



advanced FLOW engineering BladeRunner – Charge Pipe Combo Kit

Instruction Manual P/N: 46-20494-B

Make: RAM

Model: 1500

Year: 2016-2019

Engine: V6-3.0L (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 Lower: 46-20498	05-61441B
B	1	Ea.	Tube, Cold Upper: 46-20179-B	05-60430B
C	1	Ea.	Tube, Cold Lower: 46-20179-B	05-60431B
D	1	Ea.	Coupling, Silicone Reducer: (2.5" x 2.13")ID x 3"L	05-61442
E	1	Ea.	Coupling, Silicone Elbow: 3"ID x 45 Deg	05-60433
F	1	Ea.	Coupling, Silicone Elb Rdr: (3" x 2.375")ID x 45 Deg	05-60432
G	1	Ea.	Coupling, Silicone Reducer: (3" x 2.375")ID x 4"L	05-60047
H	4	Ea.	Clamp, Spring Loaded T-Bolt: (3.25" - 3.5") (ss)	03-50530
J	1	Ea.	Clamp, Spring Loaded T-Bolt: (2.75" - 3") (ss)	05-60039
K	2	Ea.	Clamp, Spring Loaded T-Bolt: (2.5" - 2.75") (ss)	03-50560
M	1	Ea.	Clamp, Spring Loaded T-Bolt: (2.375"-2.625") (ss)	03-50570
N	1	Ea.	O-Ring, 60mm ID x 4mm W	05-60615
P	1	Ea.	Plug, Hex Hd Socket: 1/8" NPT (Zn Plt)	03-50029

Installation will require the following tools:

7mm, 7/16 sockets, 3/16" allen, extensions, ratchet, flat screwdriver, pannel popper, pick, teflon tape, grease.

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

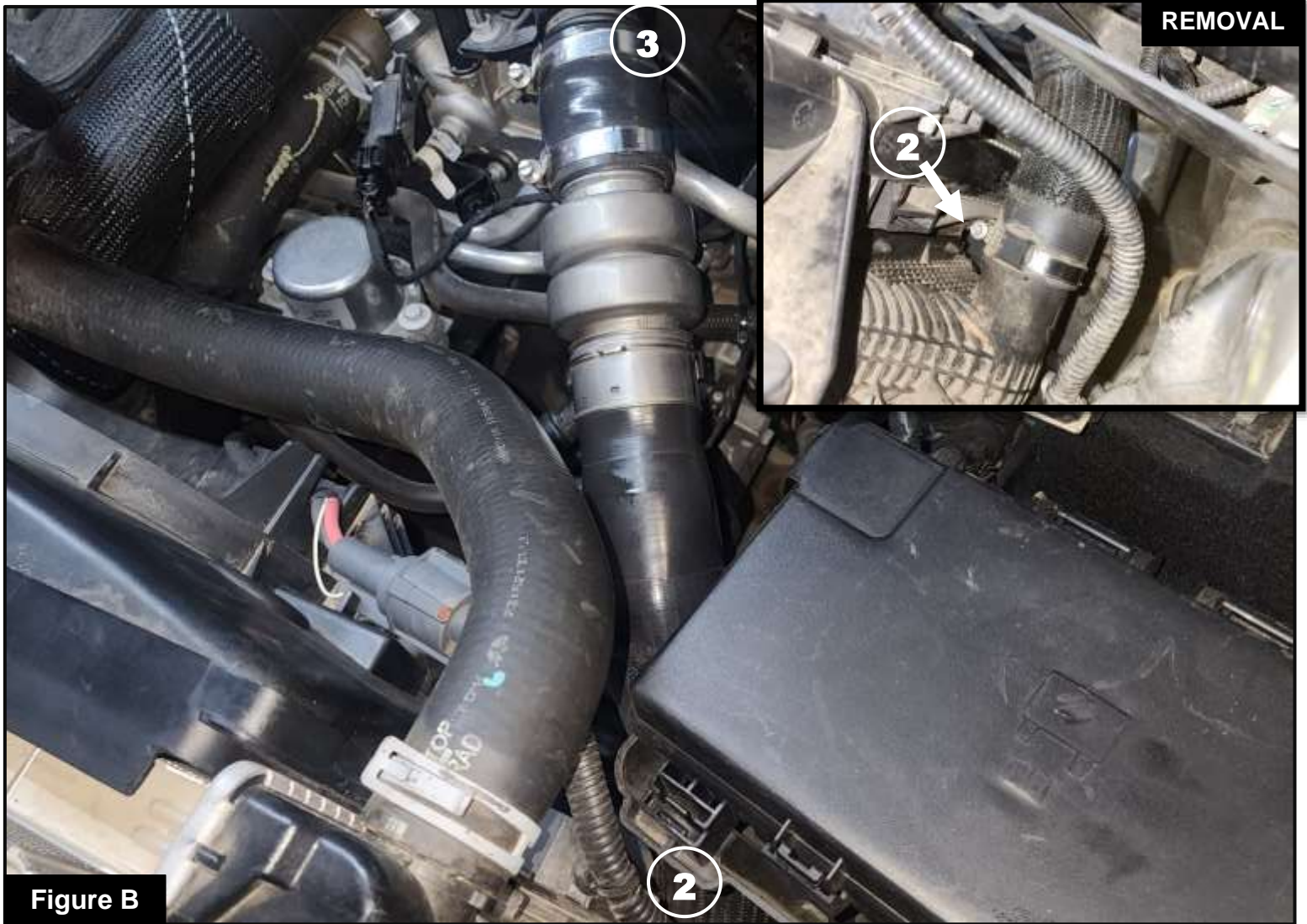
Emissions Disclaimer: This product is not currently CARB exempt and is not available for purchase in California or for use on any vehicle registered with the California Department of Motor Vehicles.



