



advanced FLOW engineering

Instruction Manual

P/N: 77-43017

SCORCHER GT POWER MODULE

Make: Ford
Make: Ford

Model: F-150
Model: Edge ST

Year: 2015-2017
Year: 2019-2021

Engine: V6-2.7L (tt) Ecoboost
Engine: V6-2.7L (tt) Ecoboost



THIS IS A HIGH-PERFORMANCE PRODUCT: Do not use this product until you have carefully read the following agreement and installation instruction. This sets forth the terms and conditions for the use of this product. The installation of this product indicates that the BUYER has read and understands this agreement and accepts its terms and conditions.

DISCLAIMER OF WARRANTY AND LIMITATION OF LIABILITY: Advanced FLOW Engineering, Inc. (also known as aFe or aFe POWER) and its successors, distributors, jobbers, and dealers (hereafter “SELLER”) shall in no way be responsible for the product’s improper use and service. It is the installer’s responsibility to check for proper installation and if in doubt, contact the manufacturer. The SELLER assumes no liability regarding the improper installation or misapplication of its products. BUYER acknowledges it has had the opportunity to fully inspect the product. Accordingly, BUYER acknowledges that the product is being sold in “AS IS/WHERE IS” condition. SELLER shall not be held liable for special, indirect, incidental or consequential damages of any nature with respect to the products (including, without limitation, lost profits, lost sales, loss of production, property damage, personal injury or loss or damage resulting from interruption or failure in operation of the products) and BUYER hereby expressly waives and disclaims all such liability claims. The BUYER acknowledges and agrees that the disclaimer of liability contained herein is a material term of the sale of the product and, to the fullest extent permitted by law, BUYER shall defend, indemnify and hold SELLER harmless from any and all claims, demands, causes of action, controversies, liabilities, fines, losses, costs and expenses (including, but not limited to attorneys’ fees, expert witness expenses and litigation expenses) arising from or related to SELLER’s products.

Before proceeding with the installation:

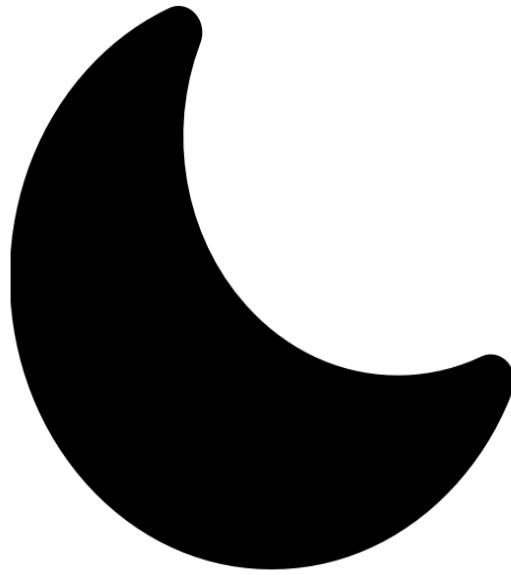
- Please read the entire instruction manual before proceeding.
- Ensure all components listed are present.
- If you are missing any of the components, call customer support at 951-493-7185.
- Ensure you have all necessary tools before proceeding. Do not attempt to work on your vehicle when the engine is hot.

Emission Disclaimer: This product is not currently CARB exempt and is not available for purchase in California or for use on any vehicle registered with the California Department of Motor Vehicles.



Label	Qty.	Description	Part Number
A	1	Module	R77-43017
B	1	LED Switch	05-70029
C	2	Velcro (2" Inches)	05-01244
D	4	Cable Ties	05-60167





SLEEP MODE

Figure A

Refer to Figure A for Step 1 (For both F-150 and Edge ST)

Step 1: Before installing your aFe POWER module, you will have to place your vehicle's 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 doors or start vehicle while one of the sensors is disconnected. This could create a check engine light**

