

***advanced FLOW engineering***

## Cold Air Intake System

### Instruction Manual P/N: 53-10033D

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Make: FORD	Model: F-150	Year: 2015-2024	Engine: V6-3.5L(tt)
Make: FORD	Model: F-150	Year: 2015-2024	Engine: V6-2.7L(tt)
Make: FORD	Model: F-150 RAPTOR	Year: 2017-2024	Engine: V6-3.5L(tt)
Make: FORD	Model: EXPEDITION	Year: 2018-2024	Engine: V6-3.5L(tt)
Make: LINCOLN	Model: NAVIGATOR	Year: 2018-2024	Engine: V6-3.5L(tt)

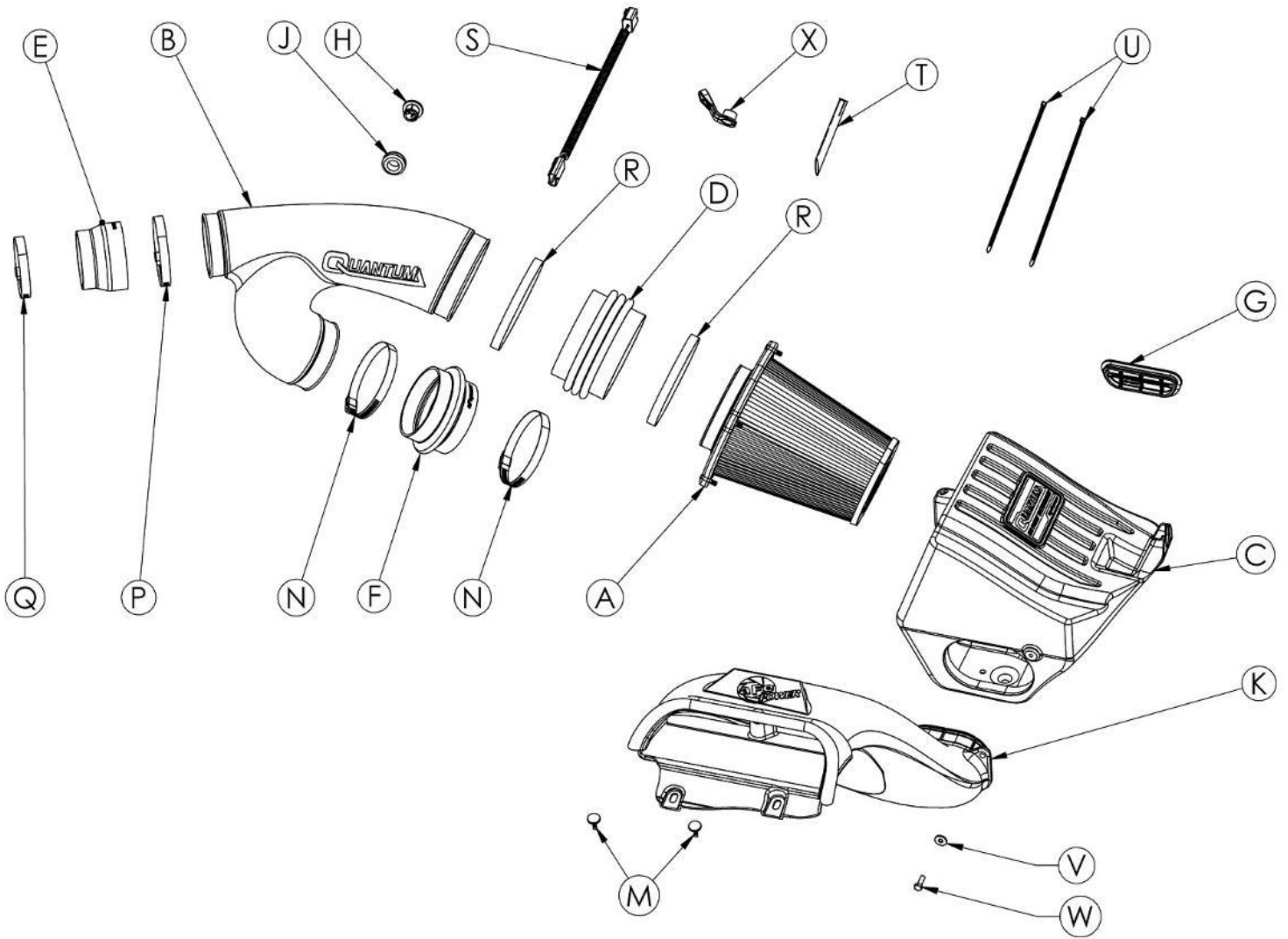


- Please read the entire instruction manual before proceeding.
- Ensure all components listed are present.
- If you are missing any of the components, call customer support at 951-493-7185.
- Ensure you have all necessary tools before proceeding.
- Do not attempt to work on your vehicle when the engine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

Label	Qty.	Description	Part Number
A	1	Air Filter (Pro DRY S)	21-90105
B	1	Tube, Rotomold	05-53112B1
C	1	Housing, Rotomold	05-53112B2
D	1	Coupling, Silicone Bellow	05-01456
E	1	Coupling, Silicone Reducer	05-01580
F	1	Coupling, Silicone Hump	05-01399
G	1	Plug, Housing	05-00937
H	1	Fitting, Temperature Sensor	05-01454
J	1	Grommet, Rubber	03-50167
K	1	Scoop, Rotomold	05-5210010B3
M	2	Retainer Clip, Christmas Tree Style	03-50773
N	2	Clamp, 064	03-50006
P	1	Clamp, 052	03-50008
Q	1	Clamp, 044	03-50019
R	2	Clamp, 080	03-50011
S	1	Extension Harness, MAF sensor	05-70023
T	1	Vent tube, Insert (For V6-3.5L(tt) engine only)	05-01405
U	2	Cable tie	05-60167
V	1	Washer, Flat: M6	03-50070
W	1	Screw, Hex Hd: M6	03-50057
X	1	Quick Disconnect tool: 5/8"	05-01720

**Installation will require the following tools:** 8mm, 13mm nut driver or socket and extension, Flat screwdriver #2 Phillips screwdriver, pliers.

**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.



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