**Figure A****Refer to Figure A for Steps 1-2**

Step 1: Disconnect the negative battery cable.

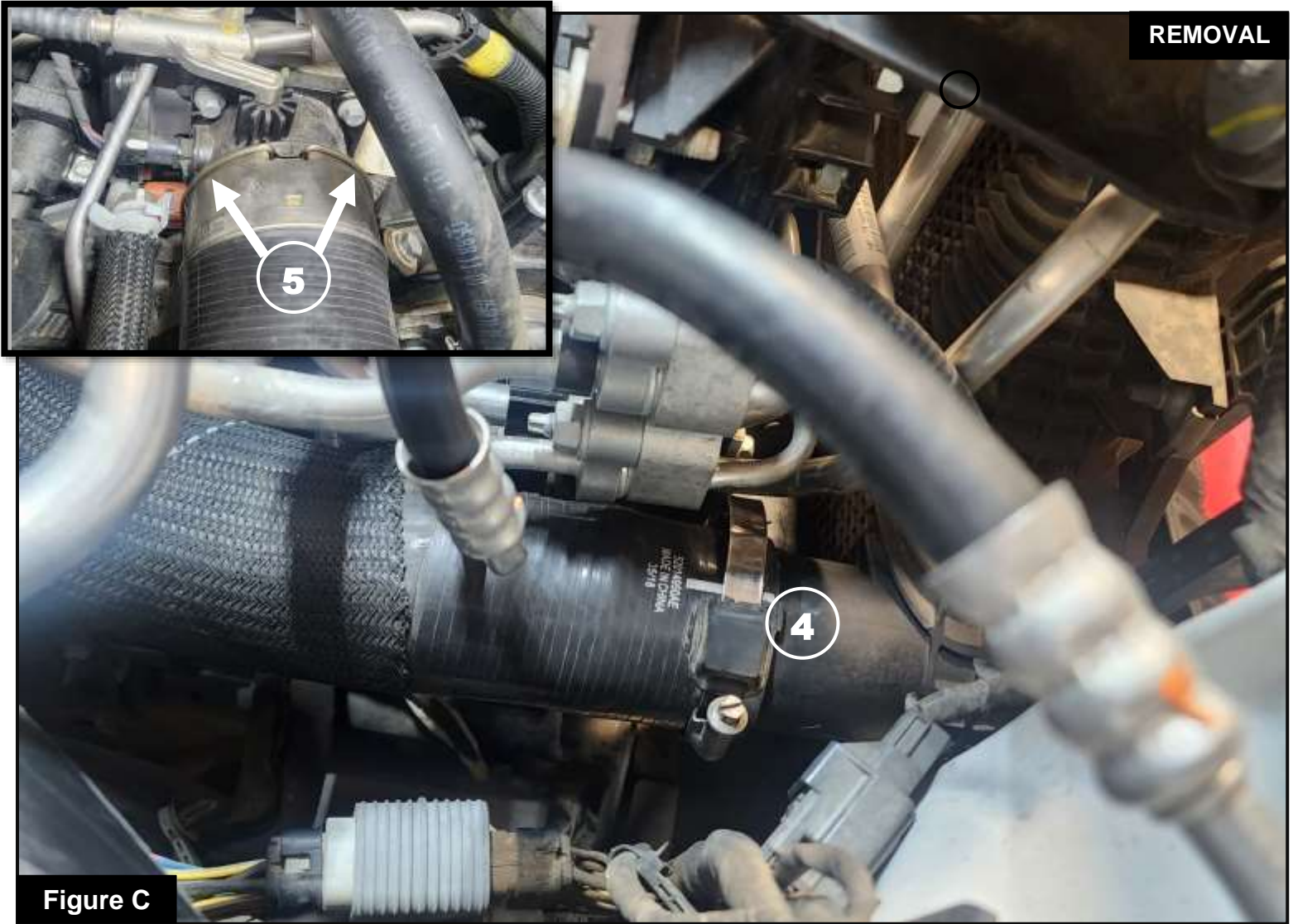
Step 2: Remove the engine cover from the vehicle (1). Do this by lifting the front up then sliding it forward out of the rear mounts.



