



advanced FLOW engineering BladeRunner – Charge Pipe Combo Kit

Instruction Manual P/N: 46-20734-R

Make: **Ford**

Model: **F-250**

Year: **2023-2024**

Engine: **V8-6.7L (td)**

Make: **Ford**

Model: **F-350**

Year: **2023-2024**

Engine: **V8-6.7L (td)**



- 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.

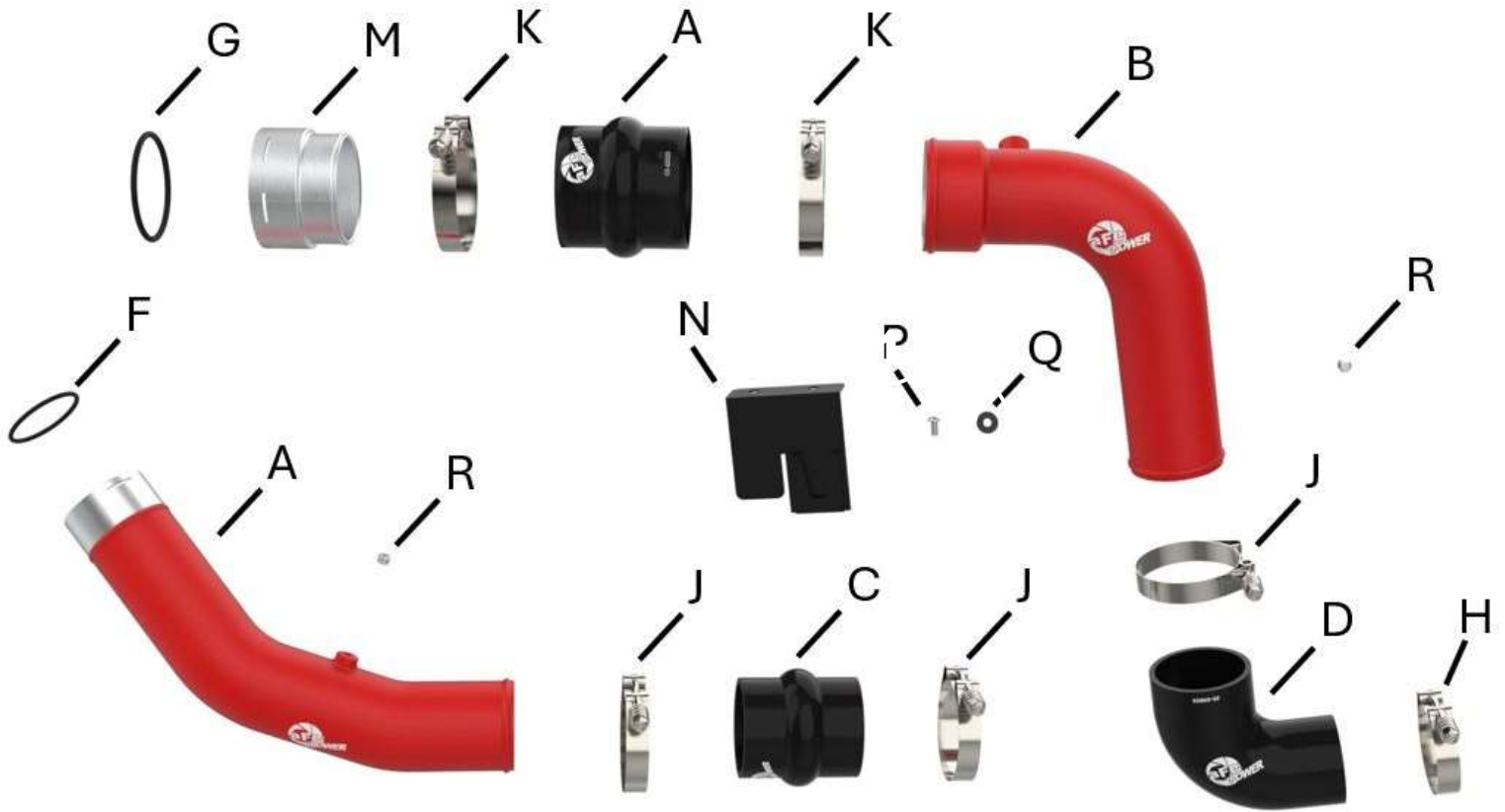
Label	Qty.	UoM	Description	Part Number
A	1	Ea.	Tube, Hot Side: 46-20738-R	05-61512R
B	1	Ea.	Tube, Cold Side: 46-20689-R	05-61338R
C	1	Ea.	Coupling, Silicone Hump: 3"ID x 4"L	05-60012
D	1	Ea.	Coupling, Silicone Rdr: (3"x2.63") x 1.30"L 90 Deg	05-60803
E	1	Ea.	Coupling, Silicone Hump: 3.50"ID x 4"L	05-60025
F	1	Ea.	O-Ring, 60mm ID x 4mm W	05-60615
G	1	Ea.	O-Ring, 80mm ID x 5mm W	05-61136
H	1	Ea.	Clamp, Spring Loaded T-Bolt: (3" - 3.25") (ss)	05-60435
J	3	Ea.	Clamp, Spring Loaded T-Bolt: (3.25" - 3.50") (ss)	03-50530
K	2	Ea.	Clamp, Spring Loaded T-Bolt: (3.75" - 4") (ss)	05-60024
M	1	Ea.	Adaptor: 05-60596	05-60605
N	1	Ea.	Bracket, P/S Reservoir Relocation: 46-20149	05-60621
P	1	Ea.	Screw, Btn Hd Socket: M6x1x10	03-50113
Q	1	Ea.	Washer, Flat: M6	03-50070
R	2	Ea.	Plug, Hex Hd Socket: 1/8" NPT (Zn Plt)	03-50029

