



advanced FLOW engineering

Instruction Manual P/N: 77-83041 **SCORCHER BLUE POWER MODULE**

Make: Ford

Model: Ranger

Year: 2019-2020

Engine: L4-2.3L (t)



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	R77-83041
B	1	LED Switch	05-70029
C	1	Bypass Plug	05-70017
D	1	Harness	AFE-10-247
E	2	Velcro (2" Inches)	05-01244
F	5	Cable Ties	05-60167
G	2	Double Sided Tape	07-90001





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.

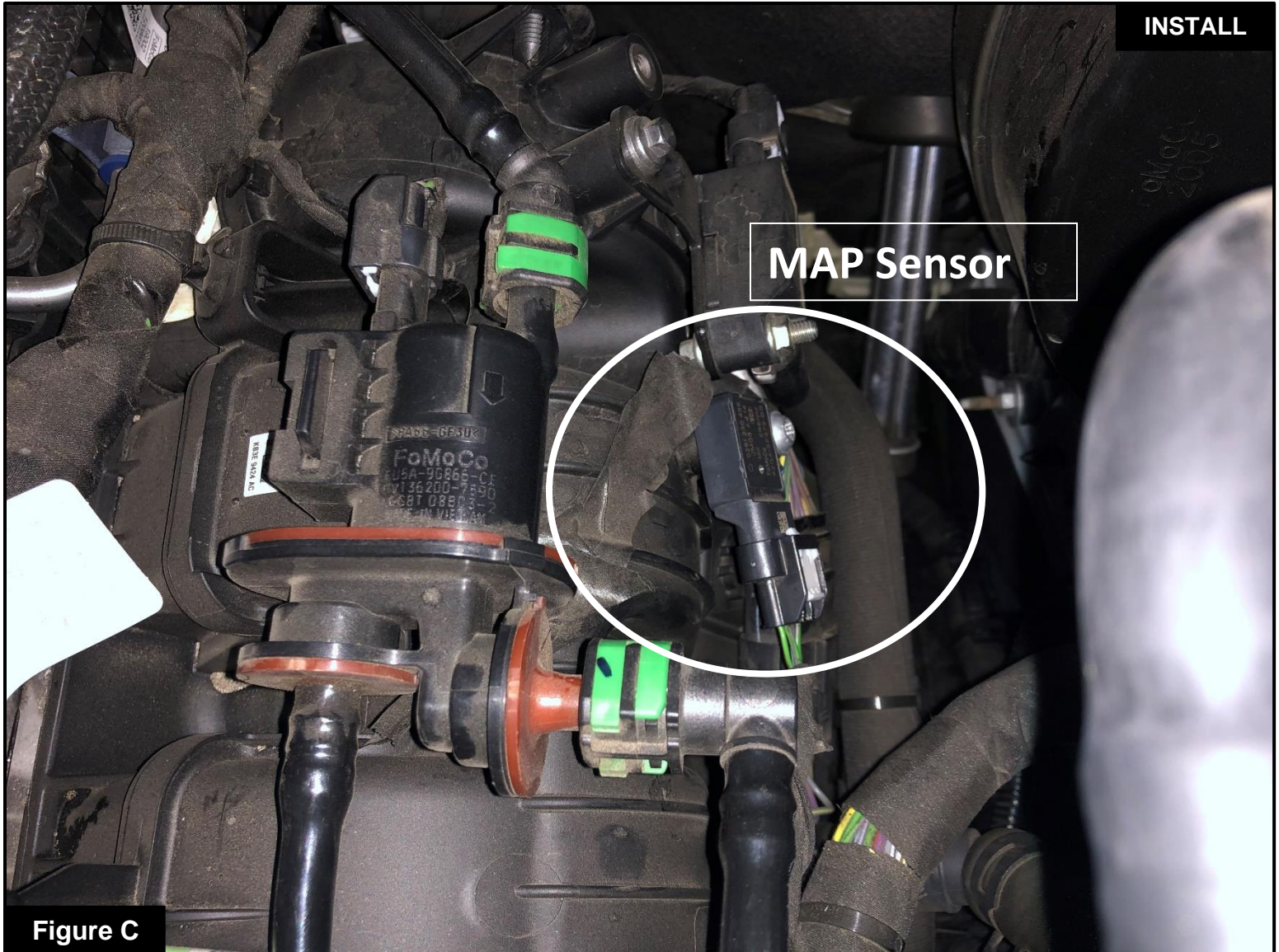


DO NOT OPEN VEHICLE DOORS WHILE SENSORS ARE DISCONNECTED OR BEFORE CONNECTING THE SCORCHER BLUE MODULE. DOING SO WILL TRIGGER A CHECK ENGINE LIGHT.



