

advanced FLOW engineering

Instruction Manual P/N: 54-12218 / 54-12218-C / 54-12218-L / 54-12218-R

Make: **BMW** Model: **328i/ix (F30/F31)**

Make: **BMW** Model: **320i/ix (F30/F31)**

Make: **BMW** Model: **330i/ix 340i/ix (F30/F31)**

Make: **BMW** Model: **420i/ix 428i/ix (F32/F33/F36)**

Make: **BMW** Model: **430i/ix 440i/ix (F32/F33/F36)**

Year: **2012-2016**

Year: **2012-2018**

Year: **2017-2019**

Year: **2014-2016**

Year: **2017-2019**

Engine: **L4-2.0L (Turbo) N20/N26**

Engine: **L4-2.0L (Turbo) N20/B48**

Engine: **L4-2.0L (Turbo) B48/L6-3.0L (Turbo) B58**

Engine: **L4-2.0L (Turbo) N20**

Engine: **L4-2.0L (Turbo) B46/L6-3.0L (Turbo) B58**

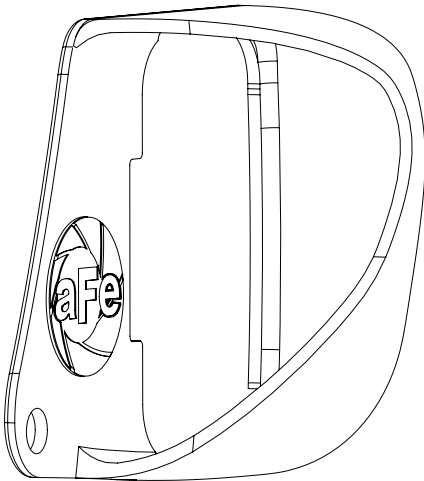


- Please read the entire instruction manual before proceeding.
- Ensure all components listed are present.
- If you are missing any of the components, call customer support at 951-493-7100.
- Ensure you have all necessary tools before proceeding.
- Do not attempt to work on your vehicle when the engine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

Label	Qty.	Description	Part Number
A1	1	Scoop (Black)	05-12218B1 (Only for 54-12218)
A2	1	Scoop (Carbon Fiber)	05-12218C1 (Only for 54-12218-C)
A3	1	Scoop (Blue)	05-12218L1 (Only for 54-12218-L)
A4	1	Scoop (Red)	05-12218R1 (Only for 54-12218-R)
B	1	Retainer Clip	05-01197

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.

A1 / A2 / A3 / A4



B





Figure A

Refer to Figure A for Step 1.

Step 1: Remove the seal trim on the front bumper rail ①.

**Figure B****Refer to Figure B for Steps 2-3.**

Step 2: Remove the (5) T25 and the (2) T20 screws securing the top part of the bumper (2).

Step 3: Gently pull forward the top edge of the front bumper. Slide your hand inside to access the press tabs holding the passenger side kidney grill.

**Figure C****Refer to Figure C for Steps 4-5.**

Step 4: Remove the factory passenger side kidney grill by pulling on tabs.

Step 5: Remove the factory grill off the air inlet (5) .



Figure D

Refer to Figure D for Steps 6-8.

Step 6: Install the aFe air scoop over the air inlet.

Step 7: Re-install the factory grill over the air inlet (7).

Step 8: Install the retainer clip furnished (8).



Figure E

Refer to Figure E for Steps 9-10.

Step 9: Re-install the factory kidney grill.

Step 10: Your installation is now complete.

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Air Intake System



P/N: 54-12212 (P5R) N20
54-12212 (PDS) N20

Momentum Air Intake System



P/N: 54-82212 (P5R) N20
51-82212 (PDS) N20

Throttle Body Spacer



P/N: 46-31009 (N20/N26)

Sprint Booster



P/N: 77-16301 (A/T)
77-16302 (M/T)

Twisted Steel Header



P/N: 48-46303 (N20)

Cat-Back Exhaust System



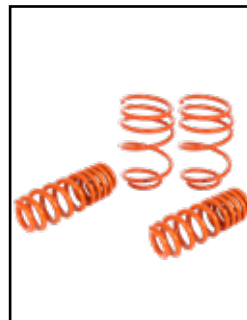
P/N: 49-46310-B (Blk. Tips)
49-46310-P (Pol. Tips)
(N20 Engines Only)

SCORCHER Module



P/N: 77-46303 (N20/N26)

Lowering Springs



P/N: 410-503005-N (N20/N26)

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

Warranty

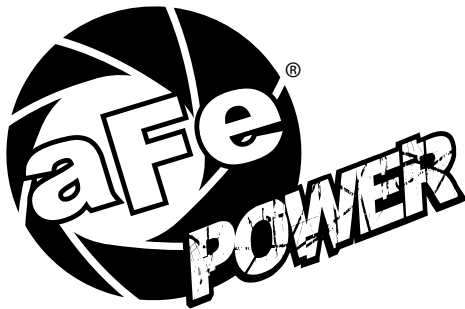
General Terms:

- 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.
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- 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.