**Refer to Figure A for Steps 1-3**

(Installation pictures are from a 2017 F-150 V6-3.5L (tt), other years and model vehicles may vary slightly.)

Step 1: Disconnect the temperature sensor from the back side of the factory intake tube and unclip the wire harness clips from the factory airbox.

Step 2: Loosen the two clamps connecting the factory intake tubes to the turbo inlet tubes, then disconnect those tubes.

Step 3: Unclip the top of the factory air box then remove the tube and top of the air box as one piece out of the vehicle.



Figure B

**Refer to Figure B for Steps 4-6**

Step 4: Detach the wastegate actuator from the factory housing if the vehicle is equipped with one.

Step 5: With a 13mm socket, remove the bolt securing the factory air box to the fender. This bolt will be reused.

Step 6: Using a flat screwdriver, remove the two plastic rivets securing the inlet scoop to the front end. Then take off the factory air box and inlet scoop as one piece out of the vehicle.

**Figure C**

**Refer to Figure C for Step 7** (For V6-3.5L(tt) only, not necessary on V6-2.7L(tt)

(The installation of the plastic vent tube insert is important to prevent check engine light. These procedures should be done with the turbo inlet tubes installed on the engine. It is shown off the vehicle for better illustration.)

Step 7: Locate the factory plastic tube feeding the driver's side turbo inlet. This is the connection closer to the turbo.

**Figure D****Refer to Figure D for Steps 8-9**

Step 8: Locate the valve cover vent tube that feeds into the driver's side turbo inlet (the connection closer to the turbo). It is not necessary to remove the engine cover.

Step 9: Check the color of the locking tab on the quick disconnect fitting. If the locking tab is orange, go to steps 11 and 12. If the locking tab is blue or grey, go to step 13.