Refer to Figure B for Step 2

Step 2: Locate the Manifold Absolute Pressure Sensor, referred to as the MAP sensor. It is located on top of the intake manifold on the driver side of the engine bay.

**Figure C****Refer to Figure C for Steps 3-4**

Step 3: Disconnect the MAP sensor by pulling back on the locking tab and pressing down on the clip while sliding the connector out.

Step 4: Locate the MAP sensor jumper harness on the aFe POWER harness. It is identified with a white label. 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.

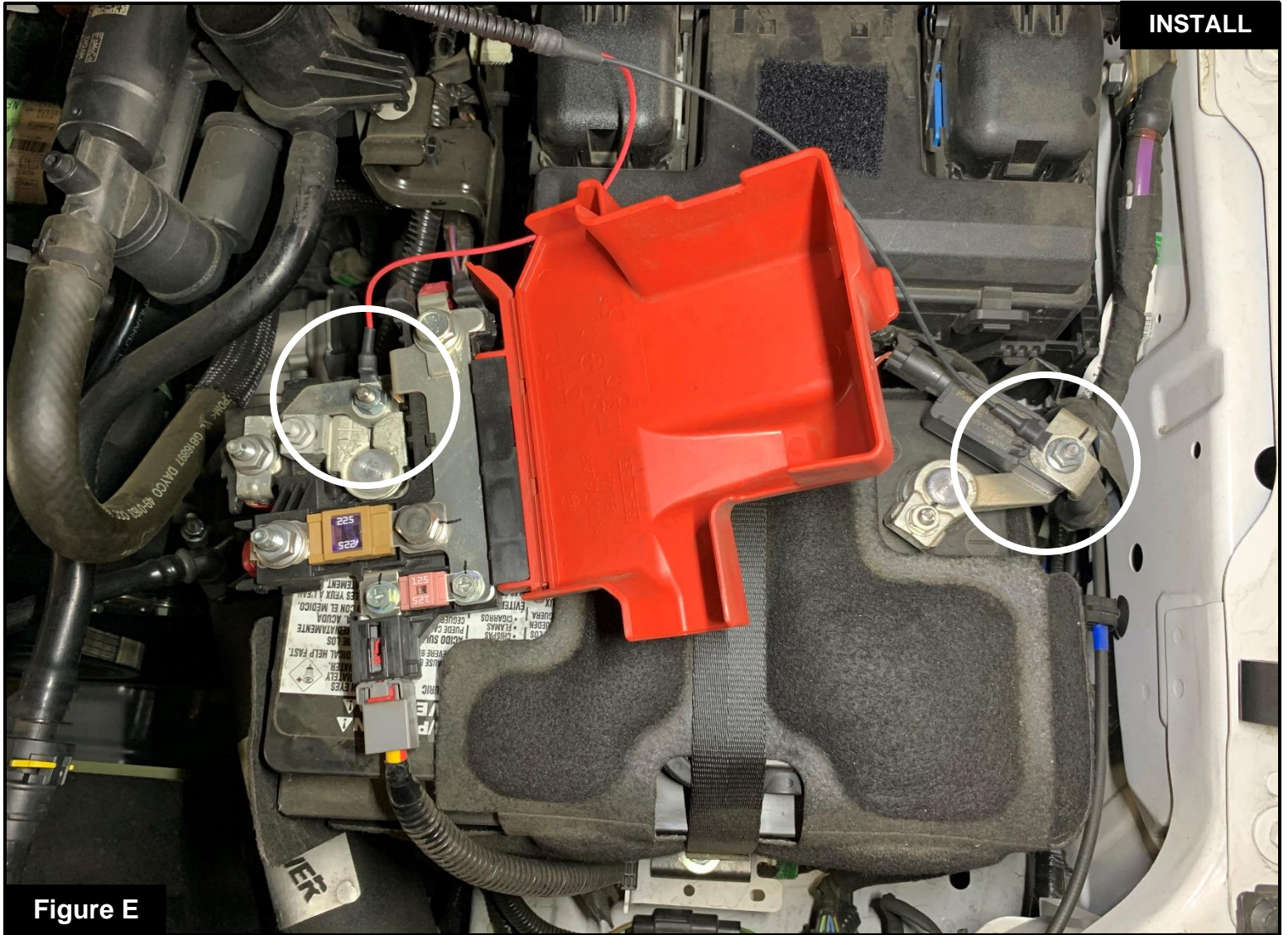


Make sure that the connections are fully engaged. Usually, connectors make a snapping sound when fully engaged.



