

advanced FLOW engineering Cold Air Intake System

Instruction Manual P/N: 50-70116D / 50-70116R

Make: **Ford**

Model: **Ranger Raptor**

Year: **2024-2025**

Engine: **V6-3.0L (tt)**



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- Please read the entire instruction manual before proceeding.
- Ensure all components listed are present.
- For technical support please call 951-493-7185.
- Ensure you have all necessary tools before proceeding.
- Do not attempt to work on your vehicle when the engine is hot.
- Retain factory parts for future use.

| Label | Qty. | Description | Part Number |
|-------|------|---------------------------------------------------|--------------|
| A1 | 1 | Air Filter (Pro 5R) For 50-70116R | 20-91206R |
| A2 | 1 | Air Filter (Pro DRY S) For 50-70116D | 20-91206D |
| B | 1 | Intake Tube, Passenger | 05-5070109B1 |
| C | 1 | Intake Tube, Driver | 05-5070109B2 |
| D | 1 | Housing | 05-5070116B3 |
| E | 1 | Clamp, 032 (1-9/16" -2-1/2") | 03-50016 |
| F | 1 | Clamp, 044 (2-5/16" - 3-1/4") | 03-50019 |
| G | 2 | Clamp, 052 (2-13/16" - 3-3/4 ") | 03-50008 |
| H | 1 | Coupler, Silicone Bellow: 3-1/4"ID x 3"L | 05-01480 |
| J | 1 | Coupler, Silicone Straight: 2-3/8"x2"ID x 2-1/4"L | 05-01701 |
| K | 1 | Fitting, Recirculating: 50-70081 | 05-01731 |
| M | 1 | Grommet, Rubber: 2872-26012 | 03-50139 |
| N | 1 | Fitting, Air Temp Sensor | 05-01454 |
| P | 1 | Grommet, Rubber | 03-50167 |
| Q | 1 | Fitting, CCV Vacuum | 05-01698 |
| R | 1 | Grommet, Silicone: 05-01698 Fitting | 03-50751 |
| S | 1 | Plug, Hex Hd Socket: 1/8" NPT | 03-50029 |

Installation will require the following tools:

Panel clip remover, T-30 Torx Screwdriver, 7mm & 8mm nut driver, 8mm socket and driver, 3/16" allen wrench, tongue pliers

Warranty Information available at <https://afepower.com/contact#warranty>

Emissions 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.