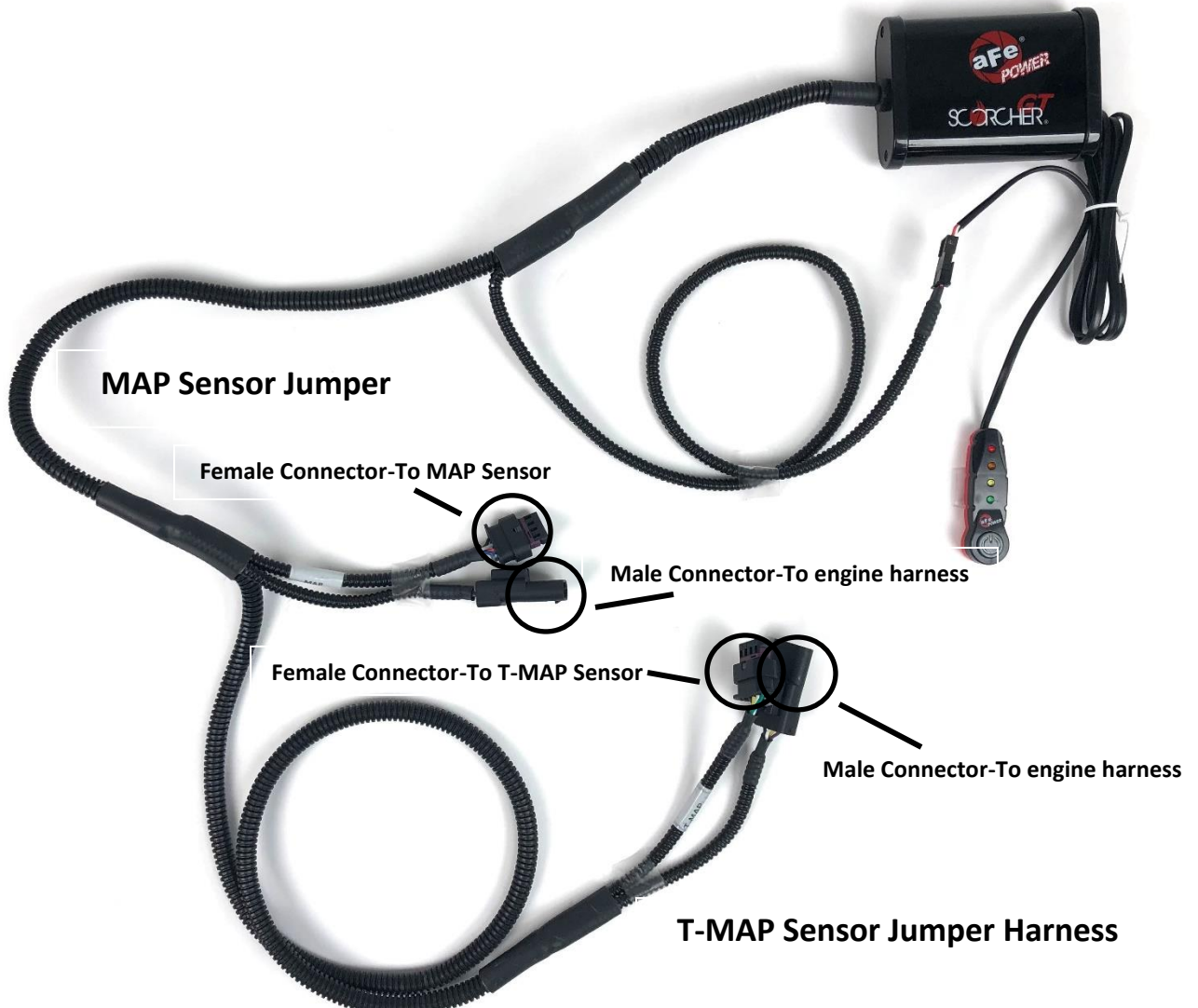


Figure B

Refer to Figure B for Step 2 (For both F-150 and Edge ST)

Step 2: Refer to the diagram to identify the connectors and their corresponding sensors that they plug into.

- The MAP sensor jumper harness will be the shorter set of wires.
- The T-MAP sensor jumper harness will be the longer set of wires.



Note: Installation will be different between F-150 and Edge ST vehicles.

- For F-150 installation, please proceed to Page 6.
- For Ford Edge installation, please proceed to Page 12.



MAP Sensor Location

T-MAP Sensor Location

Figure C

Refer to Figure C for Steps 3-5 (Installation for F-150 Only)

Step 3: See picture for the locations of the MAP and T-MAP sensors. The MAP sensor can be accessed by removing the engine cover.

Step 4: The MAP sensor is located on top of the intake manifold, right after the throttle body and in the middle of the engine bay. It has a 4-wires connector and a white locking tab.

Step 5: The T-MAP sensor is located on the driver side charge pipe. It also has a 4-wires connector and a white locking tab.



Figure D

Refer to Figure D for Step 6 (Installation for F-150 Only)

Step 6: Disconnect the MAP sensor by pulling back the white locking tab, then pressing down on the connector and sliding it out of the sensor.

**Figure E****Refer to Figure E for Steps 7-9 (Installation for F-150 Only)**

Step 7: Locate the MAP sensor jumper harness on the aFe POWER harness. It is the first, shorter set of connectors coming out of the aFe Power module. It is labeled "MAP".

Step 8: Plug the female connector of the aFe POWER harness to the MAP sensor, then take the male connector of the aFe POWER harness and connect it to the female connector of the engine harness.

Step 9: Check with the picture to make sure the connectors are fully seated and that the locking tab is slid back into place.

