advanced FLOW engineering

Instruction Manual P/N: 77-46316

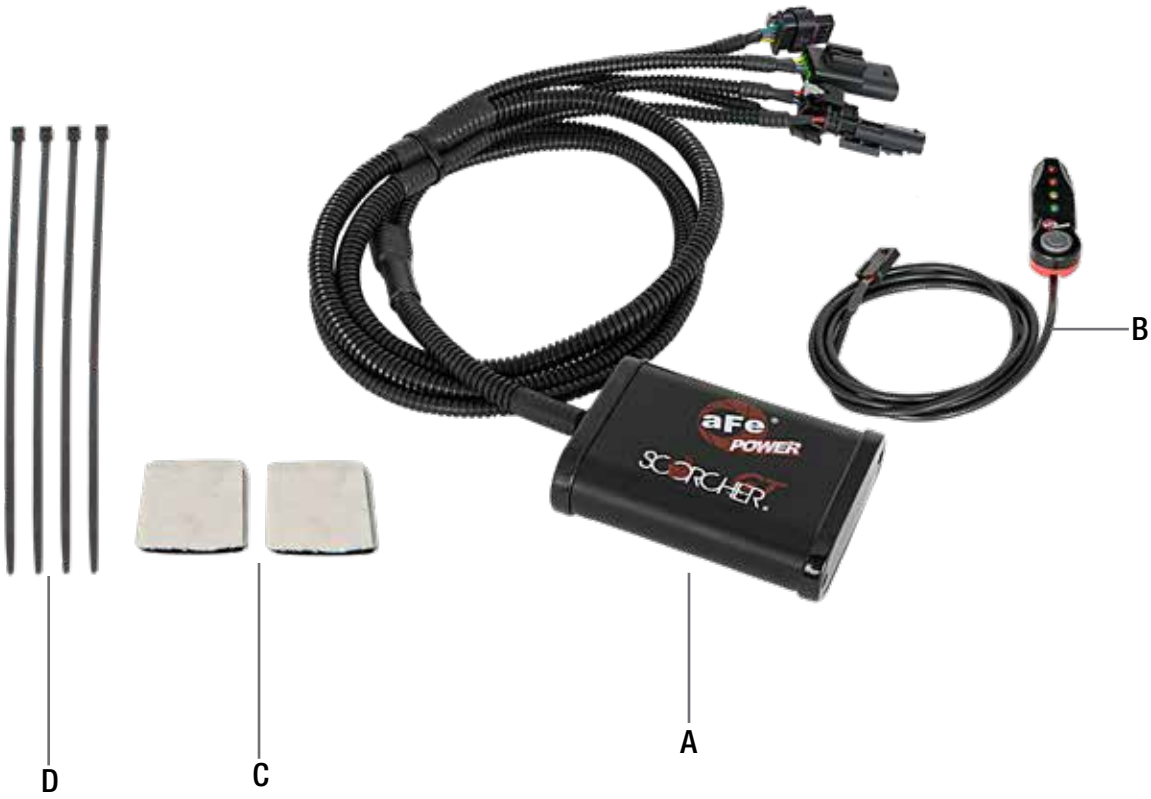
Make: **BMW** Model: **125i/220i/ix/228i/ix (F2X)** Year: **2012-2016** Engine: **L4-2.0L (t) N20**
Make: **BMW** Model: **328i/ix/GT/420i/ix/428i/ix (F3X)** Year: **2012-2016** Engine: **L4-2.0L (t) N20**
Make: **BMW** Model: **430i/ix/GT (F3X)** Year: **2017-2020** Engine: **L4-2.0L (t) N20**
Make: **BMW** Model: **528i/ix/Li/Lix (F1X)** Year: **2010-2017** Engine: **L4-2.0L (t) N20**
Make: **BMW** Model: **X1 28i/ix/X3 28i/ix/X4 28ix (E84/F2X)** Year: **2012-2018** Engine: **L4-2.0L (t) N20**
Make: **BMW** Model: **Z4 28i (E89)** Year: **2011-2016** Engine: **L4-2.0L (t) N20**

- **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 951-493-7185.**
- **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	R77-46316
B	1	LED Switch	05-70029
C	2	Velcro (2 Inches)	05-01244
D	4	Cable Ties	05-60167

Warranty Information available at: https://afepower.com/contact#warranty

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.


aFe
POWER
SCORCHER GT
A
B
C
D

REMOVAL

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.

