

advanced FLOW engineering BladeRunner – Charge Pipe Combo Kit

Instruction Manual P/N: 46-20804-R

Make: Genesis

Model: G70

Year: 2019–2026

Engine: V6-3.3L (tt)



- 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: 46-20504-R	05-61218R
B	1	Ea.	Tube, Cold Side: 46-20509-R	05-61219R
C	2	Ea.	Coupling, Silicone Reducer Elbow: 2.25" x 1.5" 65 Deg	05-61220
D	1	Ea.	Coupling, Silicone Elbow Rdr:(2.5" x2.375") x90Deg	05-61727
E	1	Ea.	Coupling, Silicone Reducer Elbow: 3" x 2.5" 75 Deg	05-61221
F	1	Ea.	Coupling, Silicone Reducer Elbow: 3.15" x 3" 20 Deg	05-61222
G	1	Ea.	Clamp, SmartSeal, 060 (3-1/4" - 4-1/16")	03-50376
H	2	Ea.	Clamp, SmartSeal, 052 (2-7/8" - 3-9/16")	03-50530
J	5	Ea.	Clamp, SmartSeal, 044 (2-1/2" - 3-1/16")	05-60039
K	2	Ea.	Clamp, SmartSeal, 032 (1-15/16" - 2-5/16")	03-50560
M	1	Ea.	Screw, Button Head Socket: M6x1x12	03-50102
N	10	Ea.	Screw, Socket Head Cap: M6x1.0x20, S/S	03-50241
P	11	Ea.	Washer, M6 (12mm OD x 6.4mm ID)	03-50177
Q	1	Ea.	Screw, Socket Head Cap: M8 x 1.25 x 30, S/S	03-50379
R	1	Ea.	Washer, Flat M8: 16mm OD S/S	03-50159
S	2	Ea.	Plug, Hex Head Socket: 1/8" NPT (Zinc Plated)	03-50029
T	10	in.	Hose, Vacuum: 5/32" ID, Black: 10"	05-00122
U	4	in.	Hose, Vacuum: 5/32" ID, Black: 4"	05-00122

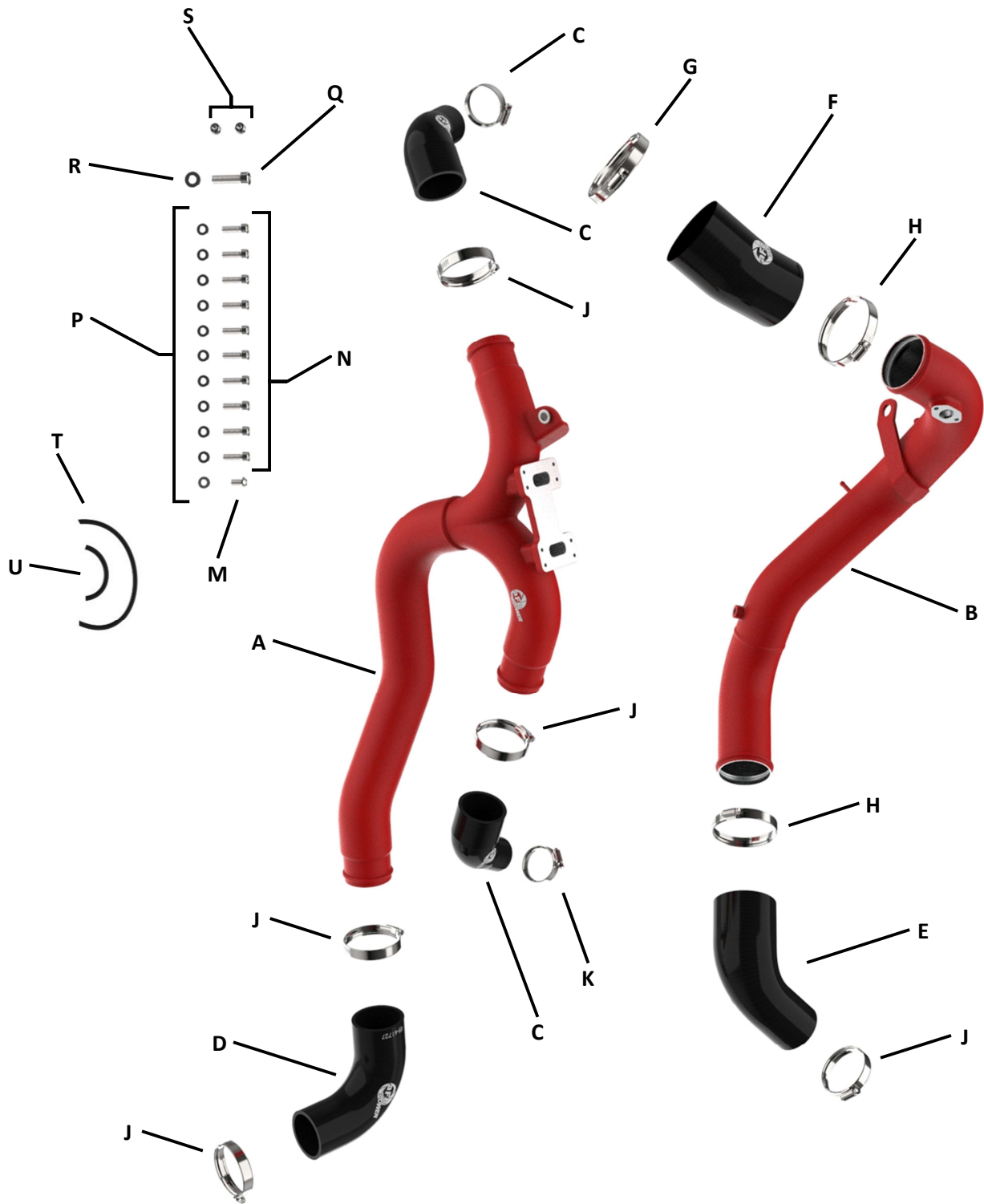
Installation will require the following tools:

