

advanced FLOW engineering Momentum Cold Air Intake System

Instruction Manual P/N: 51-76307 / 54-76307

Make: **BMW** Model: **328d/dx (F30/F31)** Year: **2014-2018** Engine: **L4-2.0L (Turbo Diesel) N47**
CARB EO D-550-29 for 2014-2017 models.



- Please read the entire instruction manual before proceeding.
- Ensure all components listed are present.
- If you are missing any of the components, call technical support at 951-493-7100 or e-mail tech@afepower.com.
- Ensure you have all necessary tools before proceeding.
- Do not attempt to work on your vehicle when the engine is hot.
- Disconnect both the negative battery terminal before proceeding.

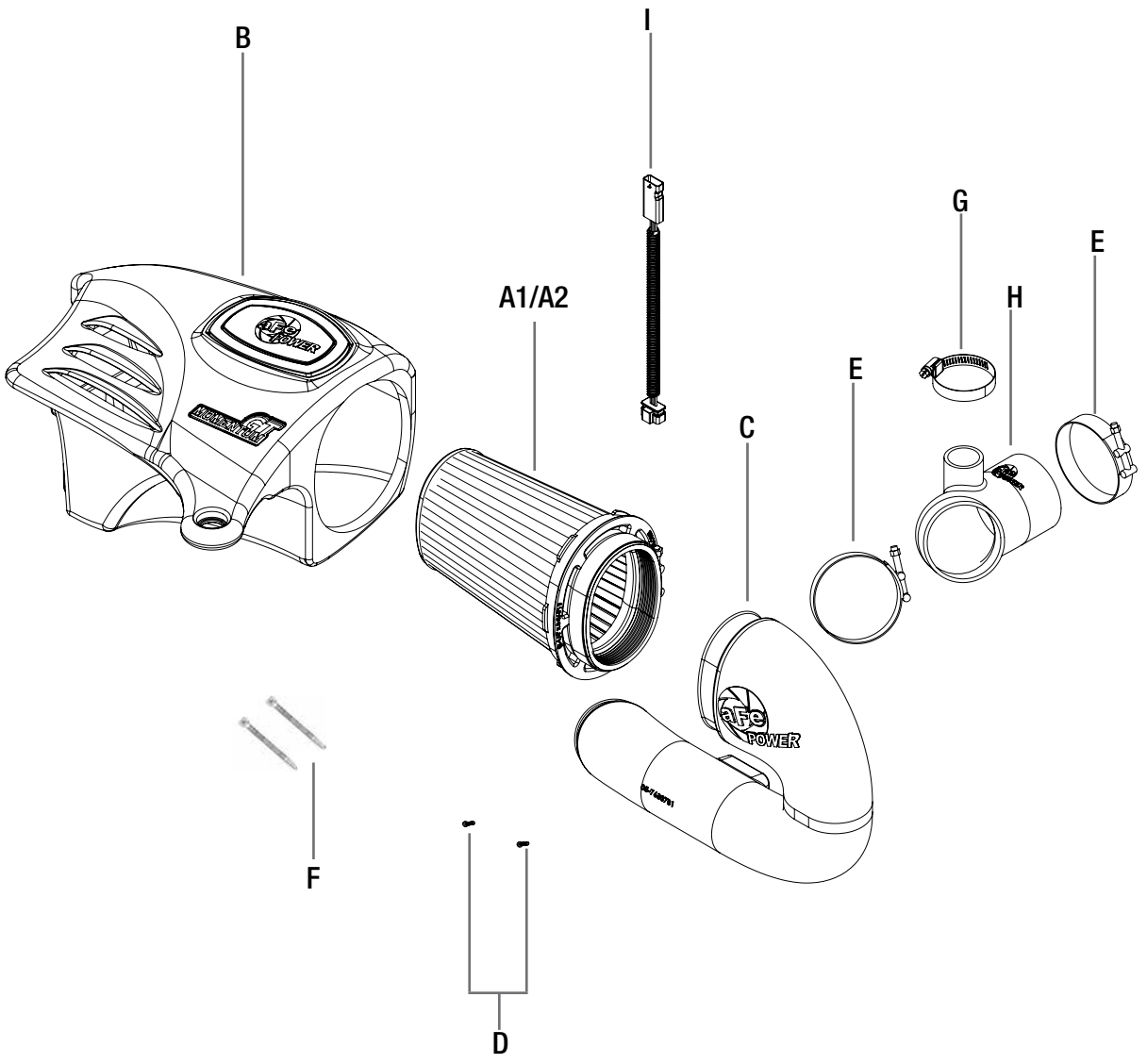
Retain factory parts for future use.