Refer to Figure D for Step 5

Step 5: Check with the picture and make sure that both the male and female sides of the aFe POWER harness is plugged in and the locking tabs are slide back into place.



Refer to Figure E for Steps 6-7

Step 6: Connect the red wire from the aFe POWER harness to the positive post on the battery terminal.

Step 7: Connect the black wire from the aFe POWER harness to the negative post on the battery terminal.

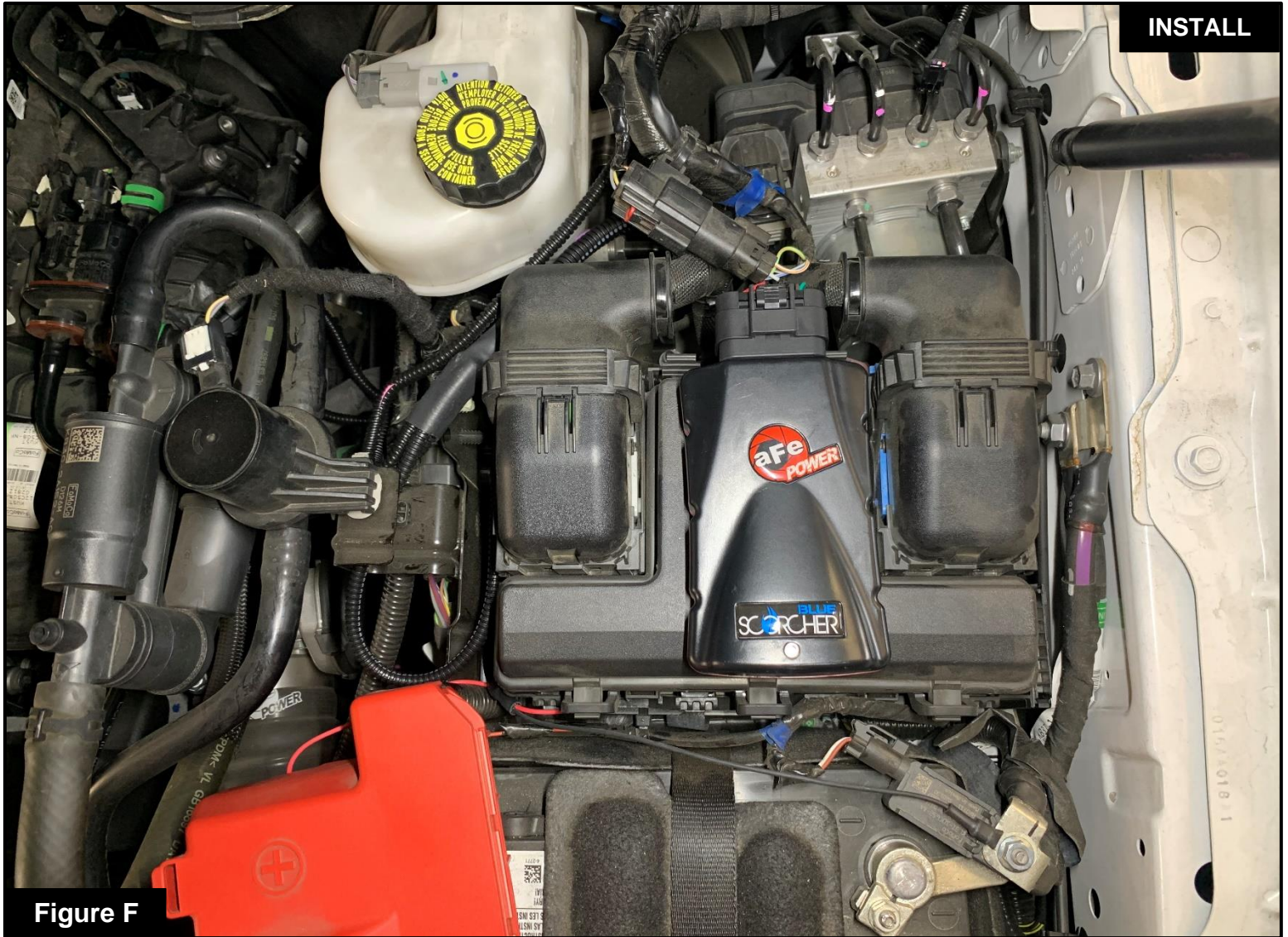


Figure F

Refer to Figure F for Steps 8-9

Step 8: Secure the Scorchers module on top of the fuse box using the supplied velcro.

Step 9: Connect the harness from the aFe POWER harness to the Scorchers Blue Module. Use the provided cable ties to secure the harness away from any moving parts.

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



Refer to Figure G for Steps 10-11 (Optional)

Step 10: Carefully route the switch behind the steering wheel cover

Step 11: Mount the switch on an open, flat surface using the included double-sided tape.

Note: Installation of the LED switch is optional if using the Bluetooth app.