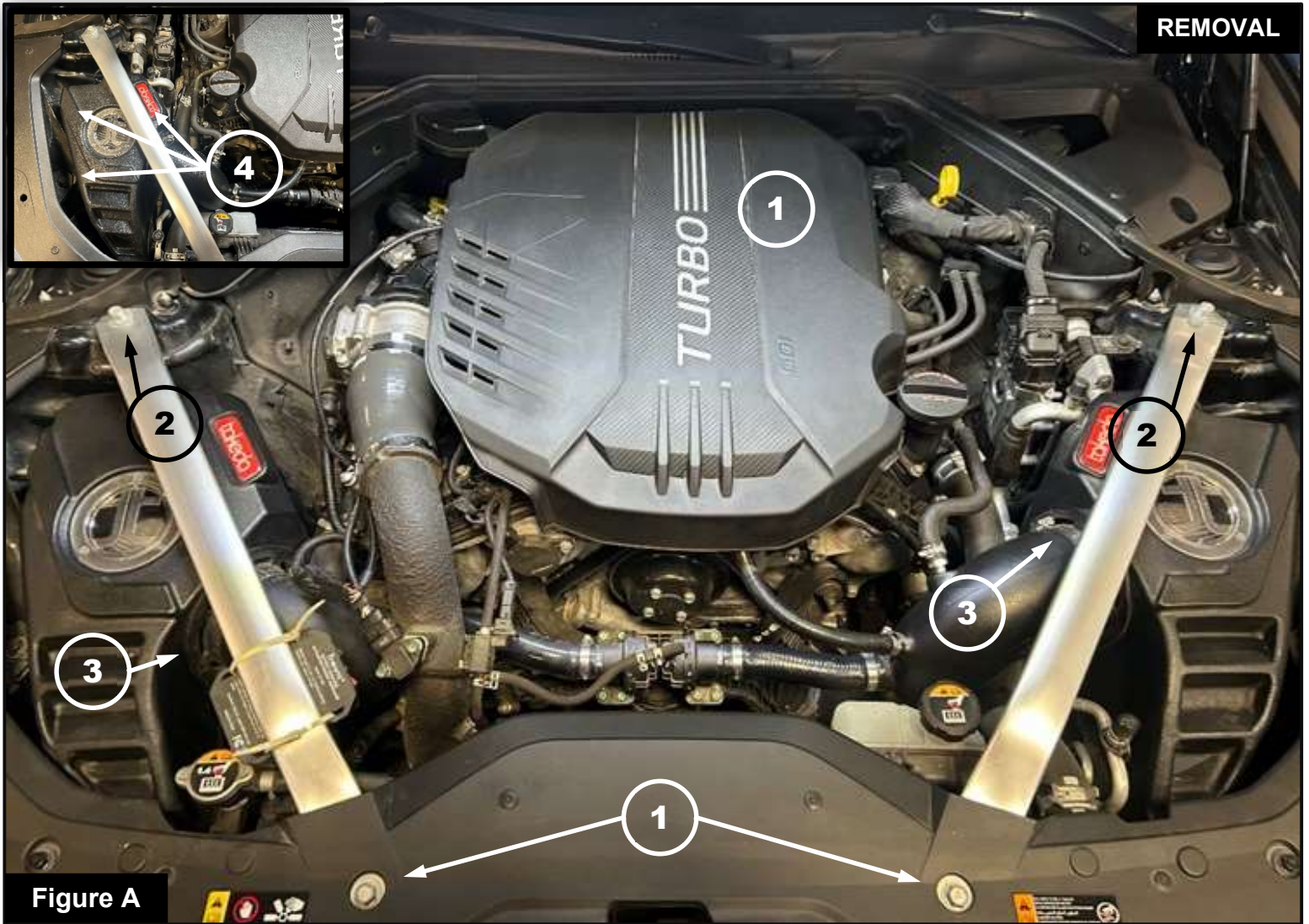
- Torque Wrench
- 3/8" Socket Wrench
- 1/4" Socket Wrench
- 6" Extension
- 8mm Socket
- 10mm Socket
- 14mm Socket
- 7/16" Deep Socket
- 3/16" Hex Key Wrench
- 5mm Hex Key Wrench
- 8mm Hex Key Wrench
- Flat Head Screwdriver
- Trim Removal Tool Set
- Pick Set
- Thread Sealant

