proceeding.
- Retain factory parts for future use.

Label	Qty.	Description	Part Number
A	1	Module	R77-46206
B	1	LED Switch	05-70029
C	1	Bypass Plug	05-70017
D	1	Harness	AFE-10-116
E	2	Velcro (2 Inches)	05-01244
F	5	Cable Ties	05-60167
G	2	Double Sided Tape	07-90001

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.





SLEEP MODE

Figure A

Refer to Figure A for Step 1.

Step 1: Before installing your aFe module, you will have to place your vehicles ECU in sleep mode. In order to do this, you will need to do the following:

- If the engine is cold, open the hood, close the doors, lock the car and wait 30 seconds.
- If the engine is warm, open the hood, close the doors, lock the car and wait 20 minutes.
- If the engine is warm and you can't wait 20 minutes, disconnect the battery.



Note: Do NOT open the doors or start the vehicle when one of the sensors is disconnected. This could create a check engine light.



Figure B

Refer to Figure B for Step 2.

Step 2: Locate the TMAP and MAP sensor. The TMAP Sensor is located on the charge pipe on the left side of the engine bay (circled above). The MAP sensor is on top of the intake manifold, next to the oil dipstick (circled above).



Figure C

Refer to Figure C for Step 3.

Step 3: Remove large engine cover on top of engine. Loosen small plastic cover on left side of engine bay.

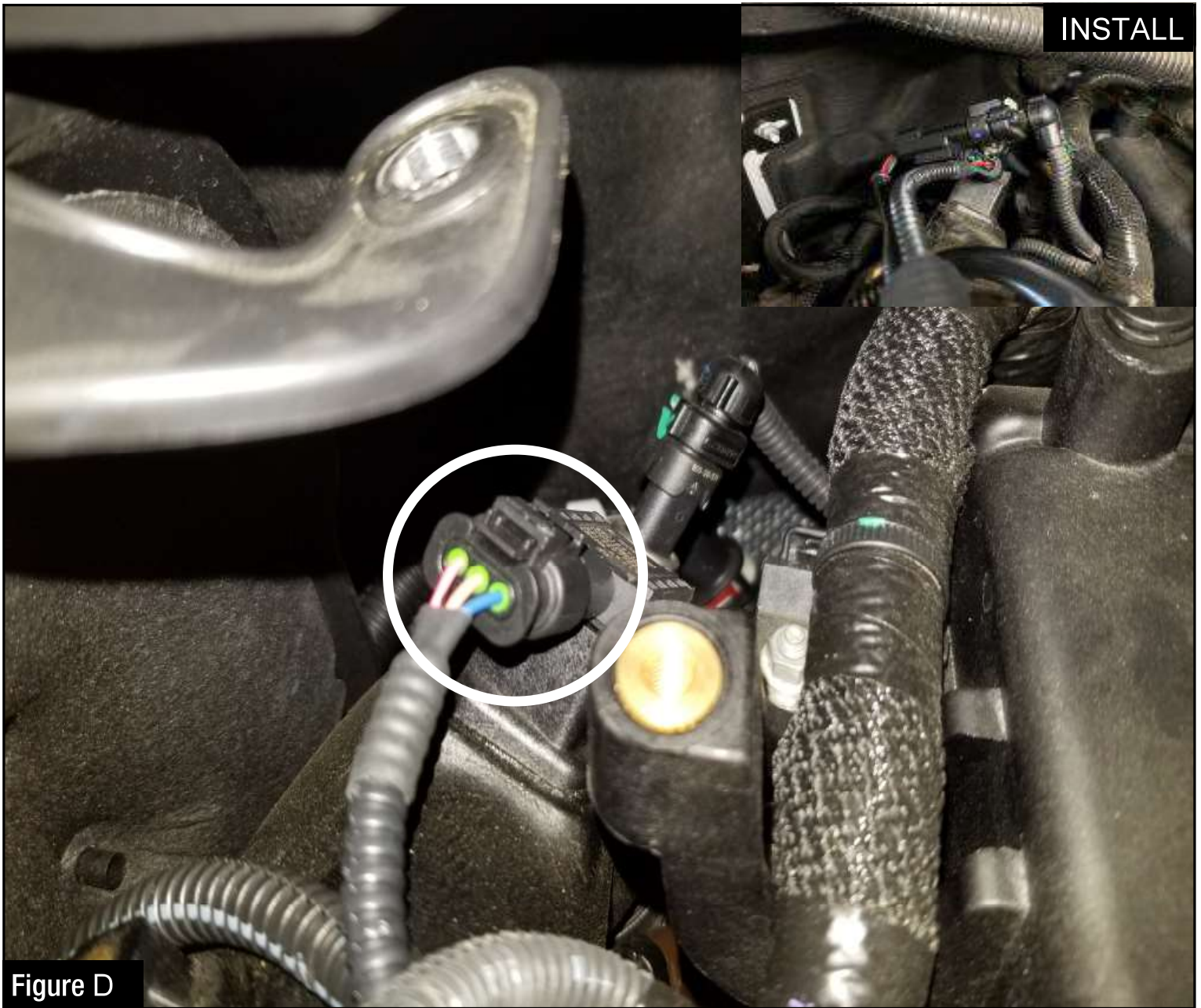


Figure D

Refer to Figure D for Steps 4-5.