Refer to Figure B for Steps 3-4

Step 3: Loosen the clamp securing the hot side charge pipe onto the intercooler inlet (2)

Step 4: Loosen the clamp securing the hot side charge pipe onto the upper hot side charge pipe, then remove the factory hot side charge pipe from the vehicle (3).



Refer to Figure C for Steps 5-6

Step 5: Loosen the clamp securing the cold side charge pipe onto the intercooler outlet (4)

Step 6: Expand the retaining clip securing the cold side charge pipe onto the engine inlet, then remove the factory cold side charge pipe from the vehicle (5).



Figure D

Refer to Figure D for Steps 7-9

Step 7: 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 (6).

Step 8: Remove the metal retaining clip from the factory cold side charge pipe, then install it onto the aFe POWER upper cold side charge pipe (7).

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

Step 9: Install the 60mm ID x 4mm W O-ring into the groove on the inside of the supplied aFe POWER upper cold side charge pipe (8).

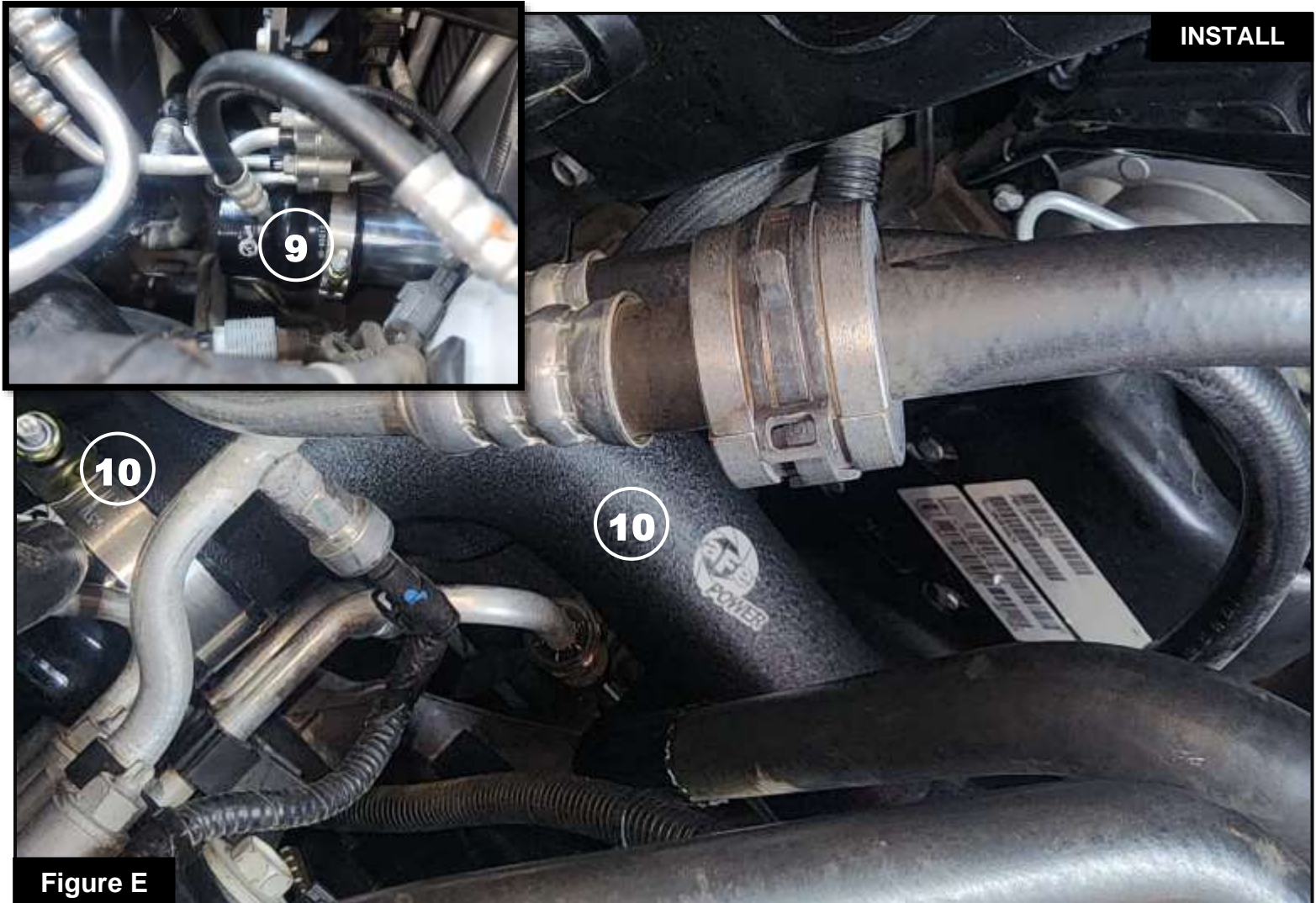


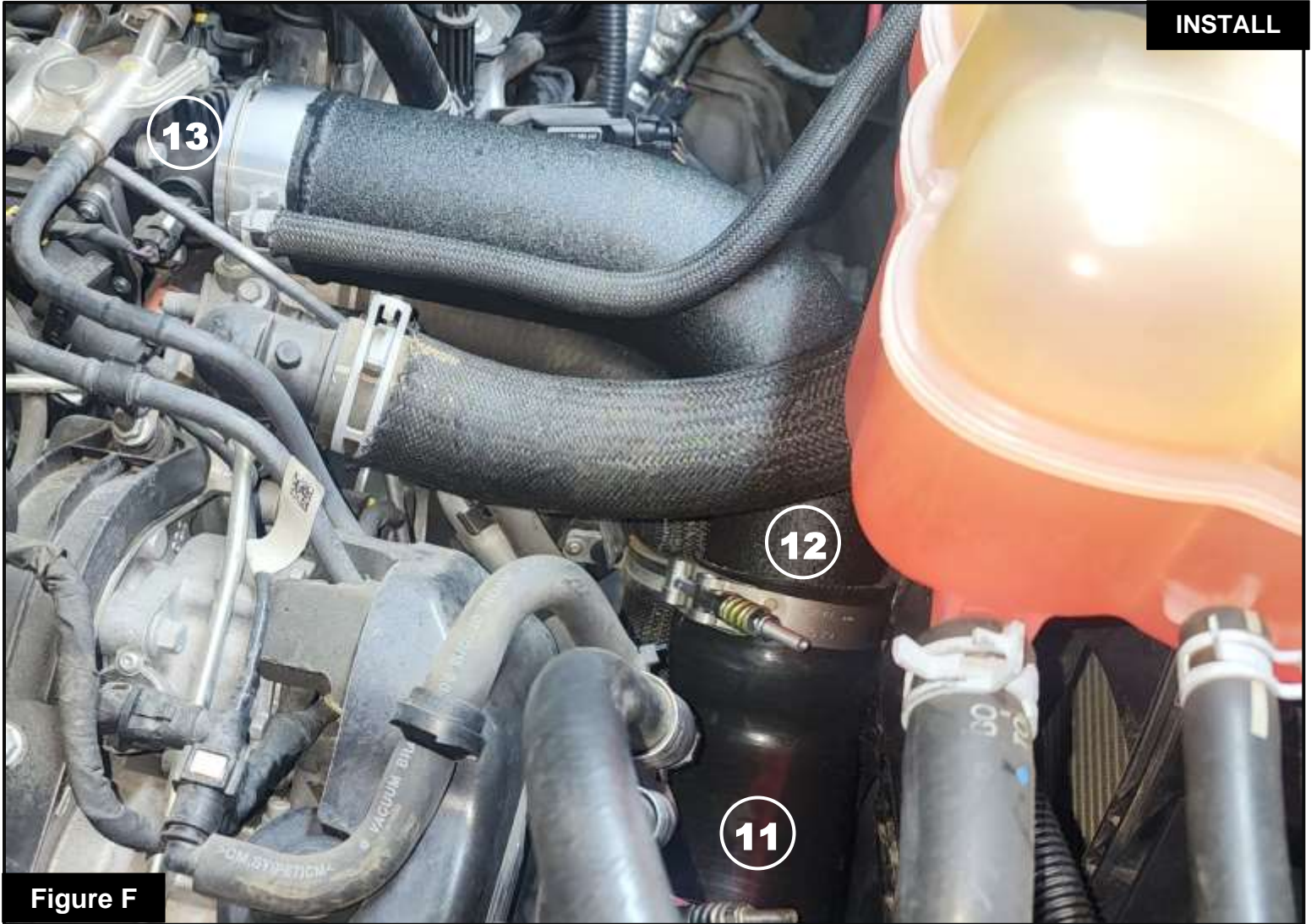
Figure E

Refer to Figure E for Steps 10-11

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

Step 10: Install the supplied aFe POWER silicone reducer coupling, (3" x 2.375")ID x 4"L, with one supplied 2.75" spring loaded spring loaded T-Bolt clamp onto the intercooler outlet (9) do not tighten the clamp yet.

Step 11: Install the short end of the aFe POWER lower cold side charge pipe into the coupling from the previous step along with one 3.25" spring loaded spring loaded T-Bolt clamp (10) do not tighten the clamp yet.


Figure F

Refer to Figure F for Steps 12-14

Step 12: Install the supplied aFe POWER silicone elbow coupling, 3"ID x 45 Deg, with one supplied 3.25" spring loaded spring loaded T-Bolt clamp onto the aFe POWER lower cold side charge pipe (11) do not tighten the clamp yet.

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

Step 13: Install the short end of the aFe POWER upper cold side charge pipe into the coupling from the previous step along with one 3.25" spring loaded spring loaded T-Bolt clamp (12) do not tighten the clamp yet.

Step 14: Slide the aFe POWER upper cold side charge pipe onto the engine inlet (13) and ensure the retaining clip snaps into place all the way around, do not tighten the clamps yet.

**Figure G**

Refer to Figure G for Steps 15-17

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

Step 15: If you are not using any aftermarket sensors, install the supplied 1/8" NPT plug into the threaded fitting on the aFe POWER lower hot side charge pipe (14)

Step 16: Install the supplied aFe POWER silicone reducer coupling, 2.50" x 2.13" x 3"L and the 3" spring loaded T-Bolt clamp onto the hot side charge pipe (15) do not tighten the clamp yet.

Step 17: Place the supplied 2.625" spring loaded T-Bolt clamp onto the end of the coupling from the previous step (16) do not tighten the clamp yet.