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>





Refer to Figure A for Steps 1-7

- Step 1: Park vehicle on level ground and engage the parking brake.
- Step 2: Disconnect the negative battery cable.
- Step 3: Remove the engine cover by firmly pulling up on all four corners. ①
- Step 4: Remove the strut braces from the vehicle. ②
- Step 5: Loosen the air intake tube clamp to the intake box and disconnect from air box on both sides. ③
- Step 6: Remove the screws securing the intake boxes to the vehicle on both sides. ④
- Step 7: For both sides, lift the air box up and towards the rear of the vehicle to remove it.

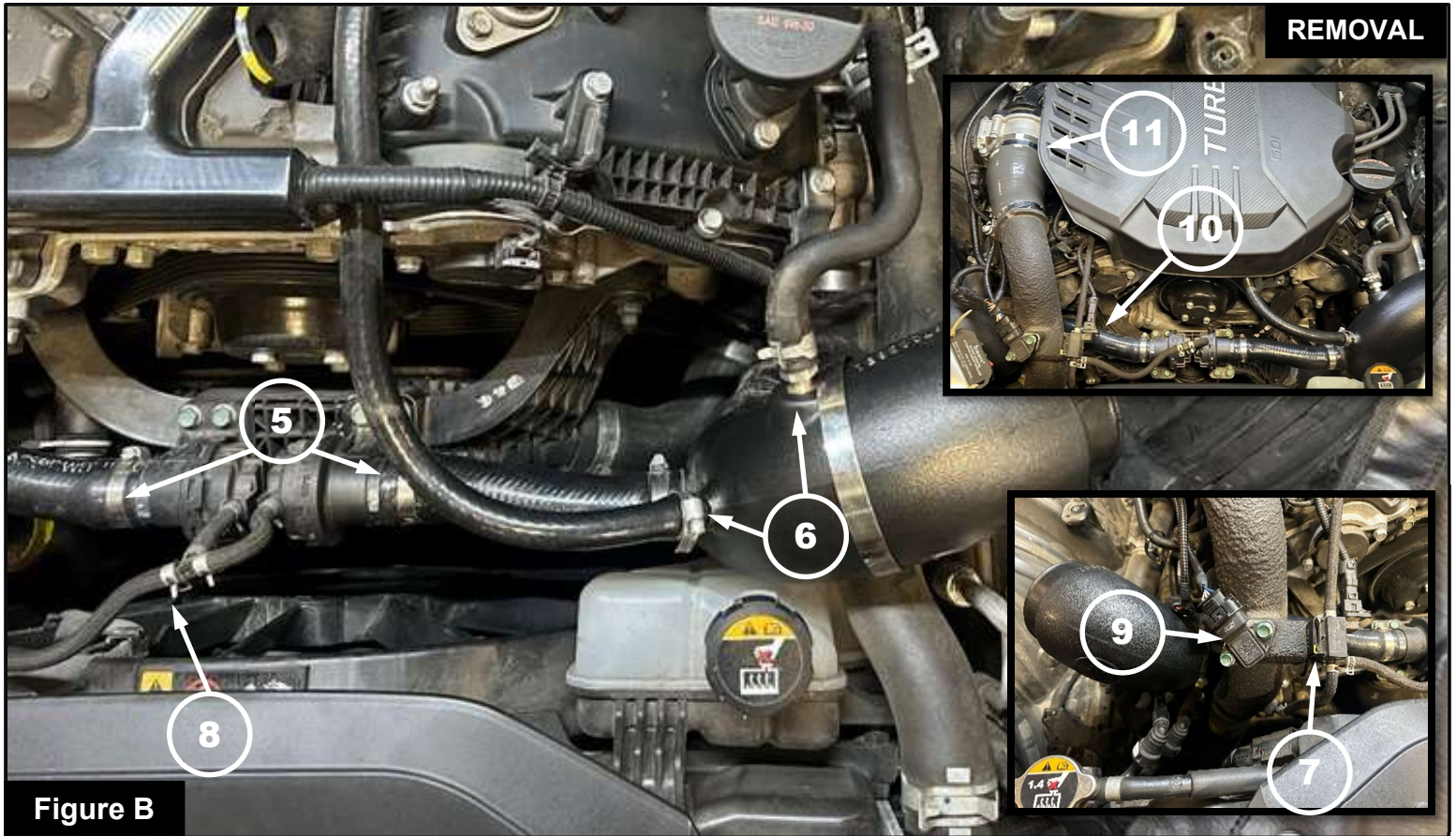


Figure B

Refer to Figure B for Steps 8-15

- Step 8: Disconnect the hoses from the recirculation valves (RCVs). (5)
- Step 9: Disconnect the three breather hoses from the air intake tubes. (6)
- Step 10: Loosen both turbo inlet coupling clamps and remove the air intake tubes from the vehicle.
- Step 11: Disconnect the cold side charge pipe vacuum hose at the RCV solenoid and remove the mounting screw to remove the solenoid. (7)
- Step 12: Disconnect the RCV solenoid vacuum hose at the tee fitting connecting the RCVs. (8)
- Step 13: Disconnect the electrical connector from the boost pressure sensor located on the cold side charge pipe. (9)
- Step 14: Remove the screw securing the cold side charge pipe to the hot side charge pipe. (10)
- Step 15: Remove the cap from the hose clamp screw to loosen the clamp securing the cold side charge pipe coupling to the throttle body and disconnect it from throttle body. (11)



Figure C

Refer to Figure C for Steps 16-19

Step 16: Underneath the vehicle, remove all screws and retaining clips securing the engine splash guard and remove it from the vehicle. (12)

Step 17: Remove the cap from the hose clamp screw to loosen the clamp securing the hot side charge pipe coupling and disconnect it from the intercooler. (13)

Step 18: Remove the cap from the hose clamp screw to loosen the clamp securing the cold side charge pipe coupling and disconnect it from the intercooler. (14)

