



advanced FLOW engineering

Instruction Manual P/N: 77-46321

Make: **BMW** Model: **550i/650i/750i (F1X/FOX)** Year: **2011.5-2012** Engine: **V8-4.4L (tt) N63** Sensor **2**



- 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	Module	R77-46321
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.





The 2009-2012 BMW's with the N63 engine came with two styles of TMAP sensors depending on your vehicles build date. Please use the photos below to confirm which style sensors your vehicle is equipped with and confirm you have the correct module. The breaking year is 2011. Vehicles before mid 2011 have the sensor 1 style. Vehicles after mid 2011 have the sensor 2 style.

Sensor Style 1 TMAP Sensor



Sensor Style 2 TMAP Sensor





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: Installation photos are from a 2015 BMW X5 xDrive 50i N63 V8-4.4L (tt).



Refer to Figures B for Steps 2-3.

Step 2: Locate both intercoolers and remove factory airbox, air duct or other components to get access to them. There is an intercooler on the driver side and passenger side. You need to get access to the TMAP located on each intercooler.

Step 3: Locate both TMAP sensors. The TMAP sensors are located on the intercooler bank. Verify you have the correct module according to the sensor pictures at the beginning of the install instruction. If you have the wrong module, you will not be able to connect to them.

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

Step 4: Disconnect the TMAP sensor on the driver side.

Step 5: Locate the driver side TMAP sensor jumper harness on the aFe module. This is the shorter harness. 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.

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



Refer to Figure D for Steps 6-7.

Step 6: Disconnect the TMAP sensor on the passenger side.

Step 7: Locate the TMAP sensor jumper harness on the aFe module. This is the longer harness. Plug the male connector of the module to the stock TMAP sensor, then the female connector of the module male 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 Step 10.

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.



Figure G

Refer to Figure G for Steps 11-12.

Step 11: Mount the module in a safe location on the driver side, 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.

Step 12: Reinstall the components removed on Step 2.

**Figure H****Refer to Figure H 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!



Sprint Booster



P/N: 77-16304

SCORCHER GT Module



P/N: 77-46322 (Sensor 1)