

advanced FLOW engineering

Instruction Manual

P/N: 77-46207

SCORCHER HD POWER MODULE

Make: **Jeep**
Make: **Jeep**
Make: **RAM**

Model: **Wrangler (JL)**
Model: **Gladiator (JT)**
Model: **1500**

Year: **2020-2023**
Year: **2020-2023**
Year: **2020-2023**

Engine: **V6-3.0L (td) EcoDiesel**
Engine: **V6-3.0L (td) EcoDiesel**
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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:

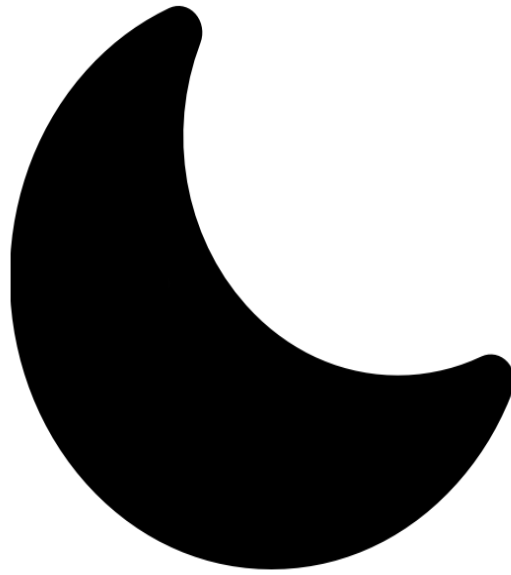
- Please read the entire instruction manual before proceeding.
- Ensure all components listed are present.
- If you are missing any of the components, call customer support at 951-493-7185.
- Ensure you have all necessary tools before proceeding. Do not attempt to work on your vehicle when the engine 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	R77-46207
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

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 Steps 2-4**

Step 2: Remove the oil cap (Engine cover cannot be removed with the oil cap in place)

Step 3: Remove the two 10mm bolts. The engine cover can now be lifted and removed.

Step 4: After removing the engine cover, re-install the oil cap for the time being so that small objects cannot fall into the oil filler neck.

***Jeep Wrangler EcoDiesel shown in pictures. Installation on the RAM 1500 will be similar and sensors will be in the same location.**

