advanced FLOW engineering
Instruction Manual P/N: 77-86317

Make: **BMW** Model: **M2 (F87)** Year: **2016-2018** Engine: **L6-3.0L Turbo (N55)**

Label	Qty.	Description	Part Number
A	1	Module	R77-86317
B	1	LED Switch	05-70029
C	1	Bypass Plug	05-70017
D	1	Harness	AFE-10-203
E	2	Velcro (2" Inches)	05-01244
F	5	Cable Ties	05-60167
G	2	Double Sided Tape	07-90001

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.

B   A   D

F   E   G   C

SLEEP MODE

Figure A

Refer to Figure A for Step 1.

Step 1: Before installing your aFe POWER module, you must place your vehicle's ECU in sleep mode. In order to place your vehicles ECU in sleep mode 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 while any of the sensors are disconnected. This could cause a check engine light.
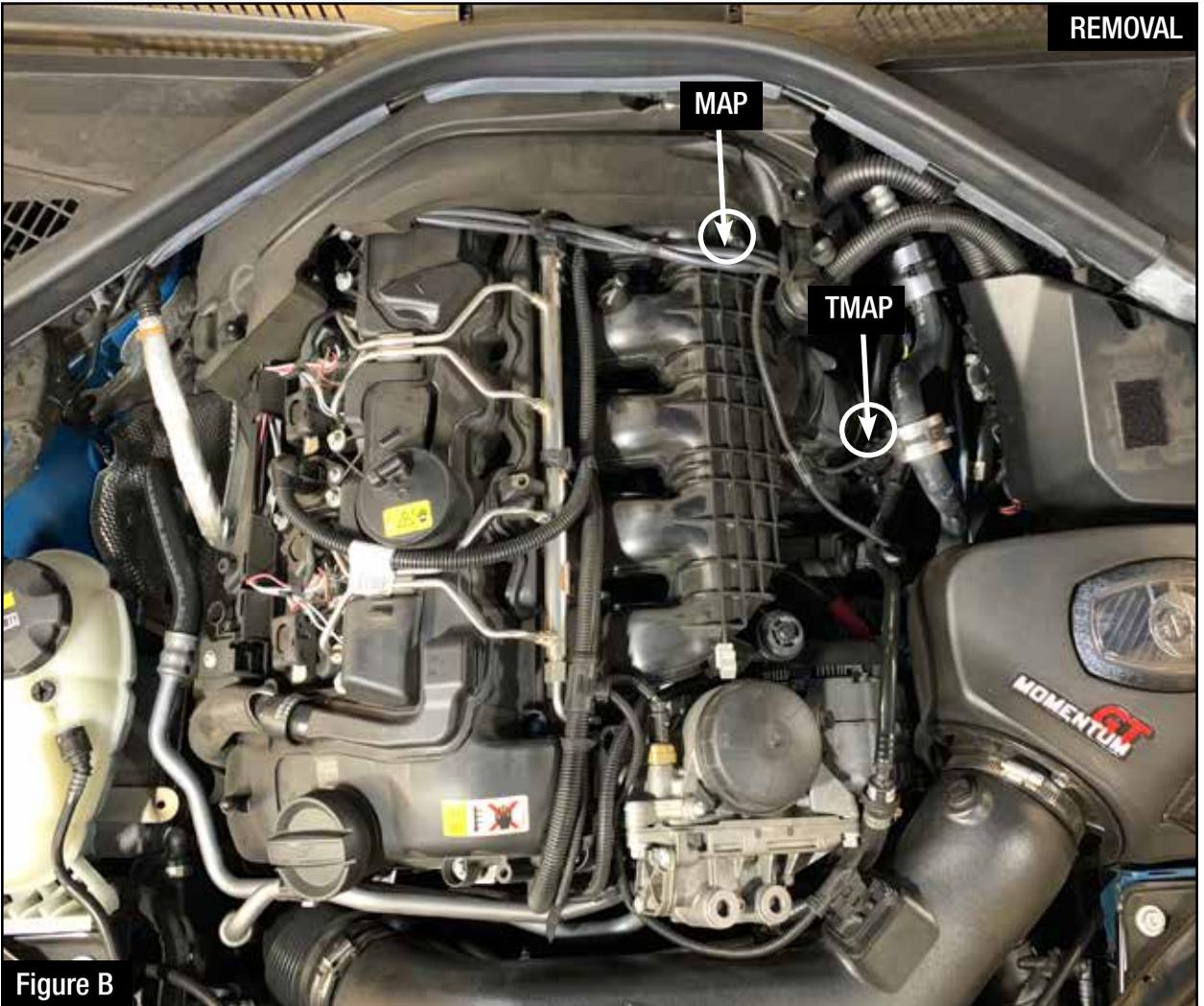
Figure B

Refer to Figure B for Steps 2-3.