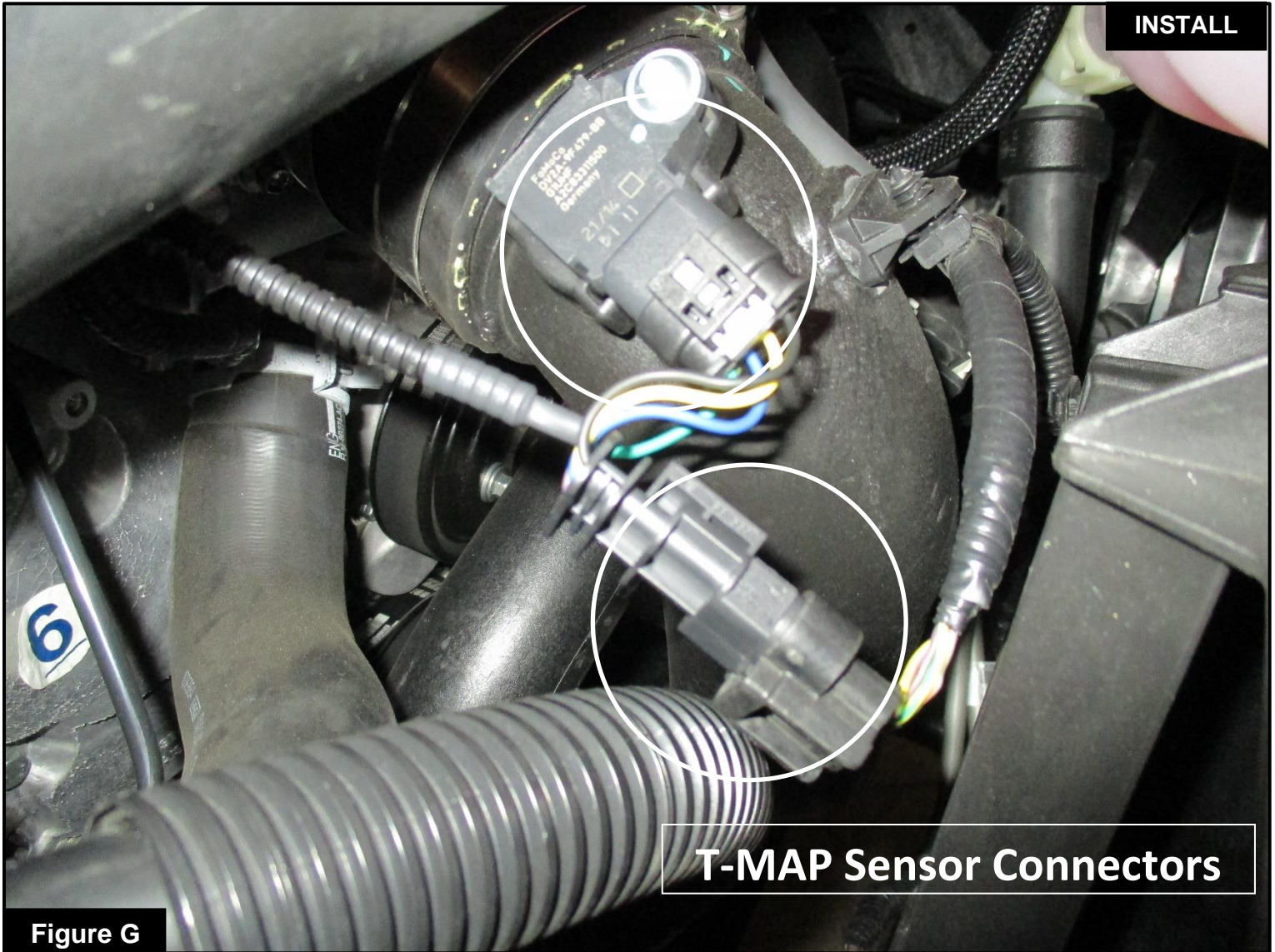
 **Make sure that the connections are fully engaged and not reversed. Usually, connectors make a snapping sound when fully engaged.**



Refer to Figure F for Steps 10-11 (Installation for F-150 Only)

Step 10: The T-MAP connector is located on top of the charge pipe, before the throttle body.

Step 11: Disconnect the T-MAP sensor by pulling back the white locking tab, then pressing down on the connector and sliding it out of the sensor.

**Figure G****Refer to Figure G for Steps 12-14 (Installation for F-150 Only)**

Step 12: Locate the T-MAP sensor jumper harness on the aFe POWER harness. It is the longer, second set of connectors coming out of the aFe Power module. It is labeled “T-MAP”.

Step 13: Plug the female connector of the aFe POWER harness to the T-MAP sensor, then take the male connector of the aFe POWER harness and connect it to the female connector of the engine harness.

Step 14: Check with the picture to make sure the connectors are fully seated and that the locking tab is slid back into place.

 **Make sure that the connections are fully engaged and not reversed. Usually, connectors make a snapping sound when fully engaged.**

