



advanced FLOW engineering

Instruction Manual P/N: 77-46004

Make: **Toyota**
Make: **Toyota**
Make: **BMW**

Model: **Supra**
Model: **Supra**
Model: **Z4**

Year: **2020-2023**
Year: **2021-2023**
Year: **2020-2023**

Engine: **L6-3.0L(t)**
Engine: **L4-2.0L(t)**
Engine: **L6-3.0L(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	R77-46004
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.

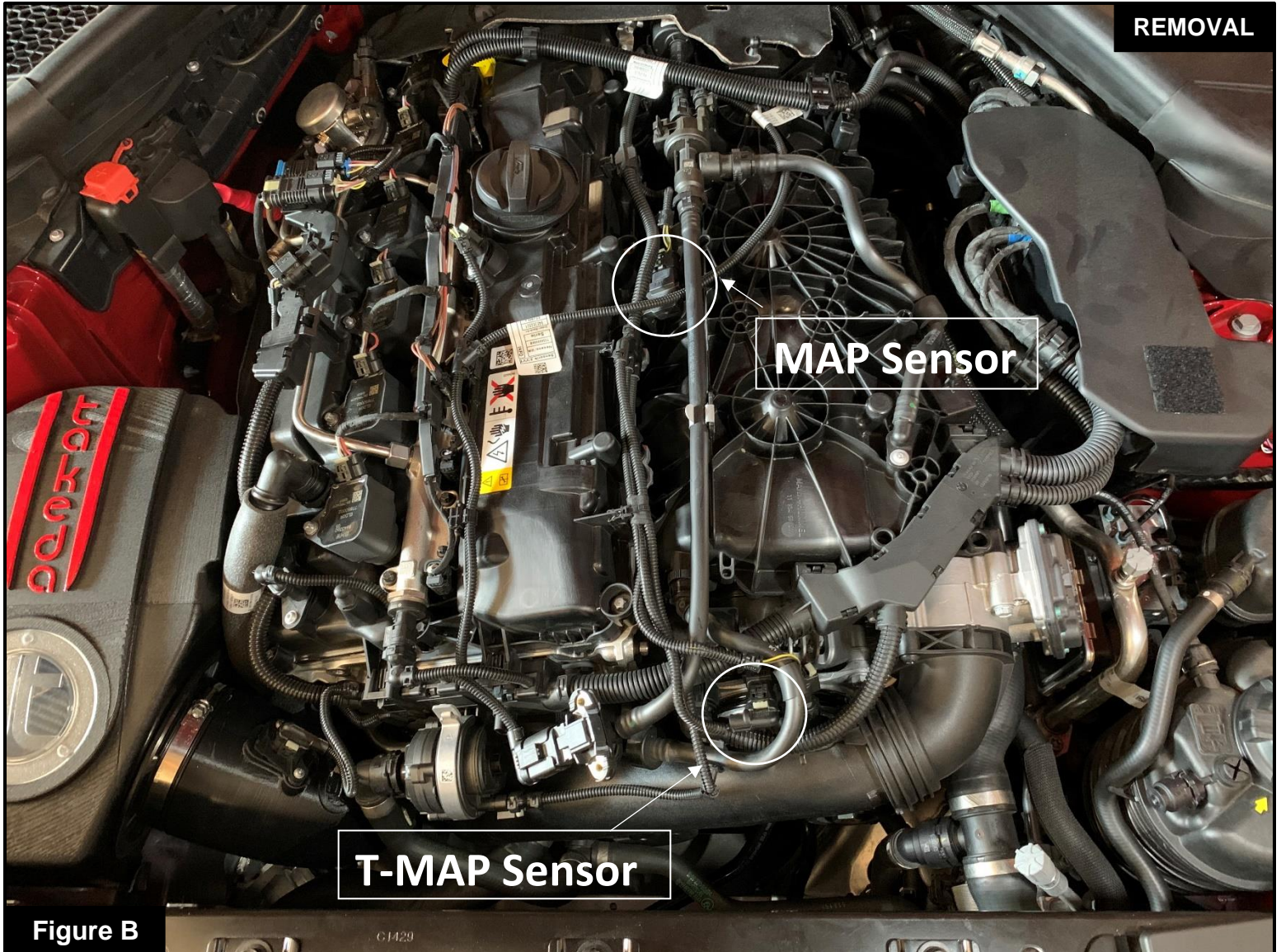
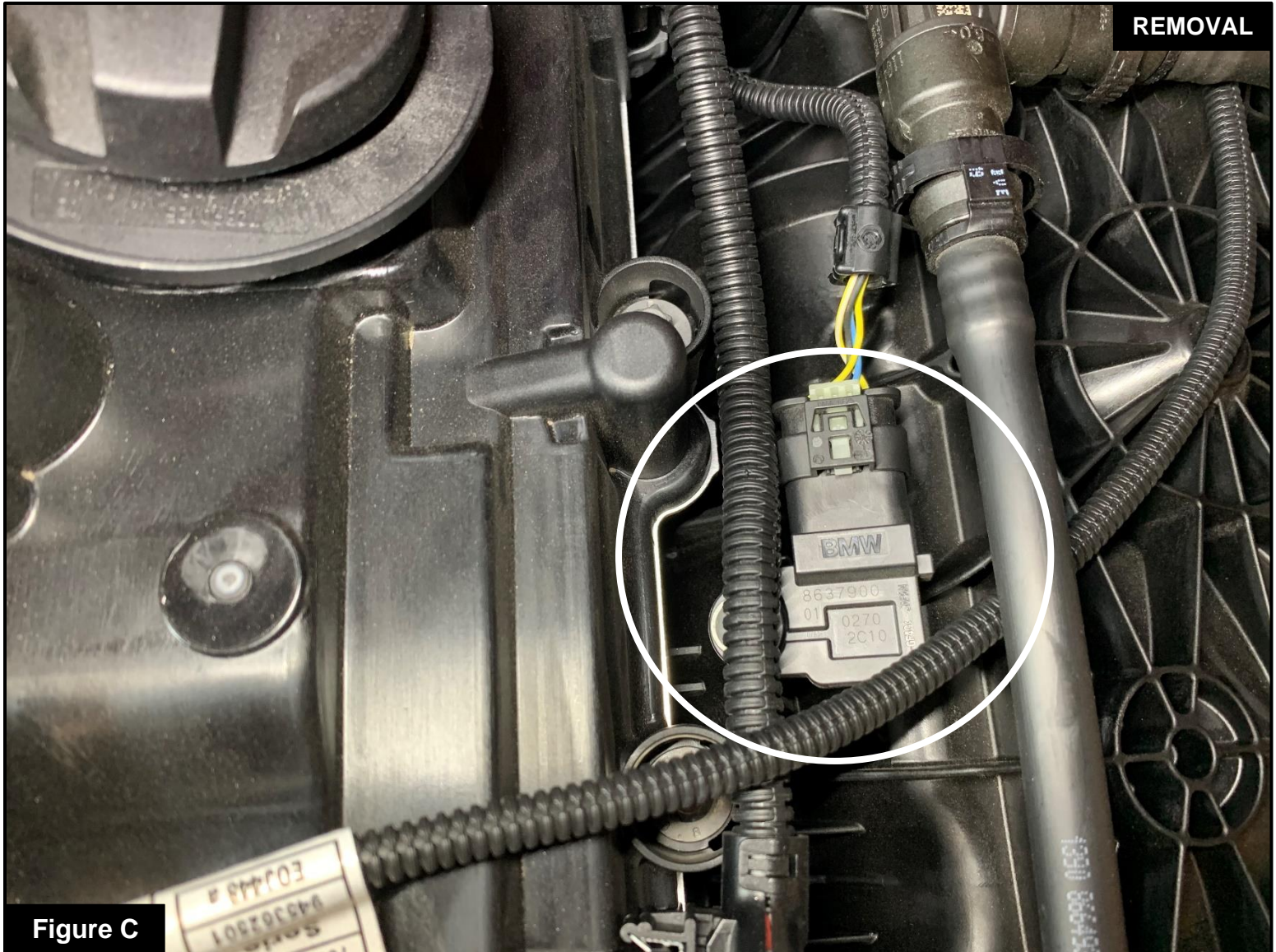