Figure E

**Refer to Figure E for Step 10**

Step 10: If the locking tab of the quick disconnect fitting is orange, like on this picture, use the supplied 5/8" quick disconnect tool.

**Figure F****Refer to Figure F for Step 11**

Step 11: For the fitting with the orange locking tab, slide the 5/8" quick disconnect tool over the fitting and push it inside of the fitting. Rotate it and pull on the fitting at the same time.

**Figure G****Refer to Figure G for Step 12**

Step 12: If the locking tab is grey or blue, apply pressure against the exposed tail and pull vent fitting off the turbo inlet tube. It is not necessary to disconnect at the valve cover end. There is a sensor and wire harness on this vent tube. Do not damage or remove these components.

**INSTALL**



### Refer to Figure H for Step 13

Step 13: Insert vent fitting with slash cut facing turbo. It should not be a loose fit. It is direction dependent and must not rotate once installed.

**Figure I**

### **Refer to Figure I for Steps 14-15**

Step 14: Reconnect the vent fitting. It will snap over without having to release the plastic clip. Pull up slightly to confirm installation.

Step 15: Installation of the vent tube is complete. Any codes can be cleared with a code reader or by disconnecting the battery. You will lose any radio presets with battery disconnection.

If removal of the vent insert is required, it can be pulled out with internal snap ring pliers.



**Refer to Figure J for Steps 16-17**

Step 16: Install the aFe POWER scoop into the housing and secure it with the provided screw and washer.

Step 17: Transfer the grommet and sleeve from the factory housing to the Quantum housing.