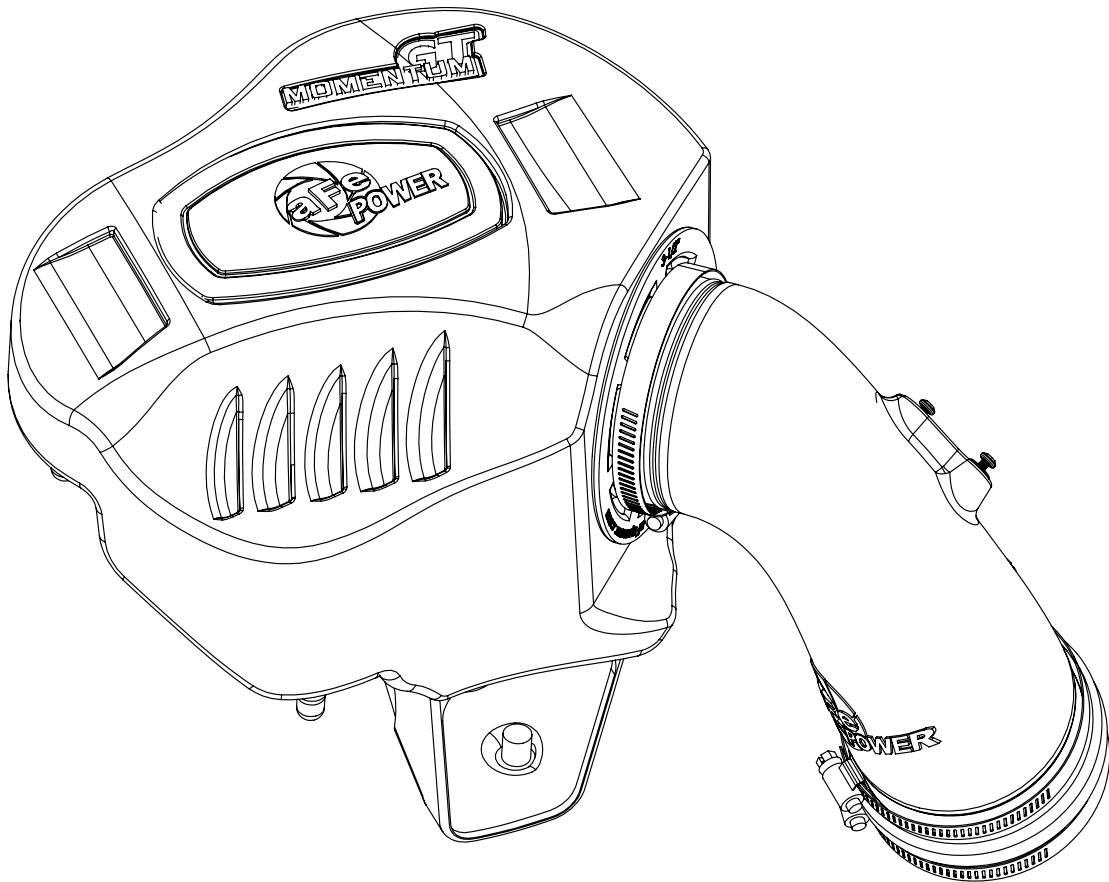
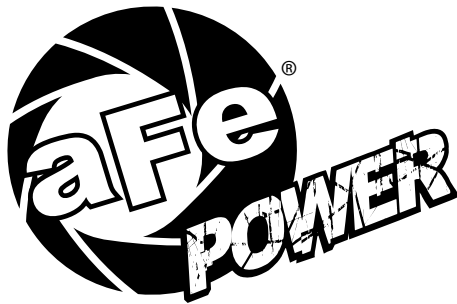
Product Category	P/N Prefix	Warranty duration
Direct OE Replacement Filters	10, 11, 30, 31, 71, 73	Life of the vehicle
Racing Filters	18	1 year
Universal	21, 24, 72, TF	2 years
Air Intake Systems	50, 51, 54, 55, 75, TR, TA, TL	2 years
Exhaust Systems	49	2 years
Intercoolers & Intercooler Tubes	46-2	2 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
Turbochargers	46-6	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

