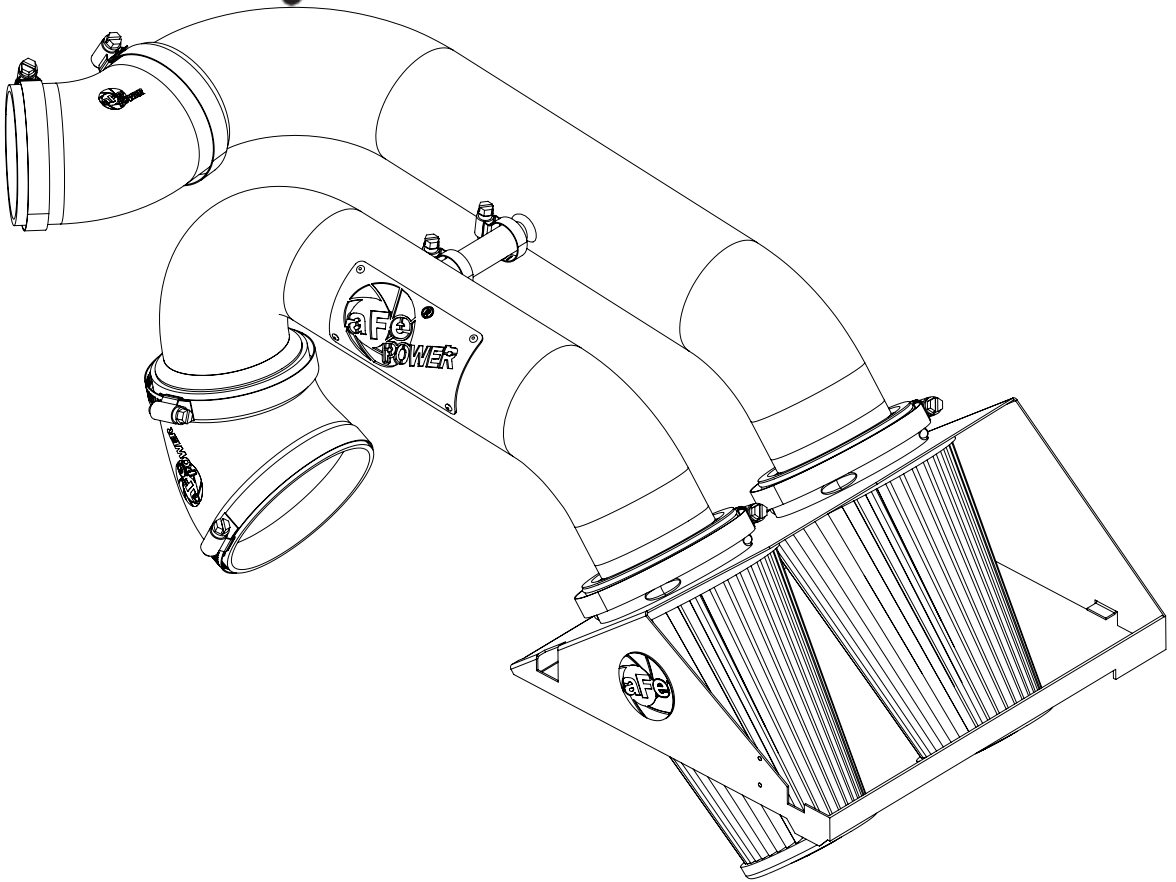


MAGNUM FORCE



advanced FLOW engineering Magnum FORCE Stage-2 Intake System

Instruction Manual P/N: 51-22972-B / 54-22972-B

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

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

Make: **Ford** Model: **Expedition** 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.

NOTE: Retain factory parts for future use.