Step 4: Locate and disconnect the TMAP sensor.

Step 5: Locate the TMAP sensor jumper harness on the aFe module. This is the shorter part of the harness, each connector has 3 wires. Plug the female connector of the module into the stock TMAP sensor, then take the male connector of the module and connect to the female connector of the engine harness



Note: Make sure connections are fully engaged. Connectors typically make a snapping sound when fully engaged.



Refer to Figure E for Steps 6-7.

Step 6: Locate and disconnect the MAP sensor.

Step 7: Locate the MAP sensor jumper harness on the aFe module. This is the longer harness, each connector has 4 wires. Plug the female connector of the module to the stock MAP sensor, then plug the male connector of the module into female connector of the engine harness.



Figure F

Refer to Figure F for Steps 8-9.

Step 8: Carefully route the switch cable behind steering wheel cover.

Step 9: Mount the Switch on an open, flat surface.



Figure G

Refer to Figure G for Steps 10-12.

Step 10: Route the switch cable through firewall and into the engine bay.

Step 11: Follow the main harness through the grommet into the firewall.

Step 12 : Plug the end of the cable to the module.



Figure H

Refer to Figure H for Steps 13-14.

- Step 13: Connect the black ground terminal cable of the aFe POWER module to the negative battery post, or to the ground on the fender, by removing the 10mm nut and placing the terminal then reinstalling the nut.
- Step 14: Connect the red power terminal cable of the aFe POWER module to the positive battery post by removing the 10mm nut and placing the terminal then reinstalling the nut.

**Figure I**

Refer to Figure I for Step 15.

Step 15: Mount the module in a safe location, using the supplied Velcro strip. Use the provided cable ties to secure module away from any extreme heat and moving parts. Make sure all connections are secured and fully engaged.



Refer to Figure J for Step 14.

Step 14: When turning on the vehicle, the switch will go through all of the light/level settings and it will stop on the setting that was last selected. The LED on the switch represents the different level of power

- Green LED: Stock
- Yellow LED: Sport
- Orange LED: Sport+
- Red LED: Race

Power adjustments can be made at anytime, by using the grey button to select the desired setting

Thank you for choosing aFe POWER!



Figure T

Refer to Figure T (app connection - iOS).

For iOS device, download the app from the apps store. Make sure the Bluetooth is activated on your device. Open the app and it will automatically connect through Bluetooth to the SCORCHER BLUE module when the vehicle and module are on. When connected, the vehicle description will show up on top of the screen and the gauges will show current data.

The blue LED light on the module will become solid once connected to a Bluetooth device. Simply tap on the green, yellow, orange and red button to switch between the modes.

