



advanced FLOW engineering

Instruction Manual P/N: 46-20649-B

BladeRunner – Cold Side Charge Pipe Kit

Make: Hyundai

Model: Veloster N

Year: 19 - 22

Engine: L4-2.0L(t)

Make: Hyundai

Model: Kona N

Year: 22- 23

Engine: L4-2.0L(t)

Note: This item will only fit vehicles equipped with Dual Clutch Transmission (DCT).



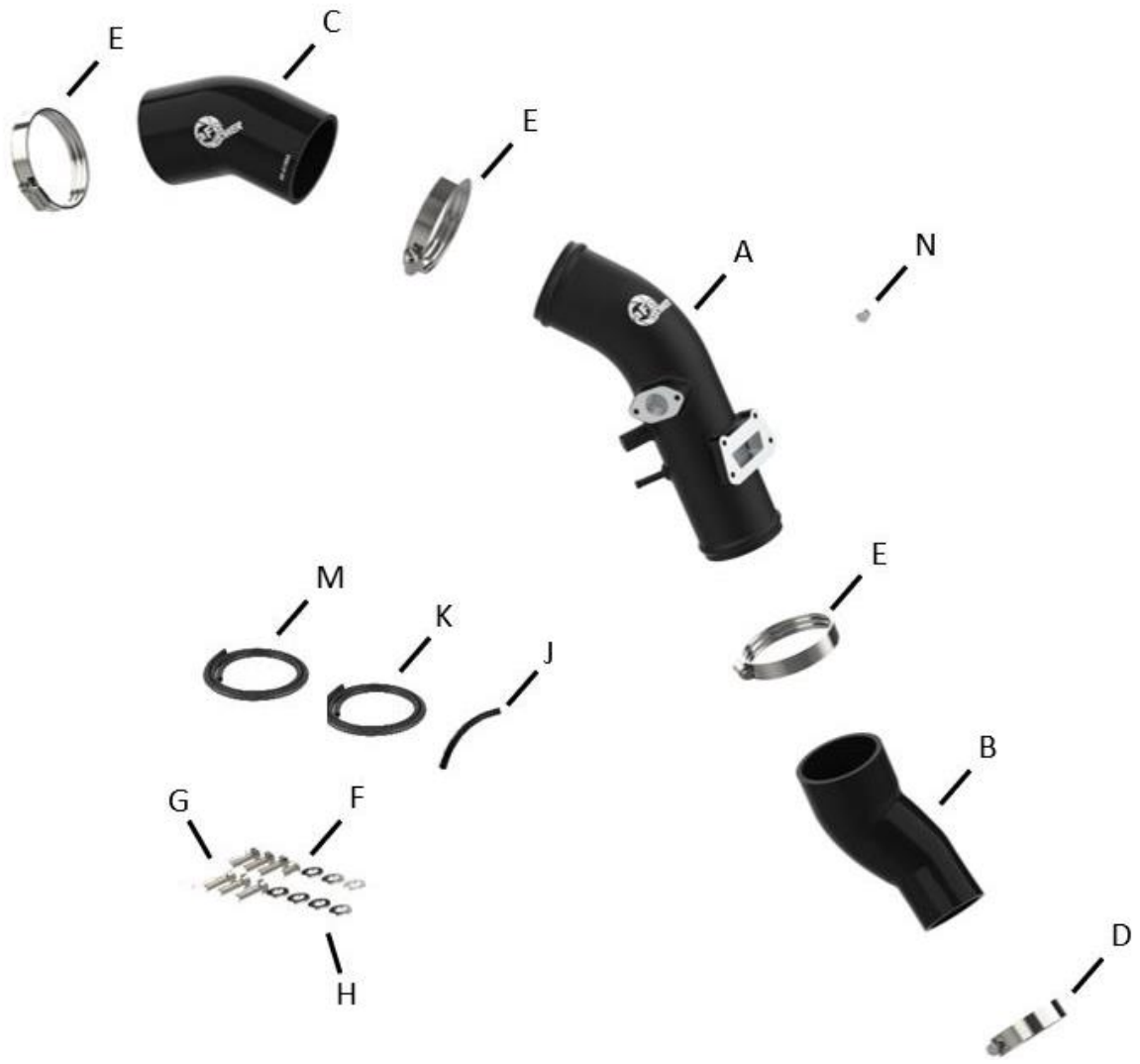
- Please read the entire instruction manual before proceeding.
- Ensure all components listed are present.
- If you are missing any of the components, call customer support at 951-493-7100.
- Ensure you have all necessary tools before proceeding.
- Do not attempt to work on your vehicle when the engine is hot.
- Disconnect the negative battery terminal before proceeding.
- Retain factory parts for future use.