Label	Qty.	Description	Part Number
A1	2	Air Filter (Pro DRY S)	21-30003
A2	2	Air Filter (Pro 5R)	24-30003
B1	1	Tube #1 of 2	05-22972B1
B2	1	Tube #2 of 2	05-22972B2
C	1	Housing	05-12972B3
D	1	Coupling, Silicone Elbow	05-01445
E	1	Coupling, Silicone Elbow	05-01446
F	3	Clamp, #044	03-50019
G	2	Clamp, Mini, #010	03-50078
H	1	Vent Insert	05-01405
I	1	Hose, Fuel: 5/8"ID (3")	05-00069
J	1	Seal, Trim: 7/16" (26")	05-00072
K	1	Clamp, #064	03-50006

Installation will require the following tools:

8mm Nut Driver, Flat Head Screwdriver

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.

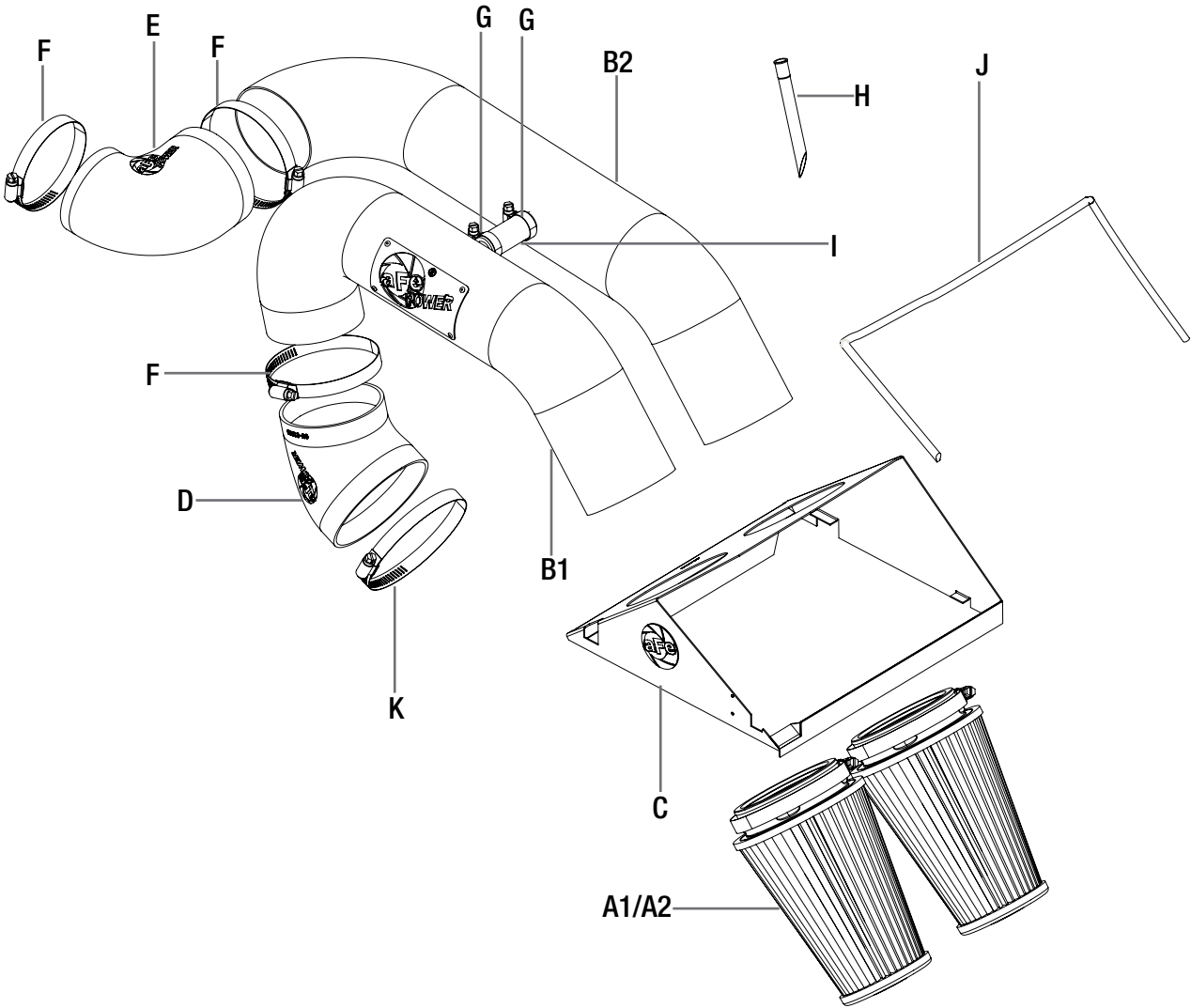




Figure A

Refer to Figure A for Steps 1-4.

Step 1: Disconnect the Temperature sensor plug from stock tube. ①

Step 2: Loosen the OE intake clamps using an 8mm nut driver from the left and right side runners. ②

Step 3: Unclamp the top portion of the OE airbox. ③

Step 4: Remove the OE intake and the top portion of the OE airbox by pulling straight up and out of the vehicle.



Figure B

Refer to Figure B for Step 5.

Step 5: Install trim seal onto the air filter housing.

**Figure C****Refer to Figure C for Steps 6-9.**

Step 6: Remove the sensor from the OE intake ¼ turn counter clockwise.

Step 7: Install the sensor into the rear aFe intake tube.

Step 8: Install housing and retain with the factory clips.

Step 9: Install filters from inside the housing. Make sure they are inserted flush and filter retention bumps hold them in place.



Figure D

Refer to Figure D for Steps 10-12.

Step 10: Install the small straight coupling on the crossover tube with the appropriate clamps but do not tighten.

Step 11: Fit tubes into the remaining couplers. Adjust for best fit and tighten all clamps.

Step 12: Connect sensor harness to the Temp Sensor.

Vent insert installation:

INSTALL



Figure E

Refer to Figure E for Step 13.

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

Step 13: Locate the o.e. plastic tube feeding the driver's side turbo inlet.