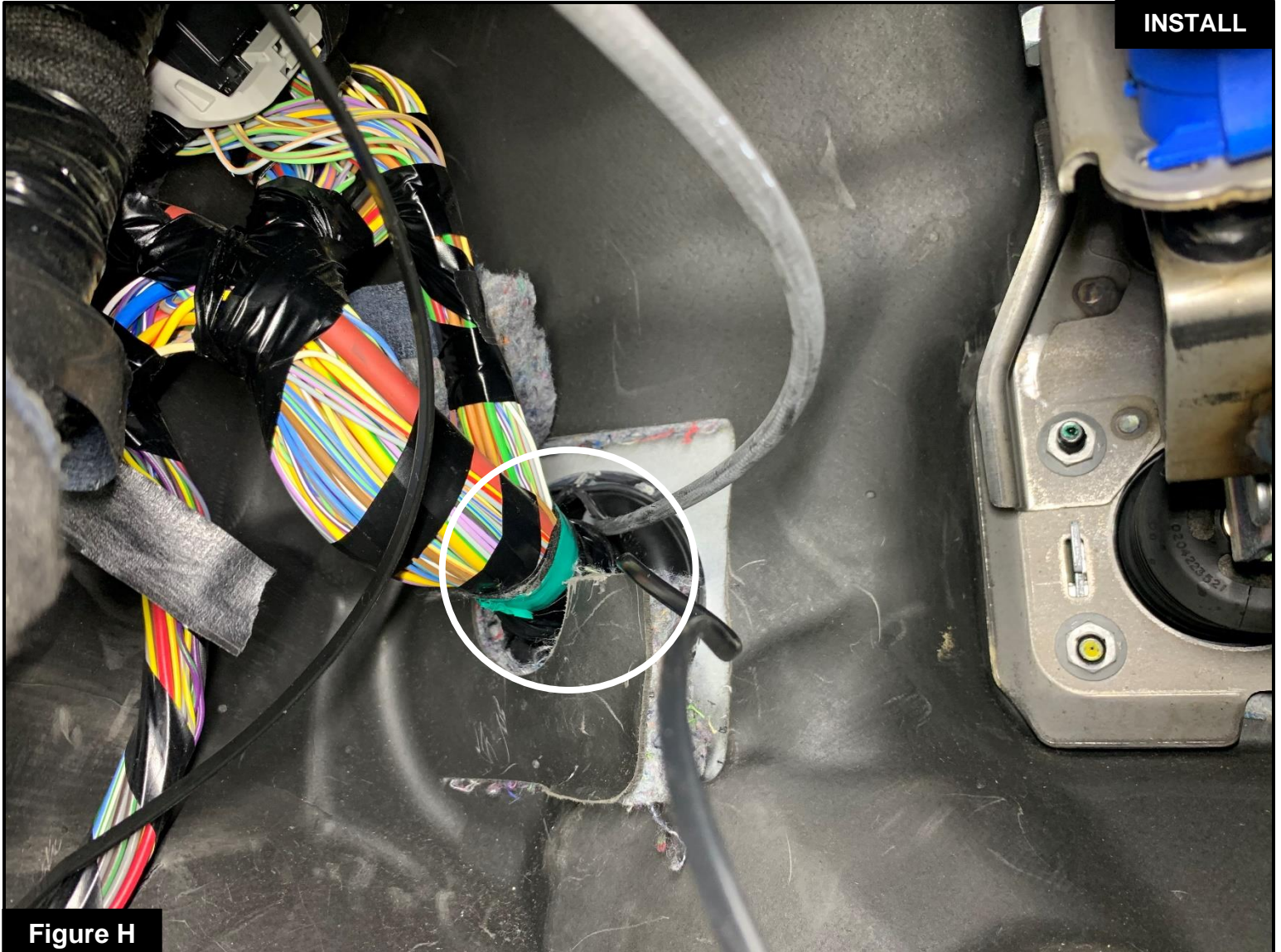


Figure H

Refer to Figure H for Steps 12-14 (Optional)

Step 12: Locate the grommet for the hood release cable and main harness inside of the cabin's driver side footwell and slightly pull it to the side in order to route the LED switch.

Step 13: Route the connector for the LED switch out to the engine bay using this hole.

Step 14: Connect the LED switch to the aFe POWER harness in the engine compartment.

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



Figure I

Refer to Figure I (Picture is for reference)

The blue LED light will start flashing once the module is connected to the car and the ECU is on. The blue LED will become solid if the module gets connected through Bluetooth to a device



Figure J

Refer to Figure J (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. The LED switch can be used at the same time as the Bluetooth app.