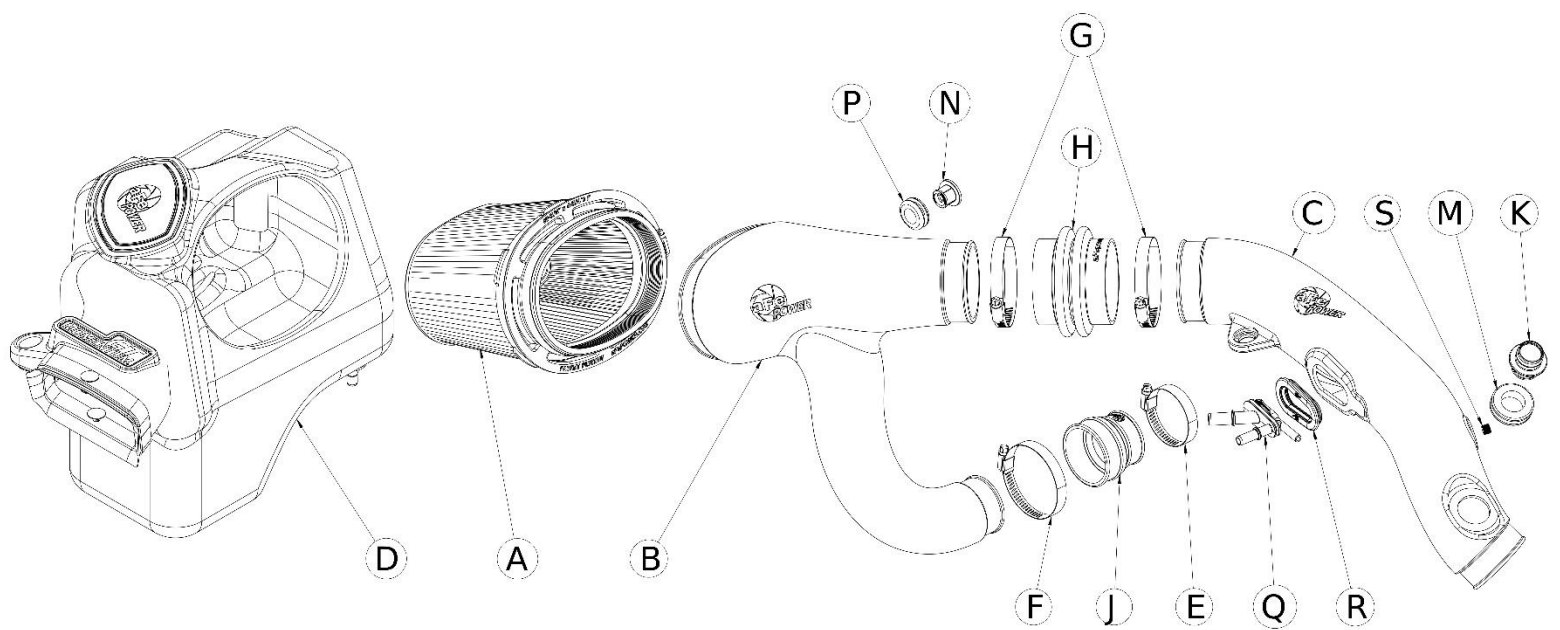




Figure A

Refer to Figure A for Steps 1-2

Step 1: Using a T-30 Torx screwdriver, remove the screw ① holding the scoop duct and set it aside.

Step 2: Press the lock points ② to pull out and remove the scoop duct and set it aside.