Label	Qty.	Description	Part Number
A1	1	Air Filter (Pro 5R)	24-91106
A2	1	Air Filter (Pro DRY S)	21-91106
B	1	Housing	05-76307B2
C	1	Tube	05-76307B1
D	2	Screw, M4x.7x8	03-50489
E	2	Clamp, T-bolt (SS)	03-50292
F	2	Tie, Nylon Cable	05-60167
G	1	Clamp, #032	03-50016
H	1	Coupling, Elbow Silicone	05-01395
I	1	Extension, MAF Sensor	05-70003

Installation will require the following tools:

Phillips screwdriver & 8mm nut driver, flat head screwdriver, 11mm socket, socket wrench, T20 torx driver.

Note: Not legal for use in California. The use of this device in any on-road or off-road vehicles registered with the California Dept of Motor Vehicles (DMV) is strictly prohibited.





Refer to Figure A for Steps 1-4

Step 1: Disconnect the MAF sensor harness ①.

Step 2: Loosen the clamp between the OE air box and tube ②.

Step 3: Pull the complete OE housing up to disconnect the auxiliary hose ③.

Step 4: Remove the complete housing from the vehicle.

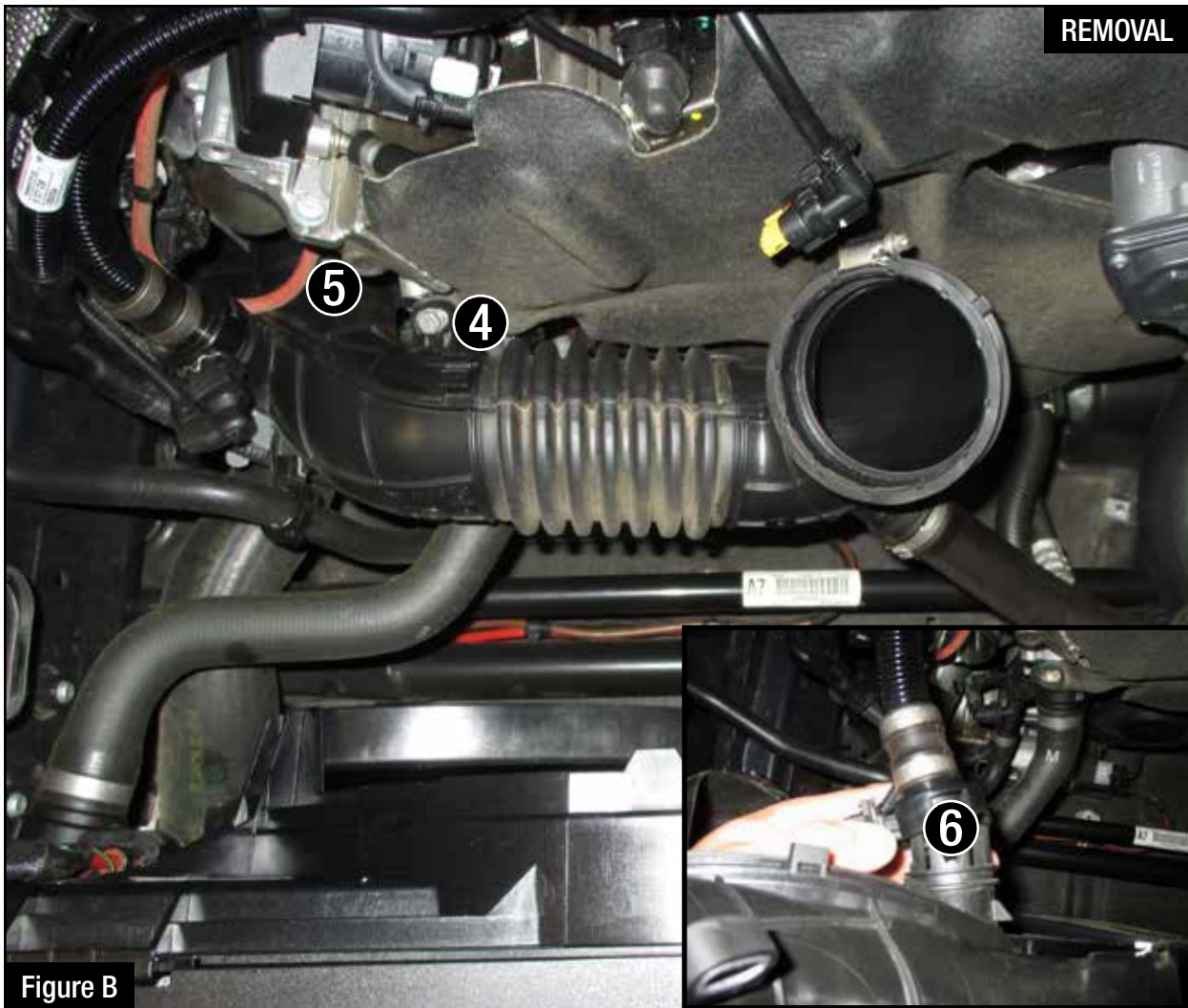


Figure B

Refer to Figure B for Step 5-7

Step 5: Remove the OE screw from the tube. (4)

Step 6: Unclip the tube from the turbo inlet. (5)

Step 7: Carefully, disconnect the OE breather hose from the OE tube. (6)



Figure C

Refer to Figure C for Steps 6-9

Step 6: Remove the MAF sensor from the OE housing.

Step 7: Install the MAF sensor into the aFe tube using the furnished M4 screws. (7)

Step 8: Install the three supplied clamps onto the aFe coupling. Do not tighten any clamps at this time.

Step 9: Connect the male end of the supplied MAF harness extension to the female OE sensor.