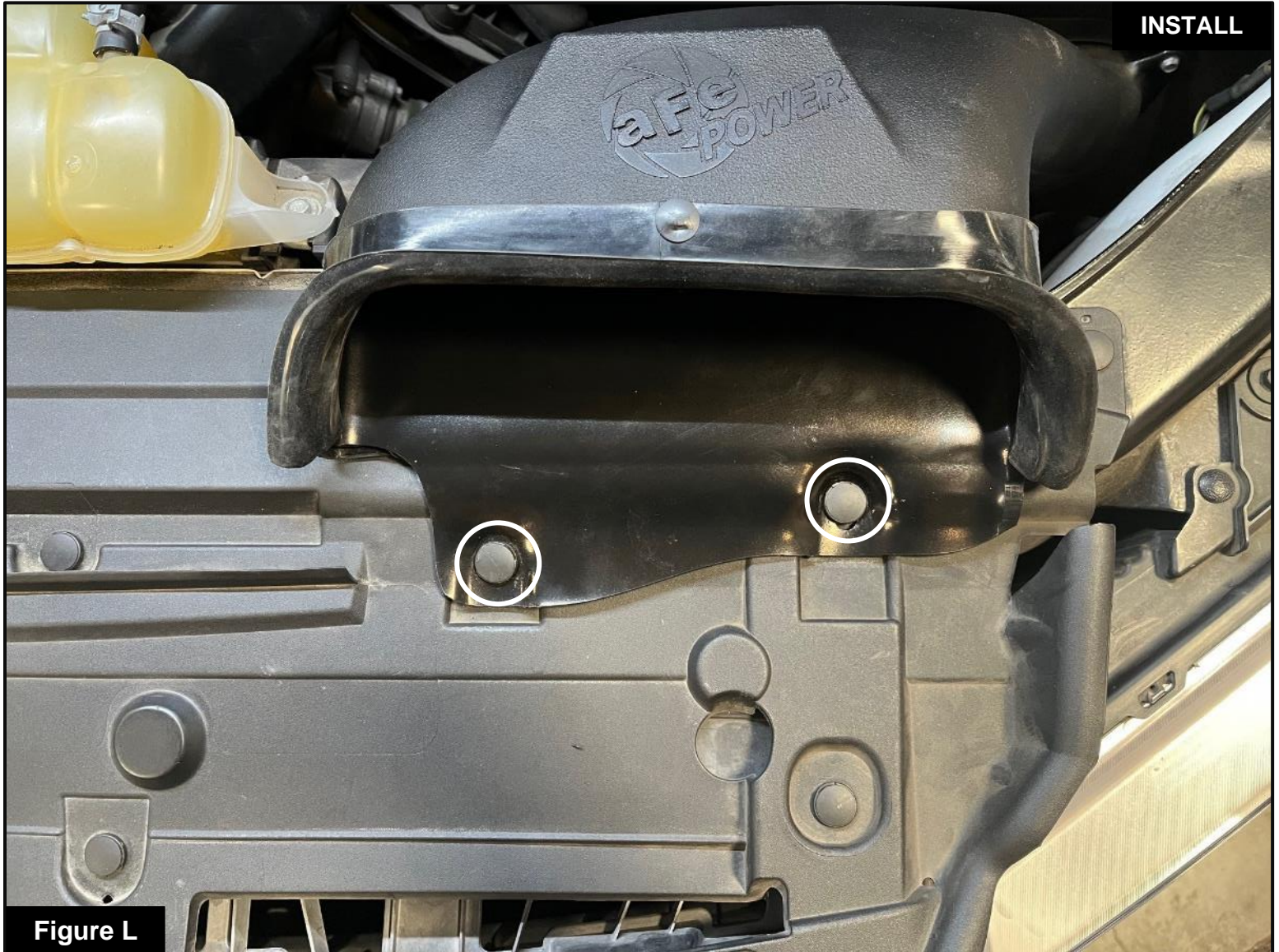
Figure K

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

Step 19: : Install the Quantum housing into the vehicle by pushing it into the factory grommet.

Step 20: Secure the housing to the fender using the factory bolt removed at Step 5.

Step 21: If the vehicle is equipped with one, mount the wastegate actuator onto the Quantum housing.



**Refer to Figure L for Step 23**

Step 23: Secure the aFe POWER scoop with the provided plastic retainer clips.



**Refer to Figure M for Steps 24-25**

Step 24: Slide the Quantum air filter into the housing. Secure it by tightening the four screws with a #2 Phillips screwdriver.

Step 25: Install the supplied bellows coupling onto the filter opening. Install the supplied #80 clamps on the coupling but to not tighten at this time.



**Figure N**

**Refer to Figure N for Steps 26-27**

Step 26: Install the reducer coupling onto the upper tube. Install the clamps on the coupling but do not tighten at this time.

Step 27: Install the hump coupling onto the lower turbo inlet tube. Install the clamps on the coupling but do not tighten at this time.

**Figure O****Refer to Figure O for Steps 28-29**

Step 28: Install the provided grommet then the plastic fitting into the hole on the Quantum Tube.

Step 29: Transfer the air intake temperature sensor from the factory housing to the Quantum intake tube.

Rotate it counter clockwise to take it off the housing and turn it clockwise to lock it into the fitting on the Quantum tube.

**Figure P****Refer to Figure P for Steps 30-31**

Step 30: Install the Quantum tube into the couplings on the truck.

Step 31: Align the tube and couplings then tighten all clamps.



### **Refer to Figure Q for Step 32**

Step 32: Reconnect the temperature sensor to the wire harness of the truck. Depending on the model, if necessary, use the extension harness provided. If using the extension harness, secure the harness with the provided zip ties.



Figure R

**Refer to Figure R for Step 33**

Step 33: The kit includes an optional plug to close off the back auxiliary air inlet. Install the plug if you wish to close off the back auxiliary air inlet and only capture cold air from the front of the vehicle.

- Without the plug installed, the aFe POWER intake will capture the maximum air available. More airflow offers more power. Yet some of this air is picked up from inside the engine compartment and could be warmer air. Warmer air will affect the performance of the vehicle.
- The plug installed on the housing will block off any hot engine air entering the housing and make sure the coolest air available is directed into the engine. It will also reduce the noise of the intake.



Figure S

**Refer to Figure S for Step34**

Step 34: Check all the components are tight and secure. Your Installation is now complete.

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



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