Installation will require the following tools:

7mm, 10mm, 11mm sockets , 4mm allen, 3/16" allen, extensions, ratchet, flat screwdriver, pick, teflon tape, grease.

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.



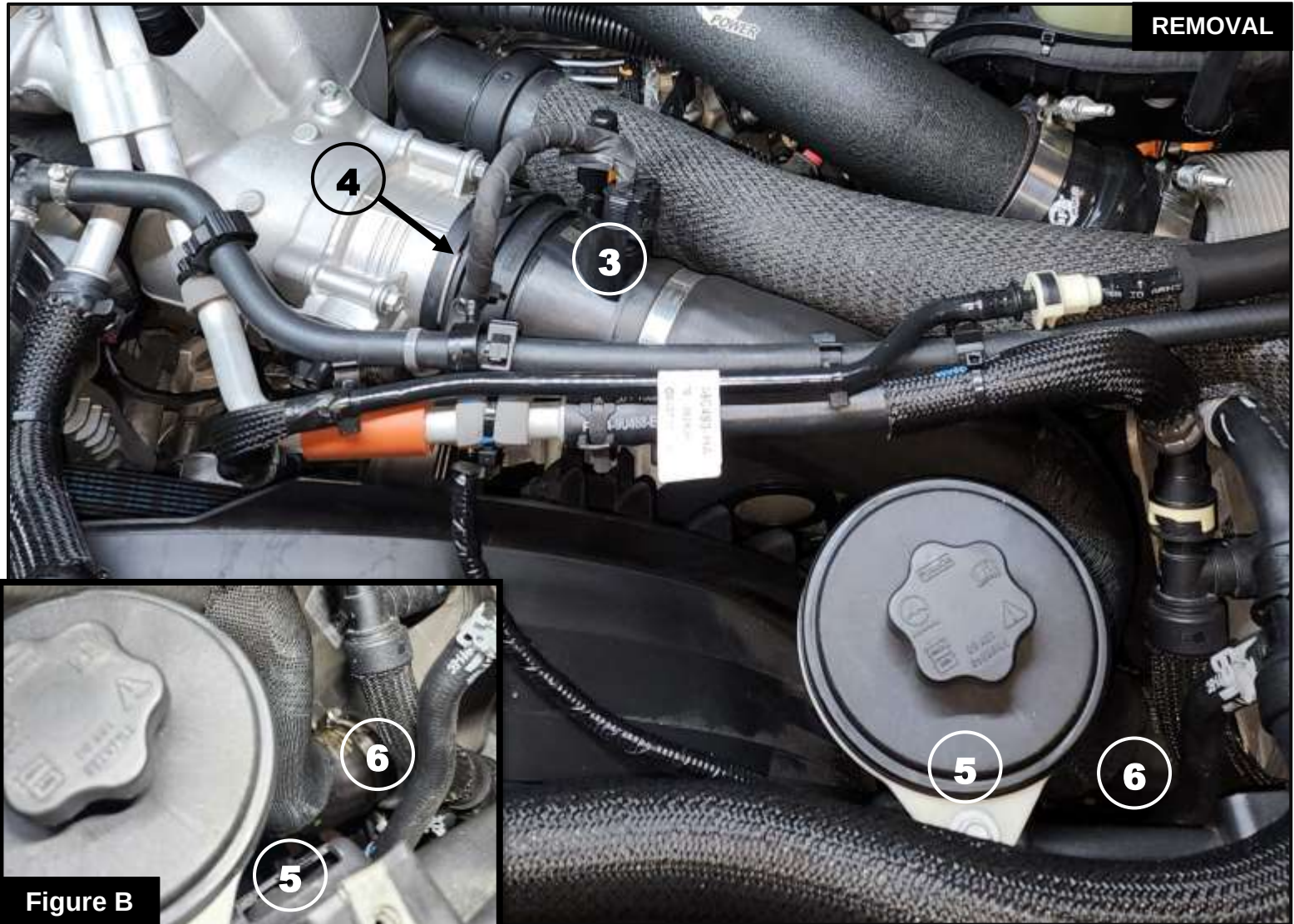


Refer to Figure A for Steps 1-3

Step 1: Disconnect the negative battery cables

Step 2: Loosen the clamp securing the hot side charge pipe onto the intercooler inlet (1)

Step 3: Expand the retaining clip securing the hot side charge pipe onto the turbo outlet, then remove the factory hot side charge pipe from the vehicle (2)



Refer to Figure B for Steps 4-8

- Step 4: Disconnect the temperature sensor connector from the sensor on the factory cold side charge pipe (3).
- Step 5: Remove the retaining clip securing the cold side charge pipe onto the engine inlet (4), set aside for use later.
- Step 6: Remove the screw securing the power steering reservoir to the fan shroud, then lift the reservoir out of its slot and set it to the side (5).
- Step 7: Loosen the clamp securing the cold side charge pipe to the intercooler, then remove the cold side charge pipe from the vehicle (6).



Figure C

Refer to Figure C for Steps 8-10

Step 8: The plastic retainer will need to be removed from the charge pipe by standing it up on the end with the metal adaptor and tapping it down on either side of the plastic retainer ⑦