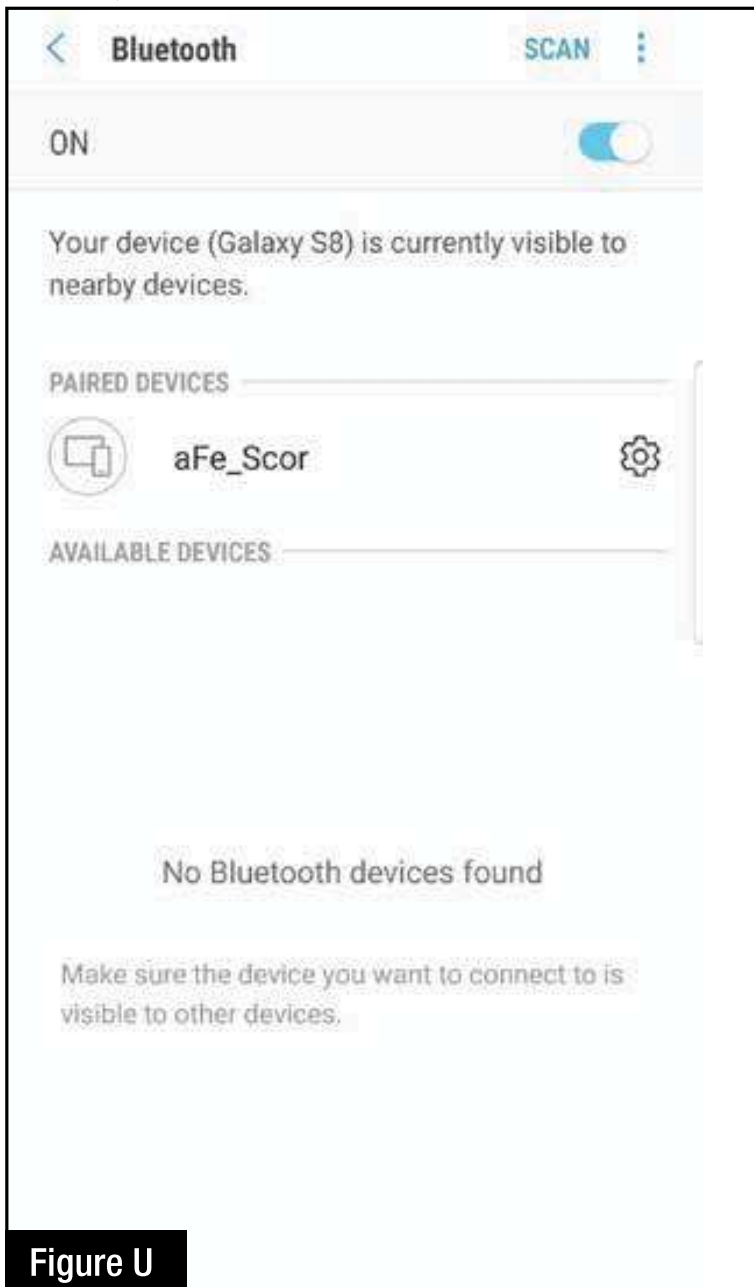


Figure U

Refer to Figure U (app connection- Android).

For Android device, download the app from the play store. For the first connection, go to the Bluetooth settings of your device, turn on Bluetooth and scan for available devices. Select “aFe SCOR” and pair with device. The vehicle needs to be on and the module connected. Once shown as paired device, open the app on your device and it will automatically connect to the vehicle. The vehicle description will appear on top of the screen and the gauges will show current data.

The blue LED light on the module will become solid once connected to a Bluetooth device. Simply tap on the green, yellow, orange and red button to switch between the modes.