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*See turbocharger warranty for more info



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TEL: 951.493.7100 • TECH: 951.493.7134
E-Mail: Tech@aFepower.com



advanced FLOW engineering

Instruction Manual P/N: 51-76309 / 54-76309

Make: **BMW** Model: **340i/ix/GT (F30/F31/F34)**

Year: **2016-2019** Engine: **L6-3.0L (t) B58**

Make: **BMW** Model: **440i/ix/Gran Coupe (F32/F33/F36)**

Year: **2016-2019** Engine: **L6-3.0L (t) B58**

Make: **BMW** Model: **M140i/M240i (F20/F21/F22/F23)**

Year: **2016-2017** Engine: **L6-3.0L (t) B58**



- 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.

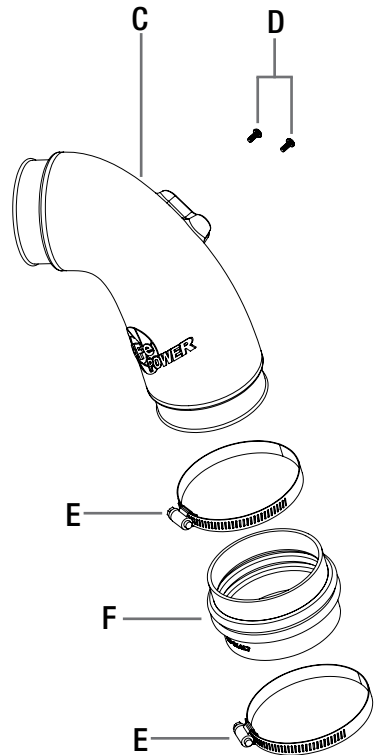
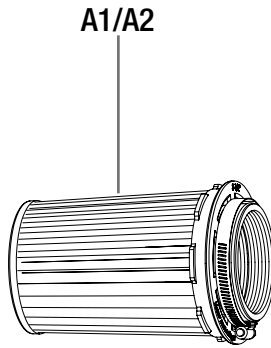
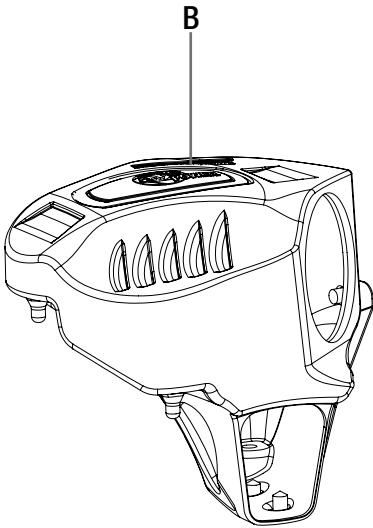
Retain factory parts for future use.

Label	Qty.	Description	Part Number
A1	1	Air Filter (Pro 5R)	24-91103
A2	1	Air Filter (Pro DRY S)	21-91103
B	1	Housing	05-76309B2
C	1	Tube	05-76309B1
D	2	Screw, Torx: M4	03-50490
E	2	Clamp, #060	03-50002
F	1	Coupling, Silicone Dbl. Hump	05-01417
G	1	Mount, Rubber	03-50534

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 1-3

- Step 1: Untighten the clamp securing the tube to the factory airbox and disconnect the Mass Air Flow (MAF) sensor.
- Step 2: Pull the factory airbox out of the vehicle.
- Step 3: Untighten the clamp securing the intake tube to the turbo inlet tube, then take the intake tube out of the vehicle.



Figure B

Refer to Figure B for Steps 4-5

Step 4: Install the aFe filter into the aFe housing by firmly pushing it until it snap in. Install the clamp on the filter, but do not tighten as this time.

Step 5: Install the provided grommet into the small hole at the bottom of the aFe housing.



Figure C

Refer to Figure C for Step 6

Step 6: Verify the two factory grommets stayed in their location when you removed the factory airbox. If necessary, re-install them.

