

advanced FLOW engineering BladeRunner – Charge Pipe Combo Kit

Instruction Manual P/N: 46-20054-B

Make: GMC	Model: Sierra HD	Year: 2006-2007	Engine: V8-6.6L (td) LBZ
Make: Chevrolet	Model: Silverado HD	Year: 2006-2007	Engine: V8-6.6L (td) LBZ
Make: GMC	Model: Sierra HD	Year: 2007.5-2010	Engine: V8-6.6L (td) LMM
Make: Chevrolet	Model: Silverado HD	Year: 2007.5-2010	Engine: V8-6.6L (td) LMM



- Please read the entire instruction manual before proceeding.
- Ensure all components listed are present.
- For technical support please call 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.	UoM	Description	Part Number
A	1	Ea.	Tube, Hot Side: 46-20049	05-60028B
B	1	Ea.	Tube, Cold Side Upper: 46-20059	05-61546B-1
C	1	Ea.	Tube, Cold Side Lower: 46-20059	05-61546B-2
D	1	Ea.	Coupling, Silicone Reducer: (3" x 2.375")ID x 4"L	05-60047
E	1	Ea.	Coupling, Silicone Hump: 3"ID x 4"L	05-60012
F	1	Ea.	Coupling, Silicone Hump: 3-1/2"ID x 4"L	05-60025
G	1	Ea.	Clamp, Spring Loaded T-Bolt: (2.5" - 2.75") (ss)	03-50560
H	3	Ea.	Clamp, Spring Loaded T-Bolt: (3.25" - 3.5") (ss)	03-50530
J	2	Ea.	Clamp, Spring Loaded T-Bolt: (3.75" - 4") (ss)	05-60024
K	2	Ea.	O-Ring, Buna-N (-340)	05-61587
M	1	Ea.	Bracket Adaptor: 46-20049	05-60049
N	2	Ea.	Plug, Hex Hd Socket: 1/8" NPT (Zn Plt)	03-50029
P	1	Ea.	Screw, Hex Hd: M8x1.25x12	03-50031
Q	1	Ea.	Washer, Lock: M8, Zn Plt	03-50086

Installation will require the following tools:

Torque wrench, 1/4" ratchet, 6" extension, 7/16" deep socket, 8mm deep socket, 10mm socket, 13mm socket, hook pick, trim removal tool, thread sealant, silicone grease.

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>

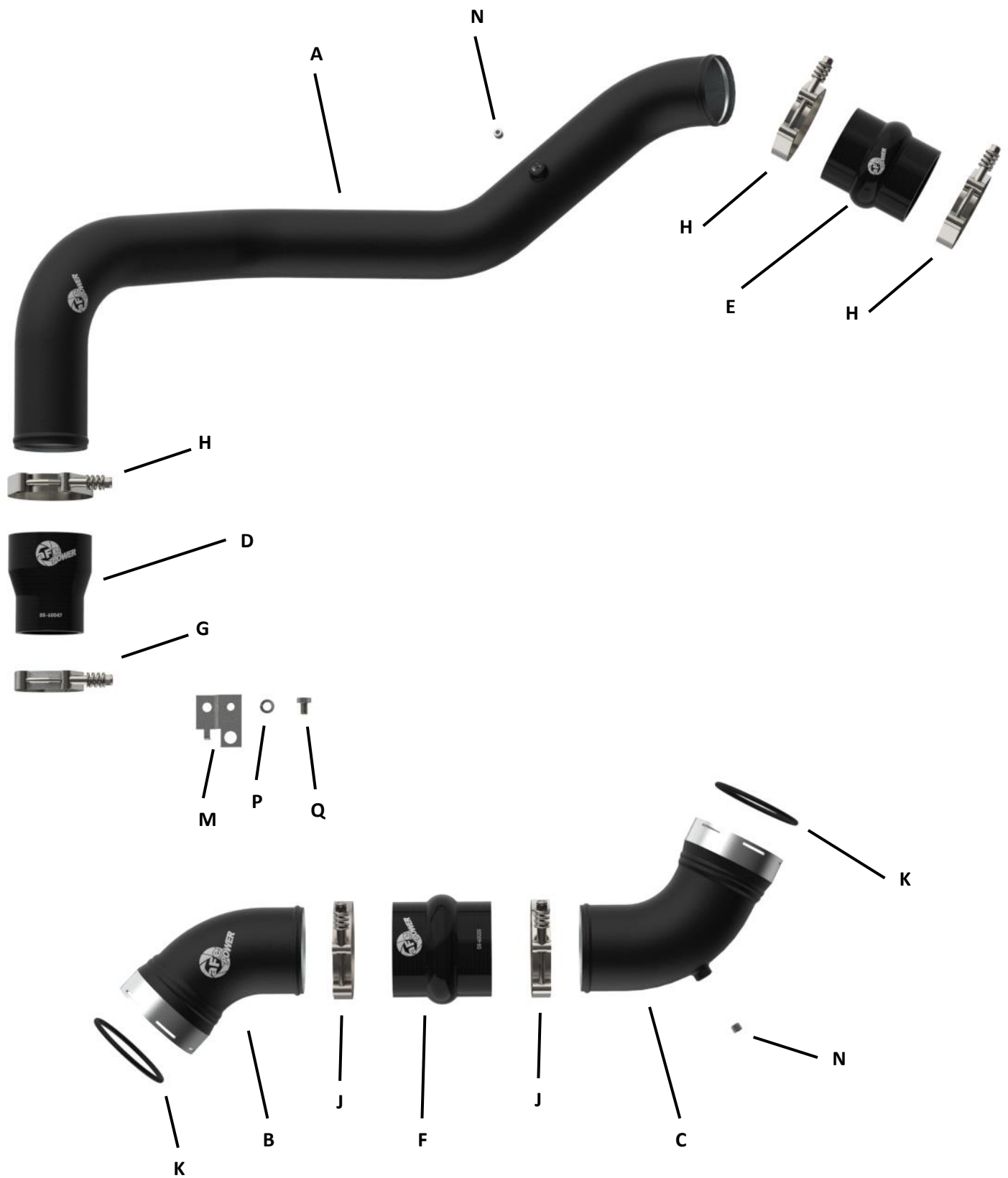




Figure A

Refer to Figure A for Steps 1 - 2

Step 1: Disconnect both negative battery cables.