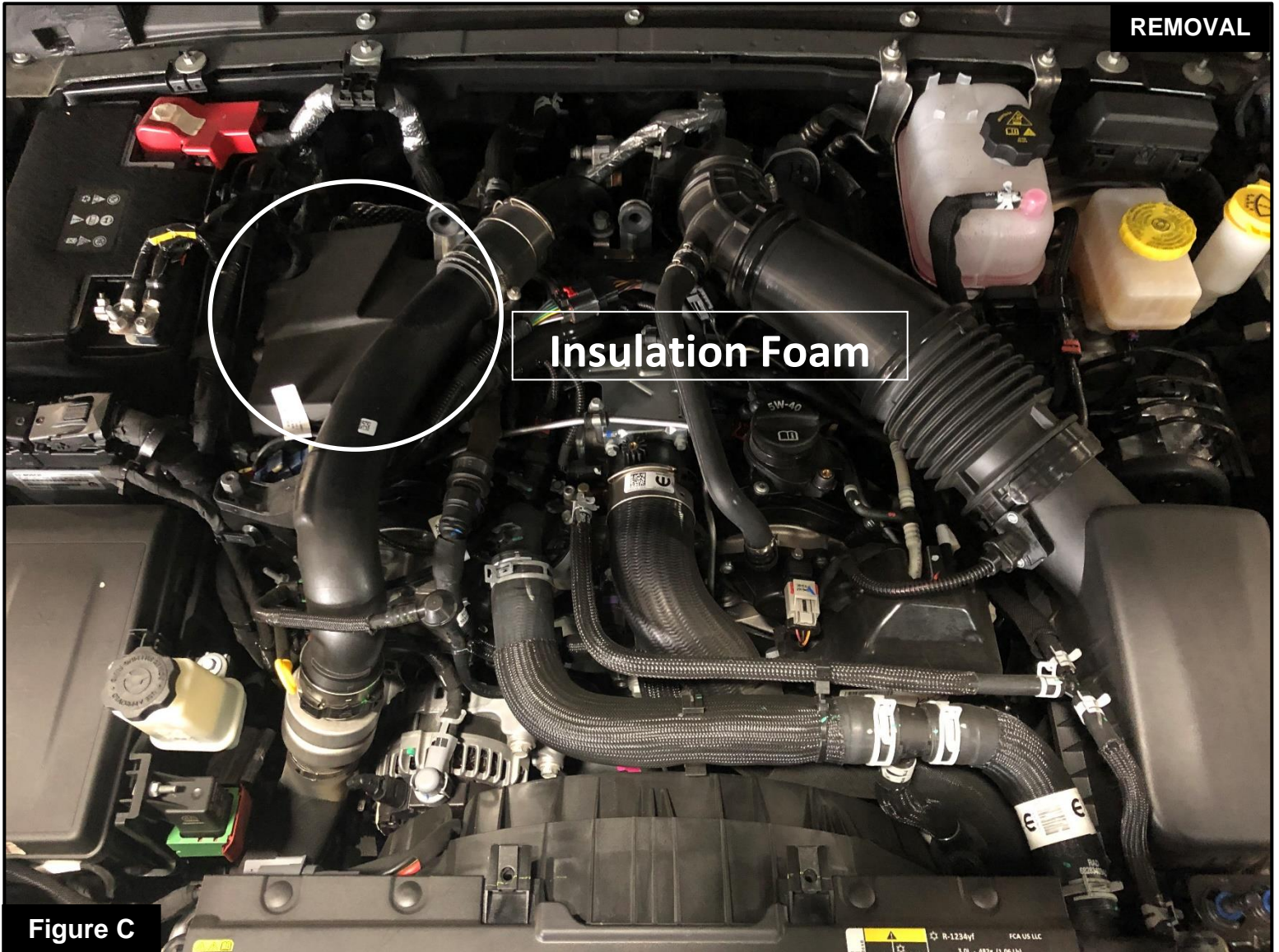


Figure C

Refer to Figure C for Step 5

Step 5: Remove the insulation foam on the passenger side of the vehicle to gain easier access to the MAP and Fuel Pressure Sensor.