Figure B

Refer to Figure B for Steps 2-3

Step 2: Remove engine cover to gain access to the MAP and T-MAP sensors.

Step 3: Locate the MAP and T-MAP sensors. MAP sensor is located on top of the intake manifold in proximity to the oil cap. The T-MAP sensor is located on the charge pipe towards the front of the engine bay.



Refer to Figure C for Step 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. 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.



Figure D

Refer to Figure D for Step 6

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

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

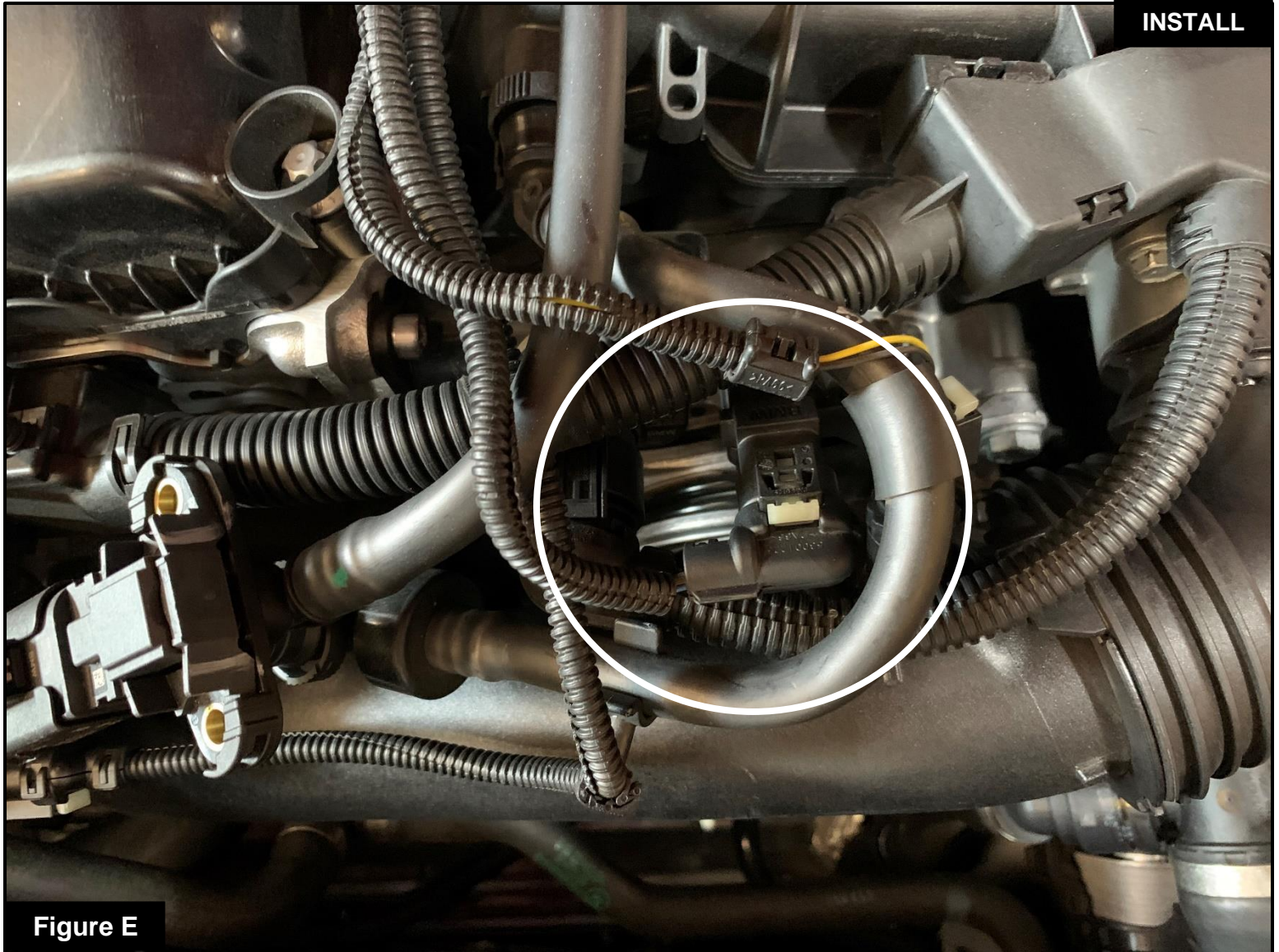
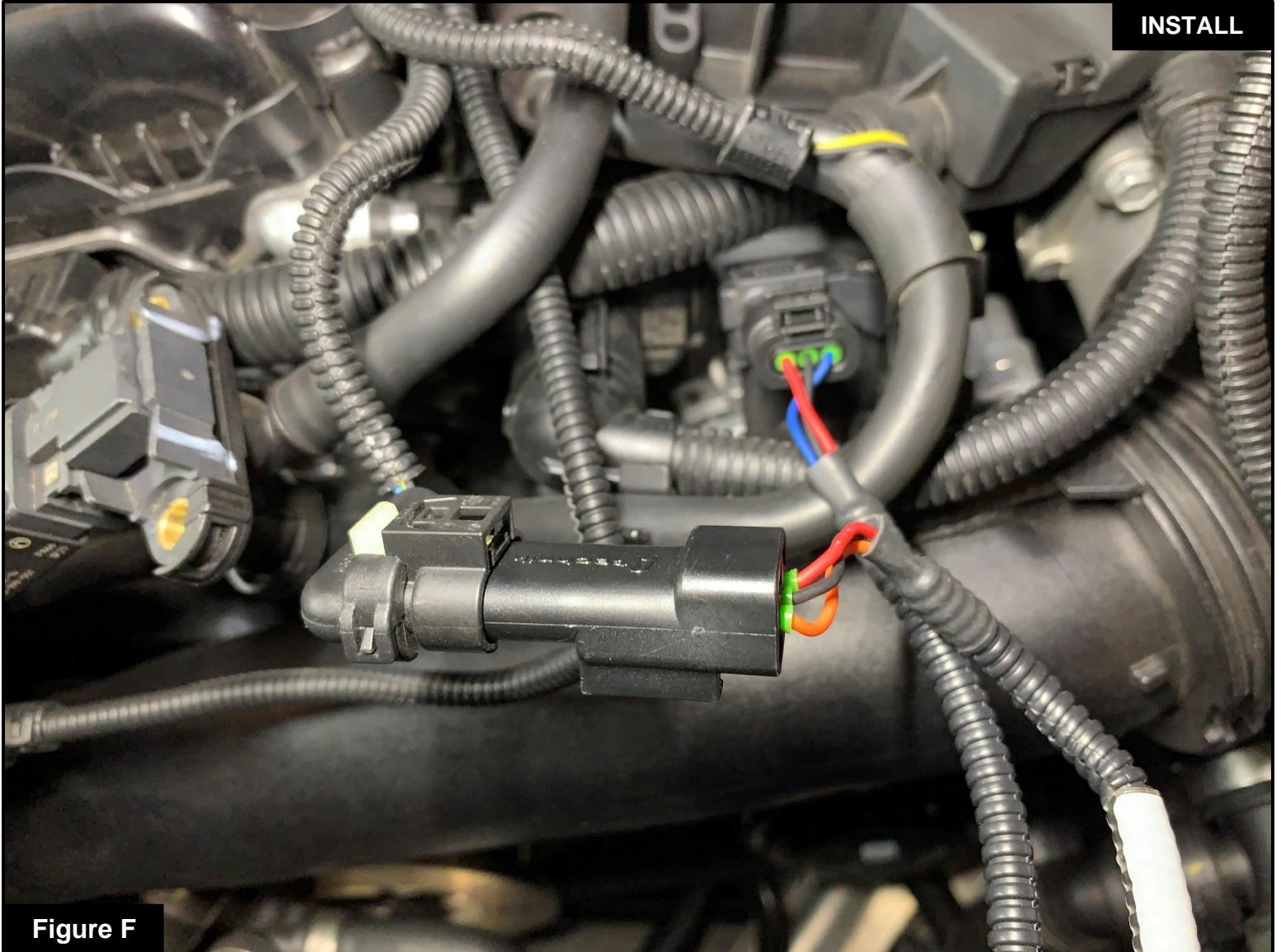


