

advanced FLOW engineering Quantum Air Intake

Instruction Manual P/N: 53-10002D / 53-10002R

Make: **RAM** Model: **2500/3500/4500/5500** Year: **2013-2018** Engine: **L6-6.7L (td) Cummins**



- Please read the entire instruction manual before proceeding.
- Ensure all components listed are present.
- If you are missing any of the components, call technical support at 951-493-7100 or e-mail tech@afepower.com.
- Ensure you have all necessary tools before proceeding.
- Do not attempt to work on your vehicle when the engine is hot.
- Disconnect both the negative battery terminal before proceeding.

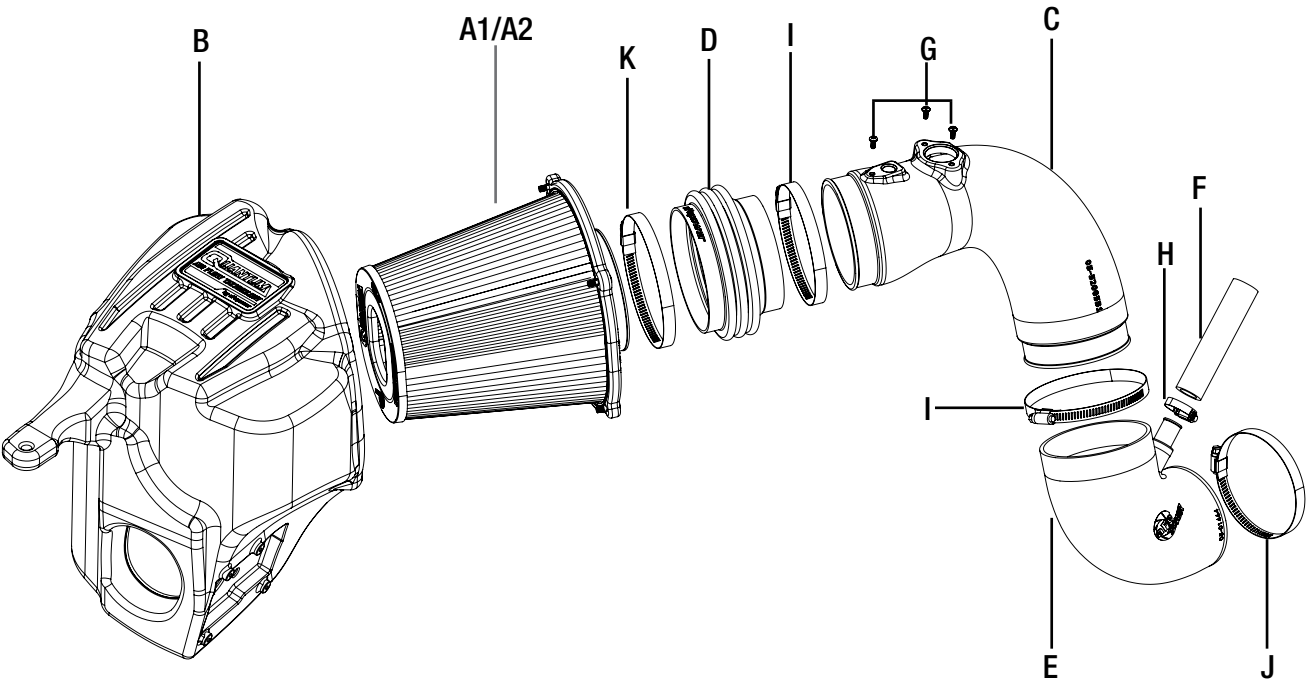
Retain factory parts for future use.

Label	Qty.	Description	Part Number
A1	1	Air Filter (Pro 5R)	23-91129
A2	1	Air Filter (Pro DRY S)	21-90098
B	1	Housing	05-52005B2
C	1	Tube	05-52005B1
D	1	Coupling, Silicone Bellow	05-01457
E	1	Coupling, Silicone Elbow 90 Deg.	05-01464
F	1	Hose, Silicone Breather: 3/4"ID (6")	05-01475
G	3	Screw, Torx: M4	03-50490
H	1	Clamp, Mini #012	03-50023
I	2	Clamp, #072	03-50010
J	1	Clamp, #064	03-50006
K	1	Clamp, #080	03-50011

Installation will require the following tools:

7mm, 8mm and 13mm socket or nut driver, ratchet and extension, pliers, Phillips #3 screwdriver, T30 torx and T20 torx.