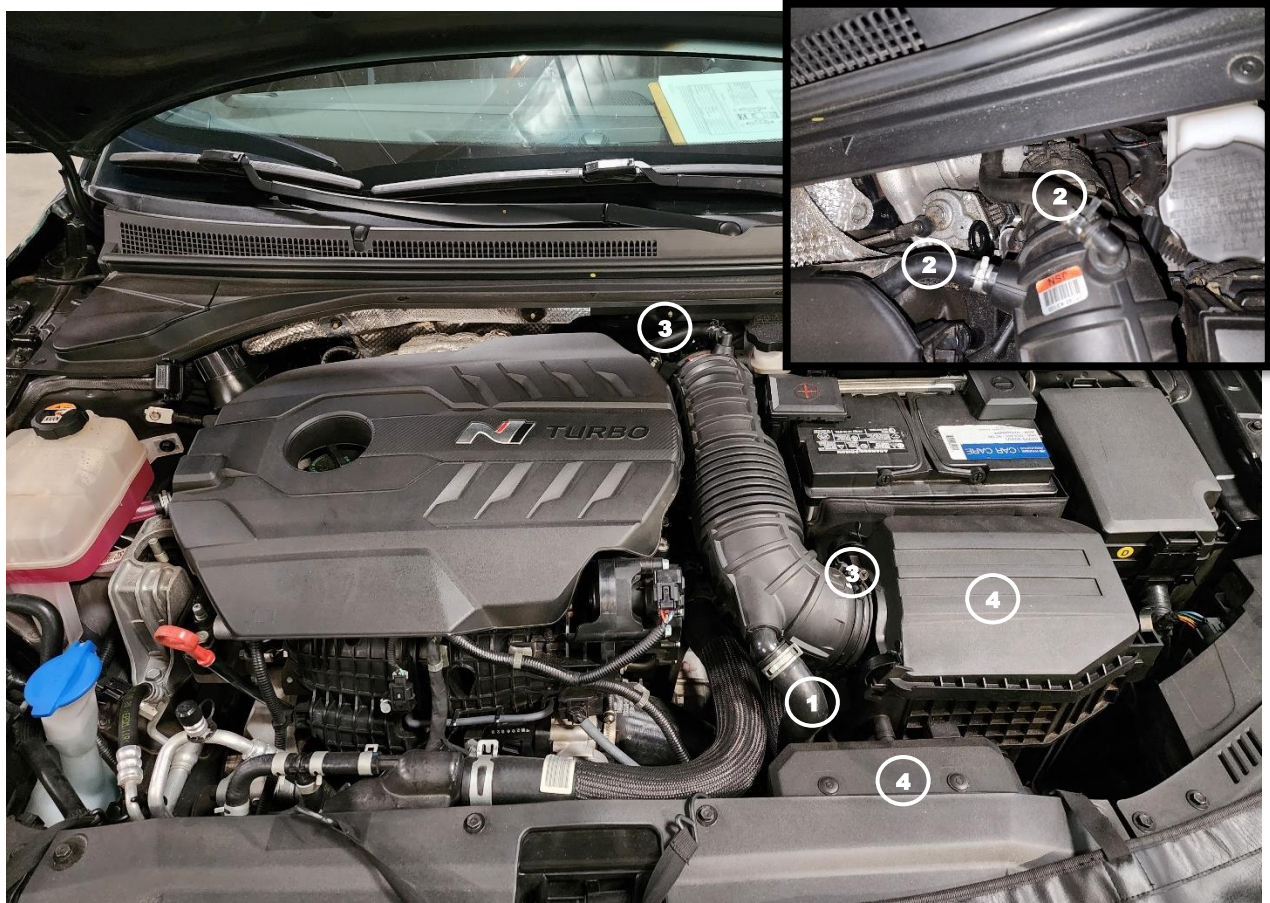
Label	Qty.	Description	Part Number
A	1	Tube, Cold Side: 46-2064X	05-61300B
B	1	Coupling, Silicone Dbl Elbow Rdr: 2.75" x 2"	05-61302
C	1	Coupling, Silicone Elbow 2.75" x 2"L x 36Deg	05-61303
D	2	Clamp, SmartSeal, 032 (1.94" – 2.31")	03-50655
E	3	Clamp, SmartSeal, 056 (2.88" – 3.56")	03-50786
F	1	Screw, Btn Hd Socket: M6x1x12	03-50102
G	6	Screw, Socket Head Cap: M6x1.0x20, S/S	03-50241
H	7	Washer, M6 (12mm OD x 6.4mm ID)	03-50177
J	1	Hose, Silicone: 4mm ID x 50' Roll: 4"	05-46512
K	1	Hose, Silicone: 4mm ID x 50' Roll: 11"	05-46512
M	1	Hose, Silicone: 4mm ID x 50' Roll: 11"	05-46512
N	1	Plug, 1/8" NPT	03-50029