Step 19: Remove the cold side charge pipe from the vehicle through the top



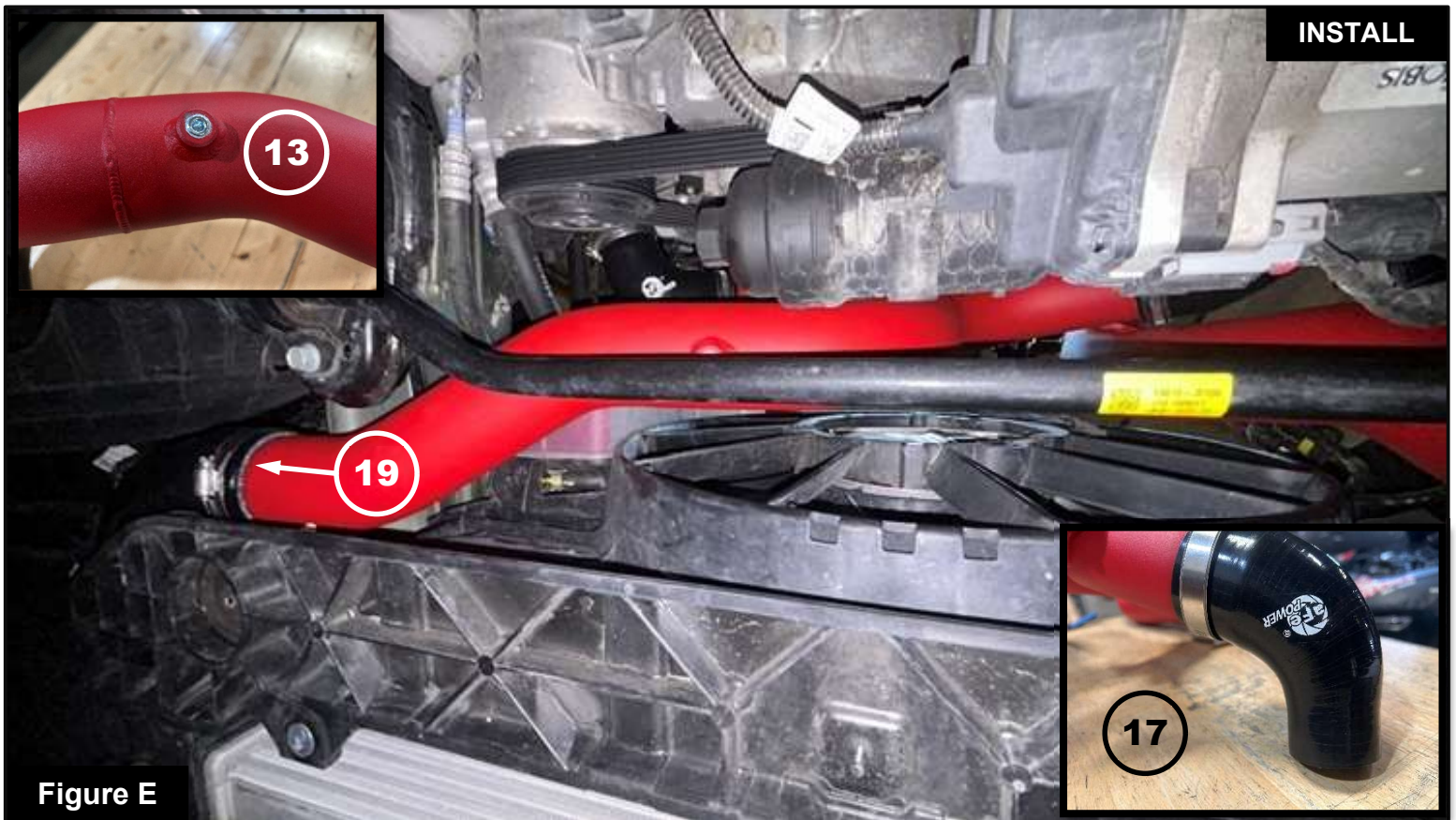
Refer to Figure D for Steps 20-22

Step 20: Remove the two nuts securing the hot side charge pipe to the engine. ⑮

NOTE: It may be necessary to use a pick to break the connection between the charge pipe couplings and the vehicle to disconnect the couplings.

Step 21: Loosen the clamps securing the hot side charge pipe couplings to the turbo outlets and disconnect the couplings from the turbos. ⑯

Step 22: Remove the hot side charge pipe from the top of the vehicle.



Refer to Figure E for Steps 23-25

Step 23: Install both aFe POWER Silicone Rdr Elbow Couplings (2-1/4"x1-1/2", 45 Deg) to the aFe POWER hot side charge pipe inlets with one 044-SmartSeal clamp for each coupler; leave the clamps loose. (17)

NOTE: Bure to use thread sealant on the plug or sensor to prevent any leaking.

Step 24: 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. (18)

Step 25: Install the aFe POWER Silicone Elbow Rdr Coupling (2.5"x2.375", 90 Deg) to the outlet of the aFe POWER hot side charge pipe with one 044-Smart Seal clamp; leave the clamp loose. (19)