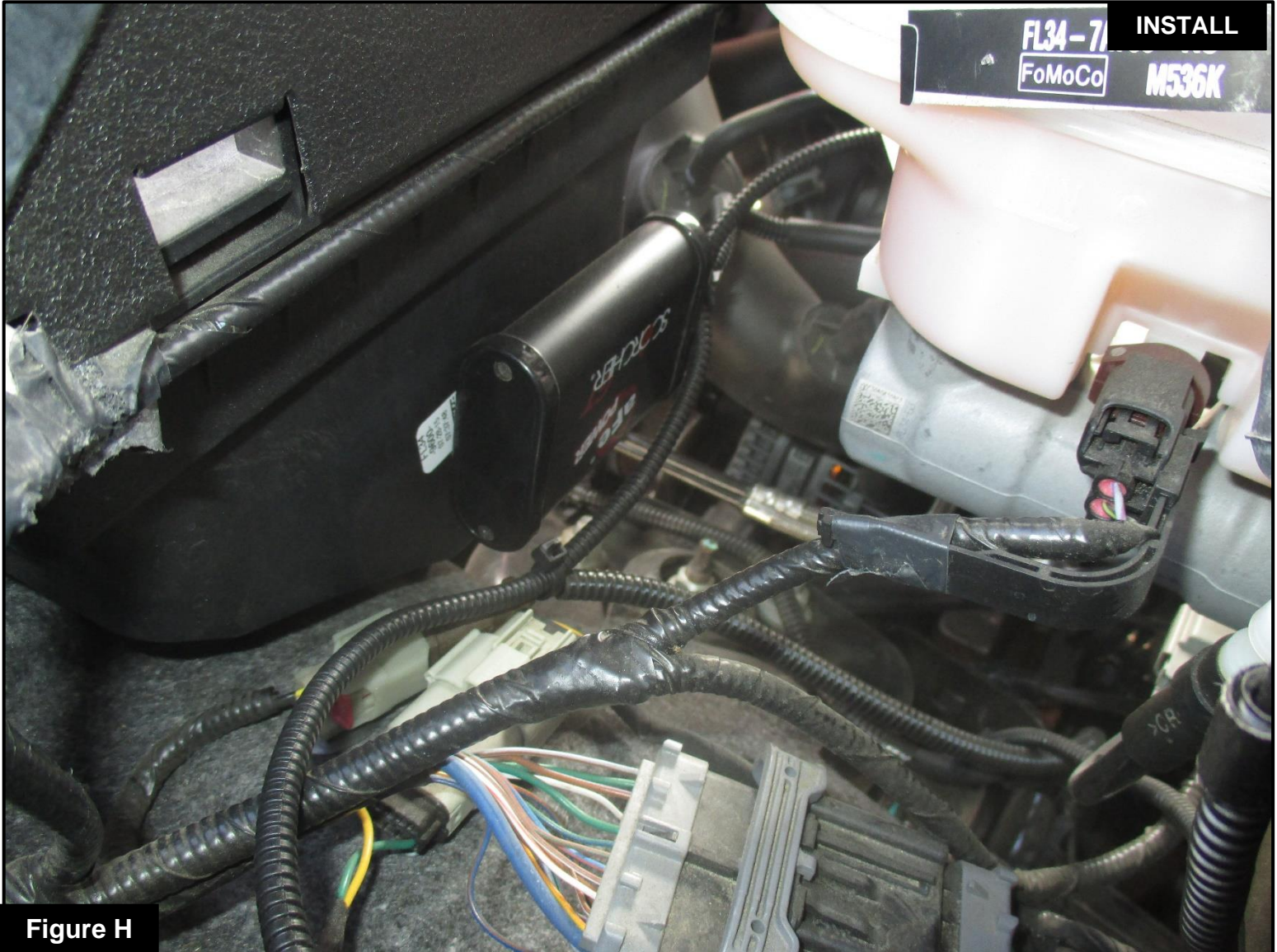


Figure H

Refer to Figure H for Steps 15-17 (Installation for F-150 Only)

- Step 15: Select a location to mount the Scorch GT using the included Velcro. We recommend that the module be mounted in a place that is dry, away from extreme heat and moving parts.
- Step 16: Route the harness wires and secure them using the included zip ties for a neat installation.
- Step 17: Re-install the engine cover.

The doors can now be opened to install the LED Switch (Proceed to page 19).



Figure I

Refer to Figure I for Step 18 (Installation for Ford Edge ST Only)

Step 18: Remove the engine cover by removing the two 10mm bolts.