Step 2: Loosen both hose clamps for turbocharger coupler ①.

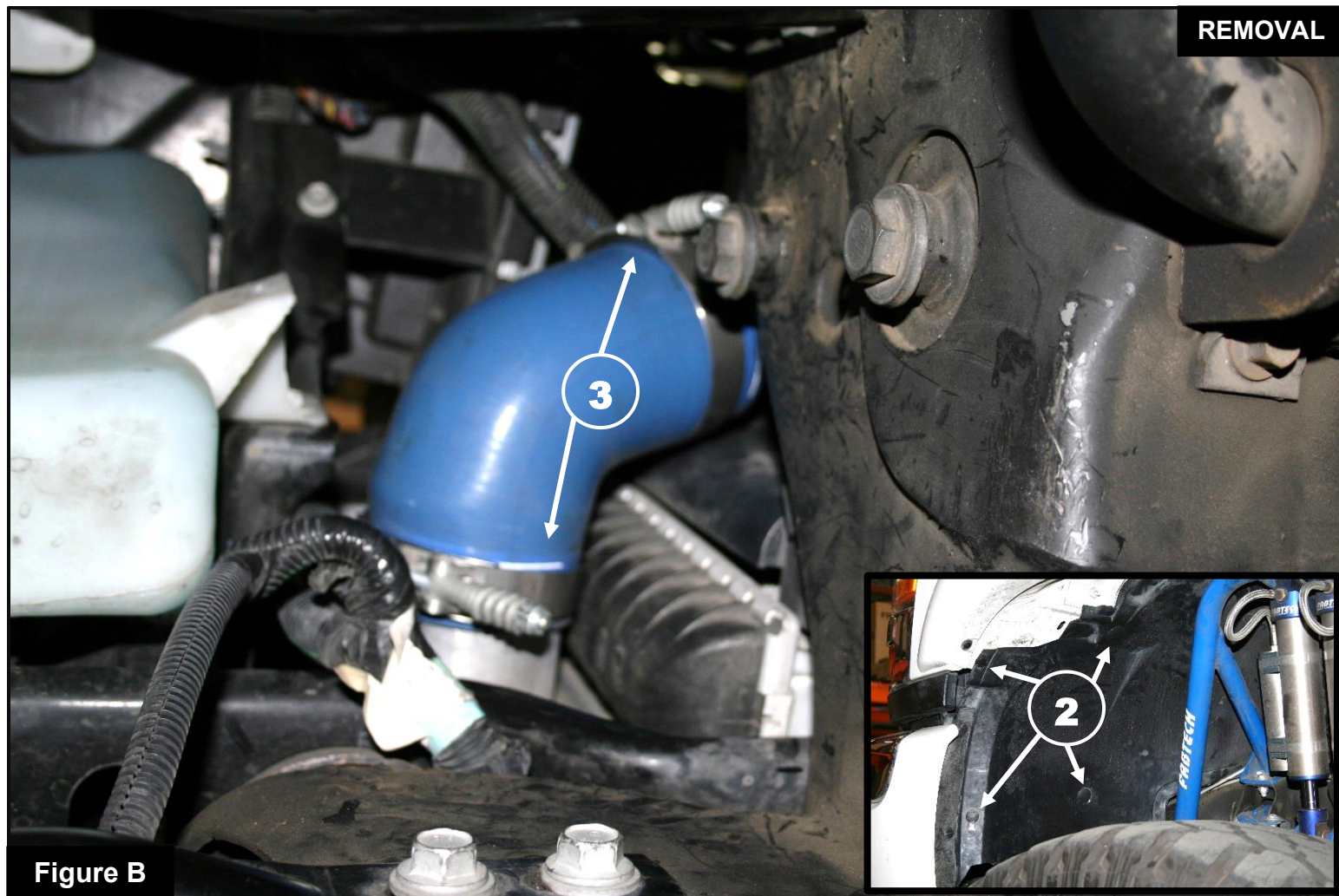


Figure B

Refer to Figure B for Steps 3 - 4

Step 3: Remove fender clips for driver's side fender liner and tie it out of the way with a strap or wire (2).

Step 4: Loosen both hose clamps for the intercooler coupler (3).



Figure C

Refer to Figure C for Step 5

Step 5: Remove the stock intercooler tube through the fender well ④.



Figure D

Refer to Figure D for Step 6

Note: Be sure to use thread sealant on the plug or sensor to prevent any leaking

Step 6: If you are not using any aftermarket sensors, install the supplied 1/8" NPT plug into the threaded fitting on the aFe POWER hot side charge pipe (5).



Refer to Figure E for Steps 7 - 10

Step 7: Remove the stock brake line with bracket from the frame at the fender well.

Step 8: Install the new brake line Bracket Adaptor by reusing the stock screw (6).

Step 9: Install the stock brake line with bracket to new Bracket Adapter using the provided M8 screw and lock washer (7).

Step 10: Install the new aFe POWER charge pipe through the Driver's Side fender well (8).