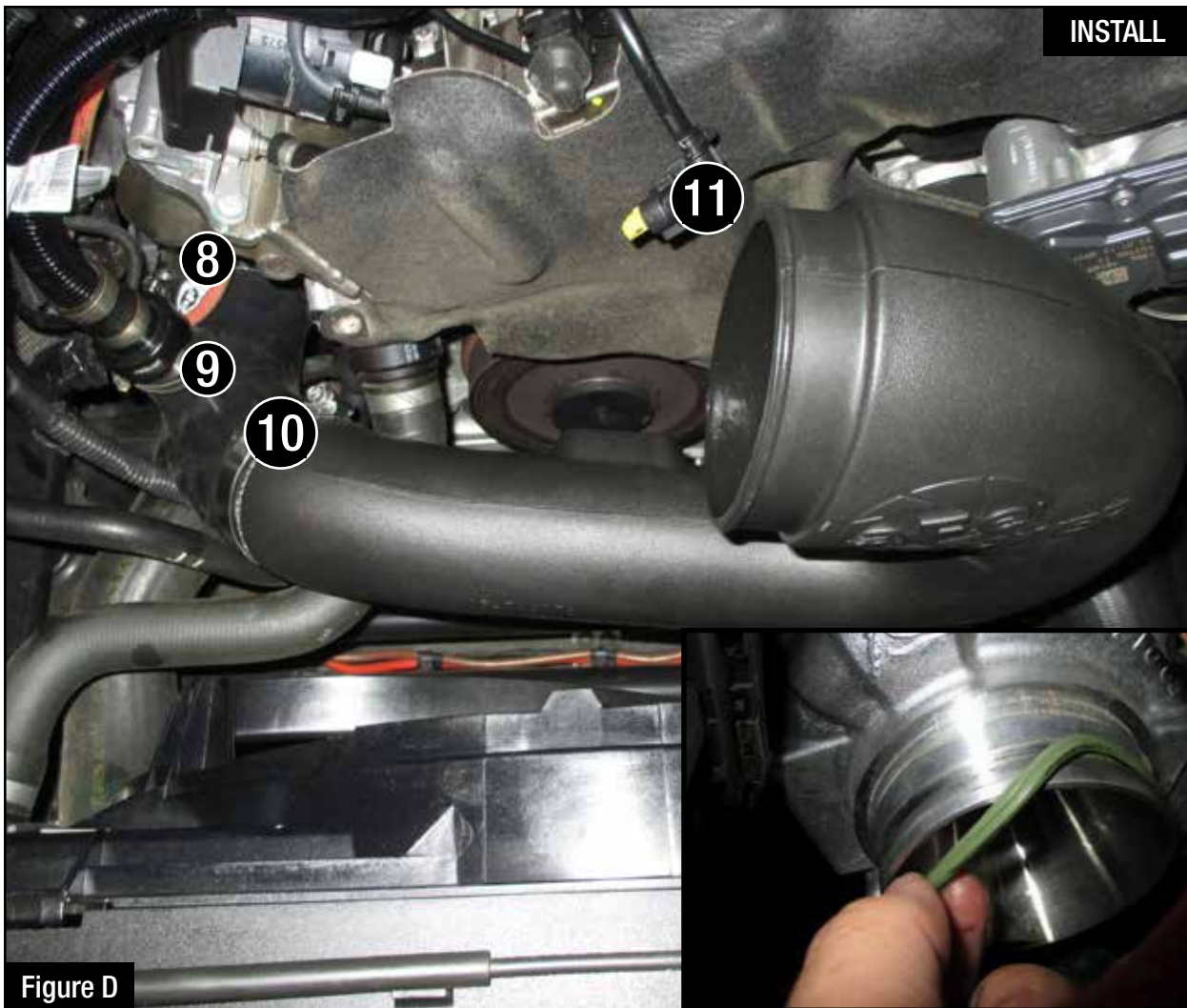


Figure D

Refer to Figure D for Steps 10-14

Step 10: Remove the OE O-ring from the turbo inlet.

Step 11: Install the aFe coupling. Place the T-bolt clamp flush to the turbo's wall. Then, rotate the coupling so it does not touch any nearby hoses. Tighten the T-bolt clamp. ⑧

Step 12: Insert the OE breather hose into the aFe coupling. Tighten the clamp. ⑨

Step 13: Insert the aFe tube. Tighten the T-bolt clamp. ⑩

Step 14: Connect the female end of extension harness to the male end of the OE MAF sensor. ⑪



Figure E

Refer to Figure E for Steps 15-16

Step 15: Install the aFe filter onto the aFe air box.

Step 16: Remove the OE grommet from the OE air box and install it onto the aFe air box. ⑫



Figure F

Refer to Figure F for Steps 17-20

Step 17: Install the aFe air box assembly into the vehicle.

Step 18: Connect the air filter to the intake tube using the furnished clamp. ⑬

Step 19: Secure the extension harness to the vehicle with the supplied zip ties.

Step 20: Your installation is now complete. Thank you for choosing aFe Power!

NOTE: Check all clamps, and connectors after 200 miles.



Pro DRY S Air Filter



P/N: 21-91072

Pro 5R Air Filter



P/N: 24-91072

Pro DRY S Restore Kit



P/N: 90-59999

Blue Squeeze Restore Kit



P/N: 90-50501

Dynamic Air Scoop



P/N: 54-12218 (Black)
54-12218-C (Carbon Fiber)
54-12218-L (Blue)
54-12218-R (Red)

SCORCHER GT Module



P/N: 77-46320

Intercooler



P/N: 46-20301

aFe Motorsport T-Shirt



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

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

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	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	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