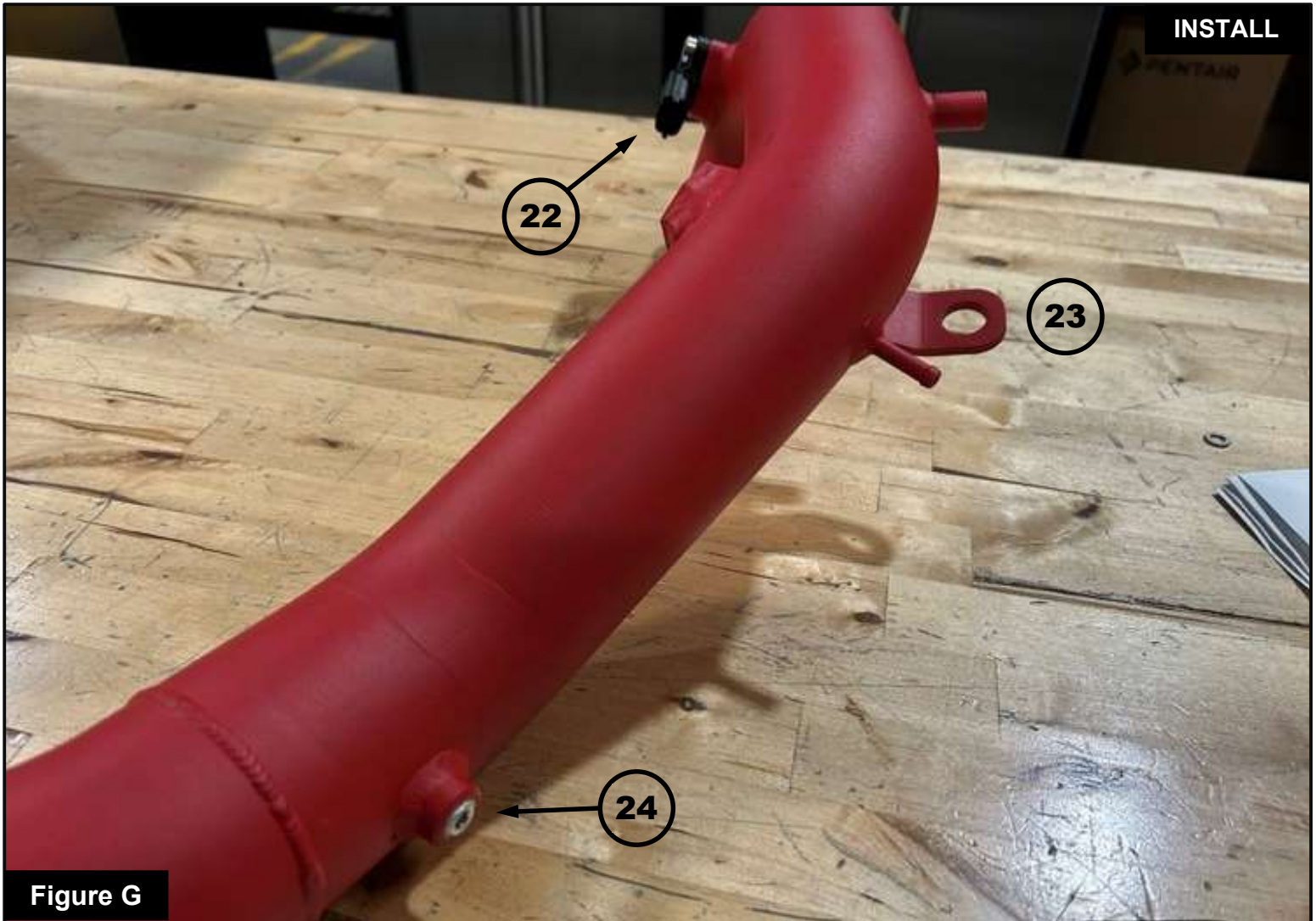
Figure F

Refer to Figure F for Steps 26-27

Step 26: Install the recirculating valves (RCVs) onto the aFe charge pipe using eight (8) of the supplied M6x1.0x20 socket head cap screws and M6 washers. (20)

Step 27: Install both Hot side couplers to the turbo inlets with 032- SmartSeal clamp; leave the clamps loose. (21)

NOTE: Ensure all clamps are rotated out of the way so the air intake tubes will fit into the vehicle and do not interfere with the accessory drive belt.

**Figure G****Refer to Figure G for Steps 28-30**

Step 28: Remove the OEM boost pressure sensor from the OEM charge pipe and reinstall it onto the aFe POWER Cold side charge pipe using the supplied charge pipe and secure it using the two (2) of the supplied M6x1.0x20 socket head cap screws and M6 washers. (22)

Step 29: Remove the OEM mounting grommet and sleeved washer from the OEM charge pipe and reinstall it onto the aFe POWER cold side charge pipe. (23)

NOTE: Bure to use thread sealant on the plug or sensor to prevent any leaking.

Step 30: If you are not using any aftermarket sensors, install the remaining 1/8" NPT plug into the bottom threaded fitting on the aFe cold side charge pipe. (24)