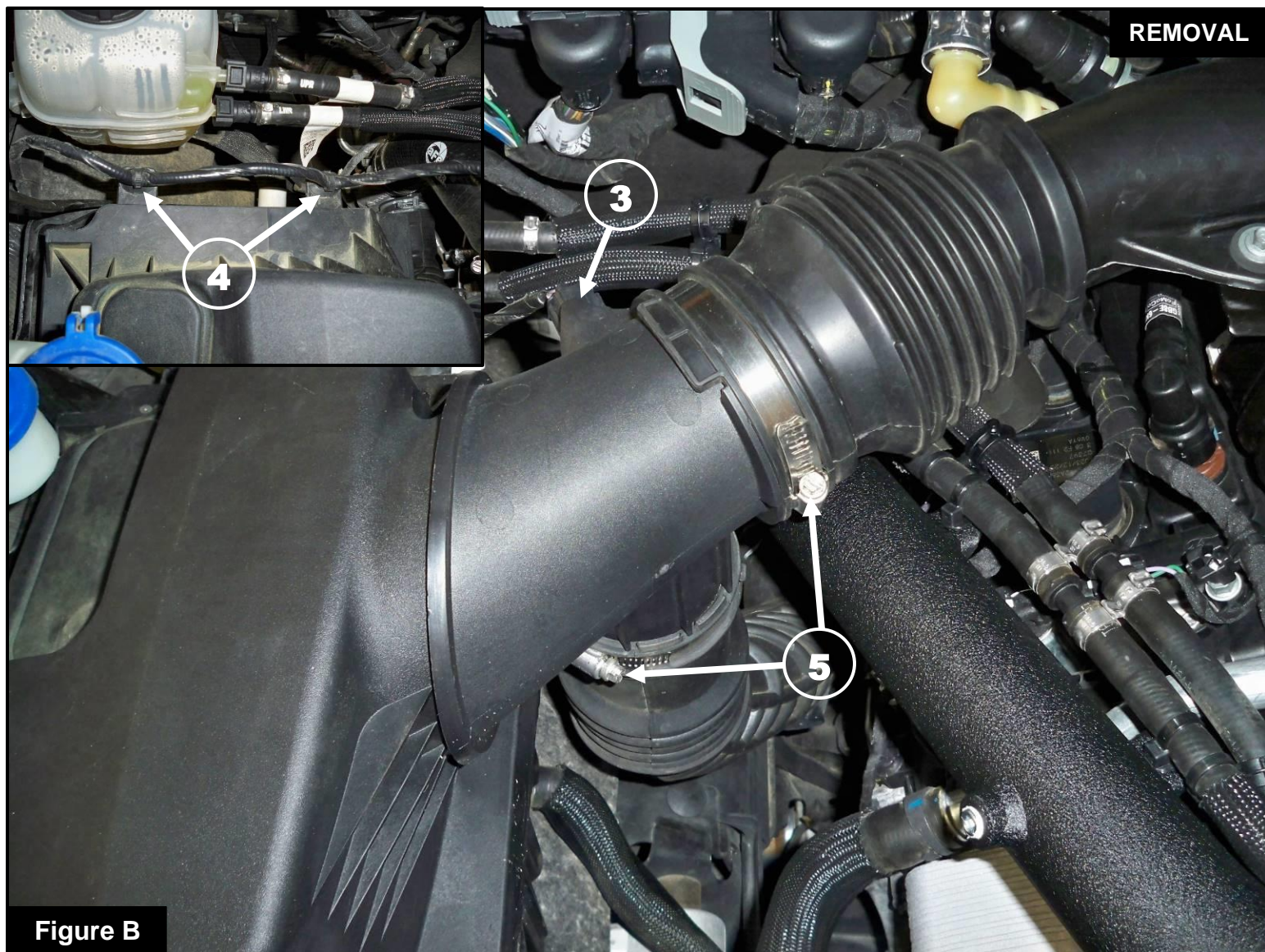


Figure B

Refer to Figure B for Steps 3-5

Step 3: Disconnect the IAT sensor electrical connector (3).

Step 4: Using a panel clip remover, release the retainer clips (4) holding the wiring harness to the factory airbox.

Step 5: Using a 7mm nut driver, loosen the clamps (5) and detach rubber hose intake tubes from the factory airbox.



Figure C

Refer to Figure C for Step 6

Step 6: Detach and remove the factory airbox from the isolators (6). If the isolators are pulled out and are stuck in the lower half of the factory airbox, remove them and insert them back on the mounting bracket.



Figure D

Refer to Figure D for Steps 7-10

Step 7: Disconnect the bypass hose quick-release connector (7).

Step 8: Disconnect the quick-release connectors (8) from the intercooler and EVAP hoses.

Step 9: Using an 8mm socket and ratchet, remove the screw (9) securing the intake tube and set the screw aside.

Step 10: Using a 7mm nut driver, loosen the clamp (10) and remove the intake tube.



Figure E

Refer to Figure E for Step 11

Step 11: Using tongue pliers, loosen the clamp ⑪ at the turbo and remove the factory rubber intake tube.



Figure F

Refer to Figure F for Steps 12-13

Step 12: Install the aFe POWER housing into the vehicle. Make sure the housing pins are aligned and fully seated in the isolators.

Step 13: Install the screw ⑫ removed in Step 1 to secure the aFe POWER housing.



Figure G

Refer to Figure G for Step 14

Step 14: Slide the aFe POWER filter and clamp into the aFe POWER housing and push them in until it locks into place. Do not tighten the clamp at this time.


Figure H

Refer to Figure H for Steps 15-16

Step 15: Install the supplied coupler (05-01701) (13) onto the turbo with the supplied #32 clamp (14) and tighten the clamp using an 8mm nut driver.

