

advanced FLOW engineering

Instruction Manual P/N: 77-43023

Make: **Ford**	Model: **F-150 Raptor**	Year: **2017-2020**	Engine: **V6-3.5L (tt) EcoBoost**
Make: **Ford**	Model: **F-150 Limited**	Year: **2019-2020**	Engine: **V6-3.5L (tt) EcoBoost**
Make: **Ford**	Model: **Expedition Platinum**	Year: **2018-2021**	Engine: **V6-3.5L (tt) EcoBoost**
Make: **Lincoln**	Model: **Navigator**	Year: **2018-2021**	Engine: **V6-3.5L (tt) EcoBoost**



- **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.**
- **Disconnect the negative battery terminal before proceeding.**
- **Retain factory parts for future use.**

Label	Qty.	Description	Part Number
A	1	Module	R77-43023
B	1	LED Switch	05-70029
C	2	Velcro (2 Inches)	05-01244
D	4	Cable Ties	05-60167

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

Note: Legal in California for use on race vehicles only. The use of this device on vehicles used on public streets or highways is strictly prohibited in California and others states that have adopted California emission regulations.


aFe
POWER
SCORCHER GT
B
D
C
A

REMOVAL

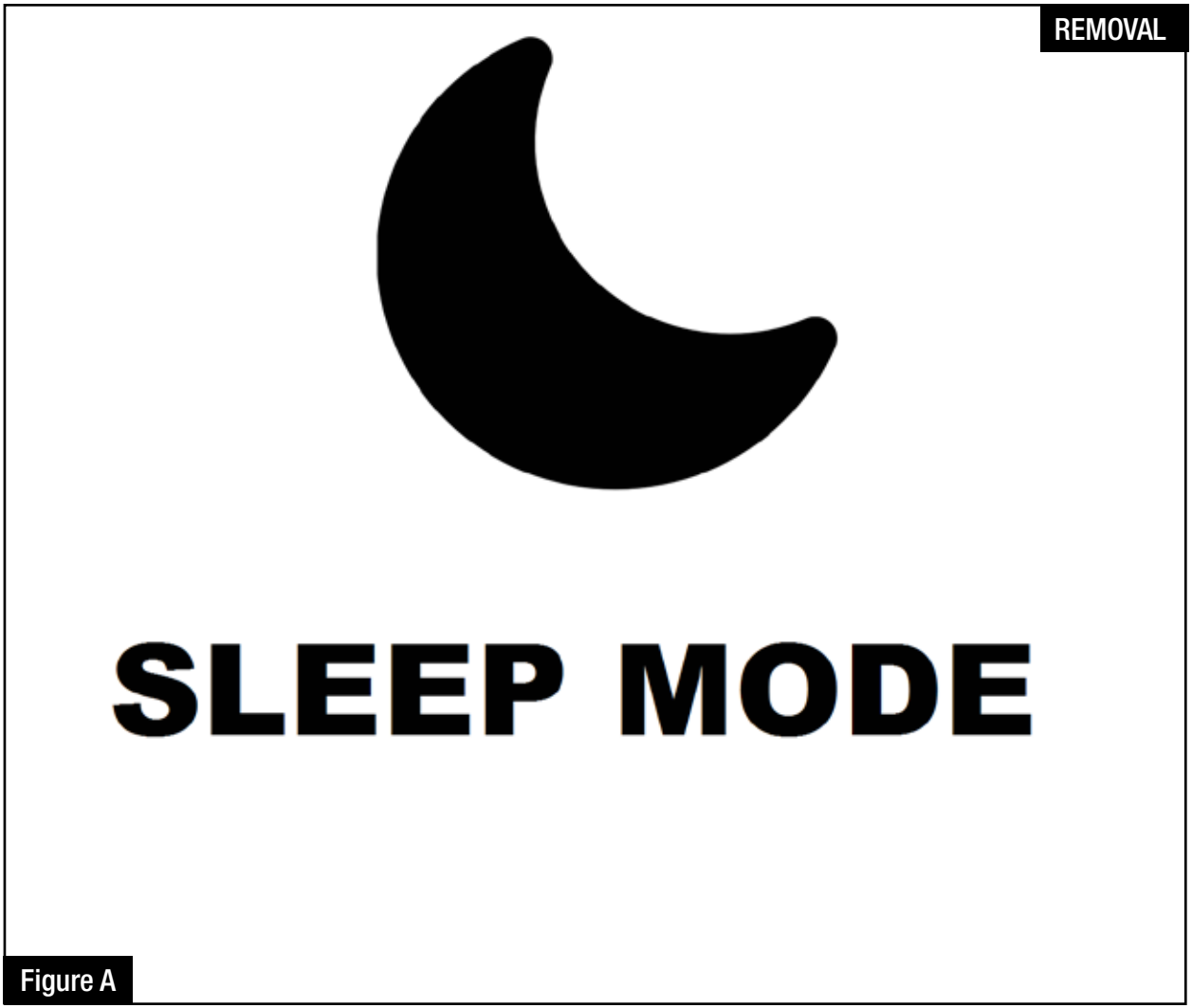


Figure A

Refer to Figure A for Step 1.

Step 1: Before installing your aFe module, you will have to place your vehicles 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 sensor.

Step 3: Locate the MAP and TMAP sensor. The MAP sensor is located on the back of the intake manifold towards the firewall. The TMAP sensor is located on the charge intake tube just before the throttle body.



Figure C

Refer to Figures C for Steps 4-5.

Step 4: Locate and disconnect the MAP sensor.