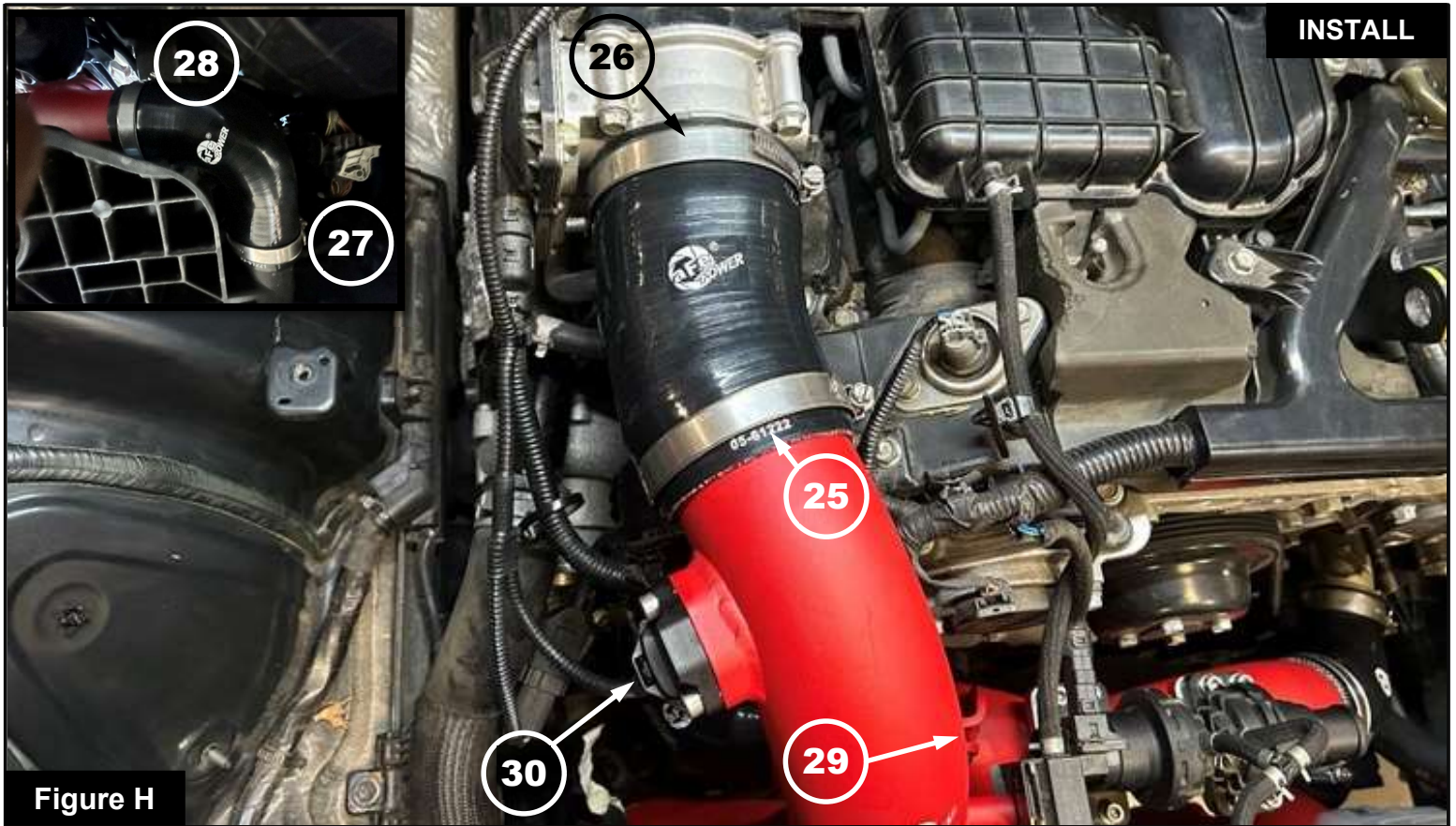