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

Step 3: Locate the TMAP and MAP sensors. The TMAP sensor is located driver side on the charge pipe just before the throttle body. The MAP sensor is located on top of the intake manifold, underneath foam insulation.

Figure C

Refer to Figures C for Steps 4-5.

Step 4: Locate and disconnect the MAP sensor connector by pressing down on the locking tab and sliding the connector out of the sensor.

Step 5: Locate the MAP sensor jumper harness on the aFe Power harness. This is the harness with three wires in each connector. Plug the female connector of the aFe Power harness into the MAP sensor, then take the male connector of the aFe Power harness and connect to the female connector of the engine harness.
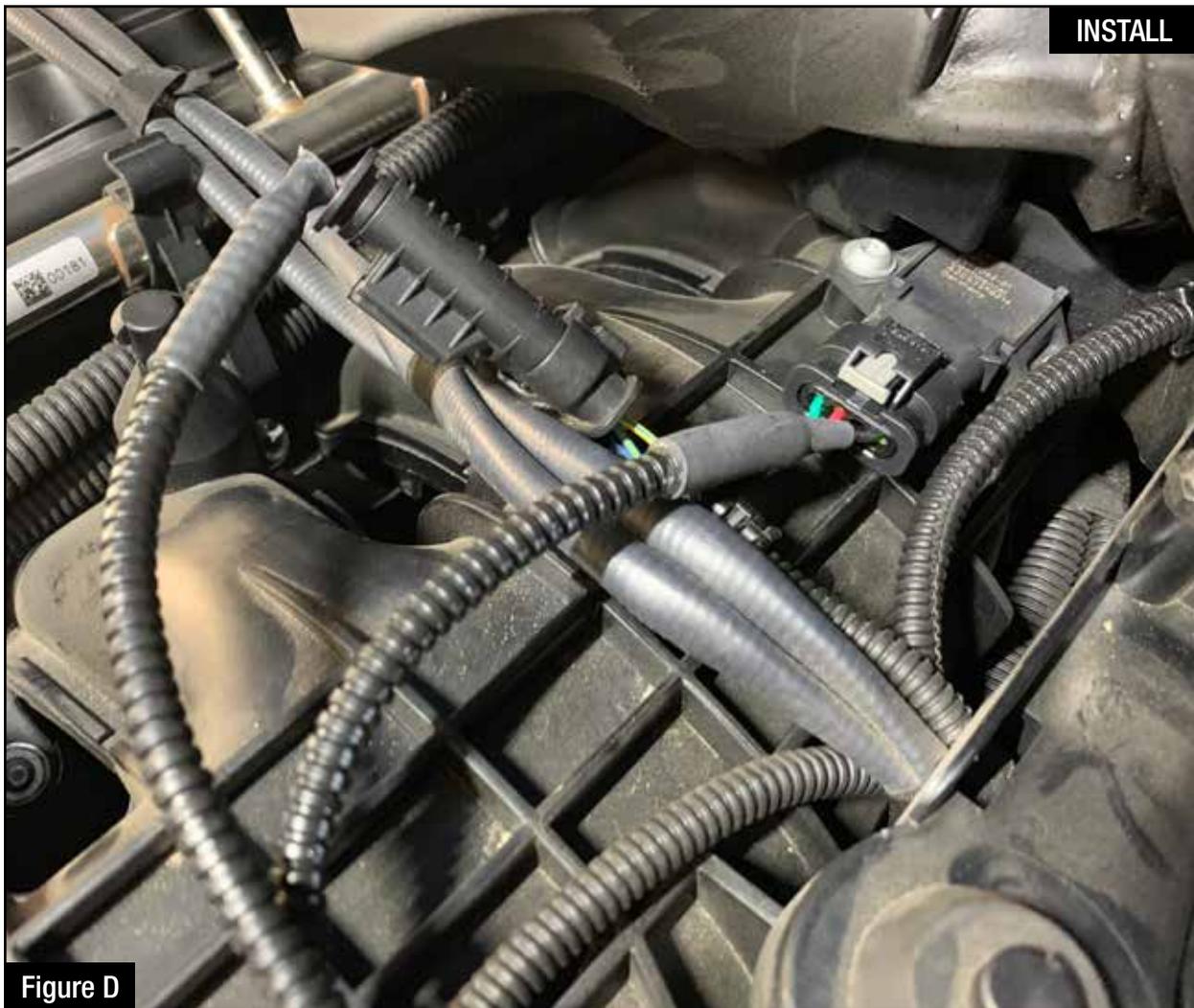
Figure D

Refer to Figure D for Step 6.

Step 6: Check with the pictures to make sure the connectors are correctly connected.