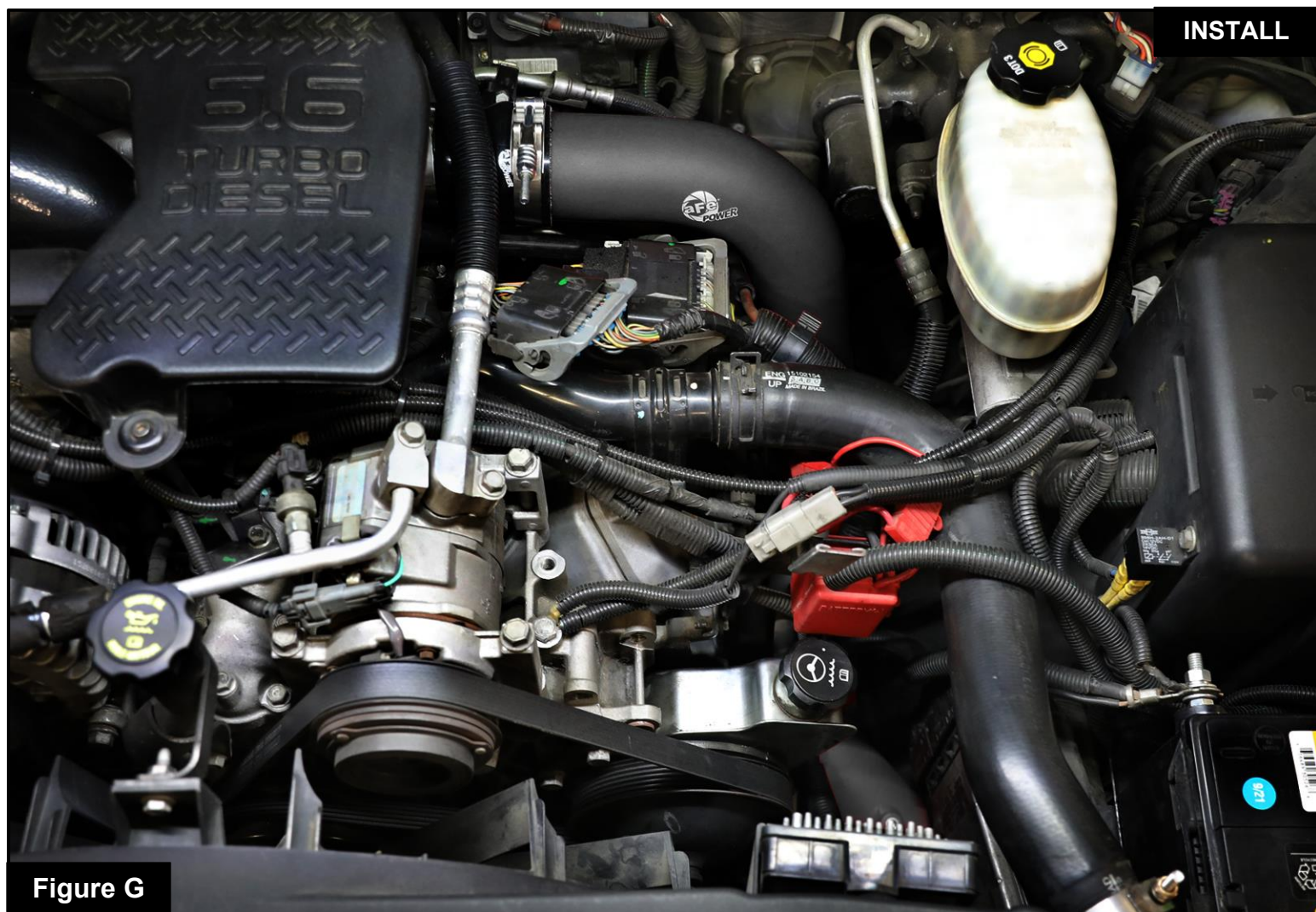
Refer to Figure F for Steps 11 - 14

Step 11: Install the 3" silicone reducer coupler, 2.5" T-Bolt clamp, and 3.25" T-Bolt clamp to the Engine Turbocharger; leave the T-Bolt clamps loose.

Step 12: Intall the 3" silicone hump coupler and 3.25" T-Bolt clamps flush to the aFe POWER charge pipe intercooler end; leave the T-Bolt clamps loose.

Step 13: Align the charge pipe turbocharger end to the silicone reducer and install the charge pipe tube; leave the T-Bolt clamps loose (9).

Step 14: Align the charge pipe intercooler end to the intercooler and slide silicone hump coupler onto the intercooler (10).



Refer to Figure G for Steps 15 - 16

Step 15: Ensure the aFe POWER hot side charge pipe is not touching anything, then tighten all of the clamps. Torque all spring-loaded T-Bolt clamps to 10 Ft-lbs. or until spring is completely collapsed.

Step 16: Reinstall the fender liner and fender liner clips.