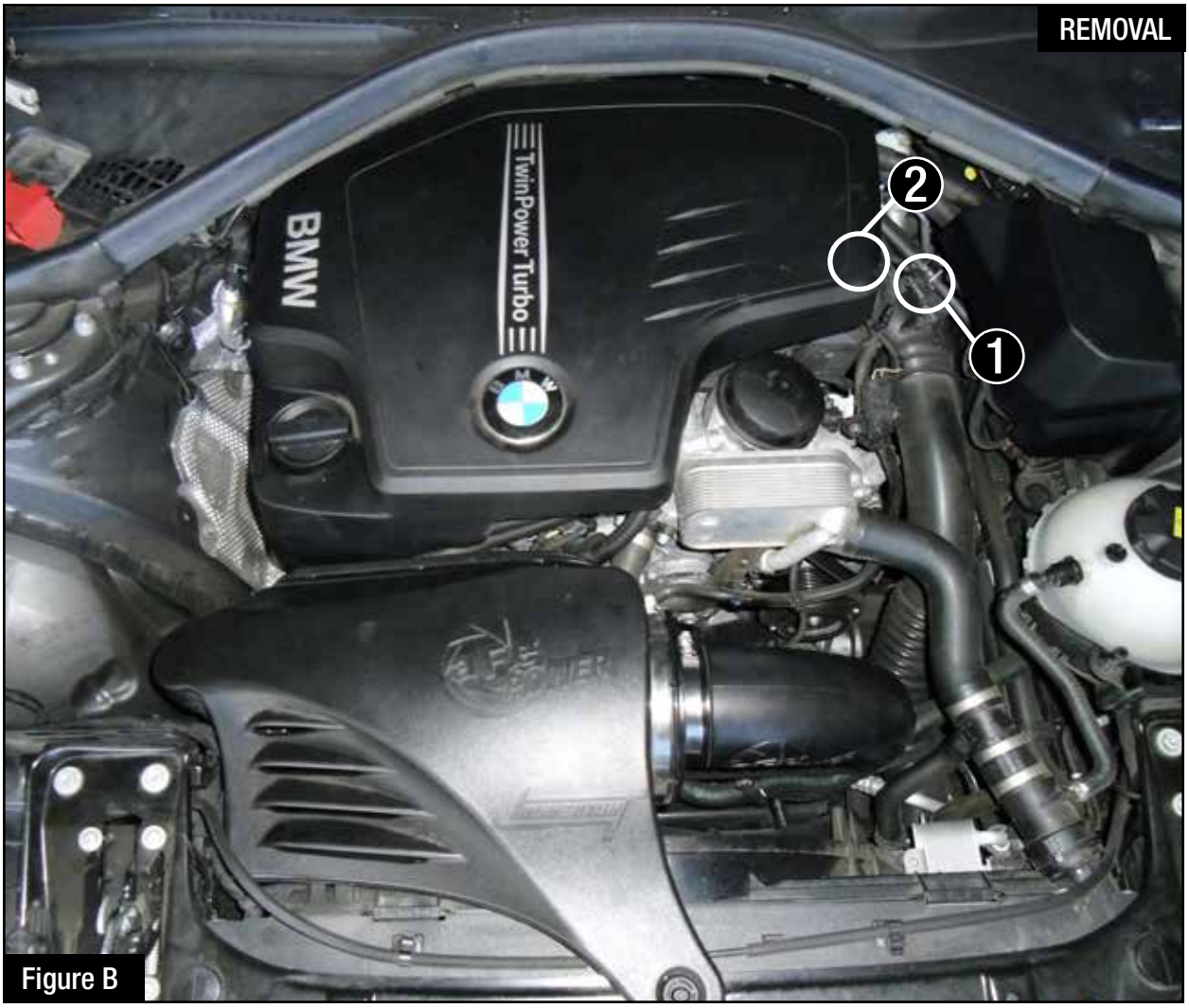


Figure B

Refer to Figure B for Step 2.

Step 2: Locate the TMAP (1) and MAP 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, just before the throttle body.

Figure C

Refer to Figure C for Steps 3-4.

Step 3: Remove the engine cover to gain access to the MAP sensor then disconnect the MAP sensor.

Step 4: Locate the MAP sensor jumper harness on the aFe module. This is the shortest harness with three wires on each connector. Plug the female connector of the module to the stock MAP sensor, then the male connector of the module 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 Figures D for Steps 5-6.

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 four 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 E

Refer to Figure E for Steps 7-8.

Step 7: Carefully route the switch cable behind steering wheel cover.

Step 8: Mount the Switch where desired on an open, flat surface.