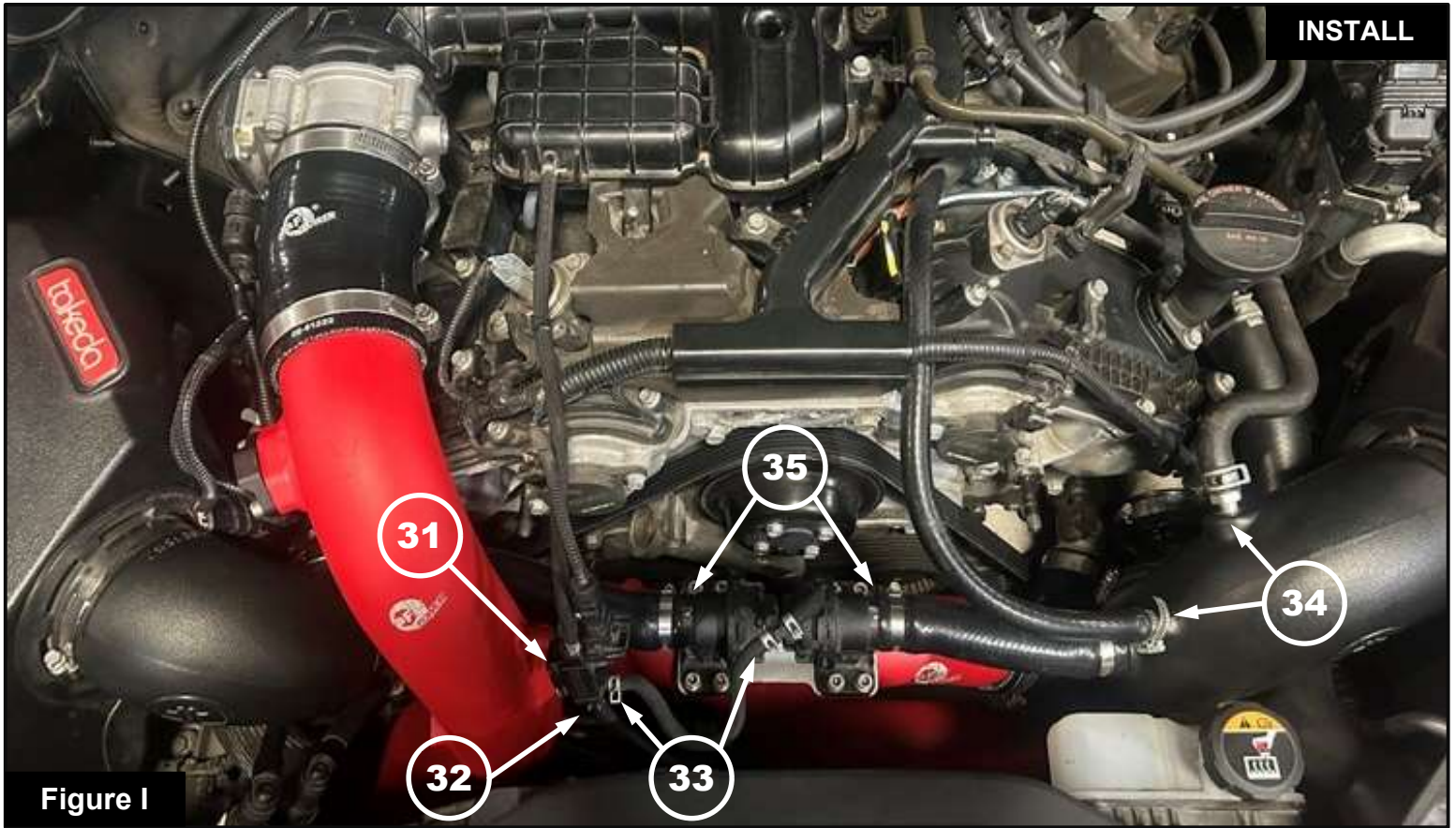