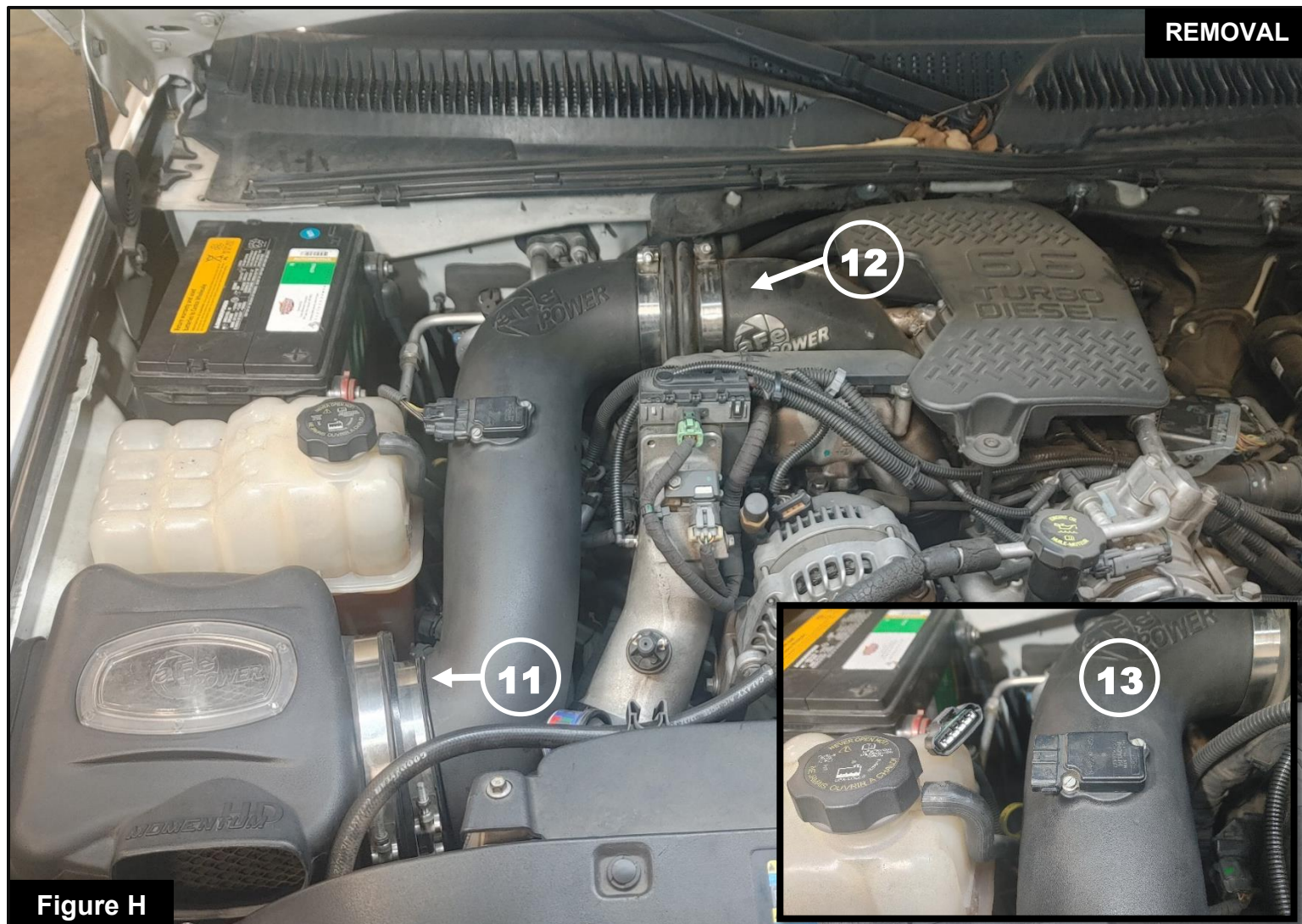
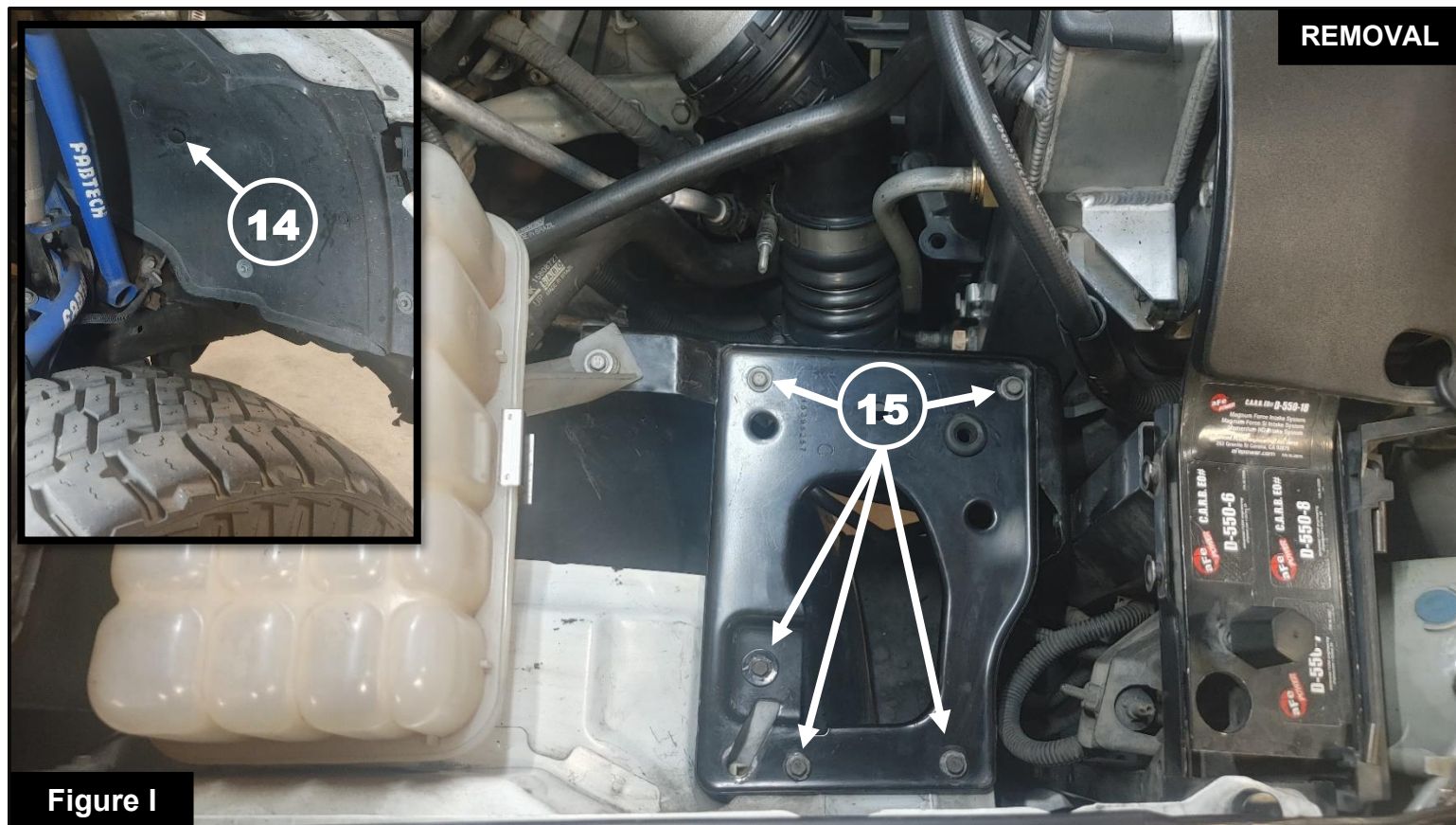


Figure H

Refer to Figure H for Steps 17-21

- Step 17: Loosen the clamp for the air intake tube on the air filter housing. ⑪
- Step 18: Loosen the clamp for the air intake tube on the turbocharger. ⑫
- Step 19: Disconnect the electrical connector to the MAF/IAT sensor in the intake tube. ⑬
- Step 20: Remove the air intake tube from the vehicle.
- Step 21: Remove air filter housing from the vehicle.