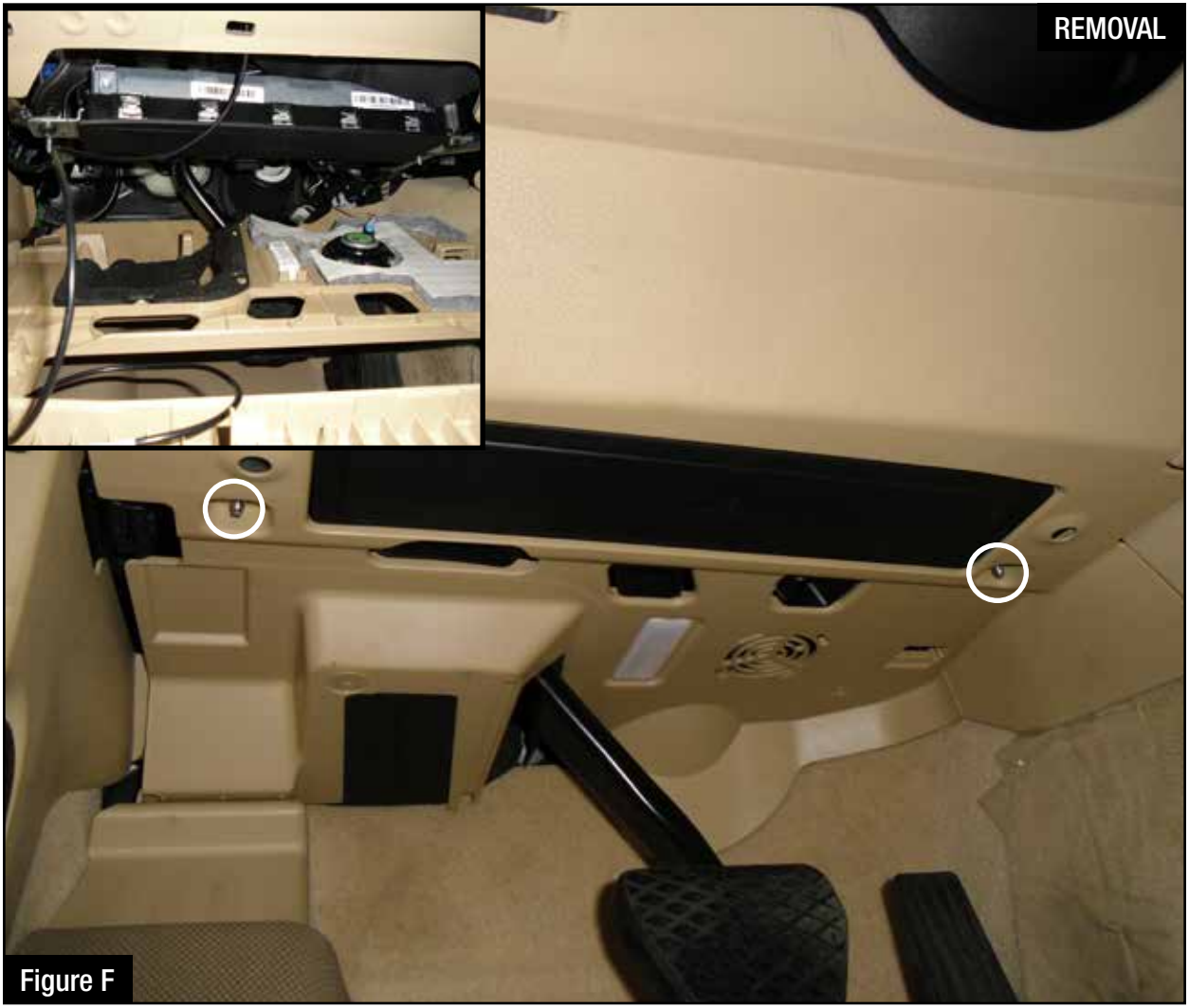


Figure F

Refer to Figure F for Steps 9-11.

Step 9: Remove the two 10mm nuts holding the foot trim panel.

Step 10: 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 11: Re-install foot trim panel.

Figure G

Refer to Figure G for Step 12.

Step 12: 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.

Figure H

Refer to Figure G for Step 13.

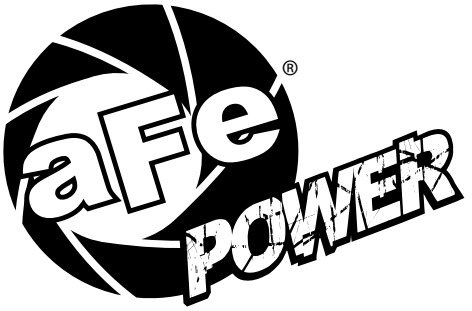
Step 13: When turning on the vehicle, the switch will go through the light. It will stop at its last setting.

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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