Step 16: Place the supplied #44 clamp (15) onto the other end of the coupler and snug it slightly so it will not fall off.

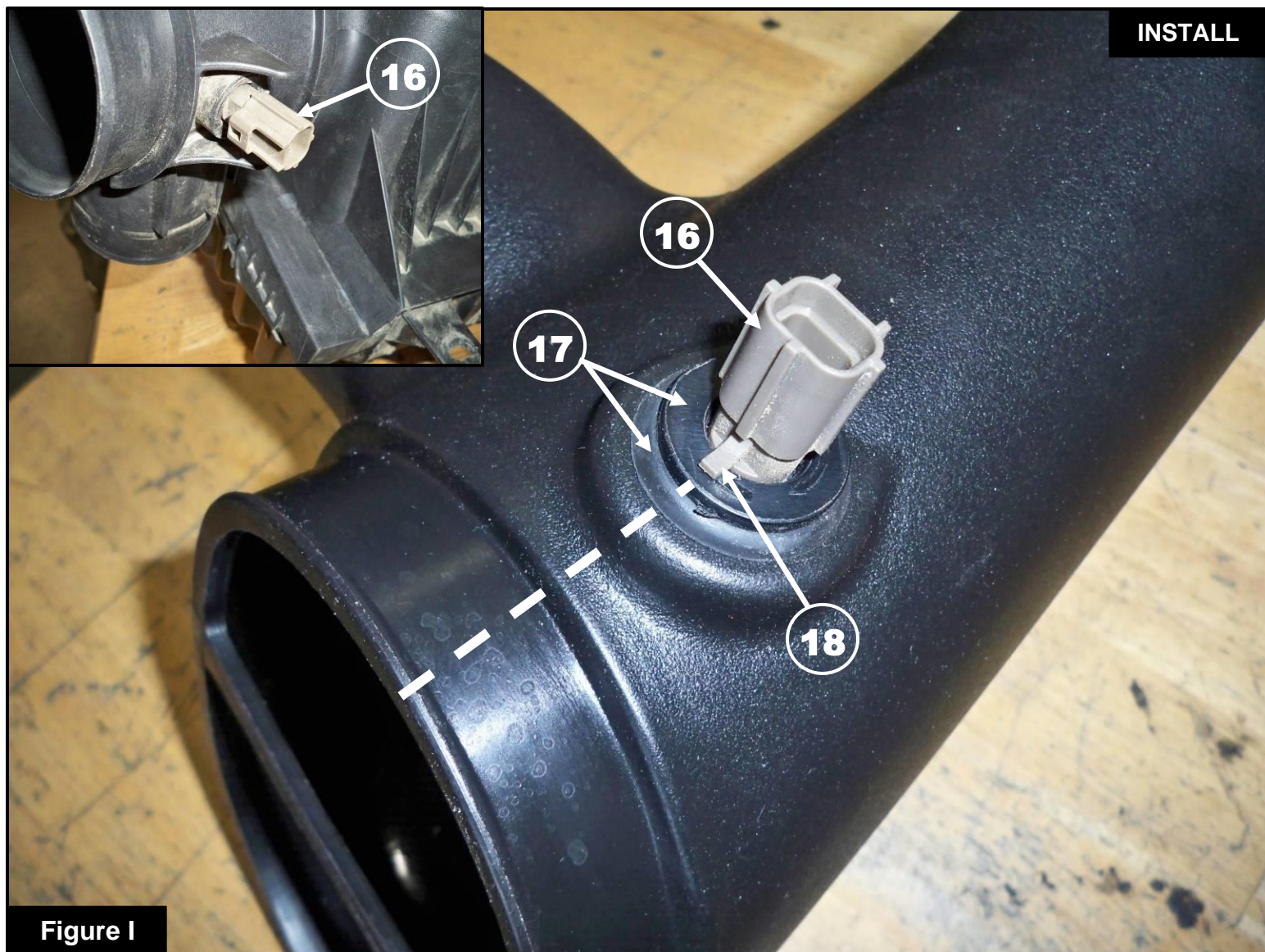


Figure I

Refer to Figure I for Steps 17-19

Step 17: Remove the IAT sensor (16) from the factory airbox by rotating $\frac{1}{4}$ turn counterclockwise and gently pulling it out.