Step 9: Remove the metal retaining clip from the factory hot side charge pipe, then install it onto the aFe POWER hot side charge pipe ⑧

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

Step 10: Install the 60mm ID x 4mm W O-ring into the groove on the inside of the aFe POWER hot side charge pipe ⑨


Figure D

Refer to Figure D for Steps 11-12

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

Step 11: 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 (10)

Step 12: Install the supplied aFe POWER silicone hump coupling, 3"ID x 4"L, with one supplied 3.25" spring loaded spring loaded T-Bolt clamp onto the aFe POWER hot side charge pipe (11) do not tighten the clamp yet.



Figure E

Refer to Figure E for Steps 13-15

Note: Be sure to thoroughly clean all oil residue off of the connections before installing any of the aFe couplings onto the vehicle.

Step 13: Place one 3.25" spring loaded T-Bolt clamp onto intercooler inlet, then install the aFe POWER hot side charge pipe into the vehicle starting at the turbo outlet, but do not allow the retaining clip to snap into place ⑫

Step 14: Install the coupler onto the intercooler inlet and tighten the clamp to the intercooler ⑬

Step 15: Slide the aFe POWER hot side charge pipe onto the turbo outlet ⑭ and ensure the retaining clip snaps into place all the way around, then tighten the clamp. Torque all spring-loaded T-Bolt clamps to 10 Ft-lbs or until spring is completely collapsed ⑮