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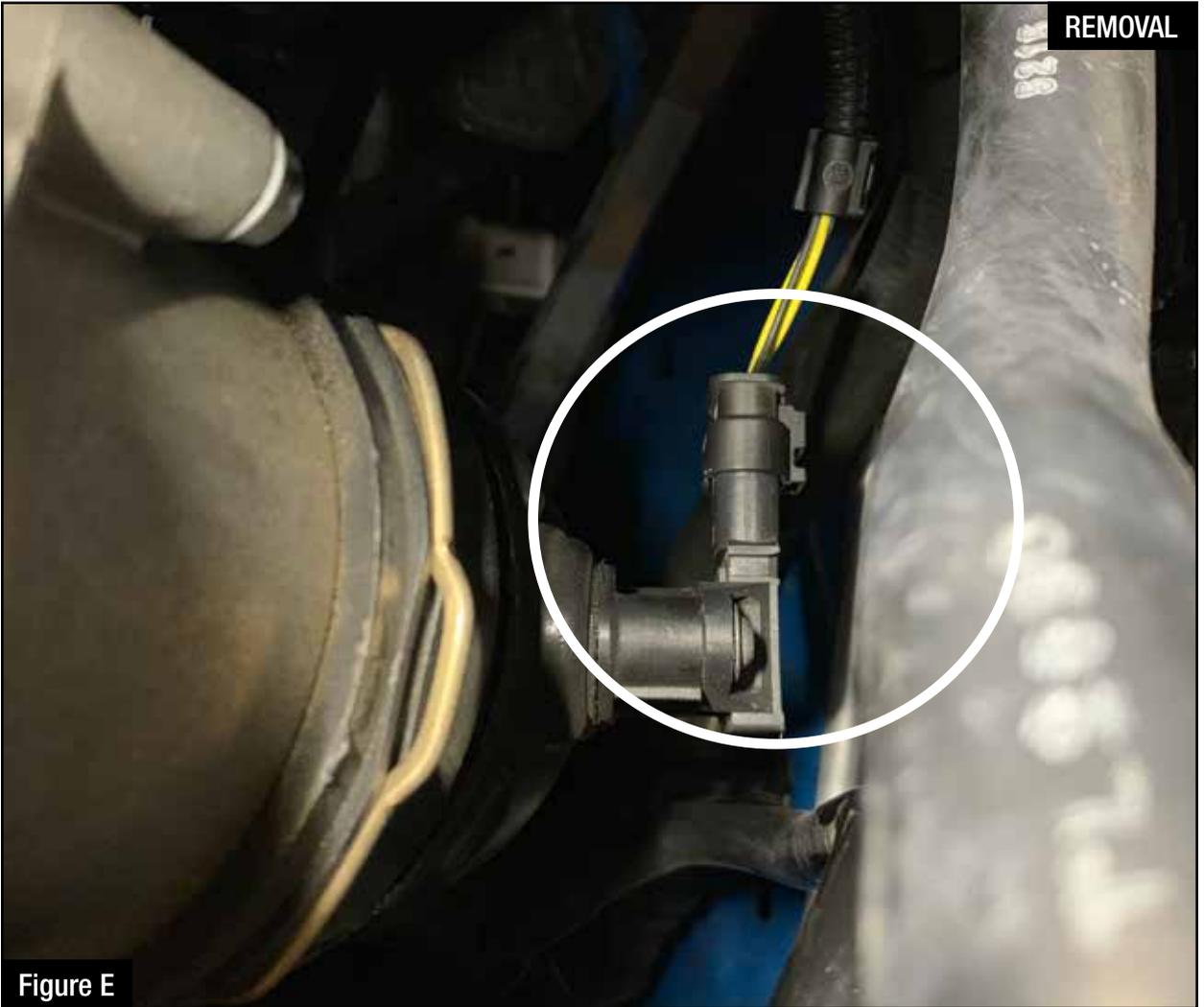
REMOVAL

Figure E

Refer to Figure E for Steps 7-8.

Step 7: Locate and disconnect the TMAP sensor connector by pressing down on the locking tab and sliding the connector out of the sensor.