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





Refer to Figure A for Steps 1-3

Step 1: Disconnect the wiring harness retaining clip, the Mass Air Flow (MAF) sensor (1) and the temperature sensor (2).

Step 2: Remove the screw (3) holding down the factory airbox with a 13mm socket and ratchet.

Step 3: Using an 8mm nut driver, loosen the clamp (4) at the airbox.

**Figure B****Refer to Figure B for steps 4-5**

Step 4: Disconnect the crank case vent line (5) using pliers (factory clamp will be re-used).

Step 5: Loosen the clamp (6) connecting the factory intake tube to the turbocharger.



Figure C

Refer to Figure C for Steps 6-7

Step 6: Remove the intake tube.

Step 7: Lift the factory airbox up out of the vehicle until you are able to reach the wiring harness ⑦ from the Ram Active Air mechanism. Disconnect the harness and retaining clip. Then pull the factory airbox out of the vehicle.

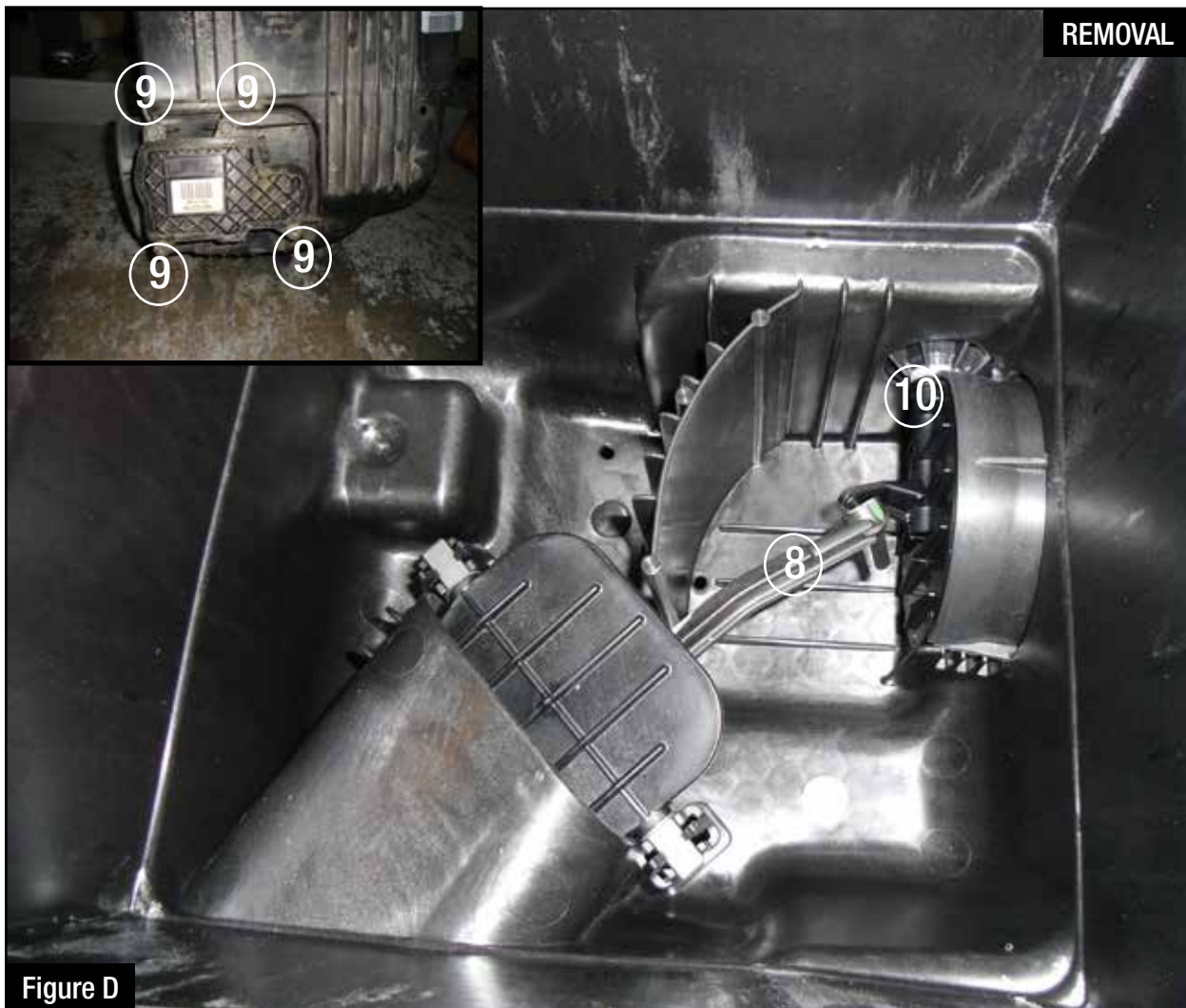


Figure D

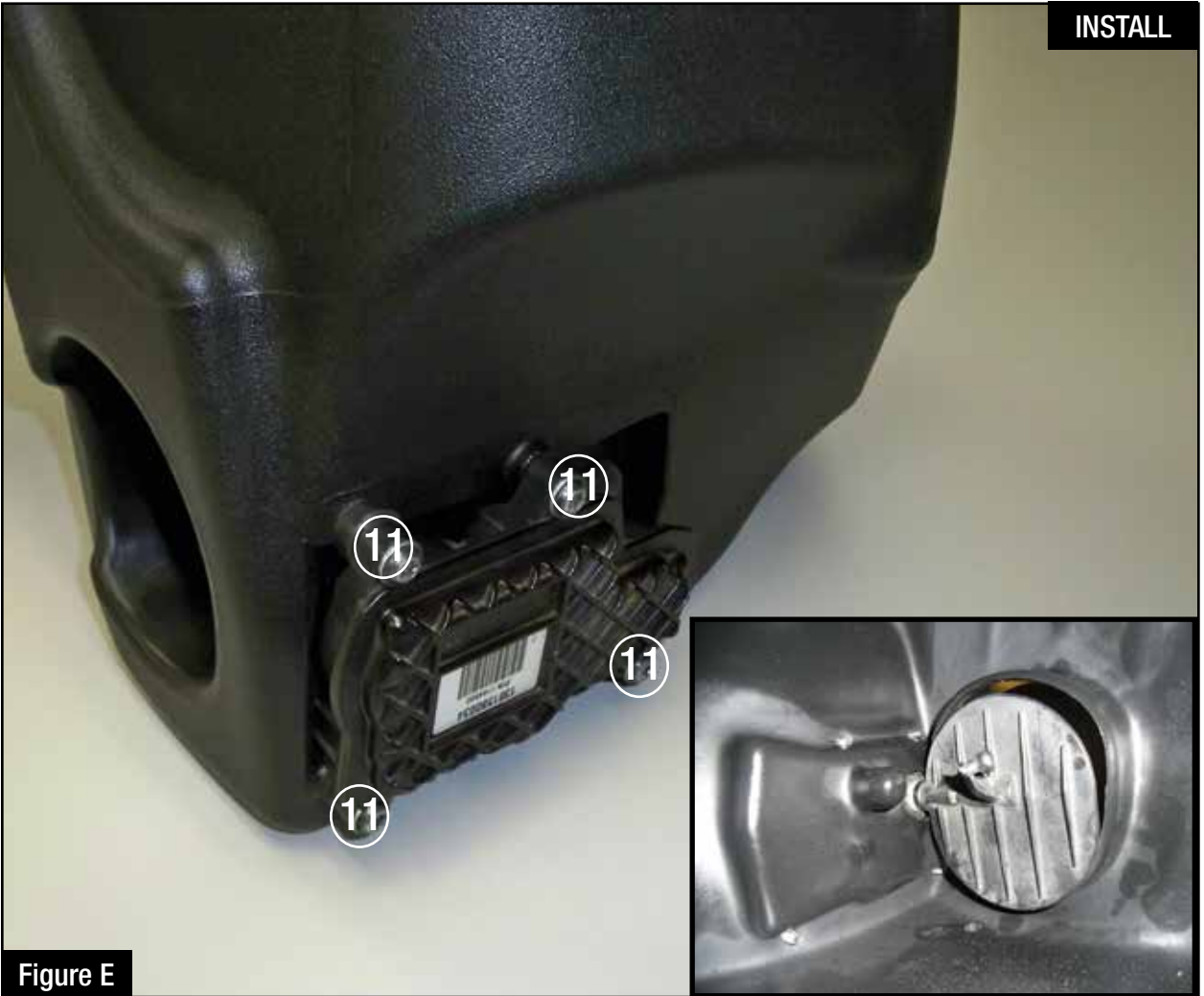
Refer to Figure D for Steps 8-11

Step 8: Open the factory airbox and remove the filter.

Step 9: Disconnect the ball (8) joint connected to the flap.

Step 10: Using a T30 torx driver, remove the screws (9) securing the Ram Active Air mechanism. Those screws will be re-used to install the Ram Active Air mechanism onto the aFe airbox.

