

advanced FLOW engineering

Cold Air Intake System Instruction Manual P/N: 50-70023D / 50-70023T

Make: Ford Model: F-150 Year: 2018-2021 Engine: V6-3.0L (td) Power Stroke



- 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.

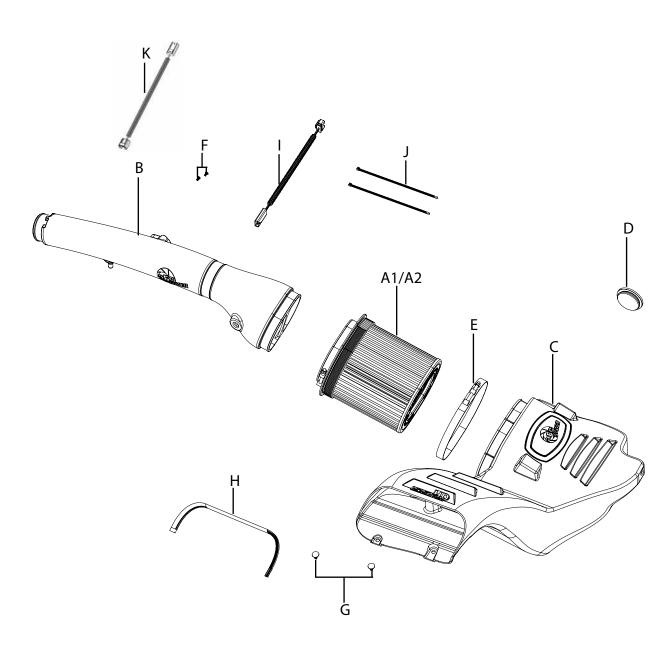
| Label | Qty. | Description | Part Number |
|-------|------|----------------------------------|--------------|
| A1 | 1 | Air Filter (Pro DRY S) | 21-91061 |
| A2 | 1 | Air Filter (Pro 10R) | 20-91061 |
| В | 1 | Tube | 05-5070023B1 |
| С | 1 | Housing | 05-5070023B2 |
| D | 1 | Plug, Silicone | 05-01482 |
| E | 1 | Clamp, T-bolt (8-5/16" - 8-5/8") | 03-50267 |
| F | 2 | Screw, Torx: M4 | 03-50491 |
| G | 2 | Retainer Clip: 9/32" | 03-50616 |
| Н | 1 | Seal, Trim: 7/16" (16" inches) | 05-00072 |
| I | 1 | Harness, MAF Extension (18-20) | 05-70037 |
| J | 2 | Ties, Nylon Cable | 05-60167 |
| К | 1 | Harness, MAF Extension (2021) | 05-70025 |

Installation will require the following tools:

flat head screwdriver, panel popper tool, 7mm, 8mm and 13mm socket or driver and diagonal cutters.

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.







Refer to Figure A for Steps 1-3

- Step 1: Disconnect the negative battery terminal before proceeding with the installation.
- Step 2: Disconnect the Mass Air Flow (MAF) sensor wire harness by pulling the red locking tab out then pressing down on the plug retaining tab and pulling on the plug itself.
- Step 3: Using a flat-head screwdriver, unclip the wire harness strap on the intake tube. Retain the strap because it will be reinstalled on the aFe POWER tube.



Refer to Figure B for Steps 4-6

Step 4: Untighten the clamps on the factory air box and on the factory intake tube connecting to the turbo inlet tube.

Step 5: Unclip the two latches securing the top of the factory housing to the bottom of the housing. Step 6: Lift and remove the top half of the factory air box. Disconnect it from the air intake tube.





Refer to Figure C for Step 7

Step 7: Remove the factory air intake tube out of the vehicle by pulling it out of the grommet. Make sure the grommet stays in place.



Refer to Figure D for Steps 8-10

- Step 8: Using a flathead screwdriver, remove the plastic rivets holding the factory air box. First pop the center up to unlock the rivet, then remove the complete rivet.
- Step 9: Remove the screw securing the factory air box to the fender using a 13mm socket or wrench. This screw will be reused to secure the aFe POWER housing.
- Step 10: Disconnect the harness attached to the back of the factory air box with a panel popper.





Refer to Figure E for Step 11

Step 11: Pull the factory air box out of the vehicle.



Refer to Figure F for Steps 12-13

- Step 12: Transfer the grommet and metal sleeve from the factory air box to the hole on the aFe POWER housing. Install the metal sleeve from the inside of the housing.
- Step 13: Install the furnished seal trim on the top edge of the aFe POWER housing.





Refer to Figure G for Steps 14-16

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

- Step 15: Secure it to the fender by installing the screw removed at step 9 inside of the aFe POWER housing.
- Step 16: Secure the inlet part of the housing with the furnished Christmas tree rivets.



Refer to Figure H for Steps 17-18

Step 17: Install the T-bolt clamp on the oval opening of the aFe POWER housing. Do not tighten yet. Step 18: Slide the aFe POWER air filter into the housing.





Refer to Figure I for Steps 19-20

- Step 19: Transfer the MAF sensor from the factory housing to the aFe POWER tube. Secure it using the provided black screws.
- Step 20: Transfer the grommet and filter minder from the factory housing to the hole on the aFe POWER tube.



Refer to Figure J for Steps 21-22

Step 21: Install the aFe POWER tube in the vehicle by pushing it first into the turbo inlet tube then into the filter. Push the peg of the tube into the factory grommet.

Step 22: Align the tube correctly then tighten all clamps.





Refer to Figure K for Step 23

Step 23: Reinstall the wire harness strap around the aFe POWER tube.



Refer to Figure L for Steps 24-25

- Step 24: Connect the provided MAF extension harness to the factory harness then to the MAF sensor. The MAF extension with a 6 pin connector fits 2018-2020 trucks, the extension with the 4 pin connector is for 2021 models.
- Step 25: Secure the harness into the holes on the aFe POWER housing. Use the provided cable ties to secure the extension harness away from any moving part or hot surface.





Refer to Figure M for Step 26

Step 26: 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 truck.

- 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.



Refer to Figure N for Steps 27-28 Step 27: Reconnect the negative battery terminal. Step 28: Verify all clamps and screws are secure. Your installation is now complete. Thank you for choosing aFe POWER!

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



Page left blank intentionally

Page left blank intentionally



advanced FLOW engineering, inc. 252 Granite Street Corona, CA 92879

https://afepower.com/contact