Step 8: Locate the TMAP sensor jumper harness on the aFe Power harness. This is the harness with four wires in each connector. Plug the female connector of the aFe Power harness into the TMAP sensor, then the male connector of the aFe Power harness into the female connector of the engine harness.
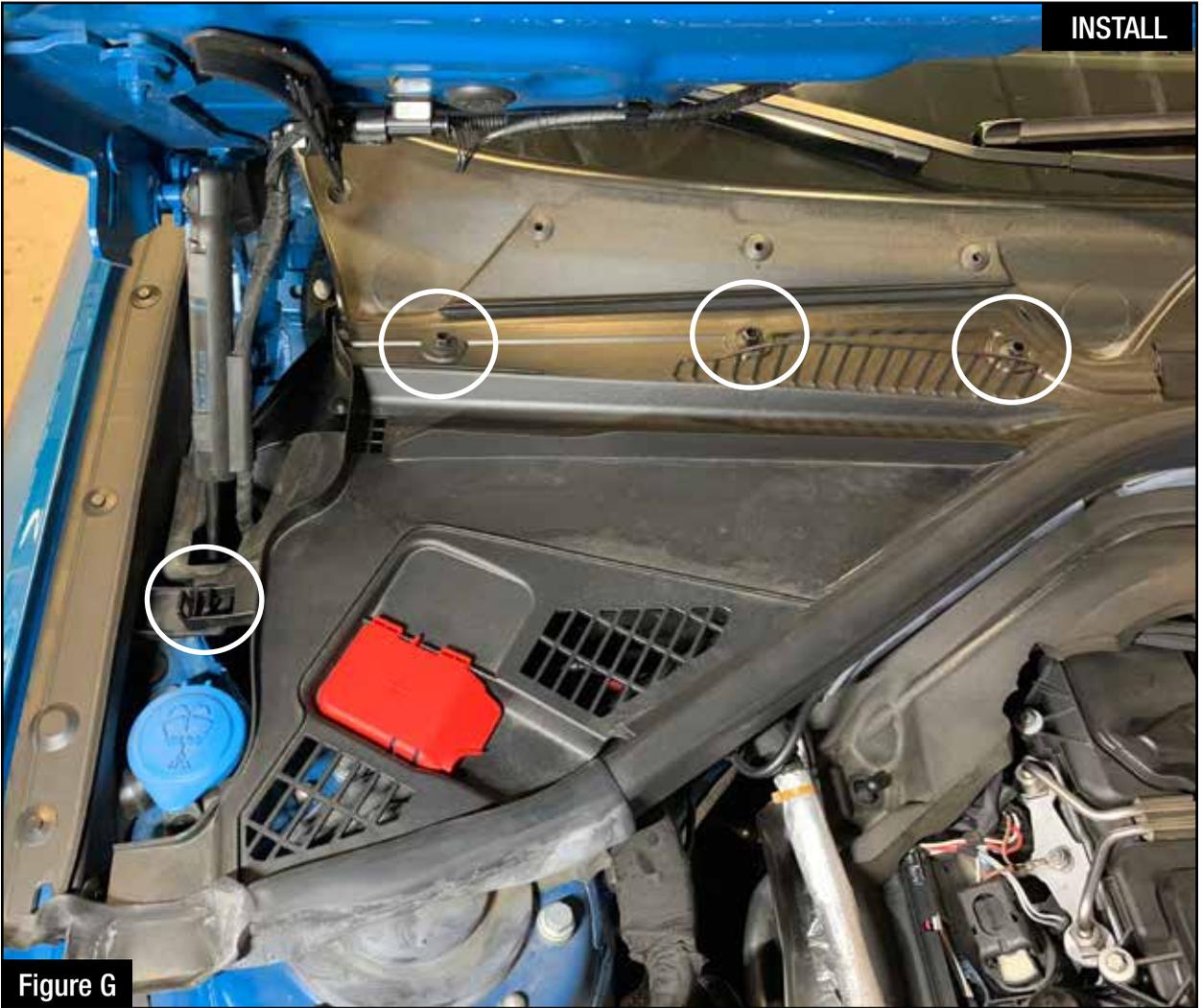
Figure F

Refer to Figure F for Step 9.

Step 9: Check with the pictures to make sure the connectors are correctly connected.

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

Figure G

Refer to Figure G for Steps 10.