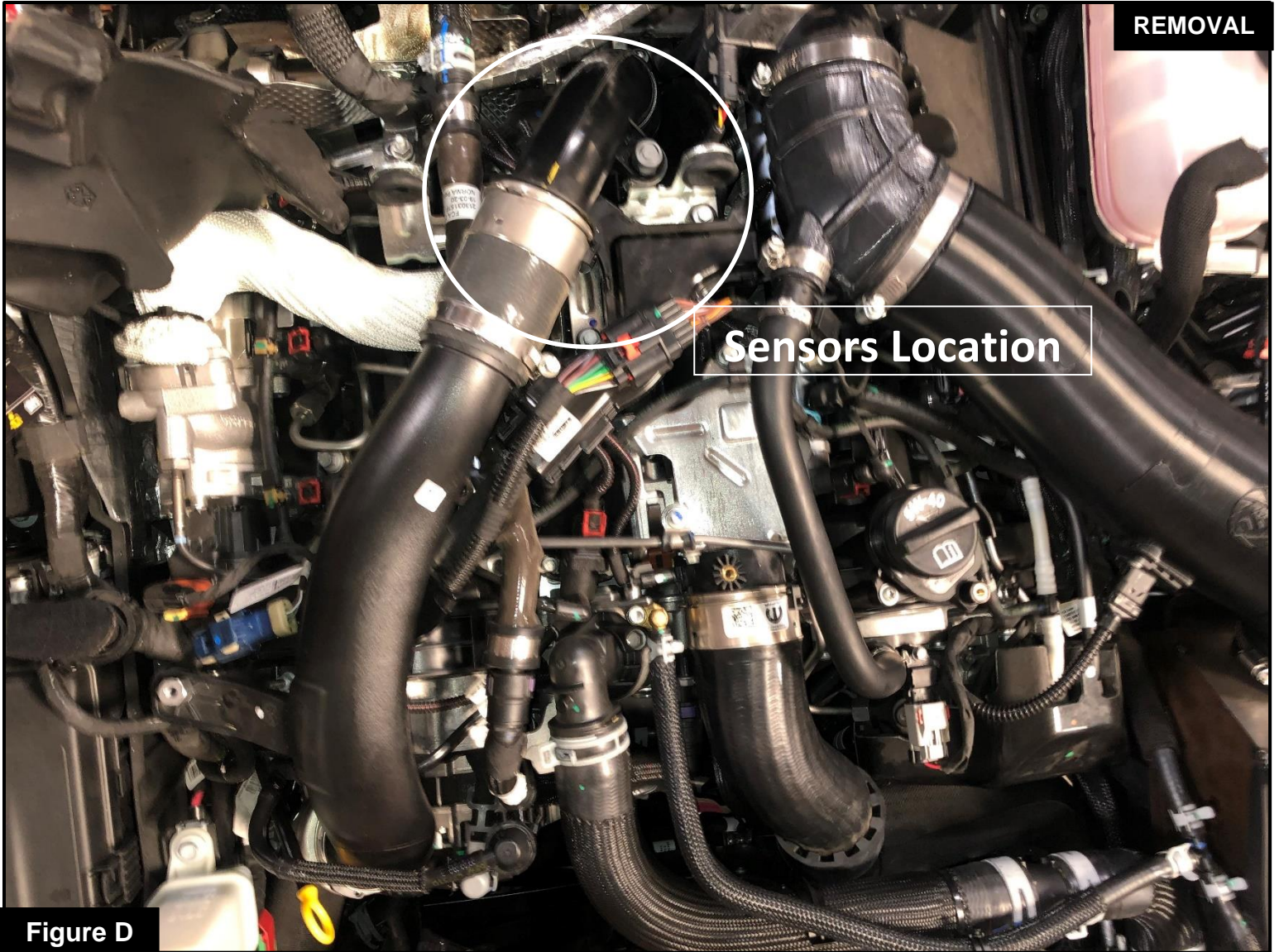
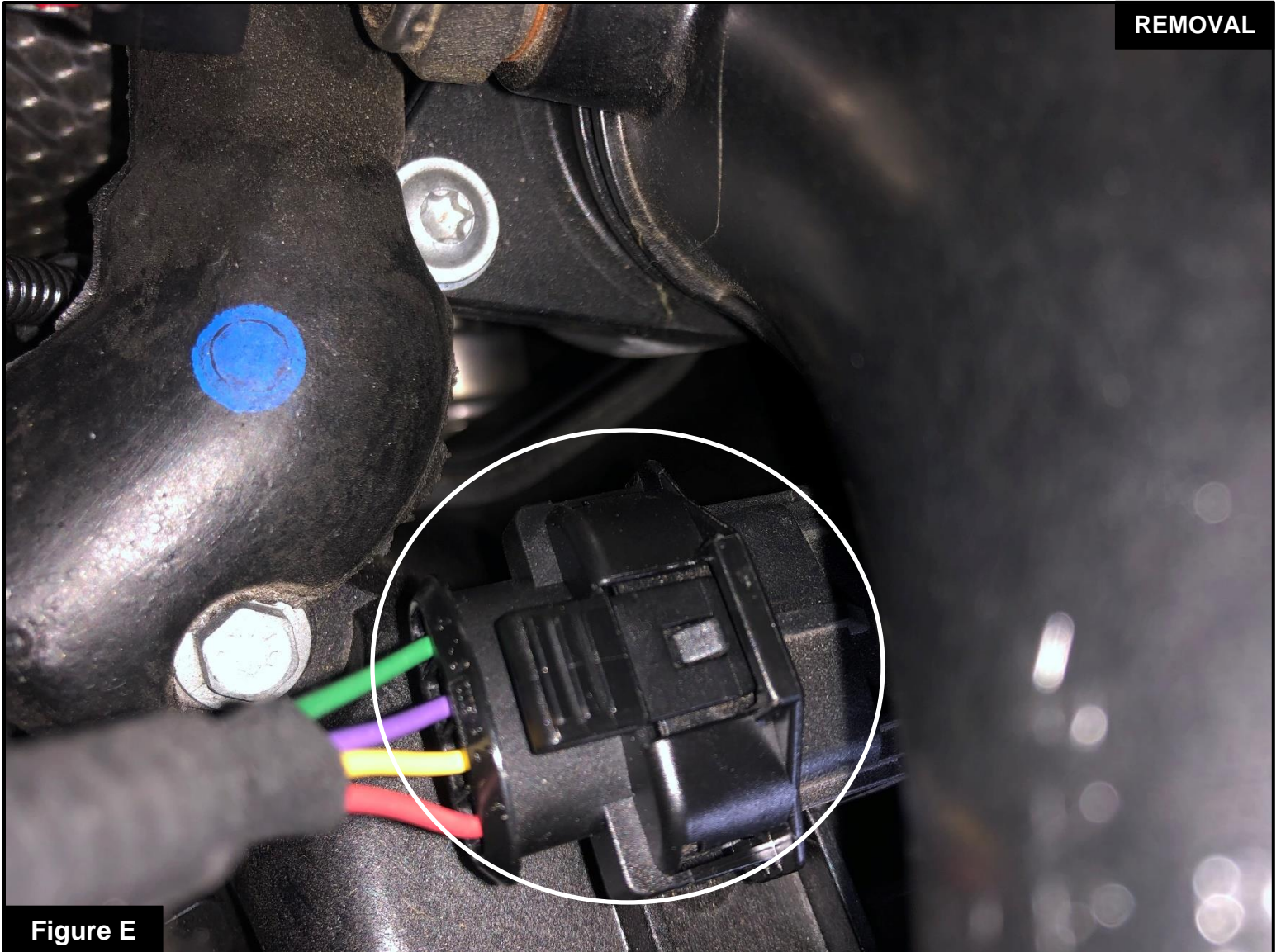