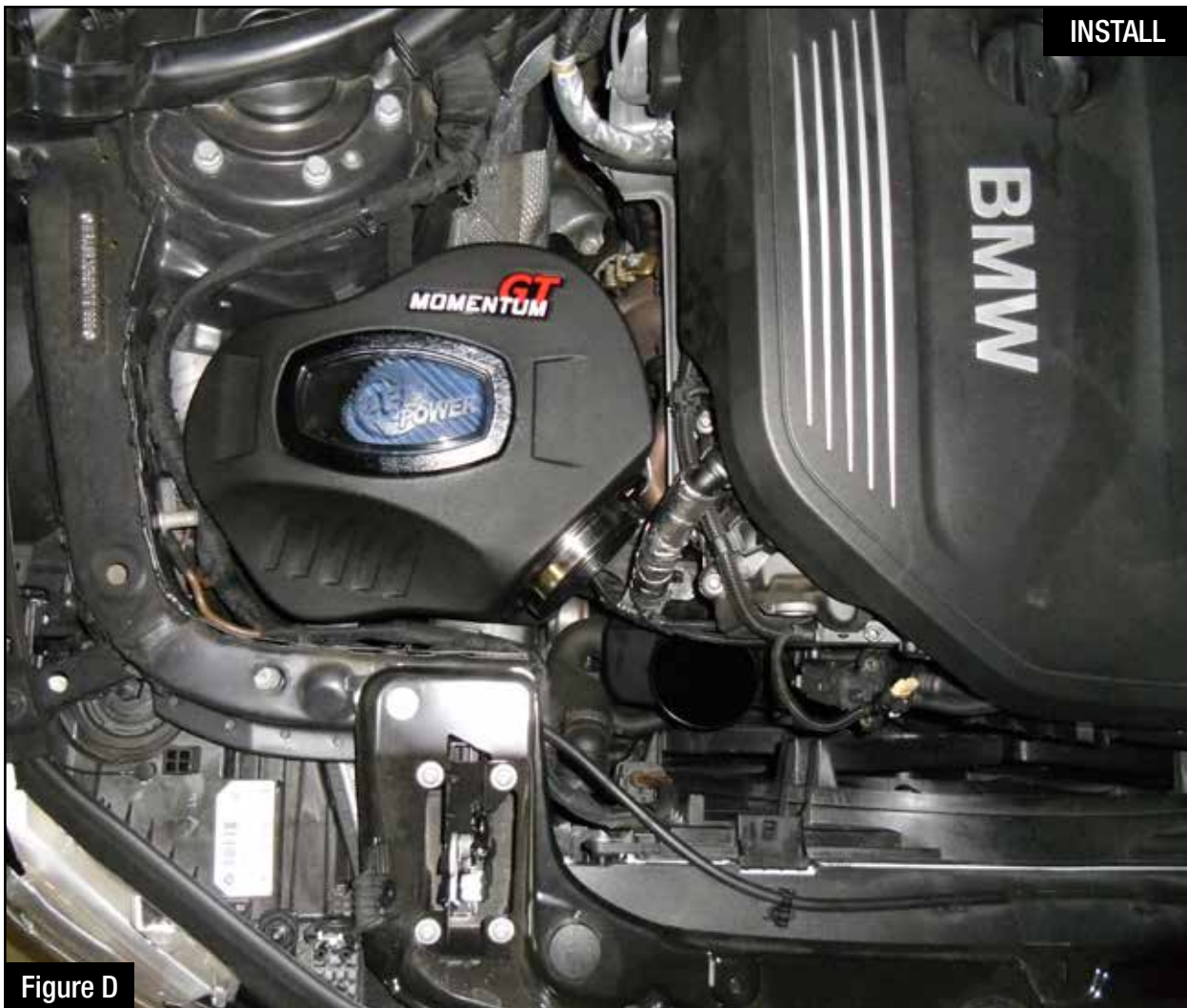


Figure D

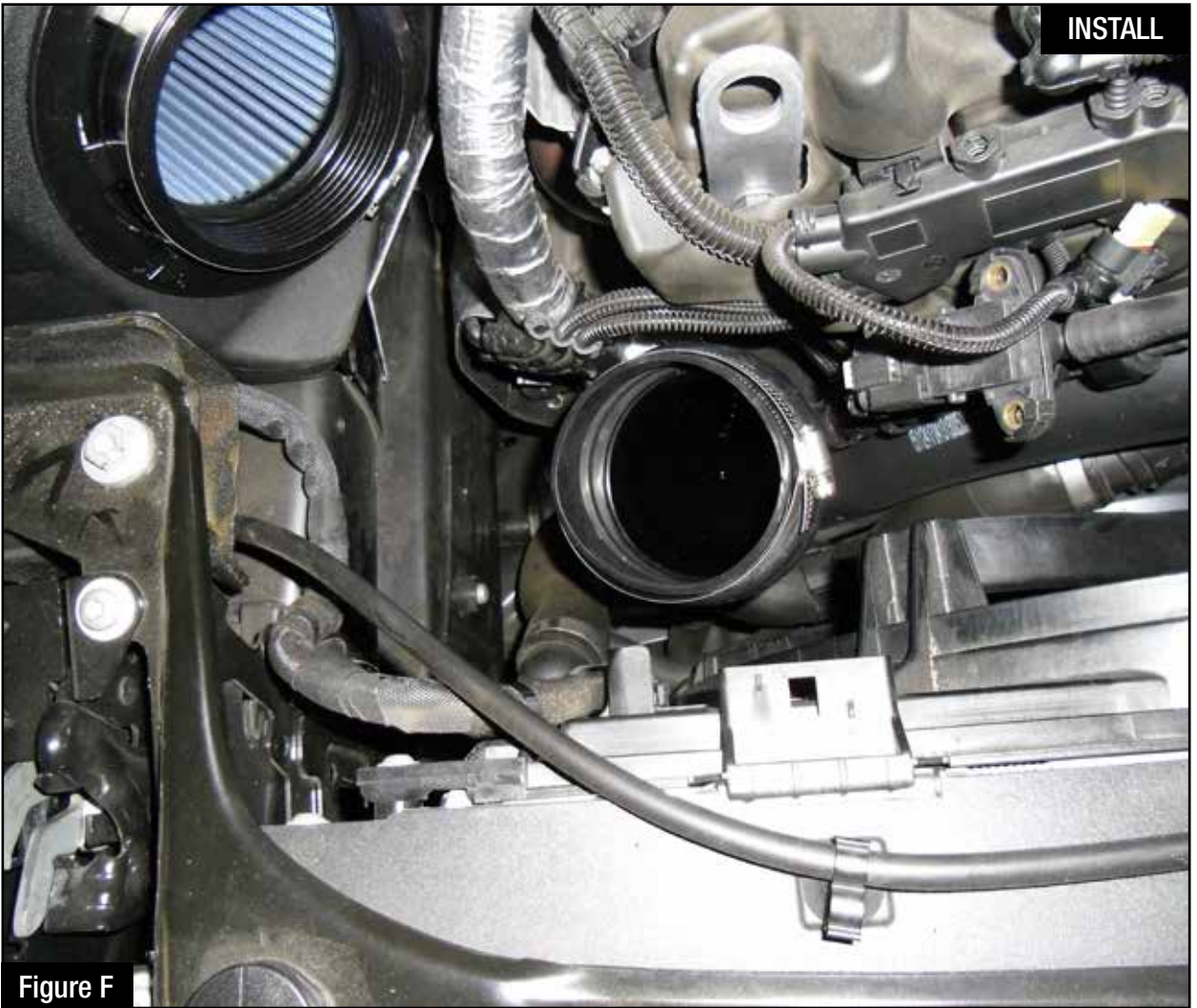
Refer to Figure D for Step 7

Step 7: Install the aFe housing assembly by firmly pushing it into the grommets.



Refer to Figure E for Step 8

Step 8: Transfer the MAF sensor from the factory airbox to the aFe intake tube. Secure it using the provided screws.



Refer to Figure F for Step 9

Step 9: Install the aFe coupling over the factory turbo inlet. Install the clamps but do not tighten at this time.



Refer to Figure G for Steps 10-11

Step 10: Install the aFe tube into the vehicle by sliding it in the coupling first then into the filter.

Step 11: Align the tube, coupling and filter then tighten all clamps.



Figure F

Refer to Figure H for Steps 12-13

Step 12: Re-connect the MAF sensor harness.

Step 13: Your installation is now complete. Thank you for choosing aFe Power!