Step 5: Locate the MAP sensor jumper harness on the aFe module. This is the shorter harness. Plug the male connector of the module to the stock MAP sensor, then take the female connector of the module and connect to the male connector of the engine harness.

Note: Make sure connections are fully engaged. Usually, connectors make a snapping sound when fully engaged.



Figure D

Refer to Figure D for Steps 6-7.

Step 6: Disconnect the MAP sensor.

Step 7: Locate the TMAP sensor jumper harness on the aFe module. This is the longer harness. Plug the male connector of the module to the stock TMAP sensor, then the female connector of the module male connector of the engine harness.



Figure E

Refer to Figure E for Steps 8-9.

Step 8: Carefully route the switch cable behind steering wheel cover.

Step 9: Mount the Switch on an open, flat surface.



Figure F

Refer to Figure F for Step 10.

Step 10: Route the switch cable through firewall and into the engine bay. Follow the main harness through the grommet into the firewall. Plug the end of the cable to the module.



Figure G

Refer to Figure G for Steps 11-12.

Step 11: Mount the module in a safe location, using the supplied Velcro strip. Then, secure the wires and module away from any extreme heat and moving parts, with the provided ties. Make sure all connections are secured and fully engaged.

Step 12: Reinstall the engine cover.



Figure H

Refer to Figure H for Step 13.

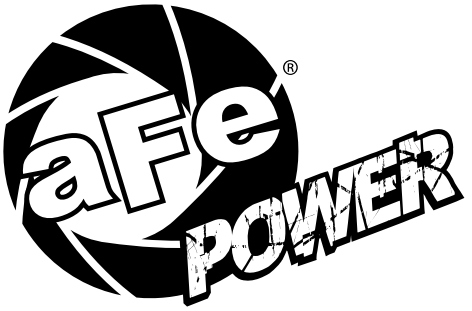
Step 13: When turning on the vehicle, the switch will go through the light. It will stop at its last setting.

The LED on the switch represents the different level of power.