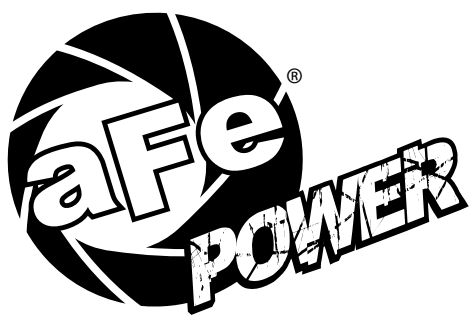
No other warranty expressed or implied applies nor is any person or advanced FLOW engineering authorized to assume any other warranty. Some States do not allow the exclusion or limitation of incidental or consequential damages or do not allow limitations on how long an implied warranty lasts, so the 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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Instruction Manual P/N: 77-46320

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- Retain factory parts for future use.

Label	Qty.	Description	Part Number
A	1	Module	R77-46320
B	1	LED Switch	05-70029
C	2	Velcro (2 Inches)	05-01244
D	4	Cable Ties	05-60167

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.

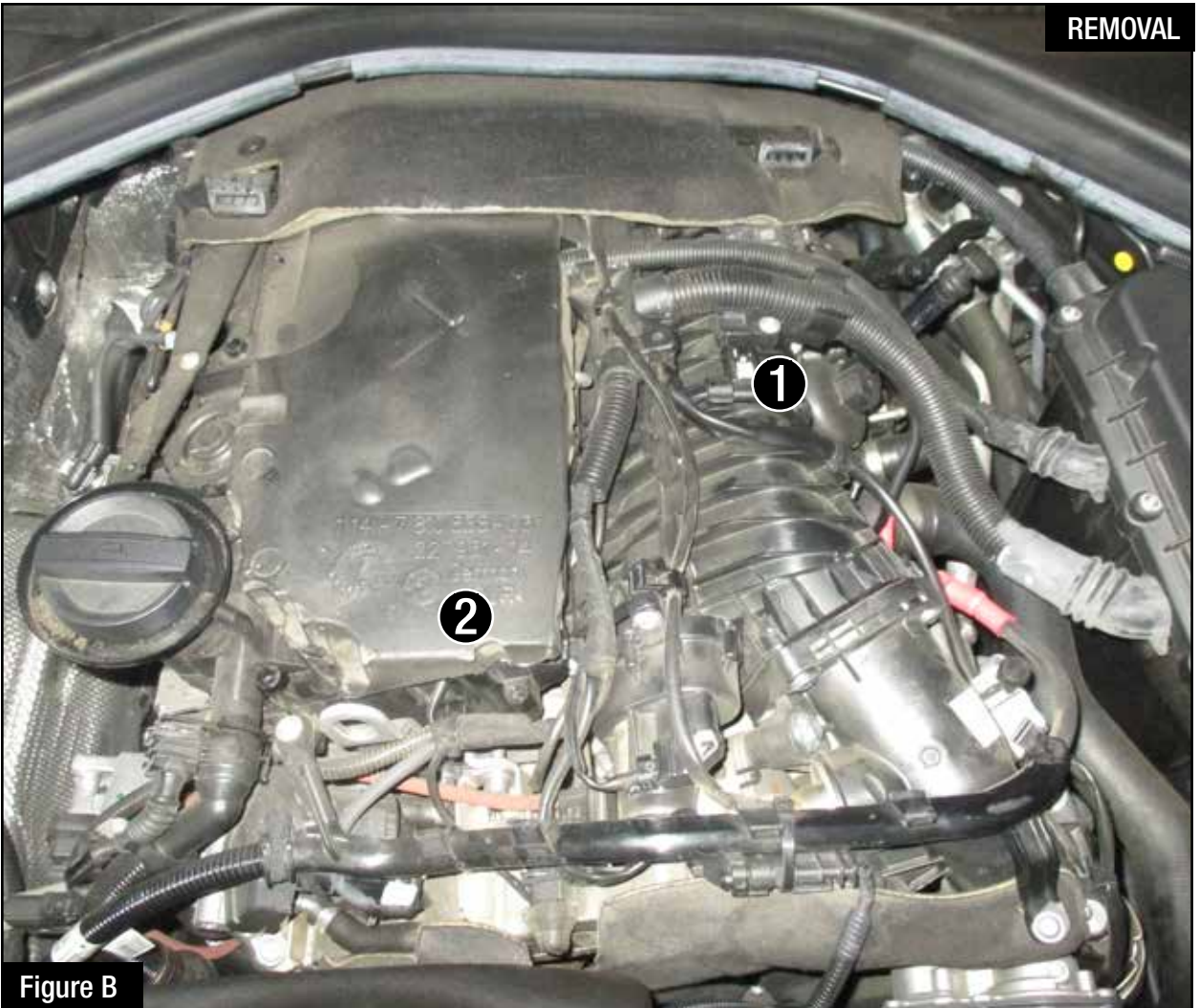


Figure B

Refer to Figure B for Steps 2-3.

Step 2: Remove engine cover and foam insulation to gain access to the sensors.

Step 3: Locate the MAP sensor (1) and the fuel pressure sensor (2). The Map sensor is located on top of the intake manifold. The fuel pressure sensor is located on the end of the fuel rail towards the front of the engine.



Figure C

Refer to Figures C for Steps 4-5.

Step 4: Disconnect the MAP sensor.

Step 5: Locate the MAP sensor jumper harness on the aFe module. This is the shortest harness. Plug the female connector of the module into the stock MAP sensor, then the male connector of the module into the female connector of the engine harness.



Note: Make sure connections are fully engaged. Usually, connectors make a snapping sound when fully engaged.



Figure D

Refer to Figure D for Steps 6-7.

Step 6: Disconnect the fuel pressure sensor.

Step 7: Locate the fuel pressure sensor jumper harness on the aFe module. This is the longer harness. Plug the female connector of the module into the stock fuel pressure sensor, then take the male connector of the module and connect to the female connector of the engine harness.