Step 18: Install the provided grommet and temp sensor fitting (17) into the aFe POWER passenger-side intake tube.

Note: Lubricant can be used to facilitate the installation of the fitting into the grommet.

Step 19: Install the IAT sensor into the temp sensor fitting by rotating it $\frac{1}{4}$ turn clockwise until it locks into place. Being careful not to damage the AIT sensor, rotate the temp sensor fitting so the mounting tab (18) points in the direction of the tube opening.

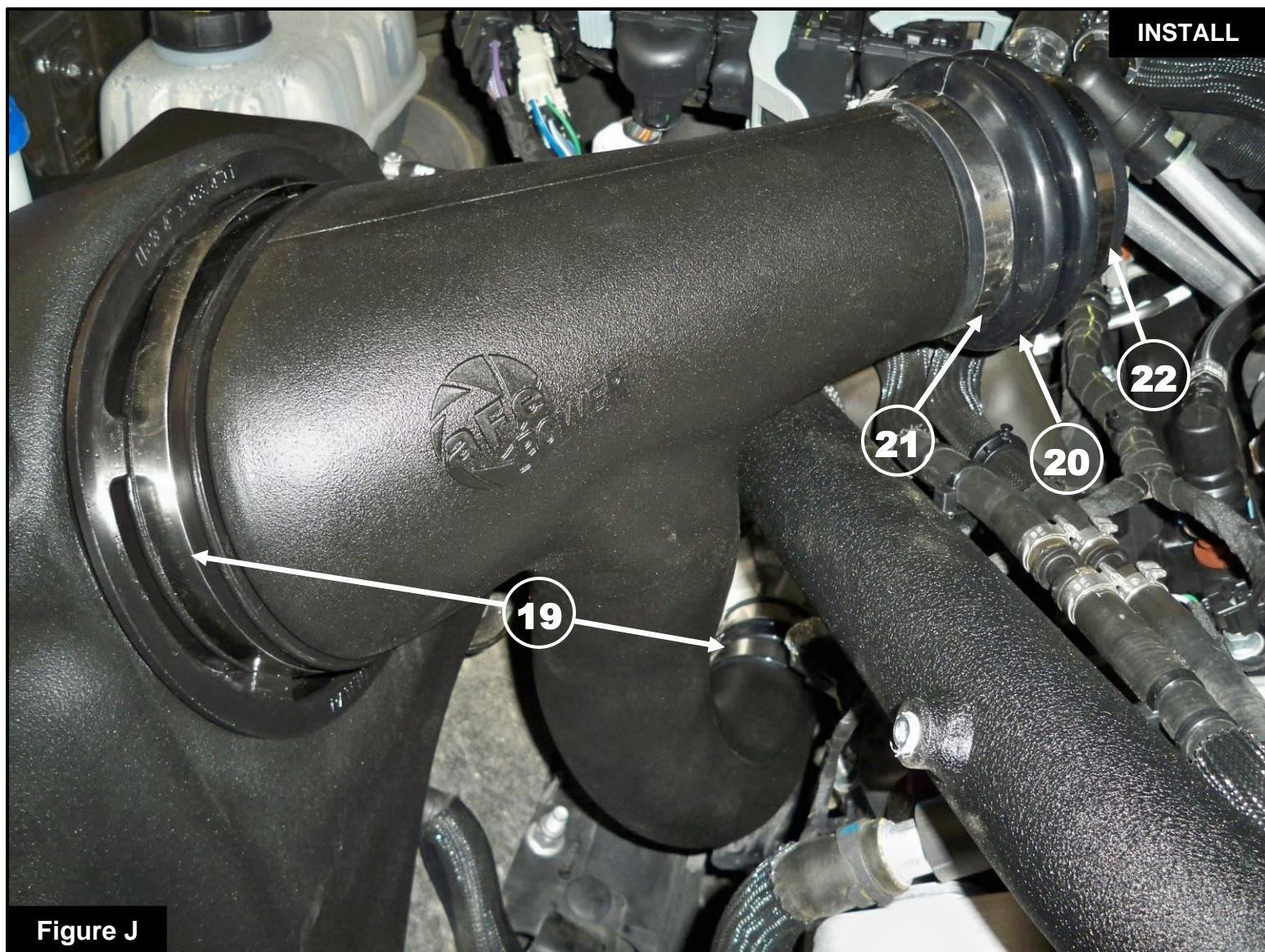


Figure J

Refer to Figure J for Steps 20-22

Step 20: Install the aFe POWER passenger-side intake tube into the coupler first, then into the air filter.

Align the tube correctly and tighten the clamps ①⑨ using an 8mm nut driver.

Step 21: Install the supplied coupler (05-01480) ②⑩ onto the aFe POWER passenger-side intake tube with the supplied #52 clamp ②① and tighten the clamp using an 8mm nut driver.

Step 22: Place the other supplied #52 clamp ②② onto the end of the coupler and snug it slightly so it will not fall off.