- Green LED: Stock
- Yellow LED: Sport
- Orange LED: Sport+
- Red LED: Race

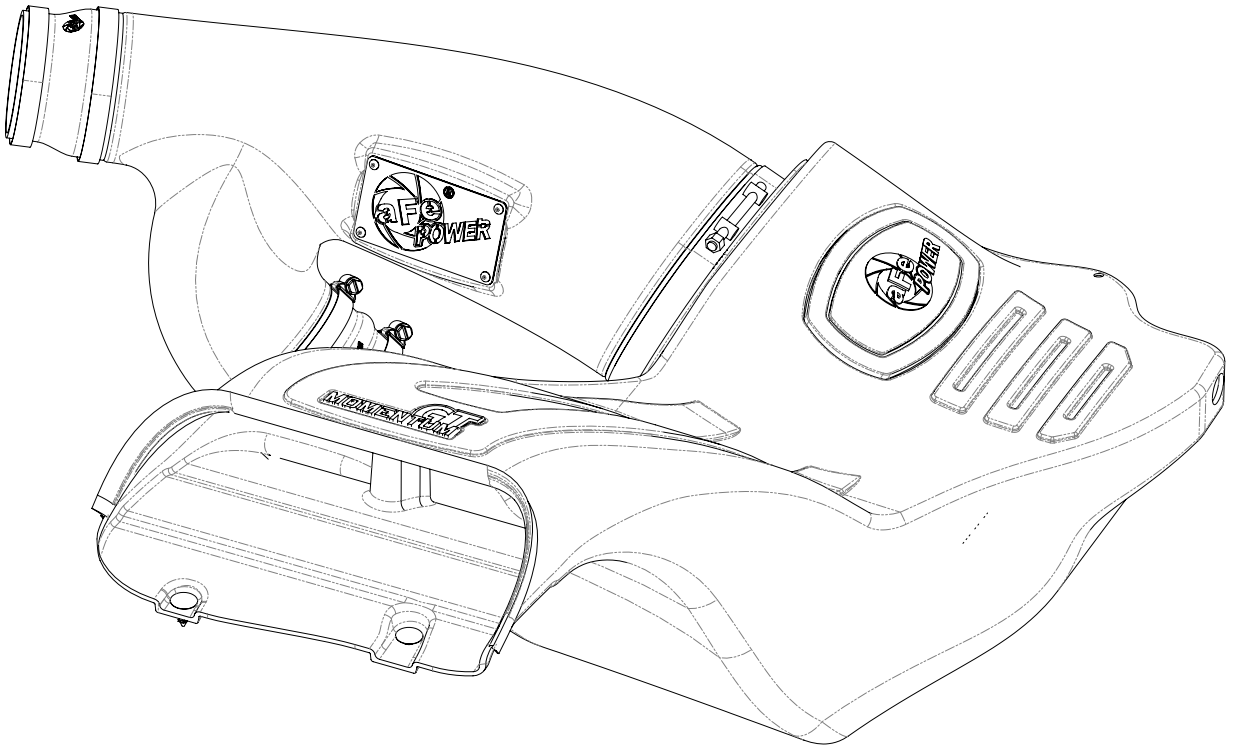
Use the grey button to select the desired setting. Power adjustments can be done at any moment.

Thank you for choosing aFe POWER!



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advanced FLOW engineering

Momentum GT Cold Air Intake System

Instruction Manual P/N: 51-73115 / 54-73115 / 75-73115

Make: **Ford** Model: **F-150 Raptor** Year: **2017-2020** Engine: **V6-3.5L (tt) EcoBoost**