Figure E

Refer to Figure E 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 F

Refer to Figure F for Steps 10-11.

Step 10: Remove the push clip on the driver side windshield cover.

Step 11: Unlock the three 10mm nuts retaining the windshield cover and remove

**Figure G****Refer to Figure G for Steps 12-14.**

Step 12: Remove the two 10mm nuts holding the foot trim panel.

Step 13: Route the switch cable through firewall and into the engine bay. Follow the main harness through the grommet into the firewall. Plug the end of the cable to the module.

Step 14: Re-install foot trim panel.



Figure H

Refer to Figure H for Steps 15-17.

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

Step 16: Re-install windshield cover, refer to Steps 10-11.

Step 17: Re-install foam insulation and engine cover.

**Figure 1****Refer to Figure 1 for Step 18.**

Step 18: When turning on the vehicle, the switch will go through the light. It will stop at its last setting.

The LED on the switch represents the different level of power.

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

Use the grey button to select the desired setting. Power adjustments can be done at any moment.

Thank you for choosing aFe POWER!

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OE Replacement Air Filter



P/N: 30-10225 (P5R)
31-10225 (PDS)

Air Intake System



P/N: 54-76307 (P5R)
51-76307 (PDS)

Dynamic Air Scoop



P/N: 54-12218 (Black)
54-12218-C (C/F)
54-12218-R (Red)
54-12218-L (Blue)

Intercooler



P/N: 46-20301

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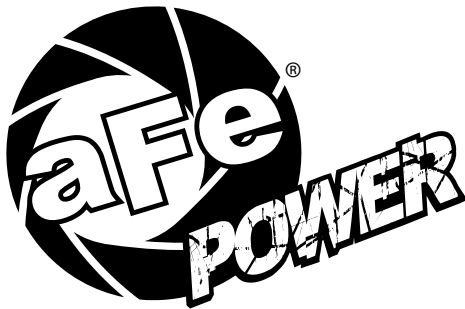
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Heavy Duty OE Replacement	70	2 years
PowerSports OE Replacement	81, 87	2 years
PowerSports Intake Systems	85	2 years
Tuners	77	1 year

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.



advanced FLOW engineering, inc.

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