Installation will require the following tools:

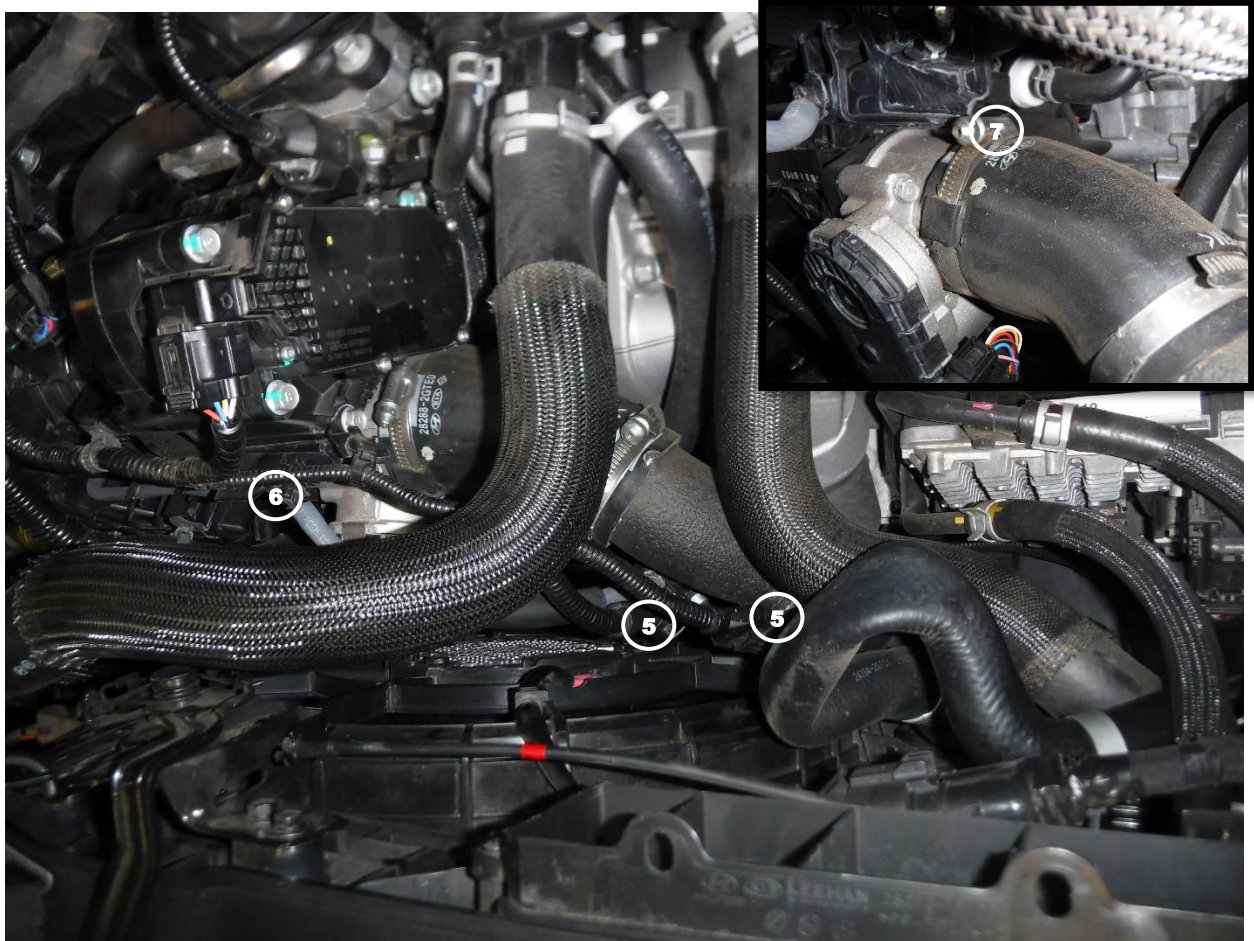
8mm socket, 10mm socket, 3/16" allen wrench, 5mm allen wrench, ratchet, pick, flat head screwdriver, thread sealant