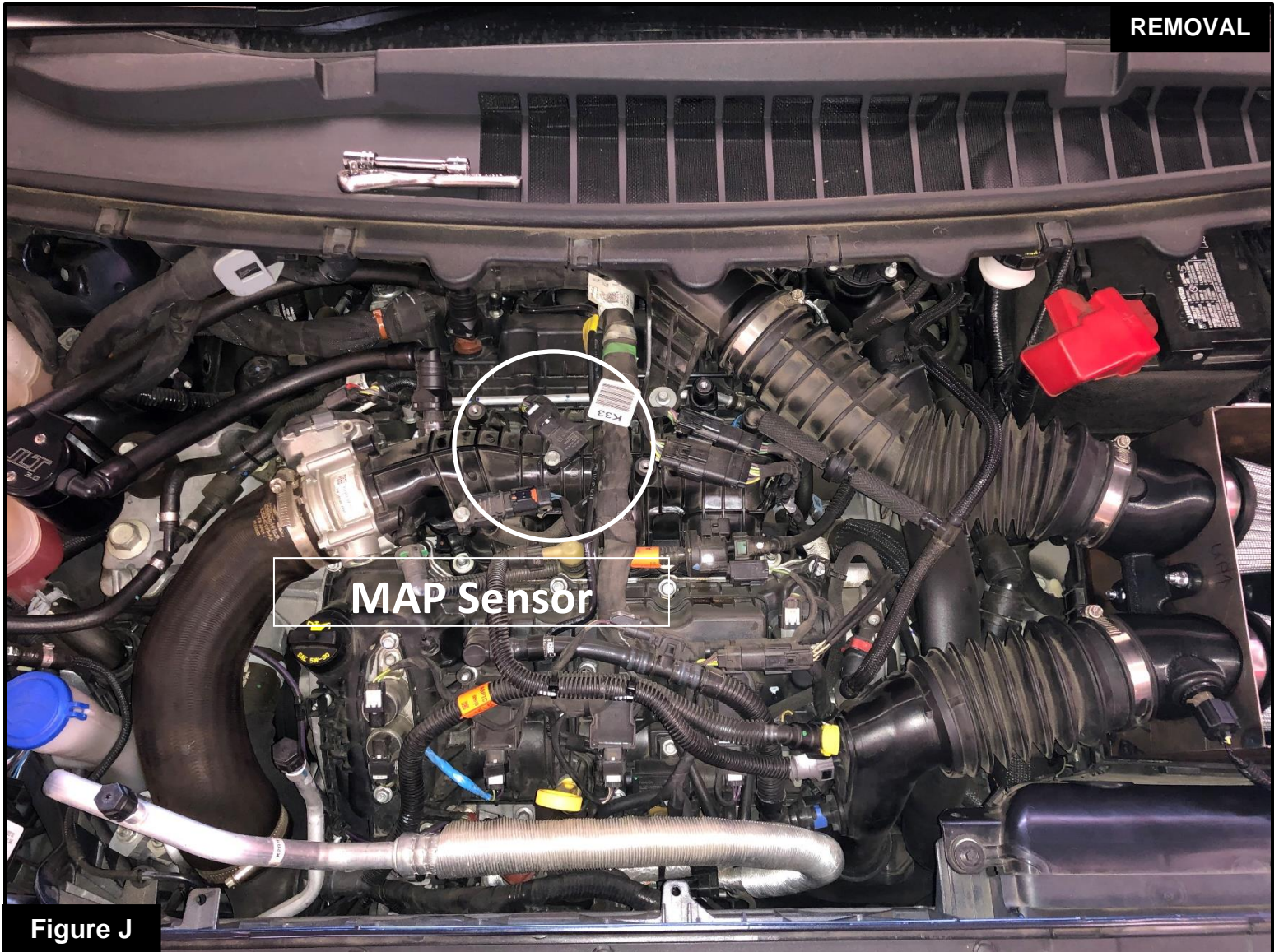
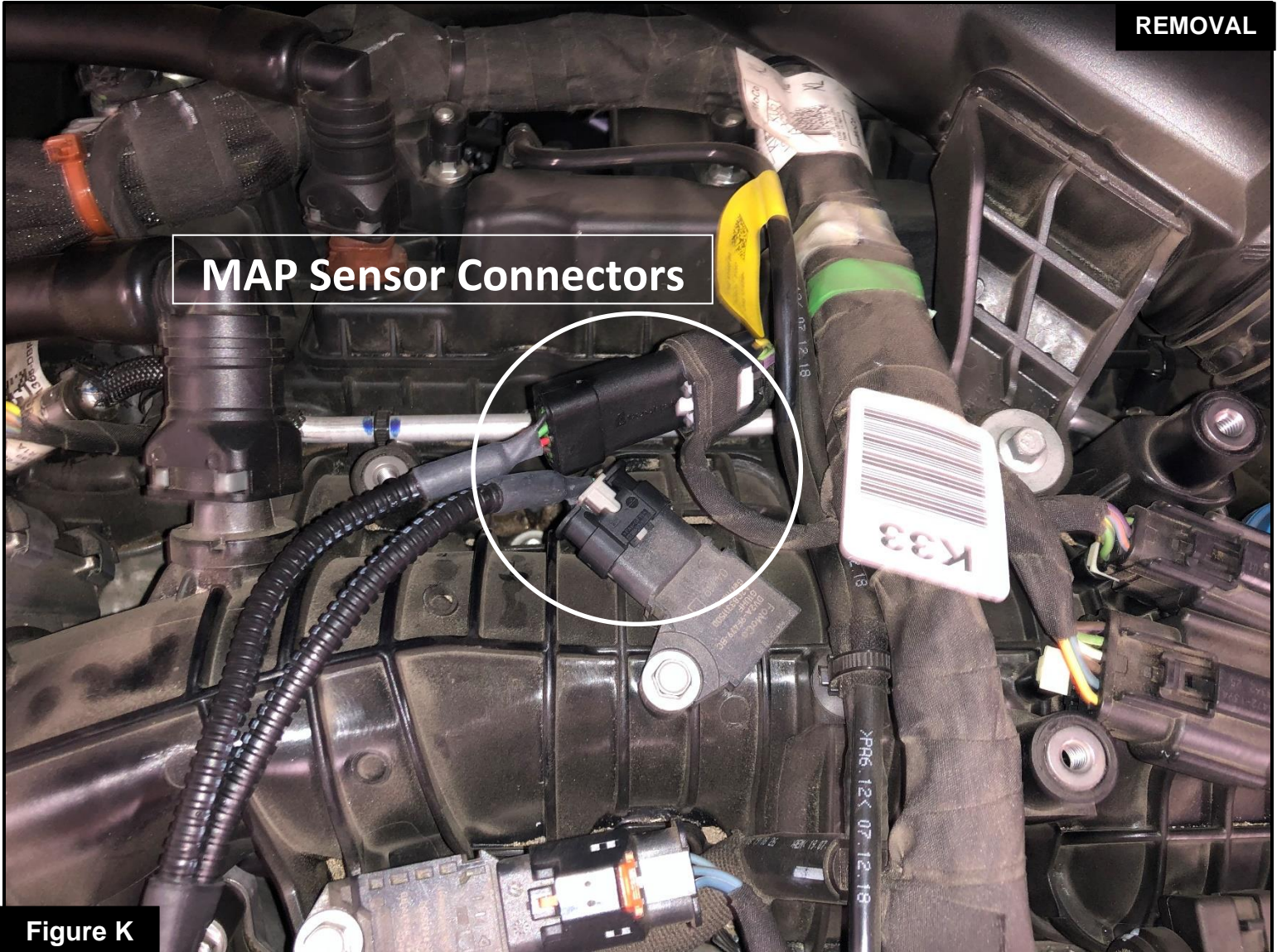


Figure J

Refer to Figure J for Steps 19-20 (Installation for Ford Edge ST Only)

- Step 19: Locate the MAP Sensor. It is on top of the intake manifold in the middle of the engine bay.
- Step 20: Disconnect the MAP sensor by pulling back the white locking tab, then pressing down on the connector and sliding it out of the sensor.