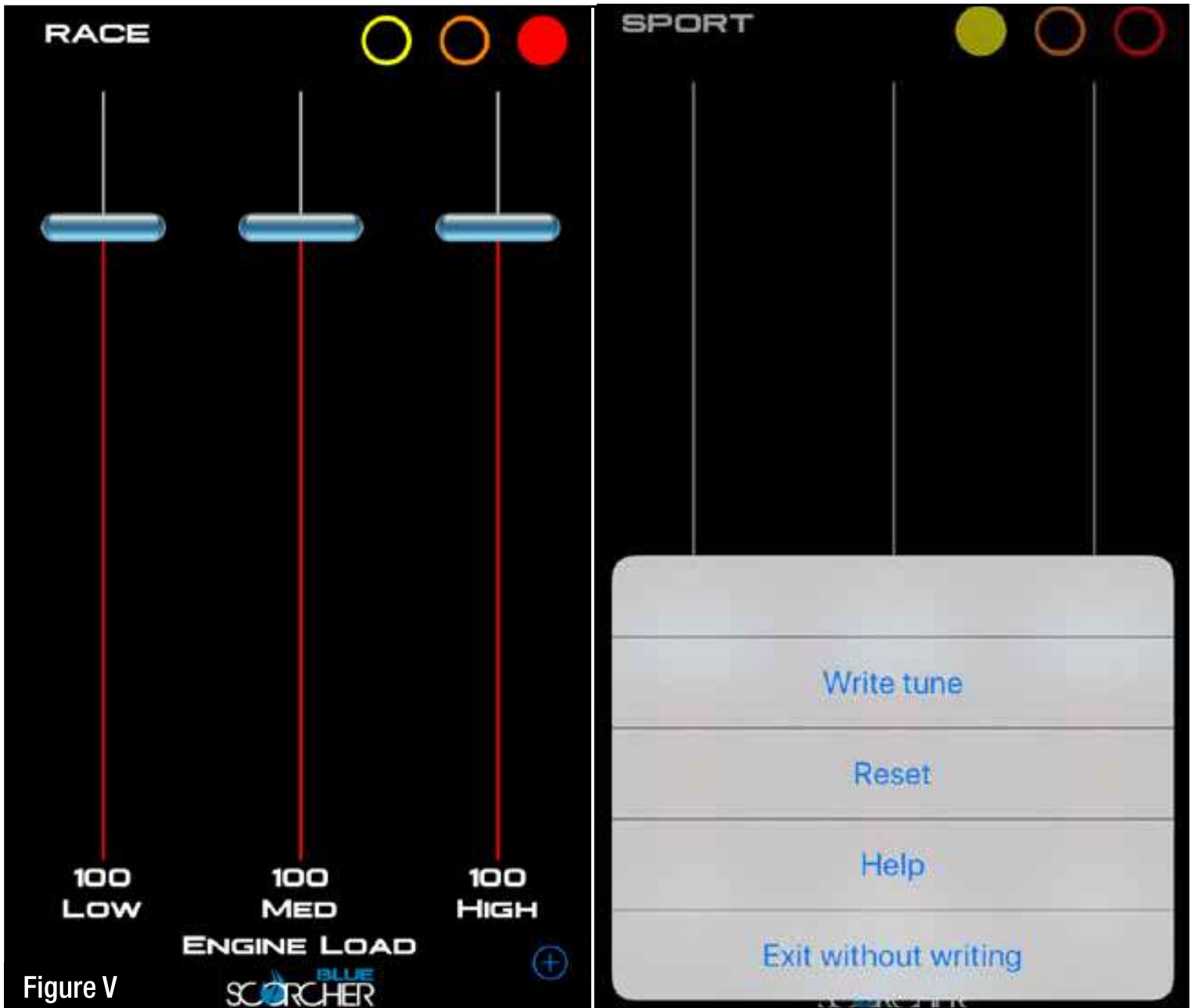


Figure V

Refer to Figure V (Custom Tuning).

The aFe POWER SCORCHER BLUE app offers the capability to custom tune the different modes. Go to the menu on the top right corner and select “Tune”. Select the mode you would like to custom tune and adjust the sliders at low, medium and high load. You can either write the tune or exit without writing.



Disclaimer: Custom tuning should only be performed with the ignition in the “run” position and engine off. Configuring the tunes outside the default values may cause drivability issues and /or check engine lights to occur.



Figure W

Refer to Figure W (Vehicle Performance Screen).

On the gauges screen, swipe to the left to get to the vehicle performance screen. When the vehicle is not moving, select the test you are wanting to attempt (0-60mph, ¼ mile or mile). The app will automatically detect the movement of the vehicle and the timer will start. Once you reach the speed or distance, the timer will stop. If you select a new mode it will reset and you can start again. If you need to stop the test at any point, hit the cancel button and leave the screen.



Use the aFe POWER SCORCHER BLUE app responsibly. Always drive safely and obey traffic laws. aFe POWER is not responsible for any accidents, injuries, or property damage that may occur during its use.

Air Intake System



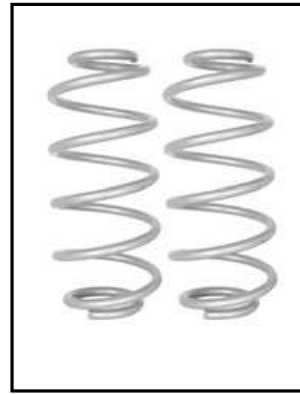
P/N: 50-70035R

Rear Differential Cover with oil



P/N: 46-71001B

Rear Coil Springs



P/N: 37 - S7001R

Cat-Back Exhaust System



P/N: 49-48079

aFe POWER T-Shirt



P/N: 40-30441-B (S)
40-30442-B (M)
40-30443-B (L)
40-30444-B (XL)
40-30445-B (2XL)

To purchase any of the items above, view airflow charts, dyno graphs, photos, and video; please go to aFepower.com.



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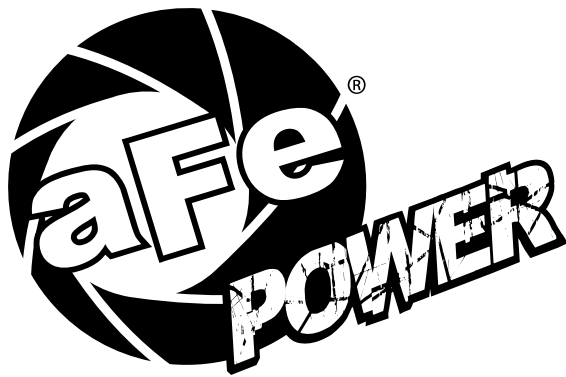
Warranty

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 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.

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, TF	2 years
Air Intake Systems	50, 51, 54, 55, 75, TR.TA, TL	2 years
Exhaust Systems	49	2 years
Intercoolers & Intercooler Tubes	46-2	2 years
Intake Manifolds	46-1	2 years
Differential Cover	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
Tuners	77	1 Year

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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