Step 11: Remove the flap (10) from the motor shaft. This will require a lot of force. Take the Ram Active Air motor and flap off the factory airbox.

**Figure E****Refer to Figure E for Steps 12-13**

Step 12: Transfer the Ram Active Air motor to the aFe airbox. Re-install the flap on the motor shaft by firmly pushing on it.

Step 13: Secure the assembly to the aFe airbox using the factory screws (11). Make sure the flap is fully engaged to the motor shaft.



Figure F

Refer to Figure F for Steps 14-15

Step 14: Slide the aFe filter into the aFe airbox. Install the aFe filter using a #3 Phillips screwdriver. Tighten all (x4) screws.

Step 15: Install the supplied bellows coupler (12) onto the air filter using the supplied #80 clamp (13). Tighten the clamp.



Figure G

Refer to Figure G for Steps 16-17

Step 16: Install the airbox assembly into the vehicle. Re-connect the wiring harness to the Ram Active Air mechanism. Firmly push the airbox into the factory mounting grommets.

Step 17: Re-install the factory screw (14) removed in Step 2 to secure the airbox. Tighten the screw.



Figure H

Refer to Figure H for Step 18

Step 18: Transfer the MAF sensor (15) and the temperature sensor (16) from the factory airbox to the aFe tube. Use the supplied M4 screws to secure the sensors using a T20 torx.

**Figure I****Refer to Figure I for Steps 19-20**

- Step 19: Install the supplied silicone hose (17) on the coupler fitting and secure with the supplied mini clamp (18). Slide the factory clamp on the other end of the silicone hose.
- Step 20: Place the supplied #064 clamp (19) on the small end of elbow the coupler (20) . Install onto the turbo inlet and do NOT tighten yet.



Figure J

Refer to Figure J for Steps 21-23

- Step 21: Place the two #072 clamps (21) on the filter coupler (22) and the elbow coupler end (23).
- Step 22: Install the aFe tube into the vehicle by sliding into the filter coupler then the elbow coupler. Align the tube and the elbow coupler, then tighten the clamps.
- Step 23: Connect the silicone hose (24) to the factory crankcase line. Using pliers, secure it with the factory clamp (25).

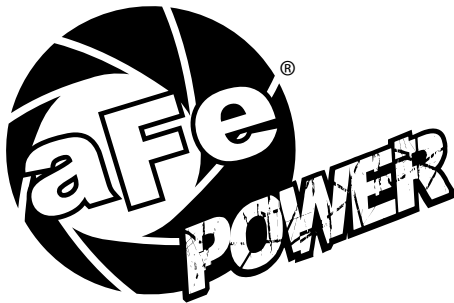
**Figure K****Refer to Figure K for Steps 24-25**

Step 24: Re-connect the MAF sensor ②⑥ and temperature sensor ②⑦ harness.

Step 25: Verify all connections are secured. Your installation is now completed.

NOTE: Verify all connections are secured after 100-200 miles.

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