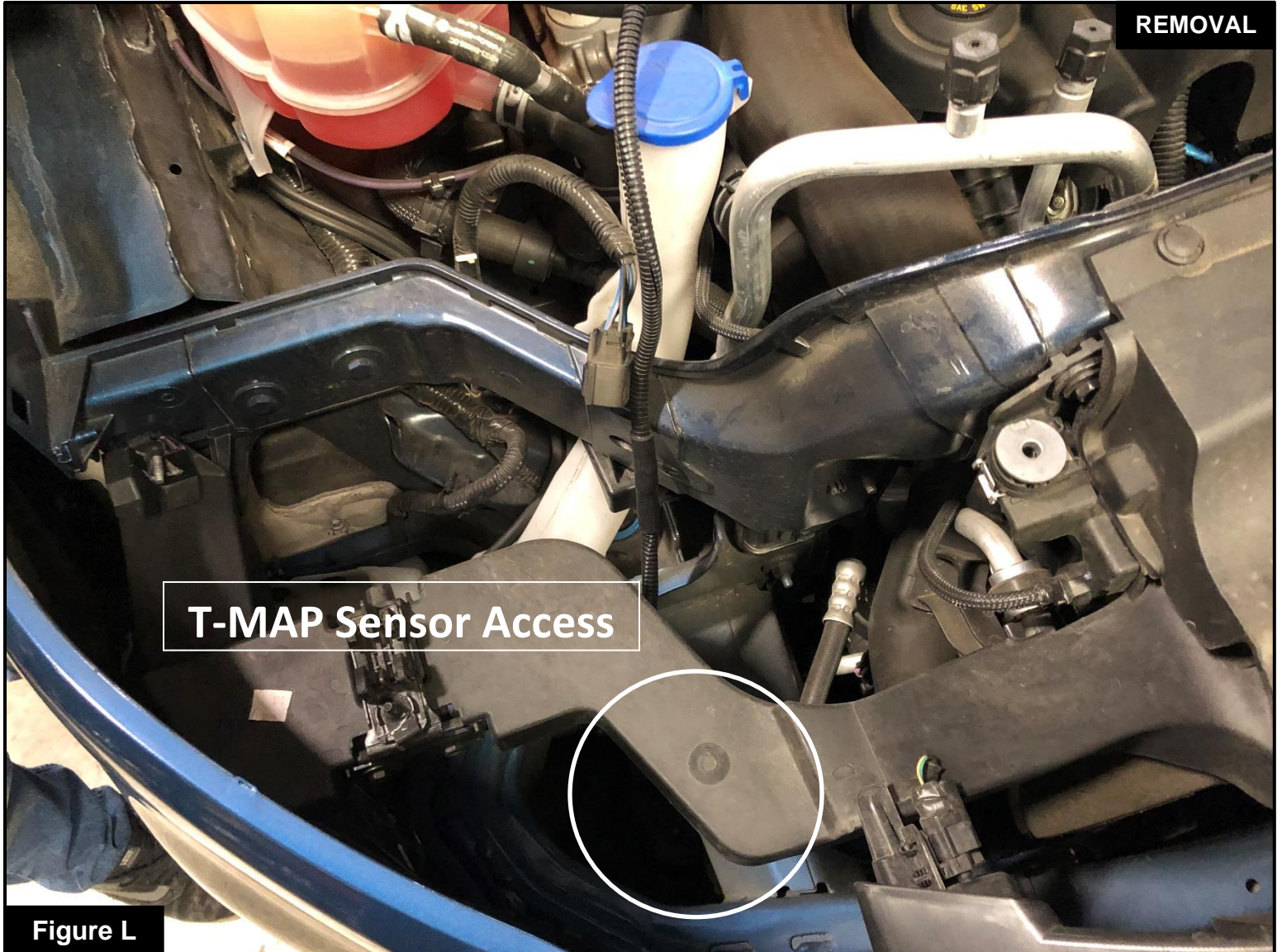
**Figure K****Refer to Figure K for Steps 21-23 (Installation for Ford Edge ST Only)**

Step 21: Locate the MAP sensor jumper harness on the aFe POWER harness. It is the first, shorter set of connectors coming out of the aFe Power module. It is labeled "MAP".

Step 22: Plug the female connector of the aFe POWER harness to the MAP sensor, then take the male connector of the aFe POWER harness and connect it to the female connector of the engine harness.

Step 23: Check with the picture to make sure the connectors are fully seated and that the locking tab is slid back into place.