Figure D

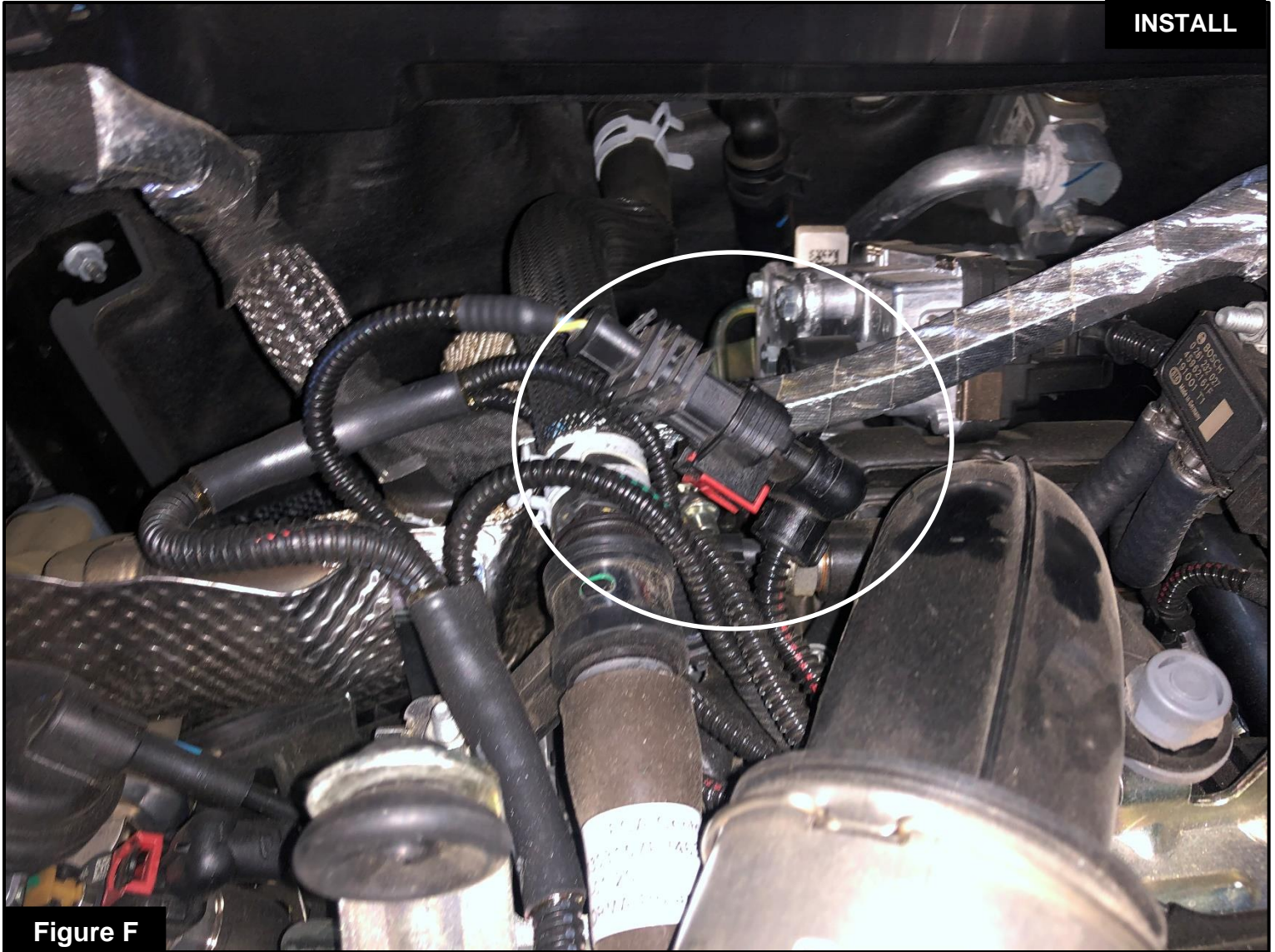
Refer to Figure D for Step 6

Step 6: Locate the MAP Sensor and the Fuel Pressure Sensor. The sensors are located on the back of the engine bay near the firewall and under the charge pipe.

**Figure E****Refer to Figure E for Steps 7-8**

Step 7: Locate the MAP sensor. It is on top of the intake manifold underneath the charge pipe. Disconnect it by pressing