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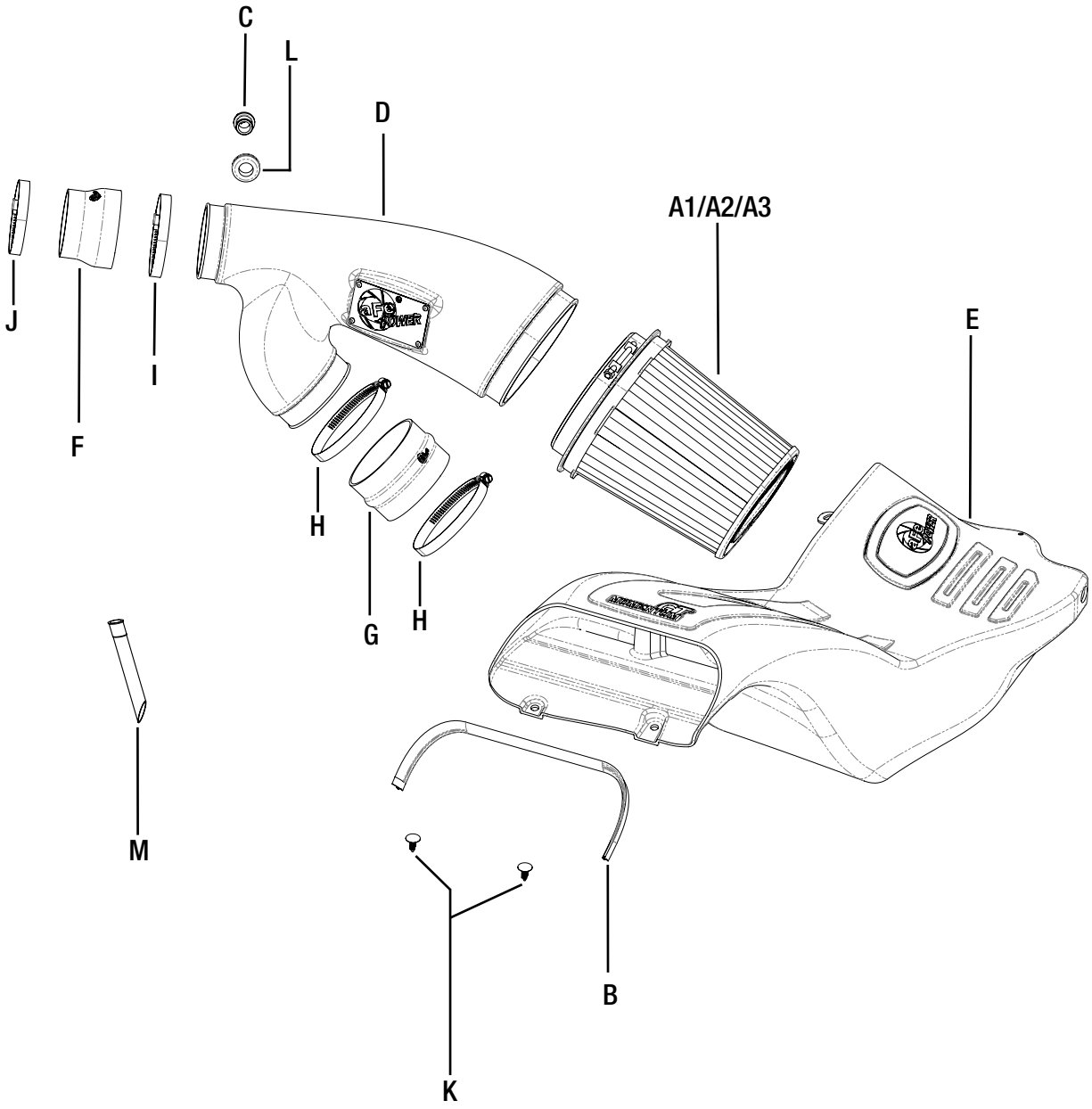


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- **Ensure all components listed are present.**
- **If you are missing any of the components, call customer support at 951-493-7185.**
- **Ensure you have all necessary tools before proceeding.**
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- **Retain factory parts for future use.**

Label	Qty.	Description	Part Number
A1	1	Air Filter (Pro DRY S)	21-91092
A2	1	Air Filter (Pro 5R)	24-91092
A3	1	Air Filter (Pro GUARD-7)	72-91092
B	1	Seal, Trim (15.5")	05-00072
C	1	Fitting, Air Temp Sensor	05-01454
D	1	Tube	05-73115B1
E	1	Housing	05-73115B2
F	1	Coupling, Silicone Reducer	05-01331
G	1	Coupling, Silicone Hump	05-01332
H	2	Clamp, #064	03-50006
I	1	Clamp, #052	03-50008
J	1	Clamp, #044	03-50019
K	2	Retainer Clip	03-50616
L	1	Grommet	03-50167
M	1	Vent Insert	05-01405

Installation will require the following tools:
7mm/8mm/11mm nut driver or deep sockets, flat head screw driver, 13mm socket and driver, panel popper tool.