Refer to Figure I for Steps 22-24

Step 22: Remove the fender clip attaching the air filter housing tray bracket to the fender liner. (14)

Step 23: Remove the screws attaching the air filter housing tray to the vertical support bracket and fender liner. (15)

Step 24: Remove the air filter housing tray from the vehicle.

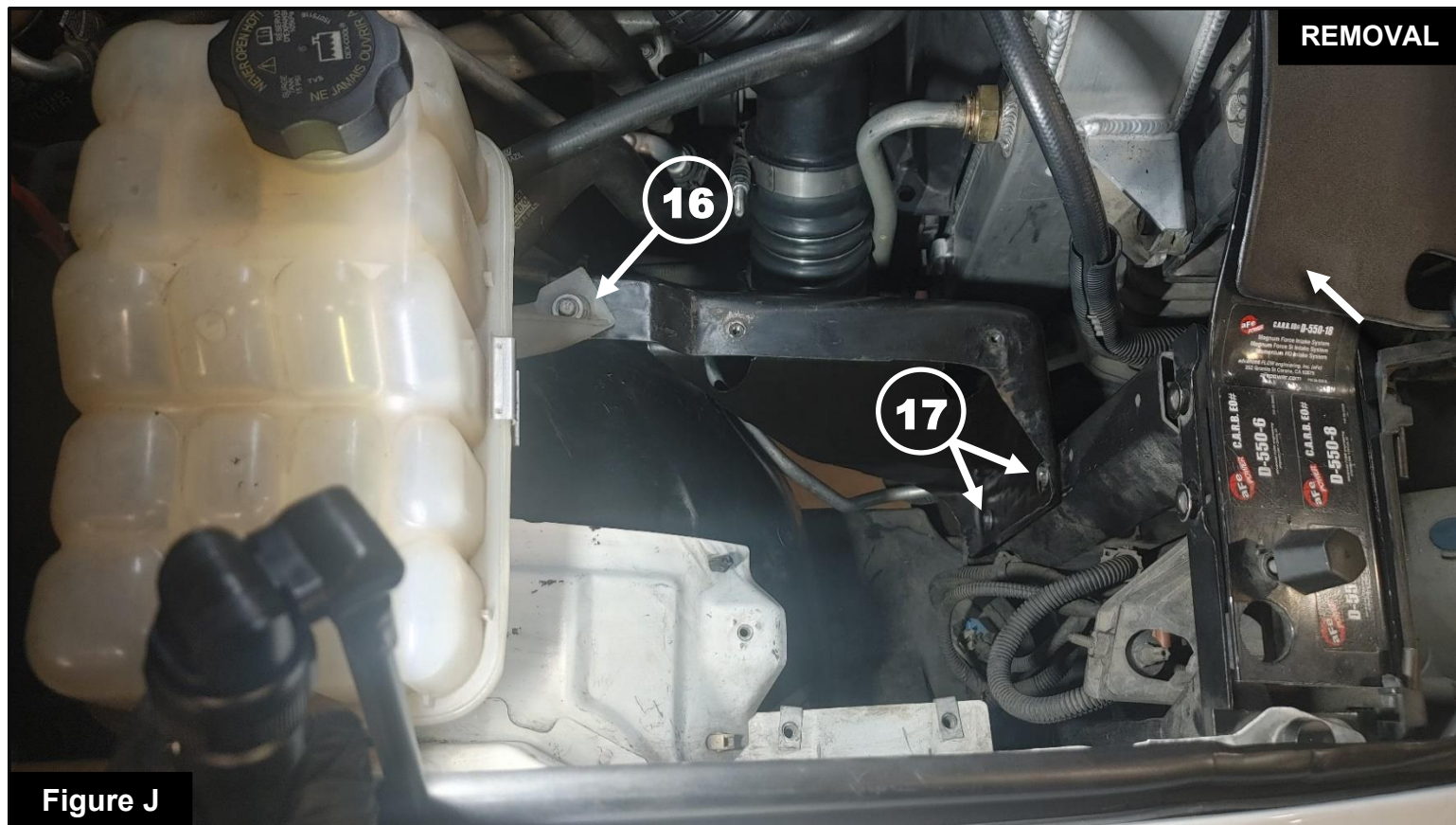


Figure J

Refer to Figure J for Steps 25-27

Step 25: Remove the screw attaching the coolant surge tank to the vertical support bracket. ①⑥

Step 26: Loosen the two screws attaching the vertical support bracket to the core support. ①⑦

Step 27: Once loose, pull the vertical support bracket up and then pull away from the mounting surface to remove it from the vehicle.