down on the locking tab and sliding the connector out of the sensor.

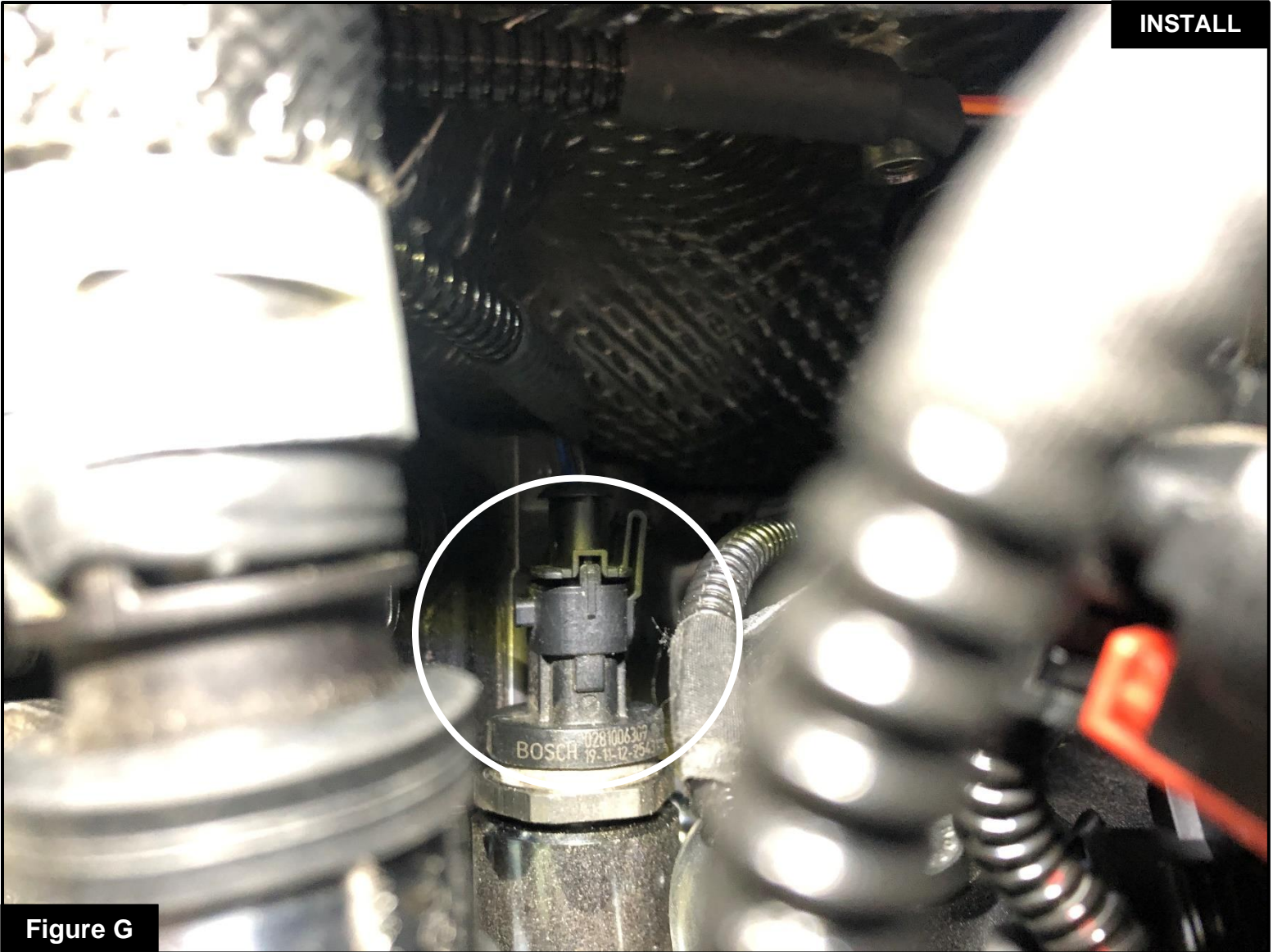
Step 8: Locate the MAP sensor jumper harness on the aFe POWER harness. This is the harness labeled "MAP". Plug the female connector of the aFe POWER harness to the MAP sensor, then take the male connector of the aFe POWER harness and connect it to the female connector of the engine harness.