Note: Legal in California for use on race vehicles only. The use of this device on vehicles used on public streets or highways is strictly prohibited in California and others states that have adopted California emission regulations.


C
L
D
A1/A2/A3
J
F
I
E
H
G
H
M
B
K

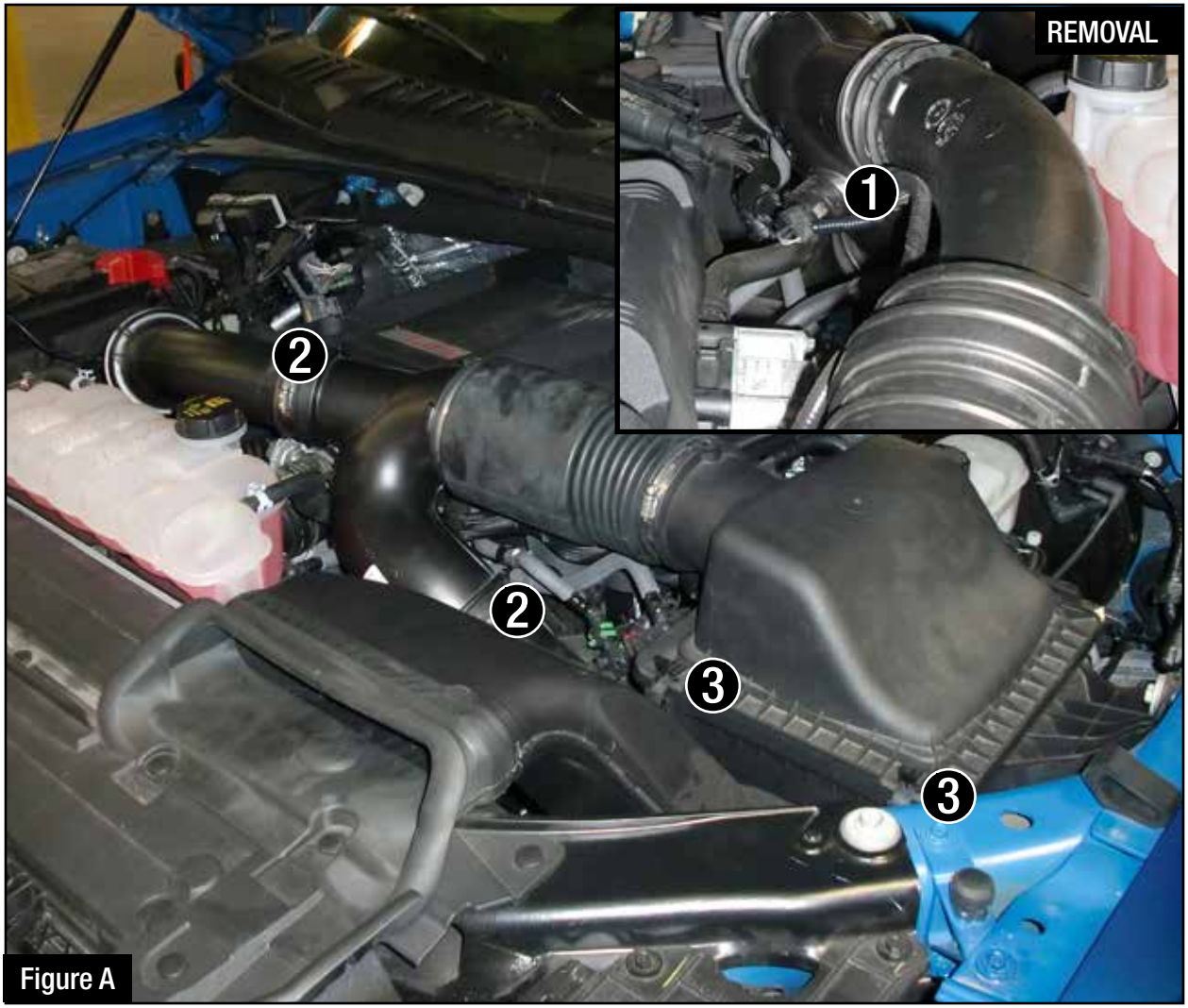


Figure A

Refer to Figure A for Steps 1-2

Step 1: Unplug temp sensor harness (1) from the back side of the intake tube. Unclip the coolant line from the intake tube.