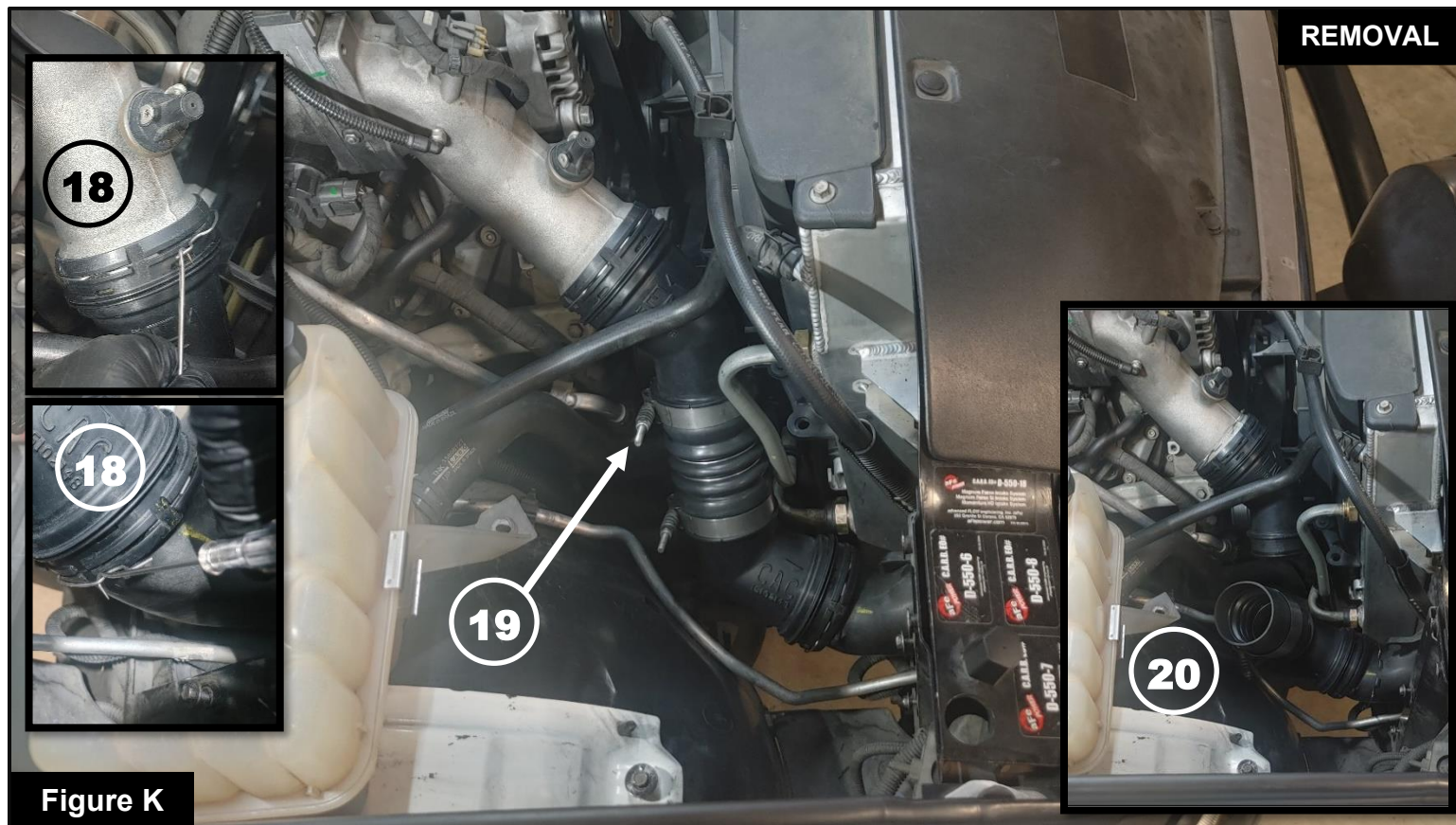


Figure K

Refer to Figure K for Steps 28-32

Step 28: Remove the retaining clips for both charge pipe connections. (18)

Step 29: Loosen the stock upper clamp attaching the stock upper charge pipe and stock coupler. (19)

Step 30: Rotate the stock coupler and stock lower charge pipe down for clearance. (20)

Step 31: Remove the stock upper charge pipe.

Step 32: Remove the stock lower charge pipe with the attached stock coupler.



Figure L

Refer to Figure L for Steps 33-36

Note: The retaining clips will need to be removed from the stock charge pipes for reuse with the aFe POWER charge pipes.

Step 33: Install the stock retaining clips to the aFe POWER cold side charge pipes. (21)

Note: Be sure to lubricate the O-ring with grease to prevent it from tearing during installation.

Step 34: Install the (-340) O-Rings into the grooves of the aFe POWER cold side charge pipes. (22)

Note: Be sure to use thread sealant on the plug or sensor to prevent any leaking.

Step 35: If you are not using any aftermarket sensors, install the supplied 1/8" NPT plug into the threaded fitting on the aFe POWER cold side lower charge pipe (23)

Step 36: Install the 3-1/2" x 4"L coupling with a 3.75" - 4" spring loaded T-Bolt Clamp onto the aFe POWER cold side lower charge pipe up to the welded NPT port; leave the clamp loose. (24)