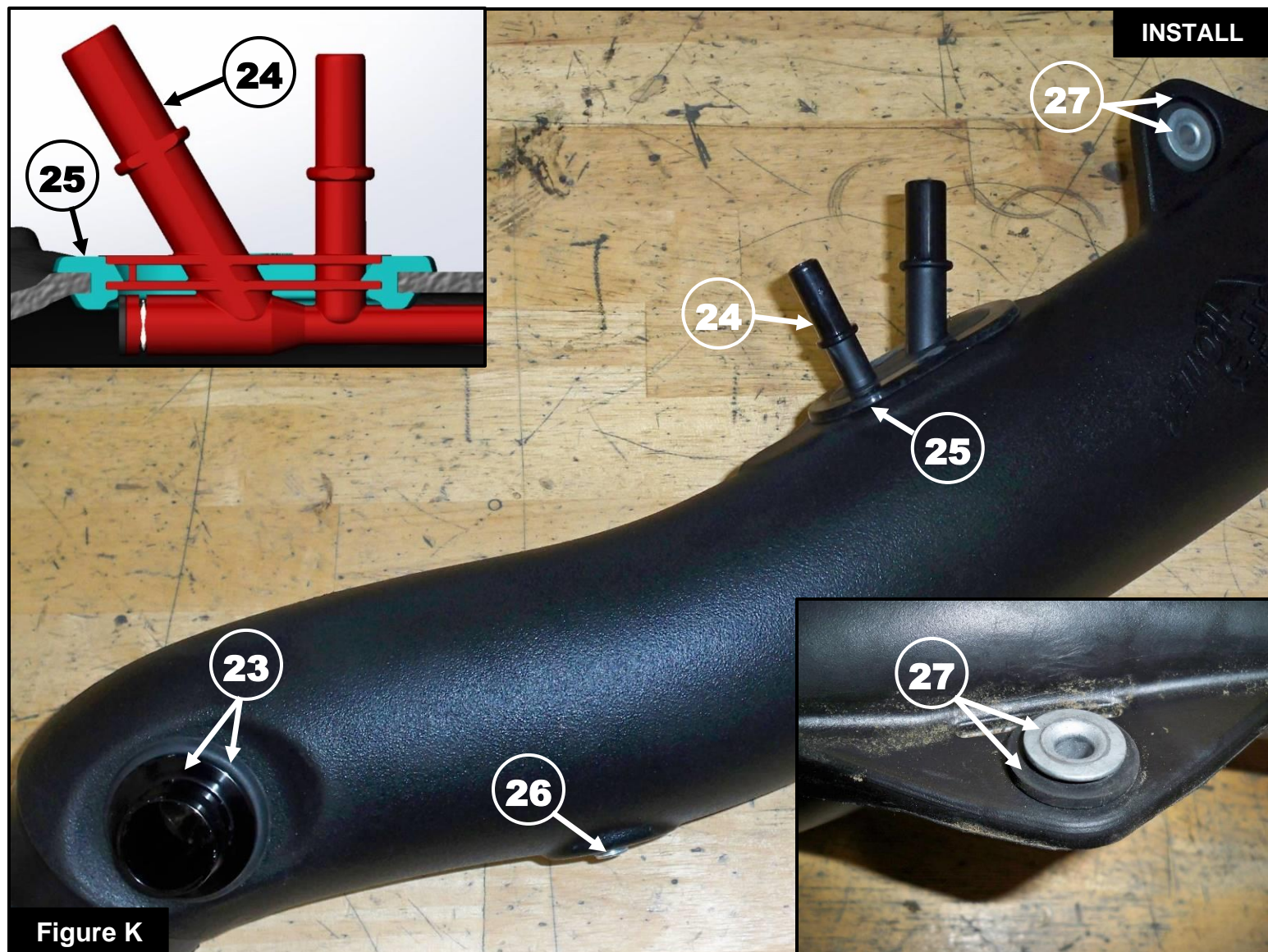


Figure K

Refer to Figure K for Steps 23-26

Step 23: Install the provided large grommet and recirculating fitting (23) into the aFe POWER driver-side intake tube.

Step 24: Install the supplied plastic fitting (24) into the fitting grommet (25). Ensure the inside thicker bead of the grommet is fully seated between the two flat surfaces of the fitting (as shown in the drawing). The logo side of the grommet should be seated flat against the fitting, as shown.

Step 25: Using a 3/16" allen wrench, install the supplied plug (26) into the aFe POWER intake tube. Do not overtighten, some threads will still be exposed.

Step 26: Remove the metal sleeve and isolator (27) from the factory intake tube and install into the aFe POWER intake tube.