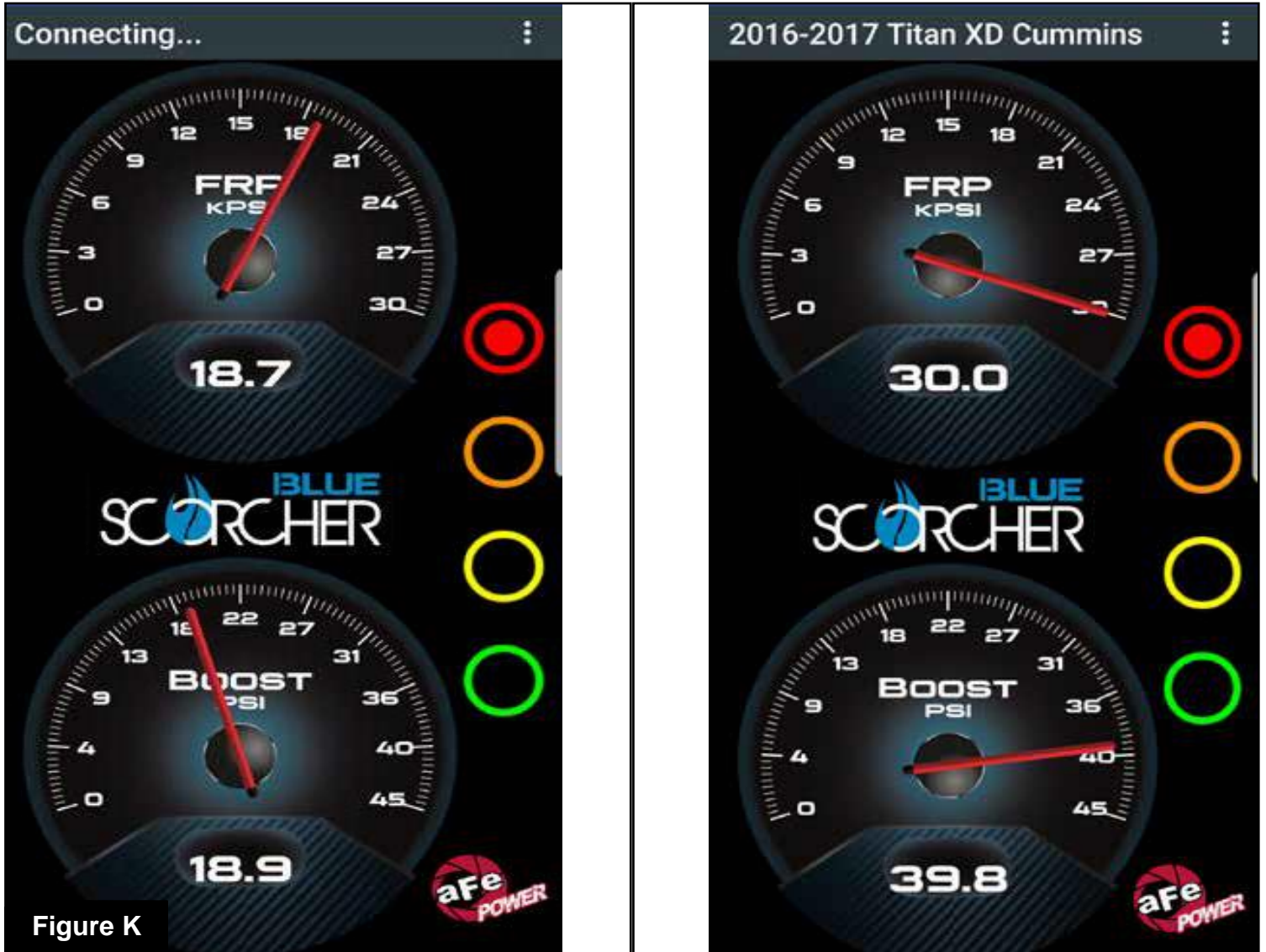


Figure K

Refer to Figure K* (app connection-iOS)

For iOS devices, 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 both 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.*