Step 10: Remove the cowl cover on the passenger to gain access to power and ground sources. To do this, twist the (3) 10mm plastic nuts 90 degrees, and remove the push clip. Remove the driver side cowl panel at this time as well if you intend to wire the LED switch into the cabin.
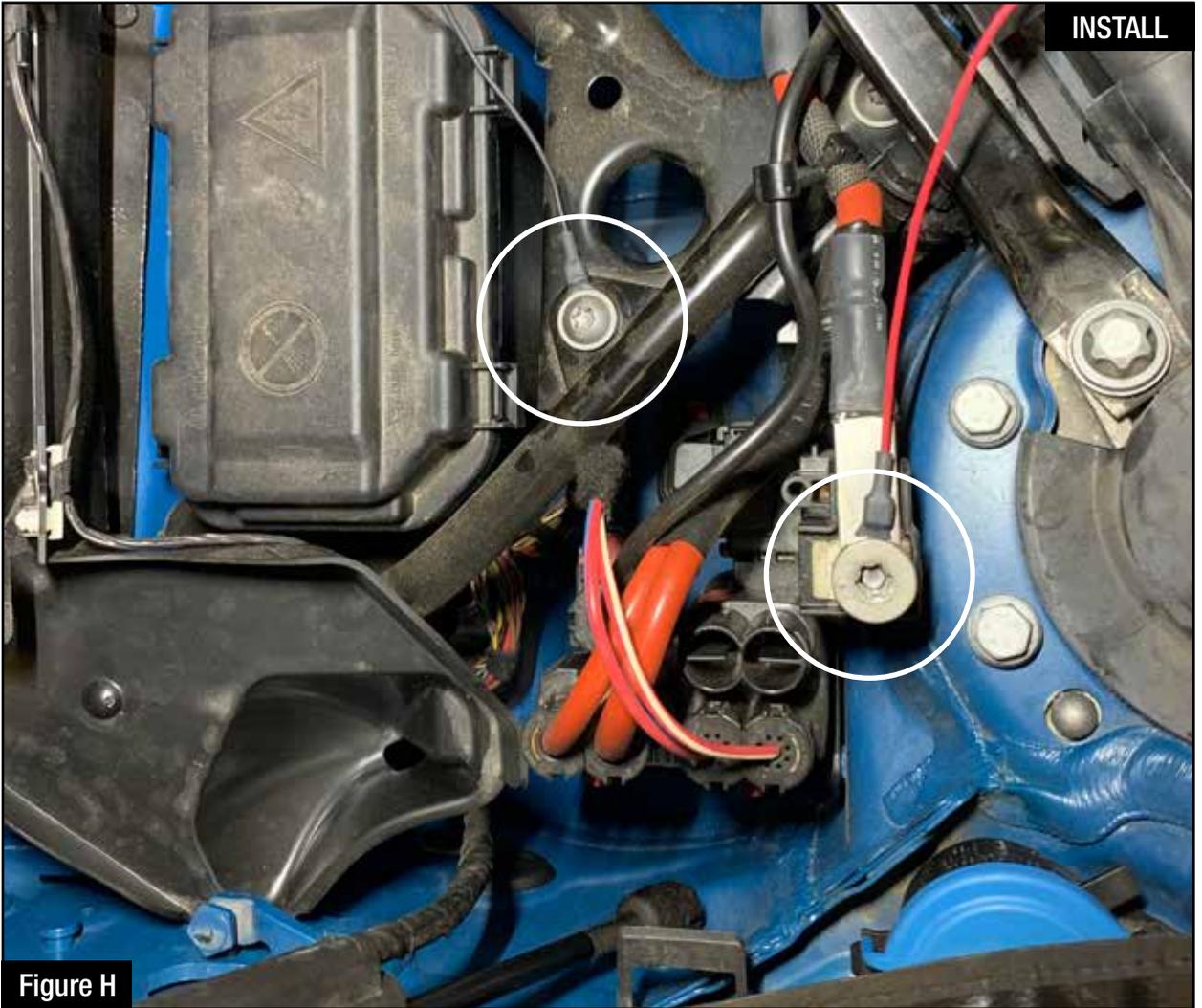
Figure H

Refer to Figure H for Steps 11-12.

Step 11: Using a T45 bit, remove the bolt securing the frame brace. Then use the bolt to secure the black ground wire of the aFe POWER harness to the frame brace.

Step 12: Using a T50 bit, remove the nut on the positive terminal. Place the red wire of the aFe POWER harness on the terminal and then reinstall the T50 Nut.

Figure I

Refer to Figure I for Steps 13-14.

Step 13: Secure the Scorcher Blue module on top of the plastic cover near the strut tower on the driver side, or any other desired location using the Velcro provided. The module must be located within reach of the LED switch harness if being used.

Step 14: Connect the Scorcher Blue module to the harness. Make sure the connector is fully engaged.

Note: The doors of the vehicle can now be opened to proceed with the installation of the switch.

Figure J

Refer to Figure J for Steps 15-16.

Note: The installation of the LED switch in the cabin is optional.

Step 15: Select the desired location of the LED switch. Route the cable on the back of the switch to exit toward the top or bottom.

Step 16: Use the provided double sided tape to secure the LED switch in the desired location.

Figure K

Refer to Figure K for Steps 17-19.

Step 17: Remove the two 10mm nuts securing the foot trim panel, and then pull outward gently on the front of the panel to release the locking tabs. Lower the panel to gain access to the firewall.

Step 18: Carefully route the switch cable behind steering wheel cover or cabin trim cover.