**Figure F****Refer to Figure F for Step 9**

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



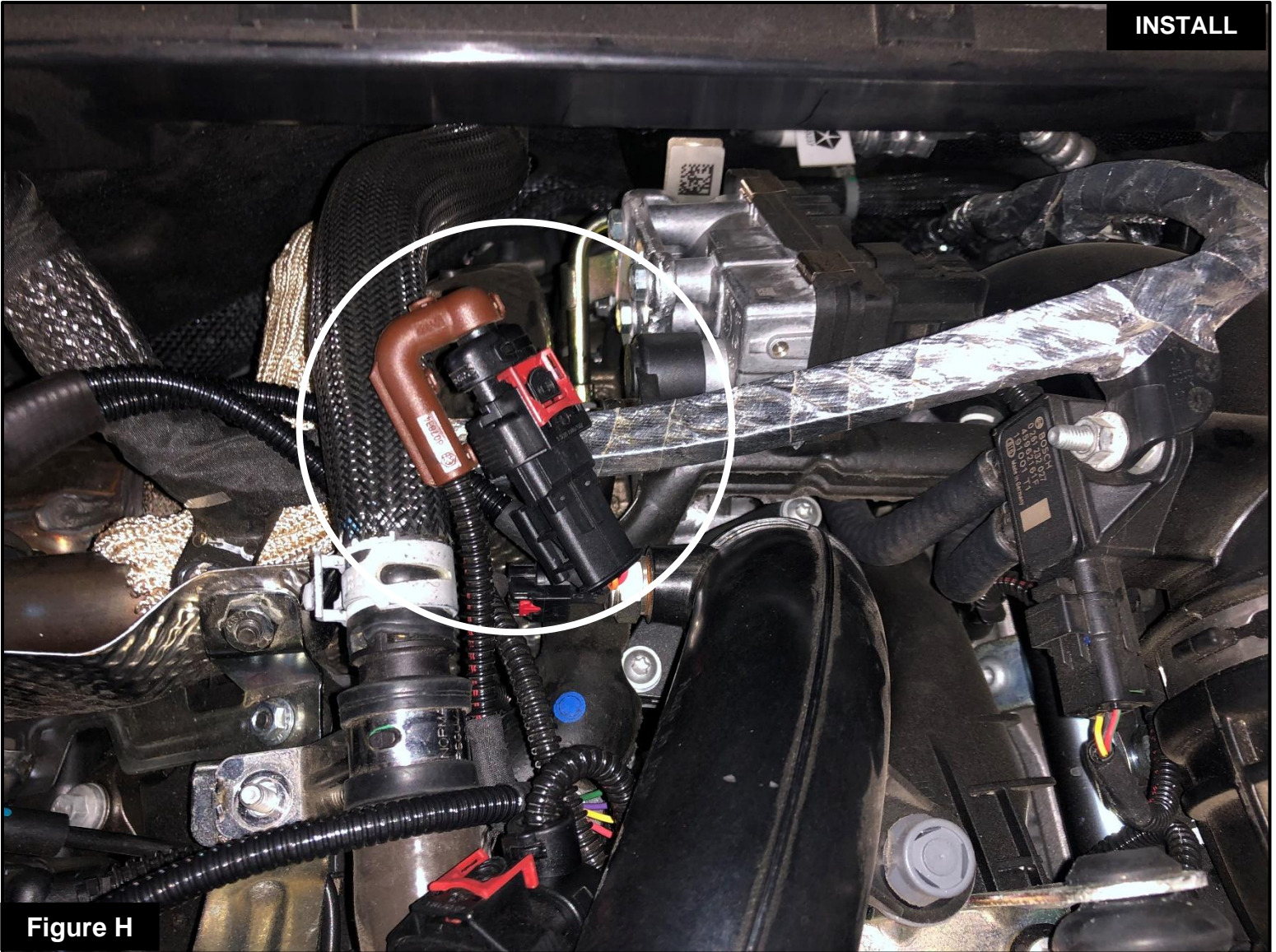
Make sure that the connections are fully engaged and not reversed. Usually, connectors make a snapping sound when fully engaged.