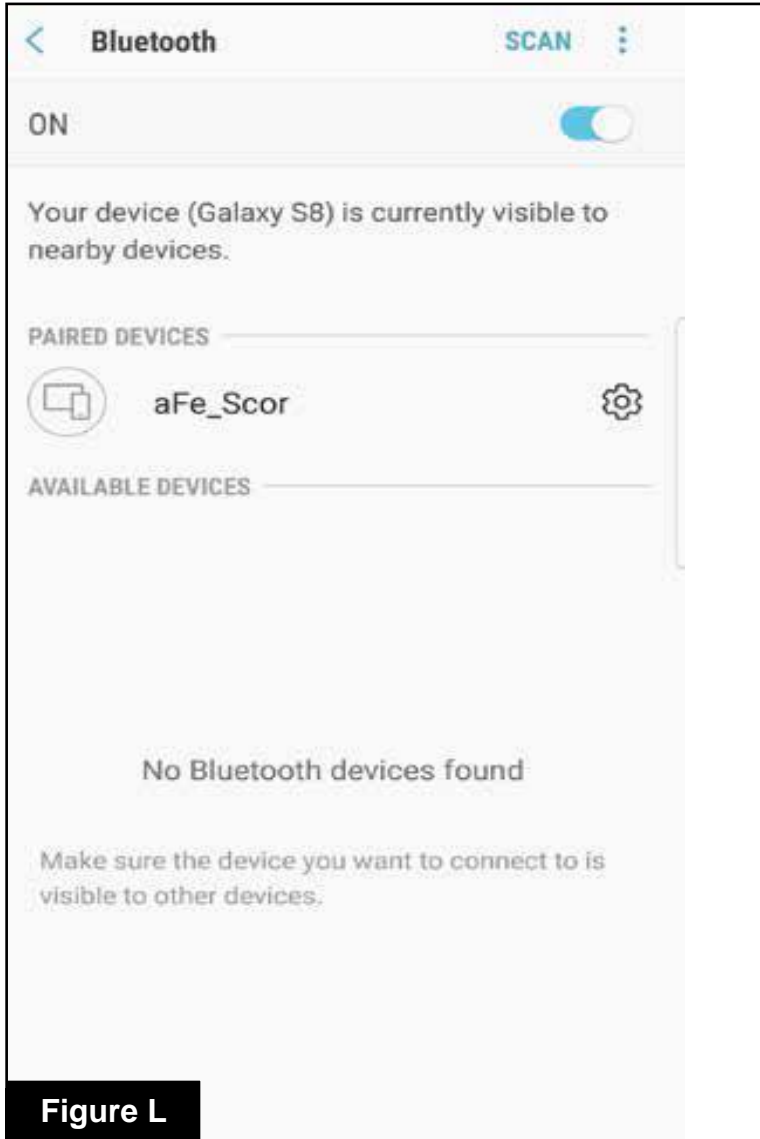


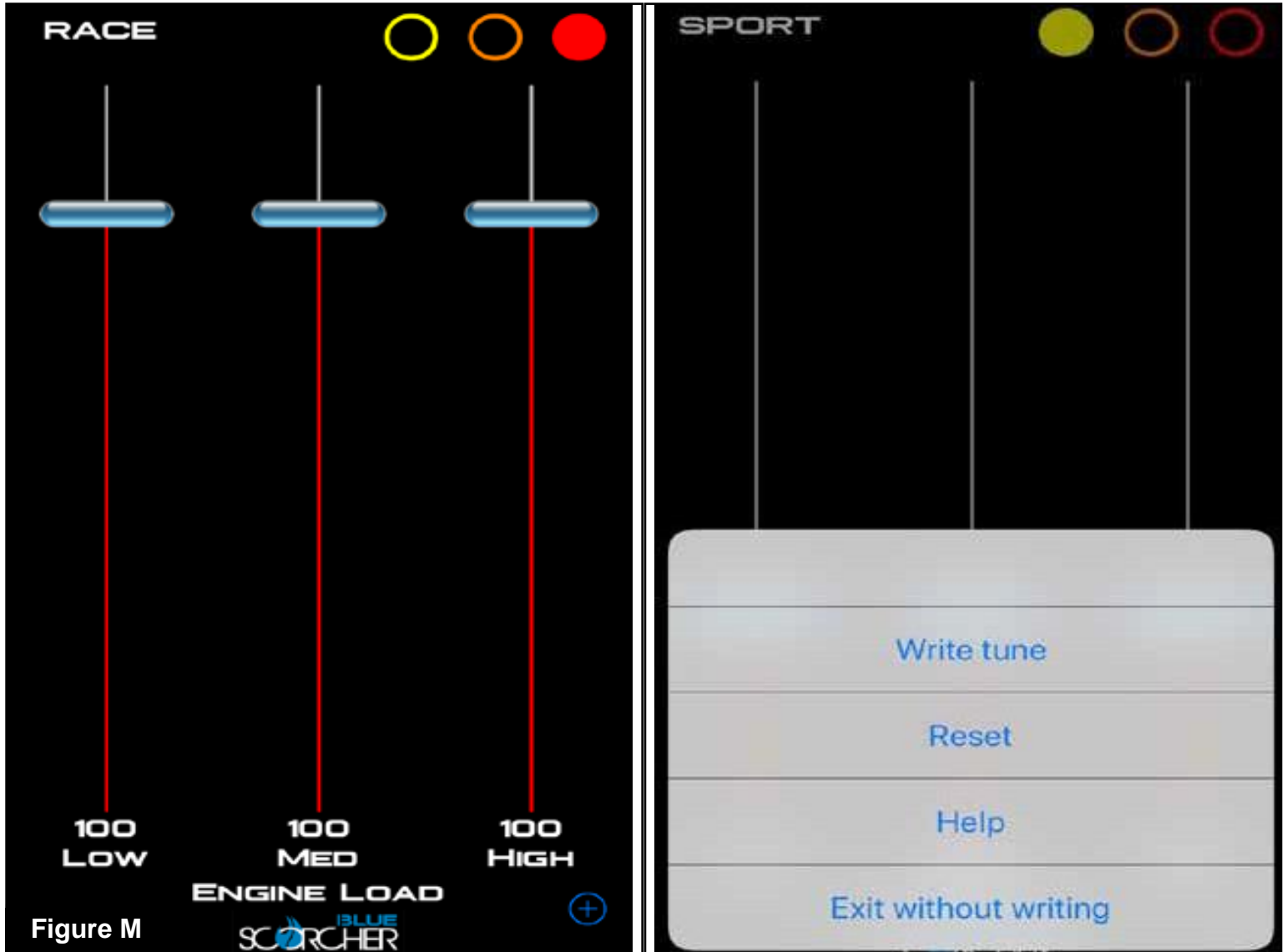
Figure L

Refer to Figure L* (app connection-Android)

For Android devices, download the app from the play store. For the initial 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.*



Refer to Figure M (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, reset, 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.



Refer to Figure N (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 O

Refer to Figure O (Bypass Plug)

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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Rapid Induction Cold Air Intake



P/N: 52-10001R

Magnum Force Cold Air Intake Scoop



P/N: 54-13056S

Stainless Steel Cat-Back Exhaust



P/N: 49-33119

Sprint Booster



P/N: 77-13001

Blue Squeeze Restore Kit



P/N: 90-50501

Magnum FLOW Pro 5R Air Filter



P/N: 30-10294

Quantum Pro 5R Cold Air Intake



P/N: 53-10021R

Rear Differential Cover



P/N: 46-71170B

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)493-7100. 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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