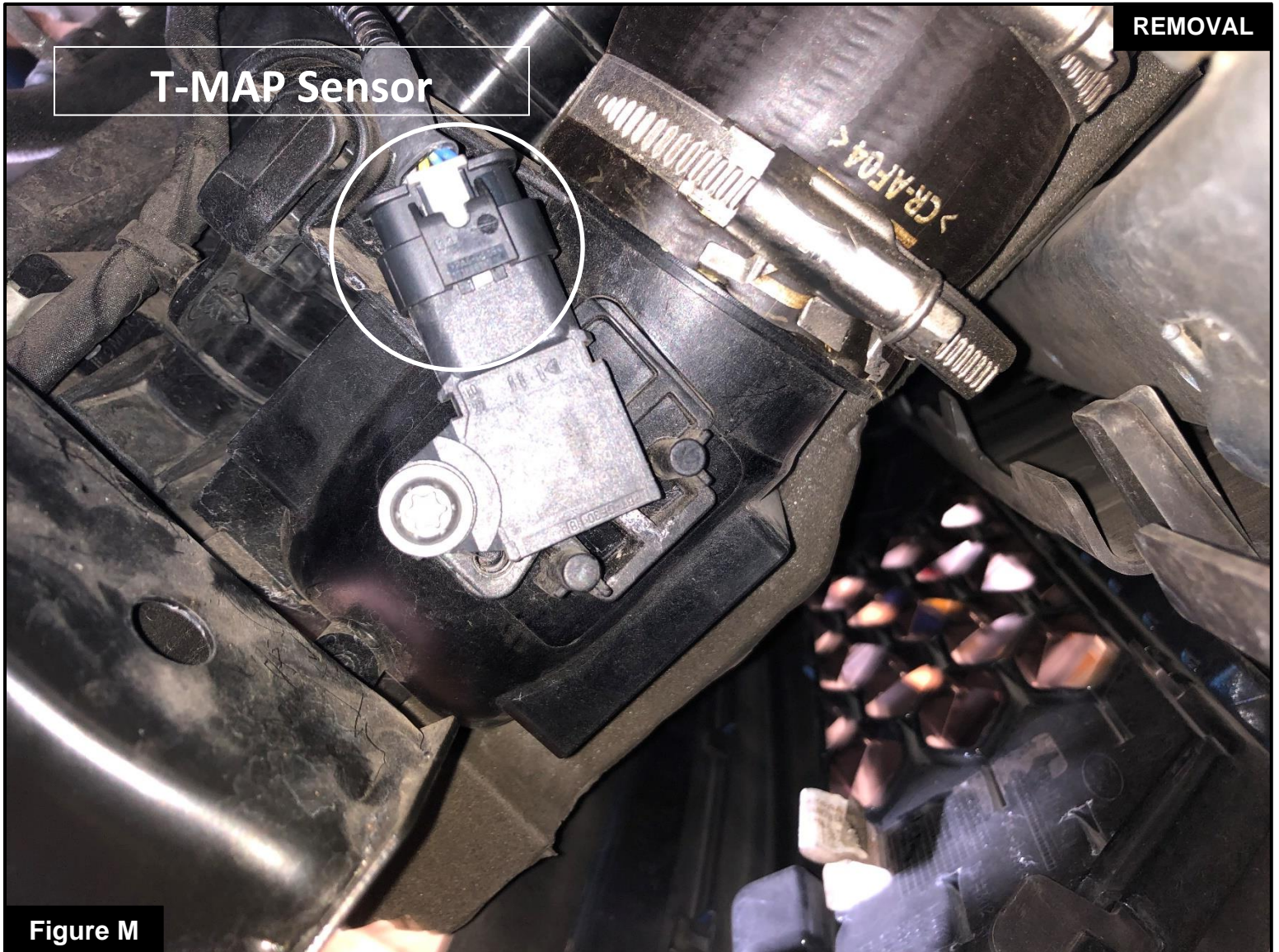
 **Make sure that the connections are fully engaged and not reversed. Usually, connectors make a snapping sound when fully engaged.**



Refer to Figure L for Steps 24-25 (Installation for Ford Edge ST Only)

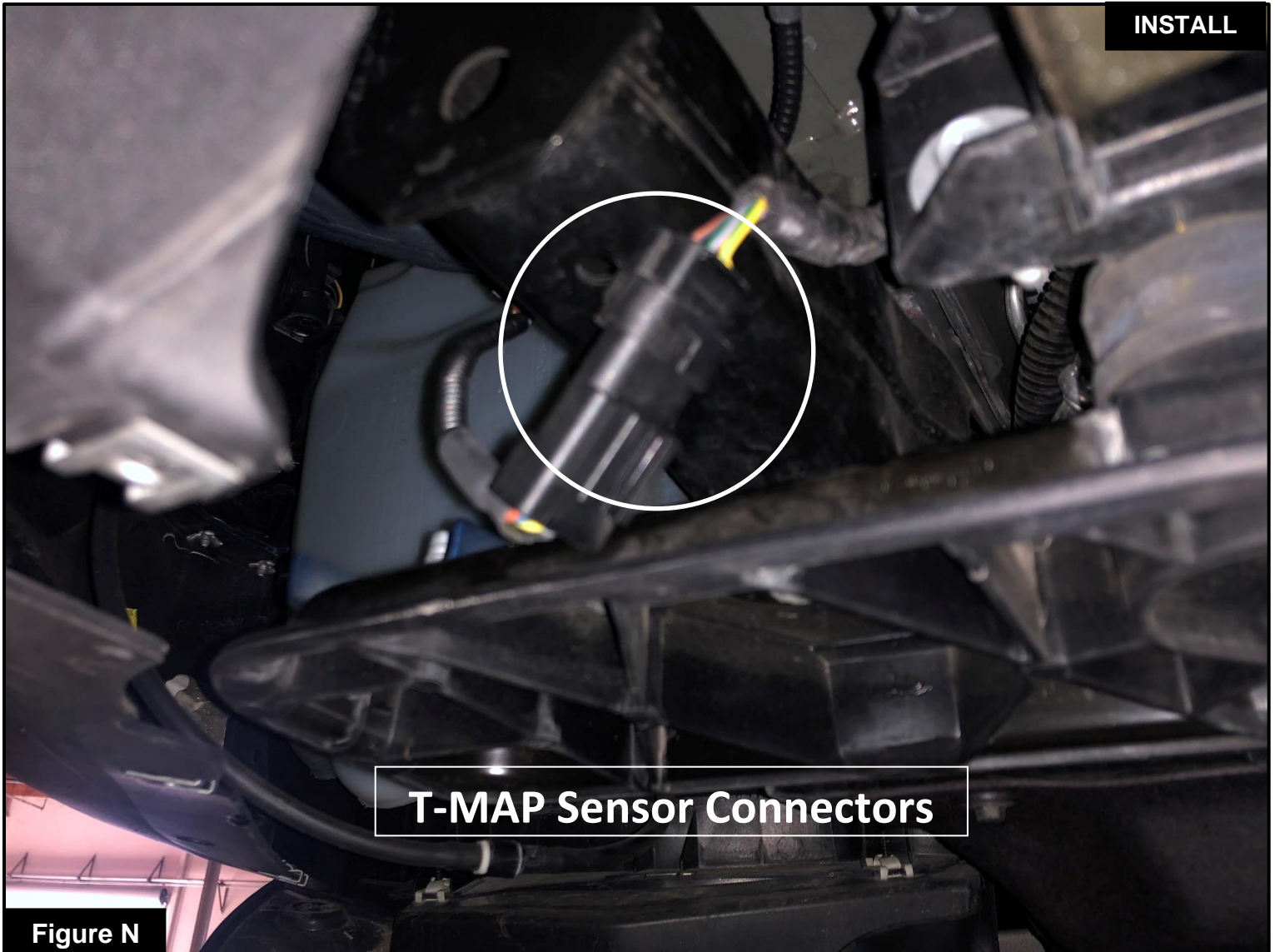
Step 24: The T-MAP sensor and connector can be accessed by removing the passenger side headlamp assembly.