Step 19: Route the switch cable through firewall and into the engine bay through the grommet.
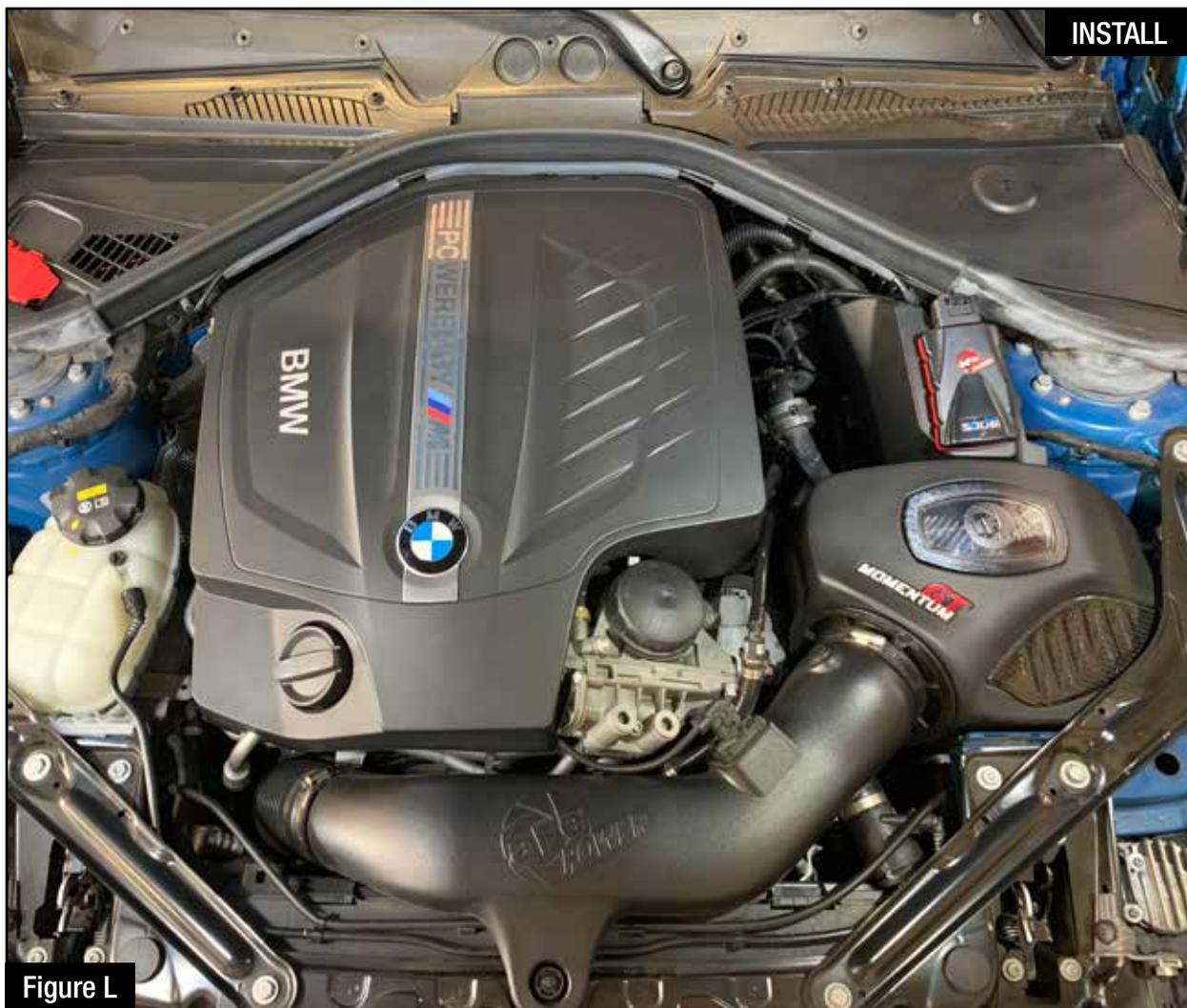
Figure L

Refer to Figure L for Steps 20-22.

Step 20: Plug the end of the switch cable to the harness inside the engine compartment.

Step 21: Secure the wires away from any extreme heat and moving parts with the provided ties. Make sure all connections are secured and fully engaged.

Step 22: Reinstall the engine cover and cowl covers.

Note: The installation of the module itself is now completed. Keep reading the install instruction to learn how to use all its features.

Figure M

Refer to Figure M (LED Switch).