Figure E

Refer to Figure E for Step 7-8

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

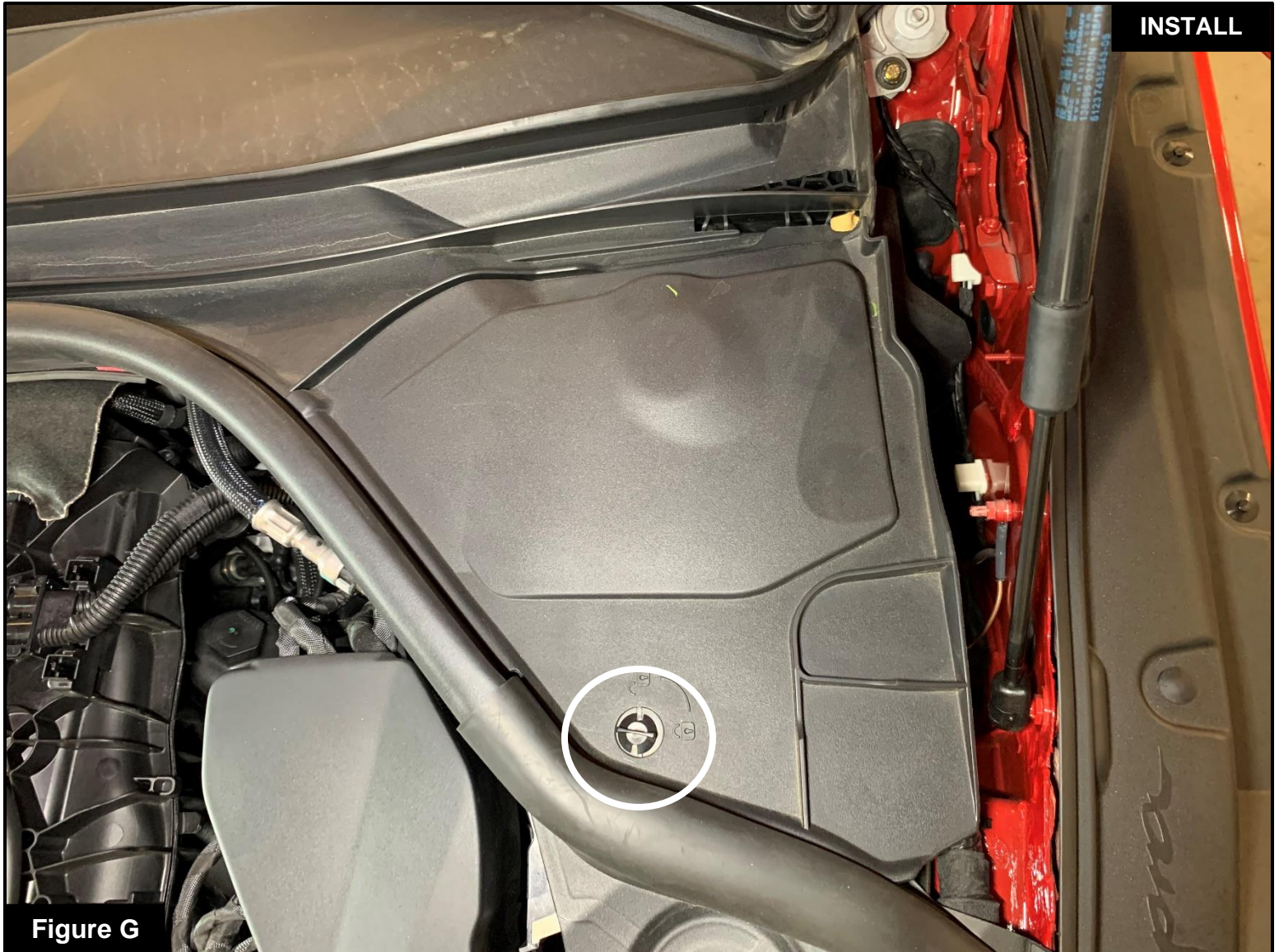
Step 8: Locate the T-MAP sensor jumper harness on the aFe POWER harness. It is labeled T-MAP. This is the harness with four wires in each connector. Plug the female connector of the aFe POWER harness into the T-MAP sensor, then the male connector of the aFe POWER harness into the female connector of 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.



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



Refer to Figure G for Step 10

Step 10: Remove the plastic cover by turning knob counter-clockwise to gain access to wire-routing slot in the firewall.



Figure H

Refer to Figure H for Step11

Step 11: Locate hole behind the firewall leading into the driver side footwell. Route the cable from the LED switch from the cabin to the engine compartment.



Figure I

Refer to Figure I for Steps 12-13

Step 12: Carefully route the switch cable behind steering wheel cover.

Step 13: Mount the switch on an open, flat surface.

**Figure J****Refer to Figure J for Steps 14-17**

Step 14: Secure the Scorcher module on top of the plastic cover near the strut tower on the driver side using the supplied Velcro.

Step 15: Connect the harness from the LED switch to the Scorcher module.

Step 16: Reinstall the plastic cover on the driver side and turn the knob clockwise to lock it into place.

Step 17: Reinstall engine cover.



Figure K

Refer to Figure K (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. Thank you for choosing aFe POWER.



Pro 5R Air Filter



P/N: 30-10296

BladeRunner Intercooler Tube



P/N: 46-20398-B

Takeda Momentum Intake System



P/N: 56-70015R

Sprint Booster



P/N: 77-16510

Blue Squeeze Restore Kit



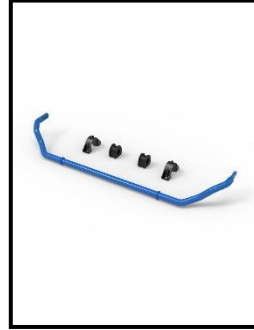
P/N: 90-50501

Takeda Cat-Back Exhaust



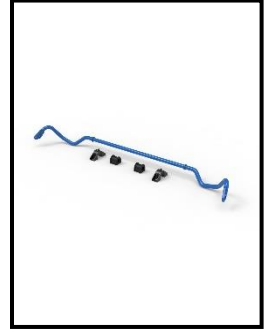
P/N: 49-36043-C

aFe Control Front Sway Bar



P/N: 440-721001FL

aFe Control Rear Sway Bar



P/N: 440-721001RL

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



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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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