**Figure G****Refer to Figure G for Steps 10-11**

Step 10: Locate the fuel pressure sensor. It is underneath the heater hose and the main engine harness.

Disconnect it by pressing down on the locking tab and sliding the connector out of the sensor.

Step 11: Locate the fuel pressure sensor jumper harness on the aFe POWER module. This is the harness labeled "Fuel". Plug the female connector of the module to the stock fuel pressure sensor, then take the male connector of the module and connect it to the female connector of the engine harness.

**Figure H****Refer to Figure H for Step 12**

Step 12: Check with the picture to make sure the connectors are correctly seated and that the red tab is locked back into place.



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



Figure I

Refer to Figure I for Steps 13-16

Step 13: Secure the Scorch HD module on top of the fuse box using the included Velcro.

Step 14: Use the included zip ties to secure the Scorch HD harness away from all moving parts and components that will get hot when the engine is running.

Step 15: Re-install the insulation foam.

Step 16: Remove the engine oil cap, and then reinstall the engine cover along with the two 10mm mounting bolts, and then reinstall the oil cap. Pay particular attention to how the cap screws on, as it is very easy to cross thread the oil cap and not making a tight seal.

The doors can now be opened to install the LED Switch.



Figure J

Refer to Figure J for Steps 17-18

Step 17: 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 18: Use the provided double sided tape to secure the LED switch in the desired location.

**Figure K****Refer to Figure K for Steps 19-21**

Step 19: 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 20: Locate the engine bay wiring access slot below the driver side kick panel.

Step 21: Route the switch cable through the firewall and into the engine bay using this slot.

**Figure L****Refer to Figure L for Steps 22-23**

Step 22: Plug the end of the LED switch cable to the aFe POWER harness inside the engine compartment.

Step 23: 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 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 time while the unit is on.



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Sprint Booster V3



P/N: 77-16205

Magnum FLOW air Filter



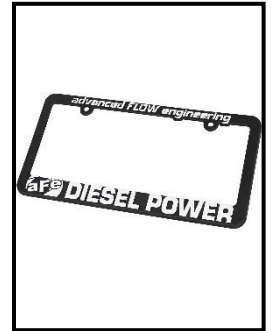
P/N: 30-10316

High-Tuck Exhaust System



P/N: 49-38091

aFe POWER Diesel Frame



P/N: 40-10204

Large Bore Exhaust System



P/N: 49-38092-B

aFE Diesel Tee-Shirt



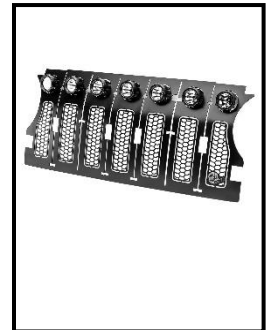
P/N: 40-30221

aFe POWER Tactical Backpack



P/N: 40-33205-B

Scorpion Insert Grille



P/N: 79-21004L

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



Warranty

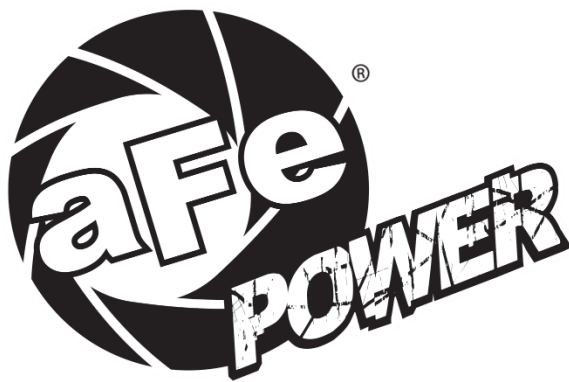
General Terms:

- 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



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