Figure H

Refer to Figure H for Steps 31-37

- Step 31: Install the aFe POWER silicone reducer elbow coupling (3.15" x 3", 20 Deg) to the aFe POWER cold side charge pipe outlet with one 052-SmartSeal clamp; leave the clamp loose. (25)
- Step 32: Install the aFe POWER cold side charge pipe into the vehicle from the top and connect the coupling to the throttle body with a 060-SmartSeal clamp; leave the clamps loose. (26)
- Step 33: Install the aFe POWER silicone reducer elbow coupling (3" x 2.5" 75 Deg) onto the intercooler outlet with one 044-SmartSeal clamp; leave the clamp loose. (27)
- Step 34: Place the remaining 052-SmartSeal clamp onto the aFe cold side charge pipe and connect it to the coupling from the previous step; leave the clamps loose. (28)
- Step 35: Adjusting both charge pipes to be free from touching any other components, secure the cold side charge pipe to the hot side charge pipe using the supplied M8x1.25x30 socket head cap screw and M8 washer. (29)
- Step 36: Reconnect the boost pressure sensor connector to the aFe POWER cold side charge pipe. (30)
- Step 37: Torque all SmartSeal clamps on both charge pipes to 6 Ft-lbs. (72in-lbs).



Refer to Figure I for Steps 38-43

Step 38: Install the recirculating valve (RCV) solenoid onto the cold side aFe charge pipe using the supplied M6x1.0x12 button head socket screw and M6 washer. (31)

Step 39: Install the supplied 10" length vacuum hose from the nipple on the aFe cold side charge pipe to the RCV solenoid on the fitting as shown. (32)

Step 40: Install the 4" length vacuum hose from the RCV solenoid to the tee fitting supplying both RCVs as shown. (33)

Step 41: Reinstall both air intake tubes and air boxes in the reverse order they were removed.

Step 42: Reconnect all vacuum lines and crankcase breather hoses to the air intake tubes. (34)

Step 43: Reconnect both recirculation hoses between the RCVs and the air intake tubes. (35)

**Figure J****Refer to Figure J for Steps 44-48**

- Step 44: Reinstall the strut braces into the vehicle. (34)
- Step 45: Reinstall the belly pan underneath the vehicle.
- Step 46: Reinstall the engine cover. (35)
- Step 47: Reconnect the negative battery cables.
- Step 48: Installation is now complete.

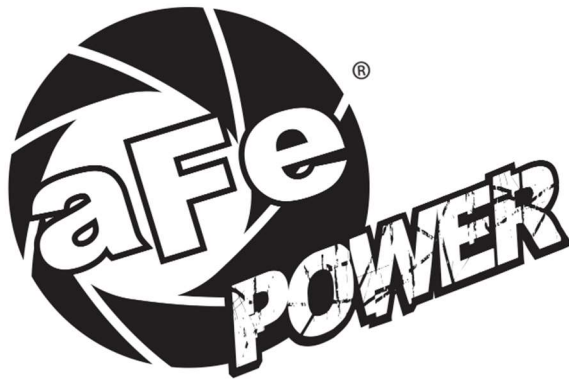
NOTE: Check all clamps, and connectors are secure after 100-200 miles



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