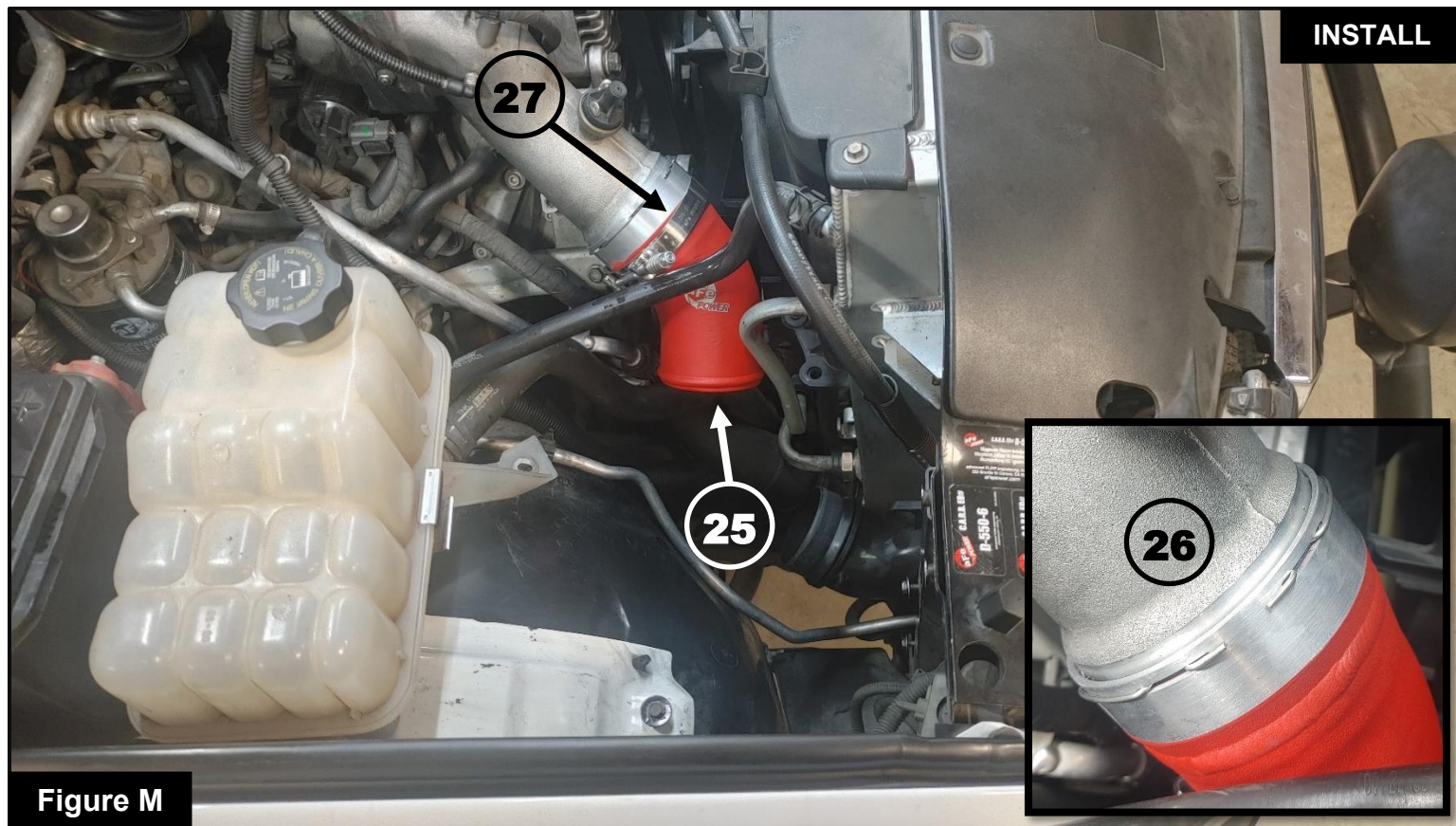


Figure M

Refer to Figure M for Steps 37-39

Step 37: Install the aFe POWER cold side upper charge pipe by pushing the connector onto the intake manifold until the retaining clip snaps into place and in the orientation shown in FIGURE M. (25)

Step 38: Verify that the clip is sitting flush in the groove encircling the intake manifold at all points. (26)

Step 39: Install the remaining 3.75" - 4" spring loaded T-Bolt Clamp; leave the clamp loose and rest it out of the way for now. (27)