Step 2: Loosen the clamps (2) on the intake tubes. Unclip the top of the air box (3) and remove the tube, air filter and top of the air box from the vehicle.



Refer to Figure B for Steps 3-5

Step 3: Unclip the wire from the back of the air box.

Step 4: Remove the wastegate accuator from the housing.

Step 5: Remove the screw (4) and the two plastic rivets (5) securing the housing, then pull the factory air box out of the truck.

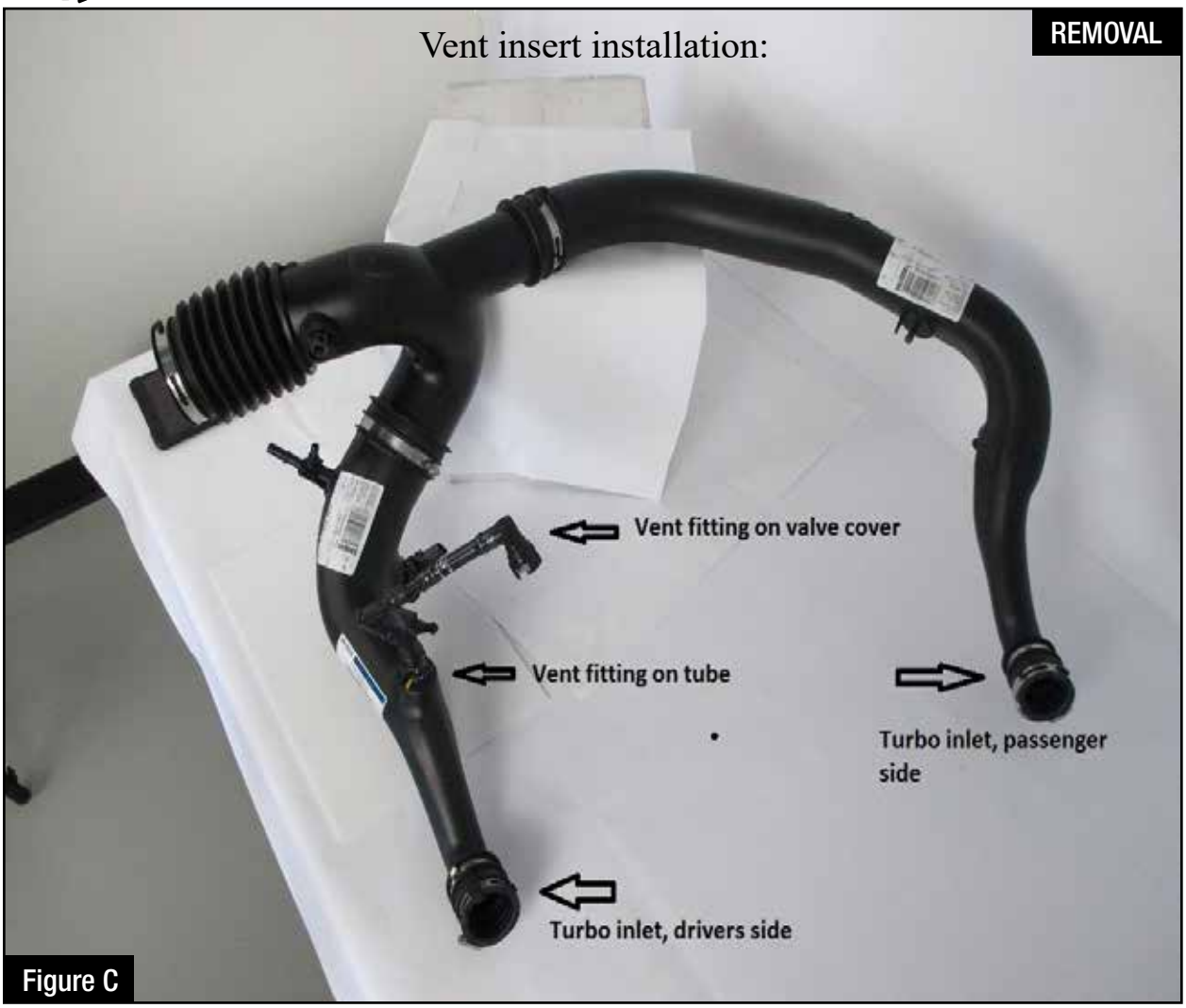


Figure C

Refer to Figure C for Step 6

(These procedures should be done with the inlet tubes installed on the engine. It is shown off the vehicle for better illustration.)

Step 6: Locate the o.e. plastic tube feeding the driver's side turbo inlet.



Figure D

Refer to Figure I for Step 7

Step 7: Locate the valve cover vent tube that feeds into driver's side turbo inlet. It is not necessary to remove the engine cover.



Figure E

Refer to Figure E for Step 8

Step 8: Note the release clip on the vent tube connectors. Apply pressure against the exposed tail and pull vent fitting off of 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.



Figure F

Refer to Figure F for Step 9

Step 9: Insert vent fitting with slash cut facing turbo inlet. It should not be a loose fit. It is direction dependent and must not rotate once installed.



Figure G

Refer to Figure G for Steps 10-11

Step 10: Reconnect the vent fitting. It will snap over without having to release the plastic clip. Pull up slightly to confirm installation.

Step 11: Installation 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.



Figure H

Refer to Figure H for Steps 12-13

Step 12: Transfer the grommet (6) from the factory air box to the aFe POWER air box.

Step 13: Install the furnished seal trim (7) on the top edge of the aFe POWER housing.