Figure F

Refer to Figure F for Step 14.

Step 14: Locate the valve cover vent tube that feeds into driver's side turbo inlet. It is not necessary to remove the engine cover.

**Figure G****Refer to Figure G for Step 15.**

Step 15: 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.

INSTALL



Refer to Figure H for Step 16.

Step 16: 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.



Refer to Figure I for Step 17.

Step 17: Reconnect the vent fitting. It will snap over without having to release the plastic clip. Pull up slightly to confirm installation.

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



Figure J

Refer to Figure J for Step 18.

Step 18: Make sure all clamps and screws are tight. Your installation is now complete.

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



Pro DRY S Air Filter



P/N: 21-30003

Pro 5R Air Filter



P/N: 24-30003

Pre-Filter



P/N: 28-10213
28-10213M (Pair)

Pro DRY S Restore Kit



P/N: 90-59999

Blue Squeeze Restore Kit



P/N: 90-50501

Sprint Booster V3



P/N: 77-13001

SCORCHER GT Module



P/N: 77-43025

Rear Differential Cover



P/N: 46-70152-WL (w/ Oil)
46-70152 (Blk./Mach.)
46-70150 (RAW)

Cat-Back Exhaust System



P/N: 49-43070-B (Blk. Tips)
49-43070-P (Pol. Tips)

Cat-Back Exhaust System



P/N: 49-43069-B (Blk. Tips)
49-43069-P (Pol. Tips)

Oil Filter



P/N: 44-LF025

Twisted Steel Downpipes



P/N: 48-43010 (Street)
48-43011 (Race)

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

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	21, 24, 72	2 years
Air Intake Systems	50, 51, 54, 55, 75	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
Fluid Filters	44	90 days
Pre-Filters	28	2 years
Heavy Duty OE Replacement	70	2 years
PowerSports OE Replacement	81, 87	2 years
PowerSports Intake Systems	85	2 years

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.



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