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



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Pro DRY S Air Filter



P/N: 21-91103

Pro 5R Air Filter



P/N: 24-91103

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)

Turbo Downpipe



P/N: 48-36317-HC (Street)
48-36317-HN (Race)

SCORCHER GT Module



P/N: 77-46318

Axle-Back Exhaust



P/N: 49-36335-P (Pol. Tips)
49-36335-B (Blk. Tips)

Cat-Back Exhaust



P/N: 49-36334-P (Pol. Tips)
49-36334-B (Blk. Tips)

aFe Motorsport T-Shirt



P/N: 40-30442-B (M)
40-30443-B (L)

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

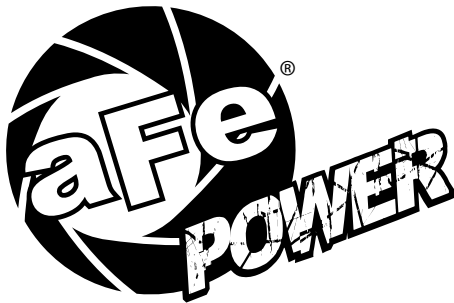
Warranty

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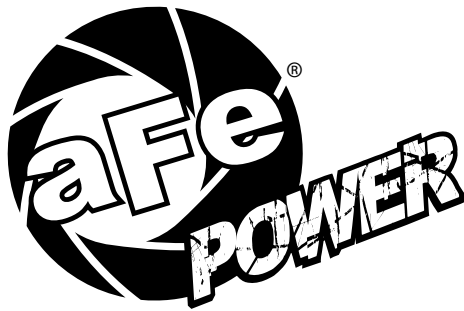
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Racing Filters	18	1 year
Universal	21, 24, 72	2 years
Air Intake Systems	50, 51, 54, 55, 75	2 years
Exhaust Systems	49	2 years
Intercoolers & Intercooler Tubes	46-2	2 years
Intake Manifolds	46-1	2 years
Differential Cover	46-7	Life of the vehicle
Exhaust 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

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advanced FLOW engineering

Instruction Manual P/N: 77-46318

Make: BMW	Model: 330i/ix 340i/ix/GT (F3X)	Year: 2016-2019	Engine: L6-3.0L (t) B58
Make: BMW	Model: 430i/ix/GT 440i/ix/Gran Coupe (F3X)	Year: 2016-2019	Engine: L6-3.0L (t) B58
Make: BMW	Model: 220i/ix 230i/ix (F2X)	Year: 2017-2019	Engine: L4-2.0L (t) B46/B48
Make: BMW	Model: M240i/ix (F2X)	Year: 2016-2019	Engine: L6-3.0L (t) B58



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Label	Qty.	Description	Part Number
A	1	Module	R77-46318
B	1	LED Switch	05-70005
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.



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

Step 1: Locate the MAP ① and TMAP sensors ②. The MAP sensor is located on top of the intake manifold under the engine cover, the TMAP sensor is located on the charge pipe on the front of the engine.

**Figure B****Refer to Figure B for Steps 2-3.**

Step 2: Remove the engine cover to gain access to the MAP sensor then disconnect the MAP sensor.

Step 3: Locate the MAP sensor jumper harness on the aFe module. This is the shortest harness with four wires on each connector. Plug the male connector of the module to the stock MAP sensor, then the female connector of the module male connector of the engine harness.

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



Refer to Figures C 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 longer harness with three wires on each connector. Plug the male connector of the module to the stock TMAP sensor, then take the female connector of the module and connect to the male connector of the engine harness.



Figure D

Refer to Figure D for Steps 6-7.

Step 6: Carefully route the switch cable behind steering wheel cover.

Step 7: Mount the Switch where desired on an open, flat surface.



REMOVAL



Figure E

Refer to Figure E for Steps 8-10.

Step 8: Remove the two 10mm nuts holding the foot trim panel.

Step 9: 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 10: Re-install foot trim panel.



Figure F

Refer to Figure F for Step 11.

Step 11: Mount the module in a safe location with adequate hood clearance, using the supplied Velcro strip. Then, secure the wires and module away from any extreme heat and moving parts, with the provided ties. Make sure all connections are secured and fully engaged.



Refer to Figure G for Step 12.

Step 12: 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: 30-10270 (P5R)
31-10270 (PDS)

Air Intake System



P/N: 54-76309 (P5R)
51-76309 (PDS)

Axle-Back Exhaust System



P/N: 49-36335-B (Blk Tips)
49-36335-P (Pol Tips)

Cat-Back Exhaust System



P/N: 49-36334-B (Blk Tips)
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PowerSports OE Replacement	81, 87	2 years
PowerSports Intake Systems	85	2 years
Tuners	77	Contact aFe

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