Step 25: The T-MAP sensor is located on the passenger side of the intercooler, towards the bottom of the intercooler.



Refer to Figure M for Step 26 (Installation for Ford Edge ST Only)

Step 26: Disconnect the MAP sensor by pulling back the white locking tab, then pressing down on the connector and sliding it out of the sensor.

**Figure N****Refer to Figure N for Steps 27-29 (Installation for Ford Edge ST Only)**

Step 27: Locate the T-MAP sensor jumper harness on the aFe POWER harness. It is the longer, second set of connectors coming out of the aFe Power module. It is labeled "T-MAP".

Step 28: Plug the female connector of the aFe POWER harness to the T-MAP sensor, then take the male connector of the aFe POWER harness and connect it to the female connector of the engine harness.

Step 29: Check with the picture to make sure the connectors are fully seated and that the locking tab is slid back into place.

 **Make sure that the connections are fully engaged and not reversed. Usually, connectors make a snapping sound when fully engaged.**

**Figure O****Refer to Figure O for Steps 30-33 (Installation for F-150 Only)**

Step 30: Select a location to mount the Scorchers GT using the included Velcro. We recommend that the module be mounted in a place that is dry, away from extreme heat and moving parts.

Step 31: Route the harness wires and secure them using the included zip ties for a neat installation.

Step 32: Re-install the engine cover.

Step 33: Re-install the passenger side headlamp assembly.

The doors can now be opened to install the LED Switch



Figure P

Refer to Figure P for Steps 34-35 (For both F-150 and Edge ST)

Step 34: Select the desired location for the LED switch. Route the cable on the back of the switch to exit towards the top or the bottom of the switch.

Step 35: Use the provided double sided tape to secure the LED switch in the desired location.



Figure Q

Refer to Figure Q for Steps 36-38 (For both F-150 and Edge ST)

Step 36: Carefully route the switch cable behind the steering wheel cover or cabin trim cover. For the cleanest install, partially remove the cabin trim cover and run the LED switch wire between the trim panels.

Step 37: Locate the engine bay wiring access slot below the driver side kick panel.

Step 38: Route the switch cable through the firewall and into the engine bay using this slot.

**Figure R****Refer to Figure R for Steps 39-40 (For both F-150 and Edge ST)**

Step 39: Plug the end of the LED switch cable to the aFe POWER harness inside the engine compartment.

Step 40: Secure all wires away from any extreme heat and moving parts with the provided zip ties. Make sure all connections are secured and fully engaged.

The installation of the module itself is now complete. Keep reading the installation instructions to learn how to use all of its features.



Figure S

Refer to Figure S (LED Switch) (For both F-150 and Edge ST)

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 levels 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 time while the unit is on.



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Sprint Booster V3



P/N: 77-13001

Rapid Induction Intake (Edge ST)



P/N: 52-10003R

Dynamic Air Scoop (F-150)



P/N: 53-10008SC

Differential Cover (F-150)



P/N: 46-71180B

Quantum Cold Air Intake (F-150)



P/N: 53-10008R

Magnum Force Duo (F-150)



P/N: 54-22642-B

Magnum Force Stage 2 (F-150)



P/N: 54-32642-1B

Intercooler w/ Tubes (F-150)



P/N: 46-20202-B

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



Warranty

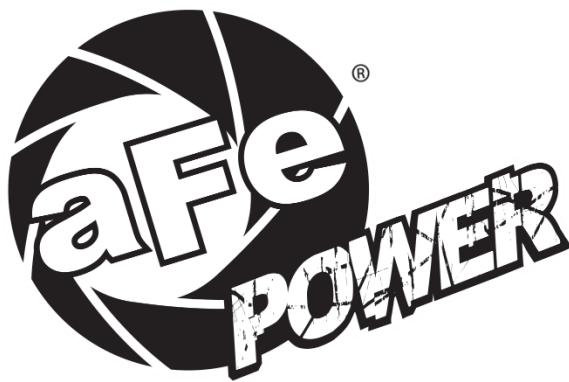
General Terms:

- 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)493-7185. 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	20, 21, 23, 24, 72, TF	2 years
Air Intake Systems	50, 51, 53, 54, 55, 56, 57, 58, 75, TR, TA, TL, TM	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
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.

*See turbocharger warranty for more info



advanced FLOW engineering, inc.

252 Granite Street Corona, CA 92879
TEL: 951.493.7100 • TECH: 951.493.7185
E-Mail: Tech@aFepower.com

P/N: 06-80893