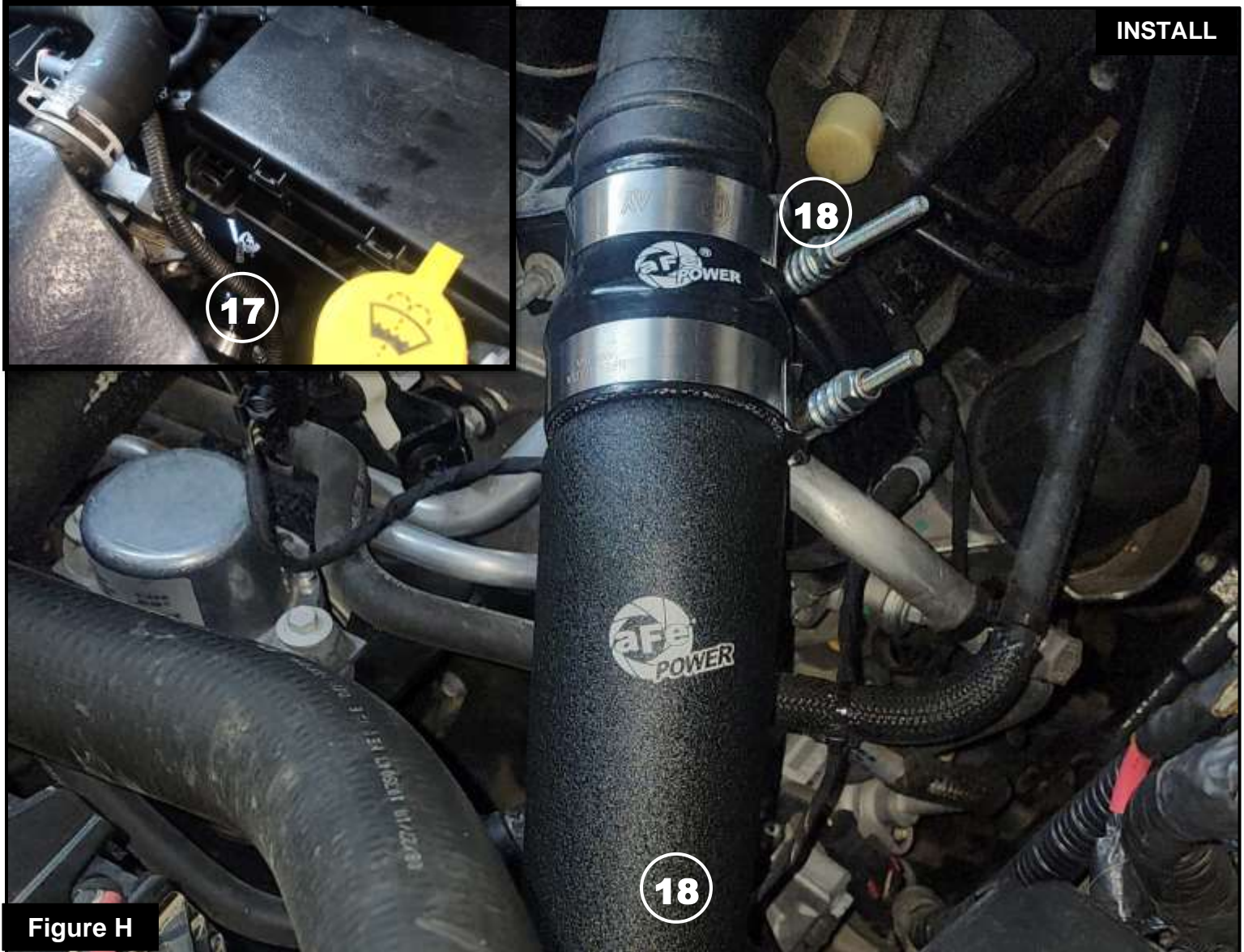


Figure H

Refer to Figure H for Steps 18-19

Step 18: Install the supplied aFe POWER silicone elbow reducer coupling, (3" x 2.375")ID x 45 Deg, with one supplied 2.75" spring loaded spring loaded T-Bolt clamp onto the intercooler inlet (17), do not tighten the clamp yet.

Step 19: Install the aFe POWER lower hot side charge pipe into the vehicle by first connecting to the coupling from the previous step and then to the upper hot side charge pipe (18) do not tighten the clamps yet.

**Figure I****Refer to Figure I for Steps 20-23**

Step 20: Ensure all of the aFe POWER charge pipes are not touching anything, then tighten all of the clamps.

Step 21: Reinstall the engine cover onto the vehicle ①9

Step 22: Reconnect the negative battery cable.

Step 23: Install is now complete.

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



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