When turning on the vehicle, each LED will flash and 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 while the unit is on. The LED switch can be used at the same time as the Bluetooth app.
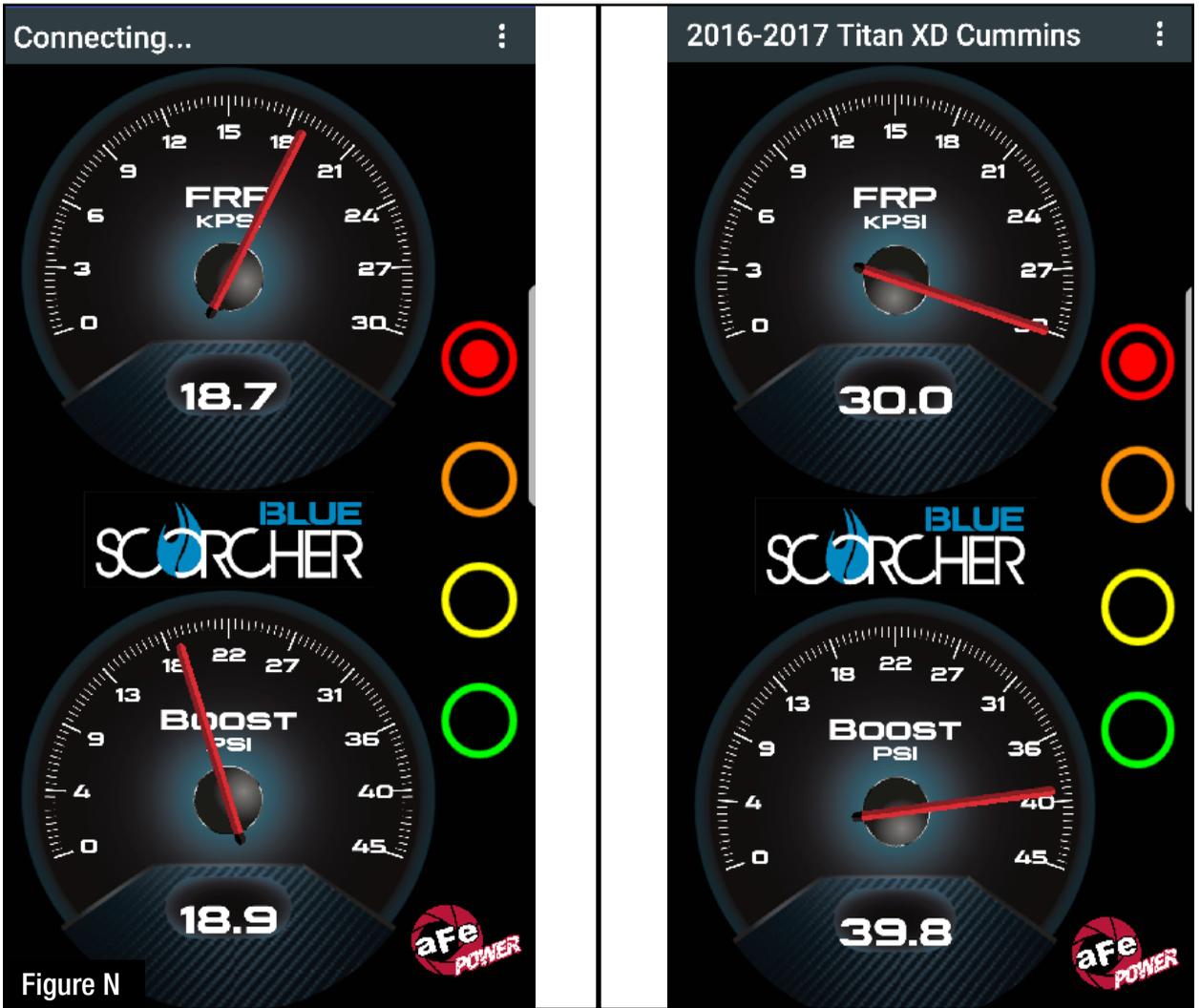
Figure N

Refer to Figure N* (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 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.

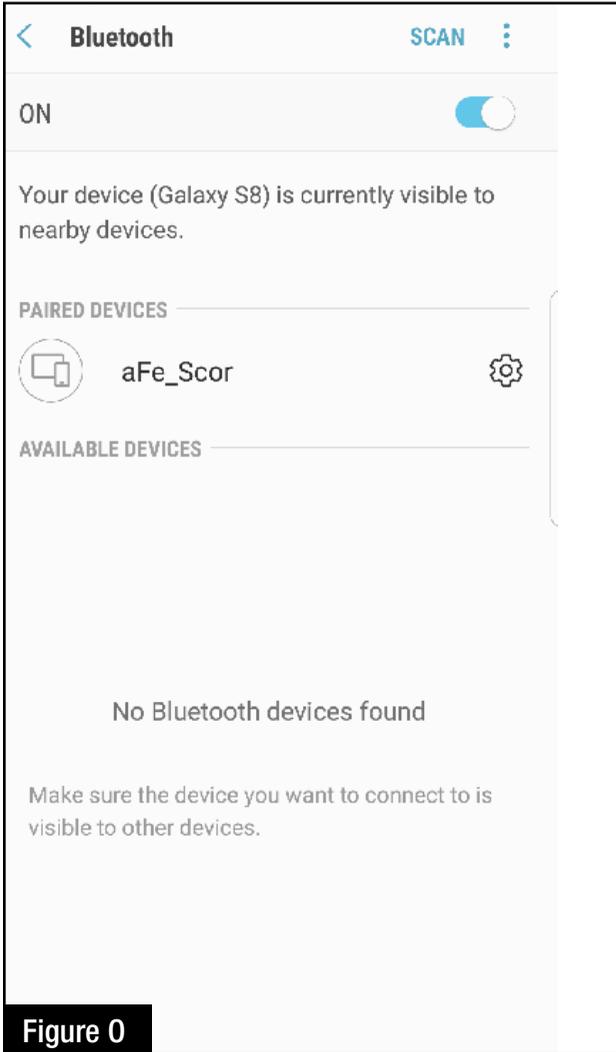*Screen shots shown here are for example only. Actual screen display will vary depending on your vehicle.