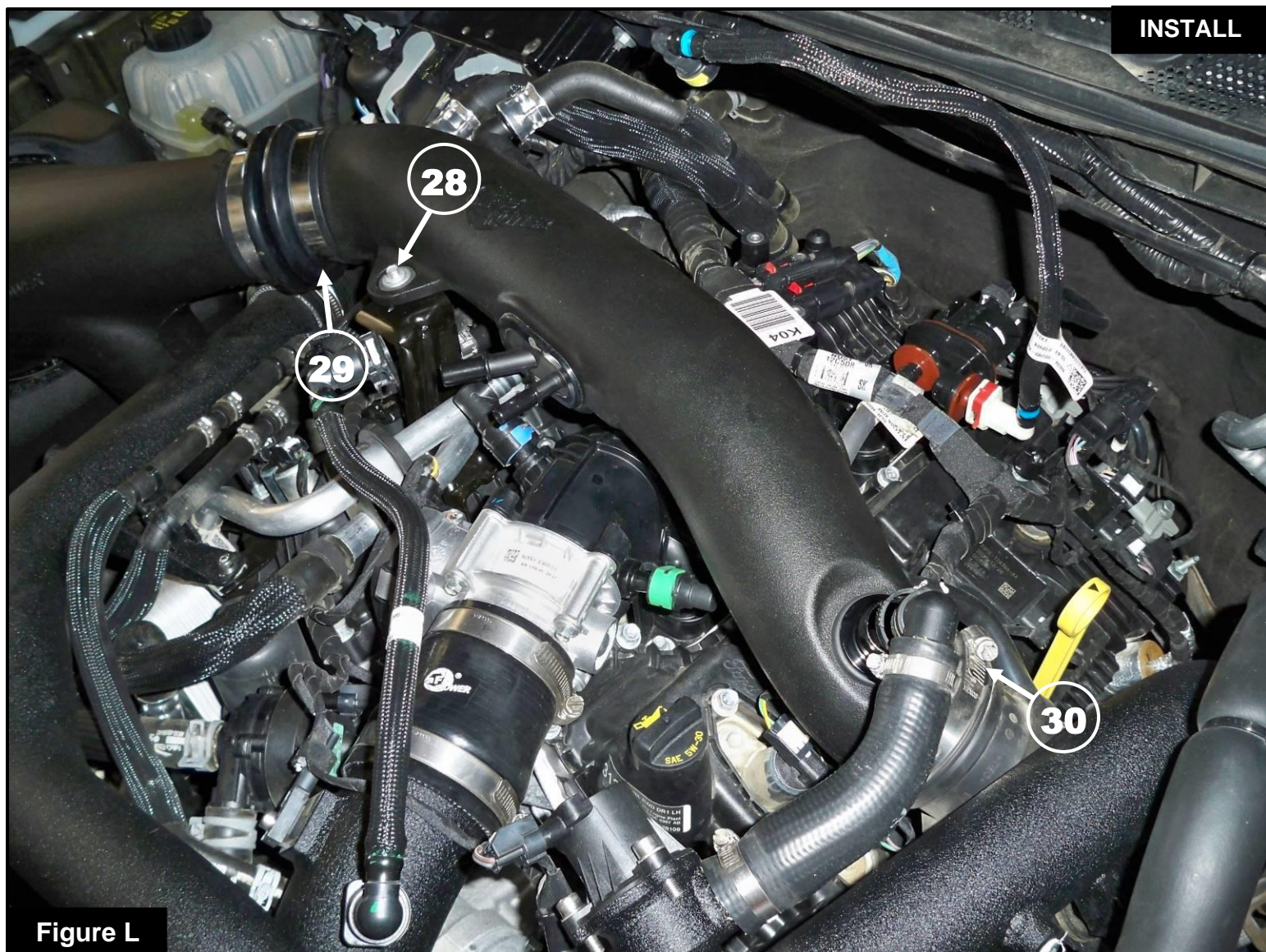


Figure L

Refer to Figure L for Steps 27-28

Step 27: Install the aFe POWER driver-side intake tube into the (05-01480) coupler first, then into the factory turbo inlet tube coupler. Align the tube correctly and secure it by reinstalling the screw (28) removed in Step 8 using an 8mm nut driver.

Step 28: Tighten the supplied #48 clamp (29) with an 8mm nut driver and the original clamp (30) with a 7mm nut driver.



Refer to Figure M for Steps 29-32

Step 29: Connect the quick-release connector for the bypass hose (31).

Step 30: Connect the quick-release connectors for the intercooler and EVAP hoses (32).

Step 31: Connect the electrical connector to the IAT sensor (33).

Step 32: Ensure all components are tight and secure. Your installation is now complete. Thank you for choosing aFe POWER!

NOTE: Check all bolts, clamps, and connectors after 100-200 miles.



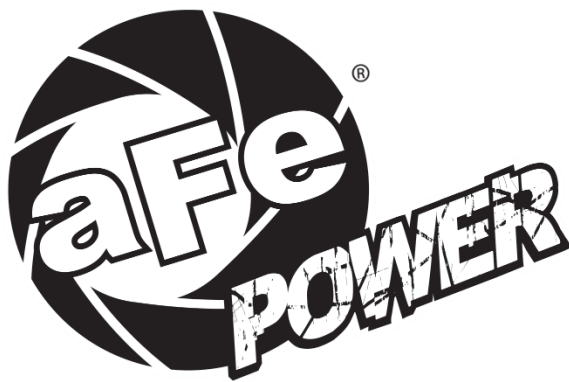
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