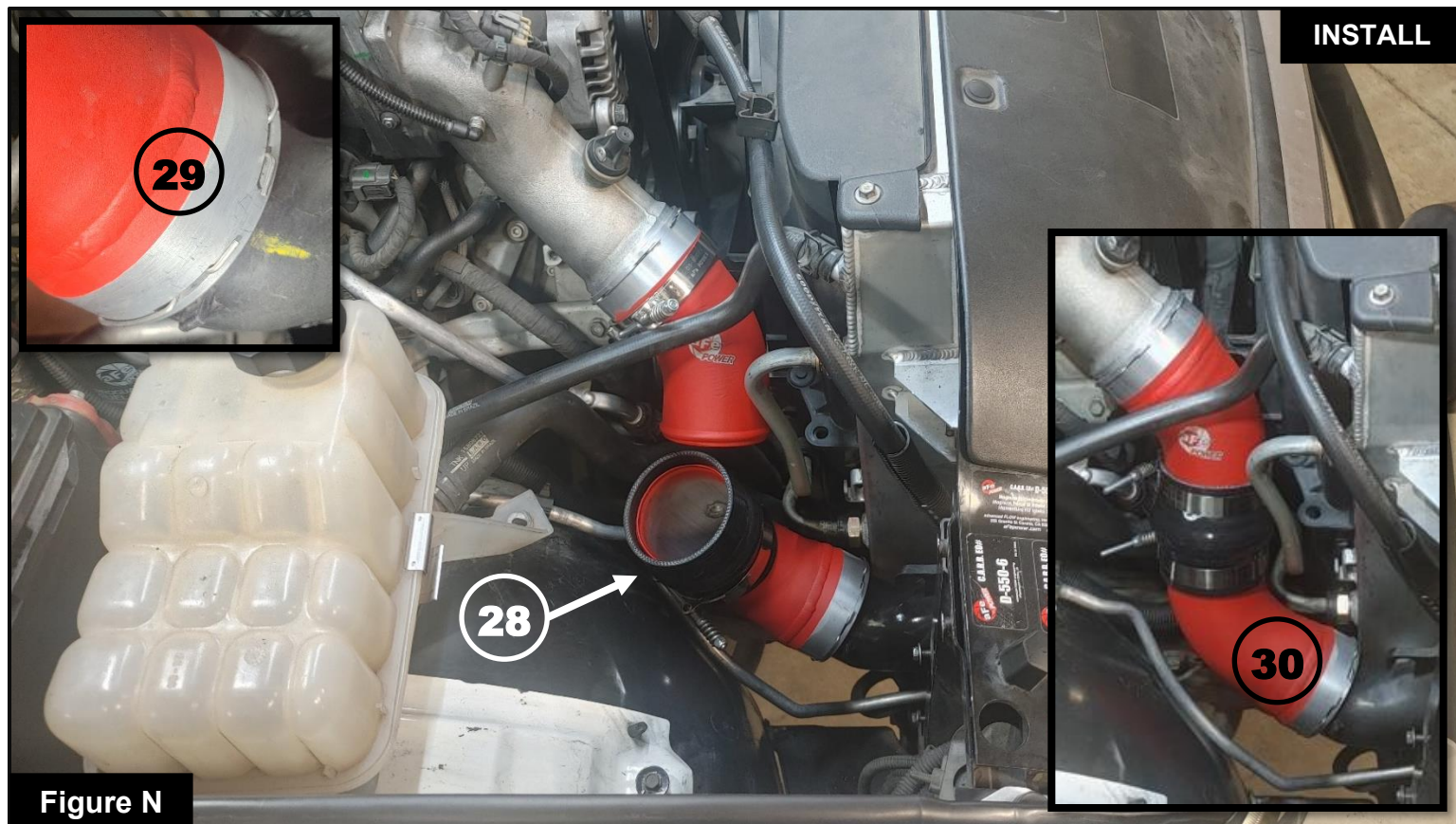


Figure N

Refer to Figure N for Steps 40-44

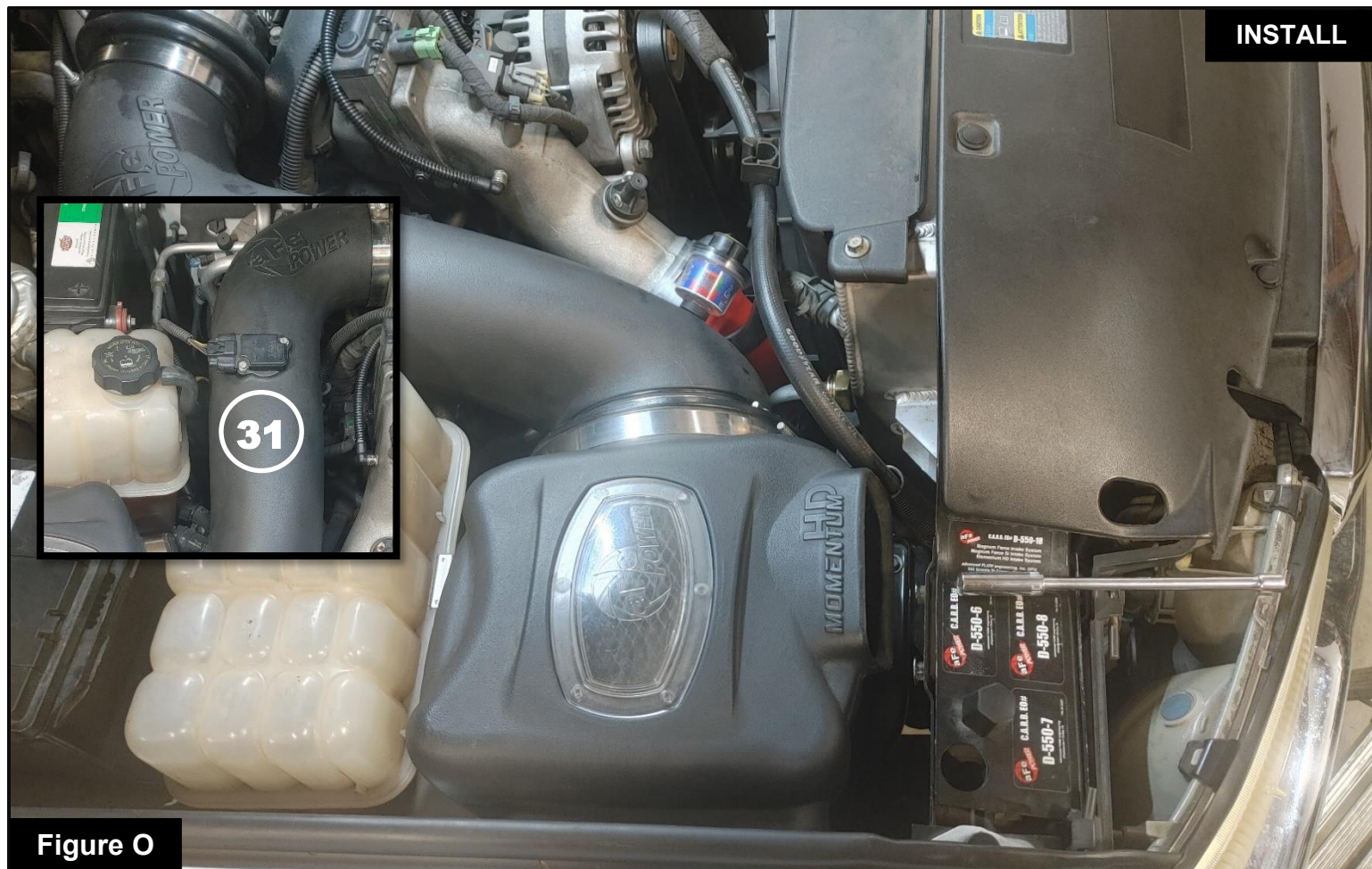
Step 40: Install the aFe POWER cold side lower charge pipe, with coupler and clamp, by pushing the connector onto the stock intercooler outlet until the retaining clip snaps into place and in the orientation shown in FIGURE N. (28)

Step 41: Verify that the clip is sitting flush in the groove encircling the intercooler outlet at all points. (29)

Step 42: Rotate the aFe POWER cold side lower charge pipe to align with the upper charge pipe

Step 43: Slide the coupler onto the upper charge pipe. (30)

Step 44: Torque all spring-loaded T-Bolt clamps to 10 Ft-lbs. or until the spring is completely collapsed.



Refer to Figure O for Steps 45-51

Step 45: Reinstall the vertical support

Step 46: Reinstall the air filter housing tray.

Step 47: Reinstall the air filter housing assembly.

Step 48: Reinstall the air intake tube; tighten clamps to manufacturer's specification.

Step 49: Reconnect the electrical connector for the MAF/IAT sensor on the intake tube. (31)

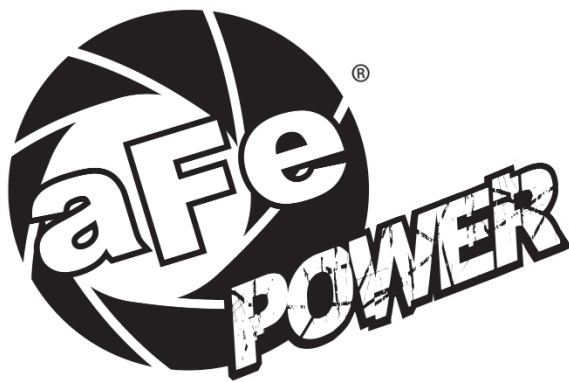
Step 50: Reconnect both negative battery cables to the negative battery terminals.

Step 51: Your Installation is now complete!

NOTE: Check all clamps, and connectors are secure after 100-200 miles



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