Optional: Drill two small holes in the top of the housing for the wastegate accutator wire harness to clip into. There are two drill points marking these locations and the hole size is 1/4". (8) This will allow you to mount the wastegate actuator wire to the air box, however, it will require you to relocate the push clips on the factory wire.



Figure I

Refer to Figure I for Steps 14-17

Step 14: Install the aFe POWER housing into the truck by pushing it into the factory mounting grommets.

Step 15: Re-install the factory screw (9) removed in Step 5, inside the aFe POWER housing.

Step 16: Secure the housing with the two furnished plastic rivets (10) .

Step 17: Reconnect the wastegate accutator to the bracket on the back side of the housing. (11)



Figure J

Refer to Figure J for Step 18

Step 18: Slide aFe POWER filter inside the housing and push it in until it locks.



Figure K

Refer to Figure K for Steps 19-21

Step 19: Install grommet into hole in aFe POWER tube then push the aluminum fitting in it.

Step 20: Install couplings and clamps onto tube ends. Do not tighten clamps yet.

Step 21: Transfer the temperature sensor from the factory intake tube to the new aFe POWER intake tube.



Refer to Figure L for Steps 22-24

Step 22: Install the aFe POWER tube in the truck by sliding the couplings over the factory tube then the tube end into aFe POWER filter.

Step 23: Align tube correctly then tighten all clamps.

Step 24: Reconnect the temp sensor harness.

Optional: Locate the two plastic push clips for the wastegate actuator harness. Cut the tape securing these to the wire. Place the push clip in the drilled holes on the housing. Hold the wire in place along side these push clips and retape the push clips in the appropiate locations on the wire (12).

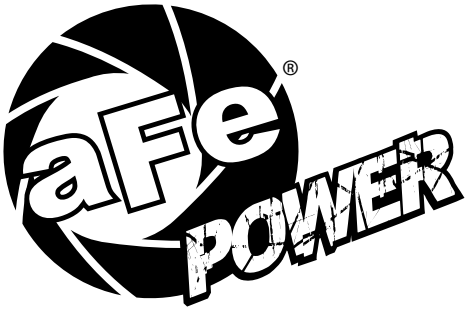


Figure M

Refer to Figure M for Step 25

Step 25: Make sure all clamps and screws are tight. Remove plastic film from aFe POWER window. Your installation is now complete.

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



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