Figure O

Refer to Figure O* (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.

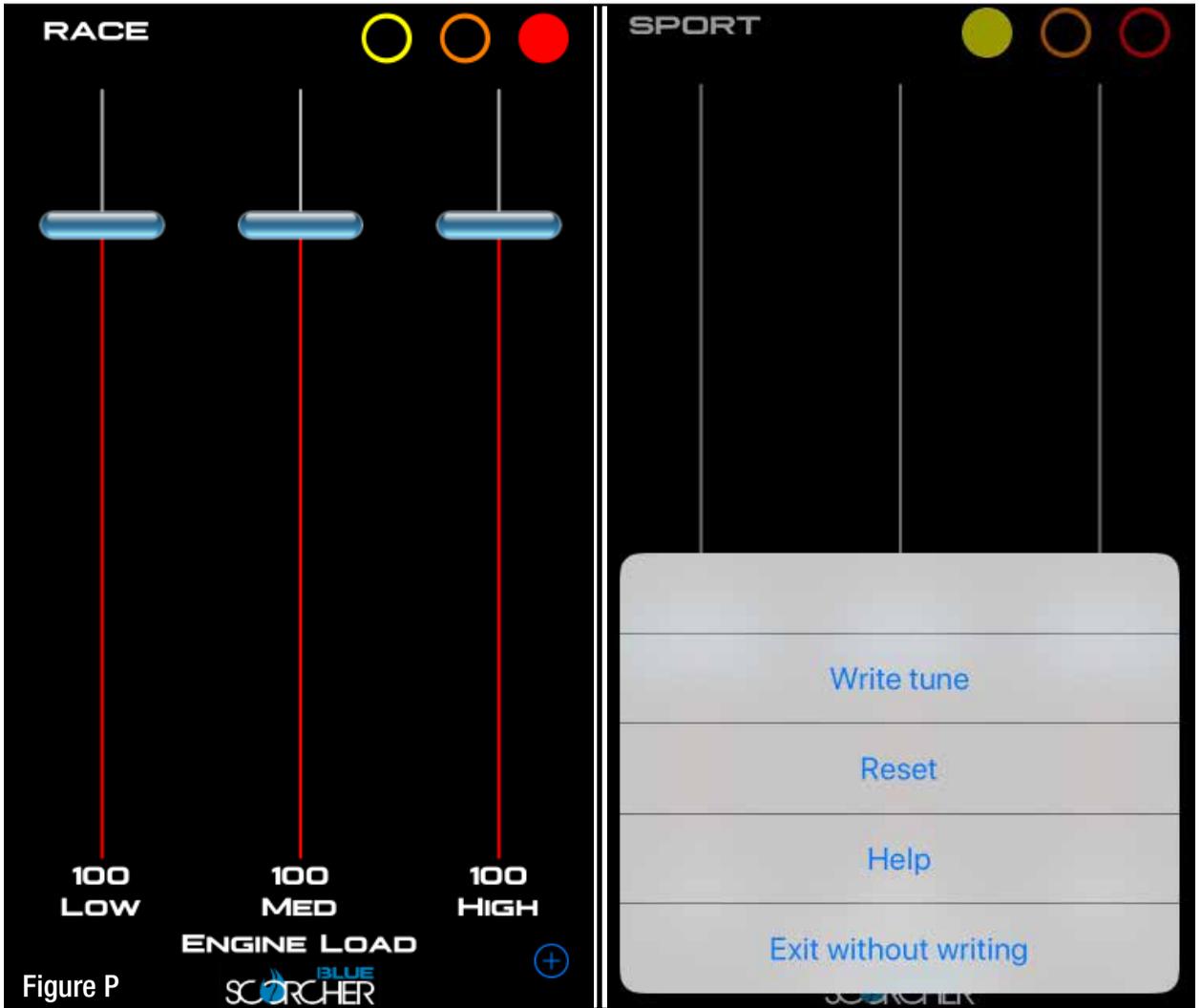*Screen shots shown here are for example only. Actual screen display will vary depending on your vehicle.

Figure P

Refer to Figure P (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.

aFepower.com

Figure Q

Refer to Figure Q (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.

Figure R

<u>Refer to Figure R (Bypass Plug).</u>

A bypass plug is included in the kit. The plug can be connected to the harness instead of the module. Once the bypass plug is connected the vehicle will run in factory settings. Make sure the plug is fully engaged when connected to the harness. Thank you for choosing aFe POWER!

⚠️ **The vehicle needs to be in sleep mode when the module gets disconnected and the bypass plug connected. Wait for the blue LED on the module to stop flashing to make sure the vehicle is in sleep mode.**

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advanced FLOW engineering, inc.
252 Granite Street Corona, CA 92879
TEL: 951.493.7100 TECH: 951.493.7134
E-Mail:Tech@aFepower.com

P/N: 06-81171