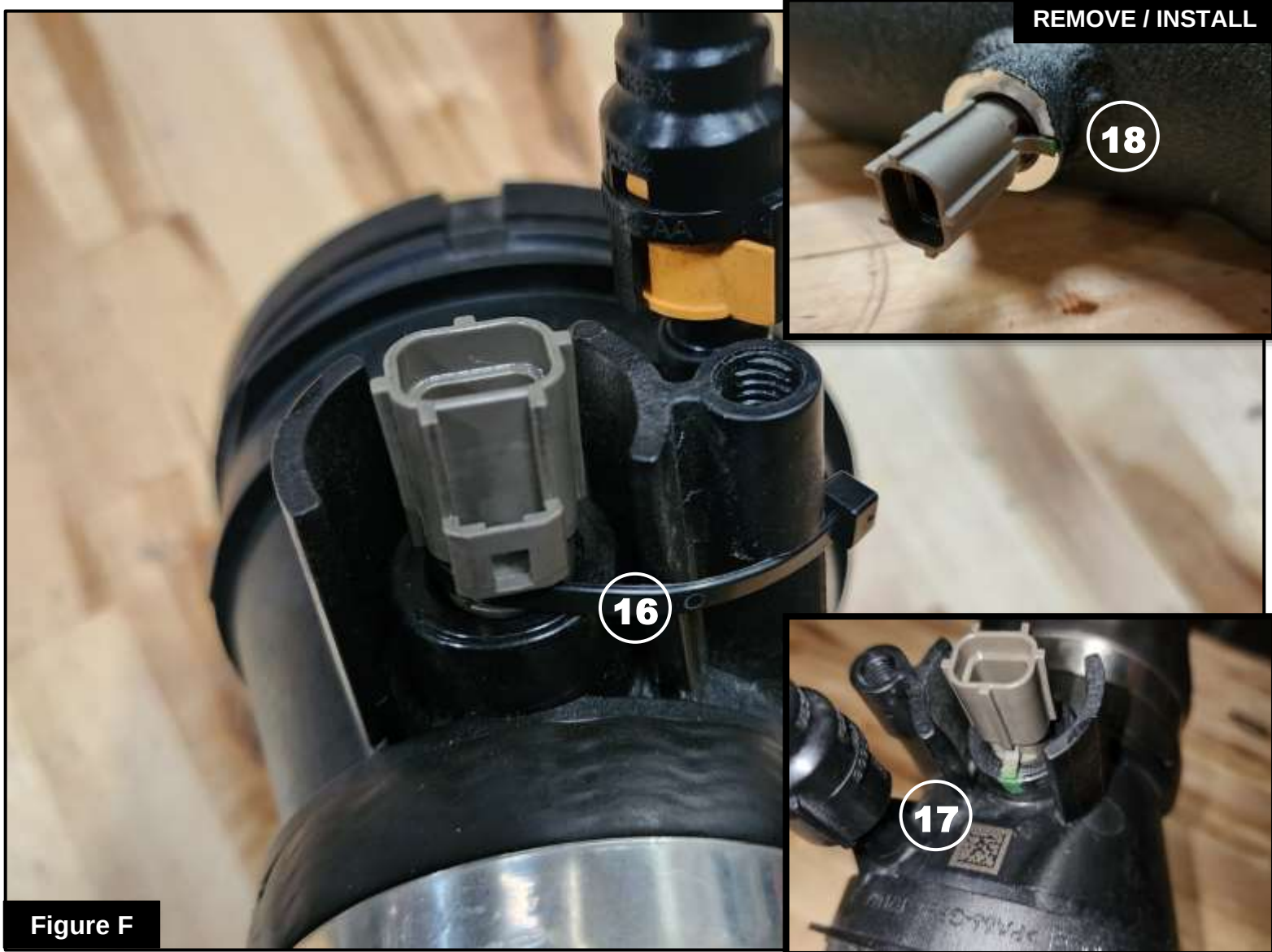


Figure F

Refer to Figure F for Steps 16-18

Step 16: if equipped, remove the zip tie from the factory cold side charge pipe temperature sensor (16) Do this by just sliding it up and working it around the ledges.

Step 17: Remove the factory temperature sensor from the cold side charge pipe (17) Do this by gently lifting the tab and twisting the sensor counterclockwise and pulling it out.

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

Step 18: Install the temperature sensor from the factory cold side charge pipe into the aFe POWER cold side charge pipe (18) twist it to lock it into place on the tab.


Figure G

Refer to Figure G for Steps 19-22

Step 19: Install the supplied aFe POWER silicone elbow reducer coupling, 3" x 2.63" x 90Deg and one 3.25" spring loaded T-Bolt clamp onto the cold side charge pipe (19) do not tighten the clamp yet.

Step 20: Place the supplied 3.00" spring loaded T-Bolt clamp onto the end of the coupling from the previous step (20)

Step 21: Install the supplied aFe POWER silicone hump coupling, 3.50"ID x 4"L and one 3.75" spring loaded T-Bolt clamp onto the cold side charge pipe (21)

Step 22: Place one supplied 3.75" spring loaded T-Bolt clamp onto the end of the coupling from the previous step (22) do not tighten the clamp yet.


Figure H

Refer to Figure H for Steps 23-25

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

Step 23: 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 charge pipe (23)

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

Step 24: Install one 80mm ID x 5mm W O-ring into the groove on the inside of the supplied aFe POWER engine inlet adaptor (24)

Step 25: Install the factory engine inlet retaining clip from Step 5 onto the aFe POWER engine inlet adaptor (25)

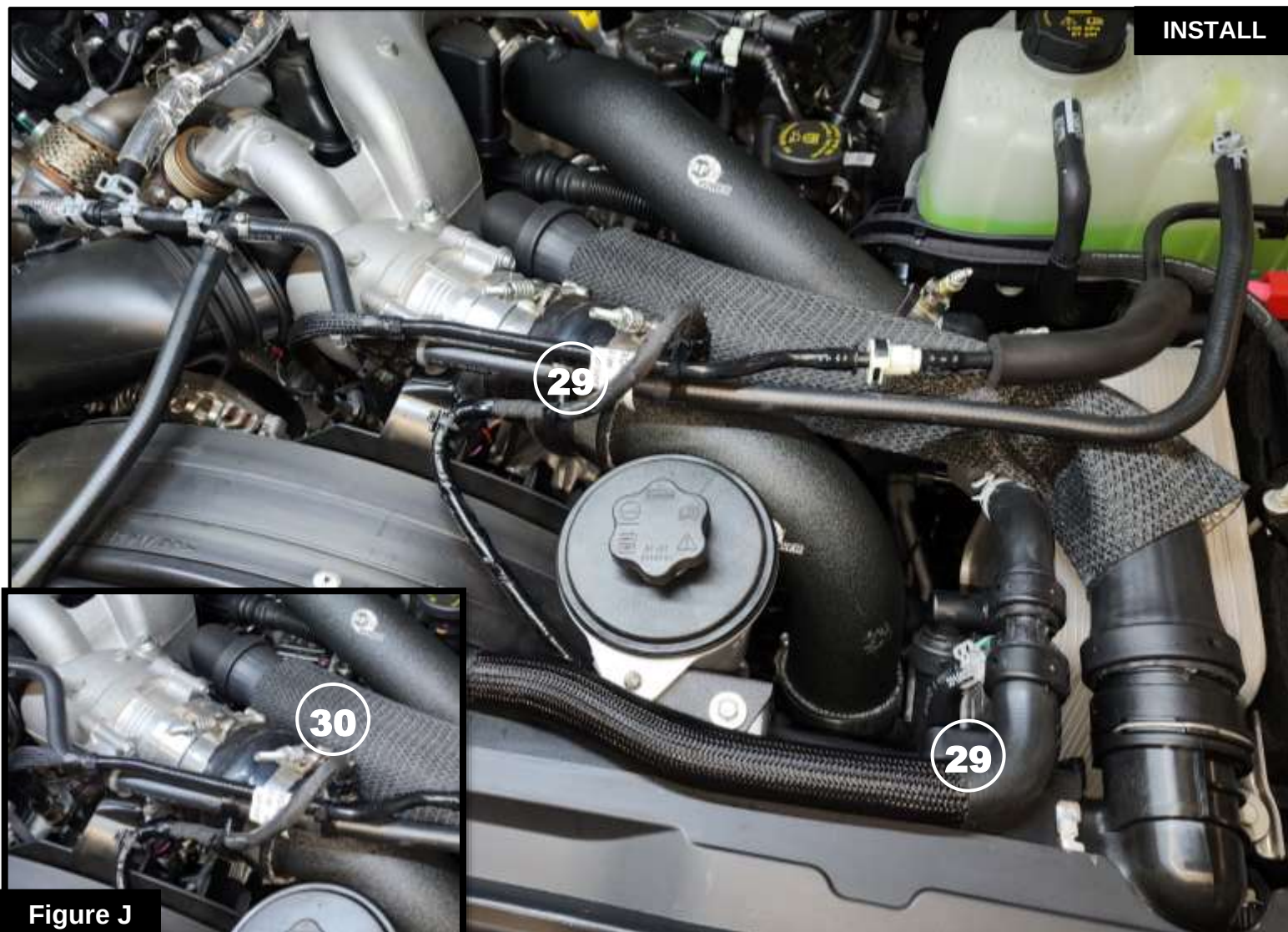


Refer to Figure I for Steps 26-28

Step 26: Install the aFe POWER engine inlet adaptor onto the engine (26) ensure the retaining clip snaps into place all the way around.

Step 27: Install the supplied aFe POWER P/S reservoir bracket into the factory location for the power steering reservoir and secure it with the factory screw (27)

Step 28: Install the power steering reservoir onto the aFe POWER P/S bracket and secure with the supplied M6x1x10 screw and M6 washer (28)



Refer to Figure J for Steps 29-33

Step 29: Install the aFe POWER cold side charge pipe into the vehicle by first connecting to the intercooler and then to the engine inlet adaptor (29) do not tighten the clamps yet.

Step 30: Ensure the aFe POWER cold 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 31: Unclip the plastic clip securing the temperature sensor harness to the coolant hose. Reroute the harness so that it reaches the aFe POWER charge pipe and connect it to the sensor (30)

Step 32: Reconnect the negative battery cables.

Step 33: Install is now complete.

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



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