Note: Legal in California for use on race vehicles only. The use of this device on vehicles used on public streets or highways is strictly prohibited in California and others states that have adopted California emission regulations

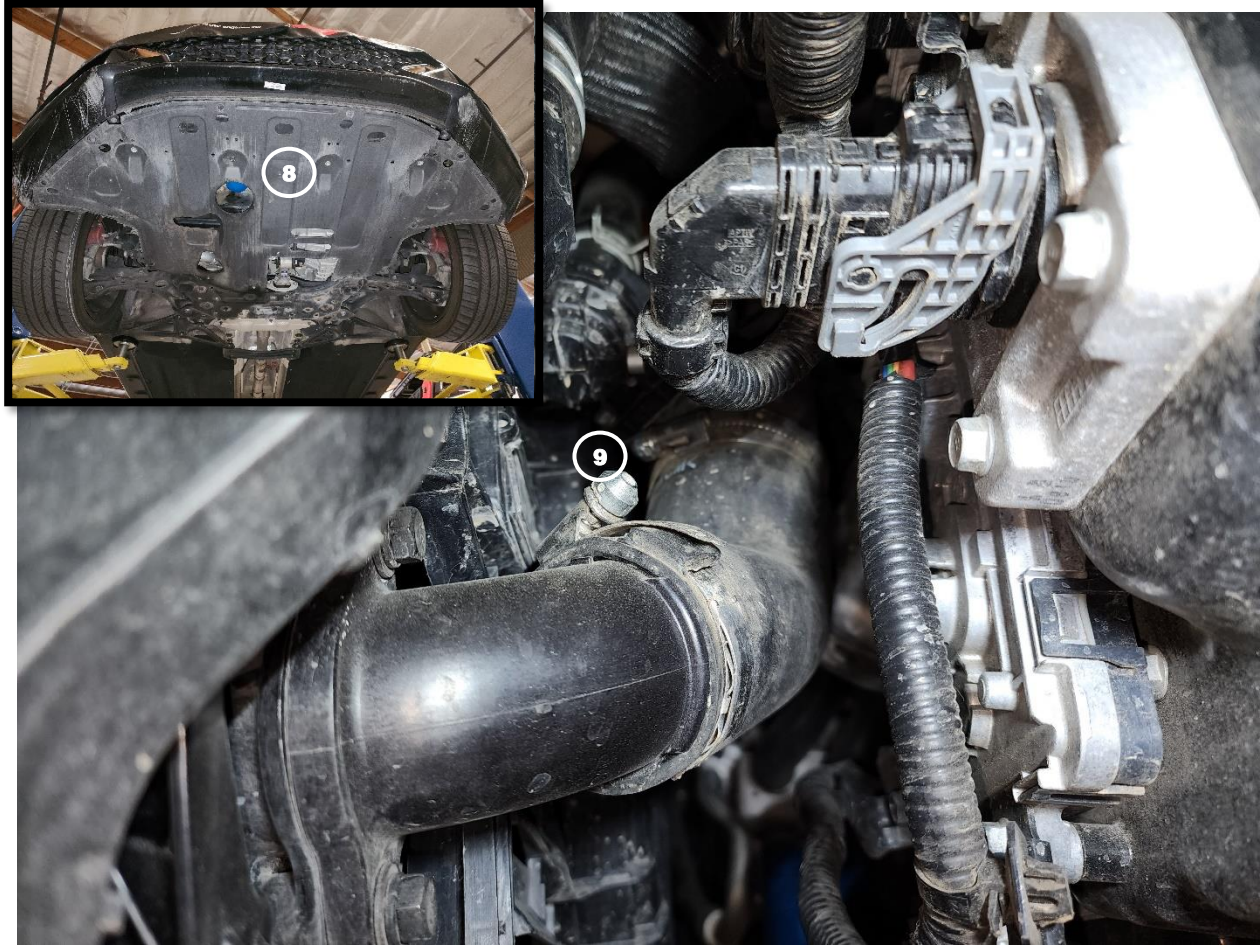




1. Park vehicle on level ground and engage the parking brake.
2. Disconnect the negative battery cable.
3. Disconnect the diverter valve recirculation hose from the front of the air intake tube ①.
4. Disconnect the two (2) hoses from the back of the air intake tube ②
5. Loosen the two (2) clamps securing the air intake tube onto the turbo inlet and air intake box, then remove the tube from the vehicle ③.
6. Remove the two (2) clips and three (3) mounting screws securing the air intake box to the vehicle, then remove the air box from the vehicle ④

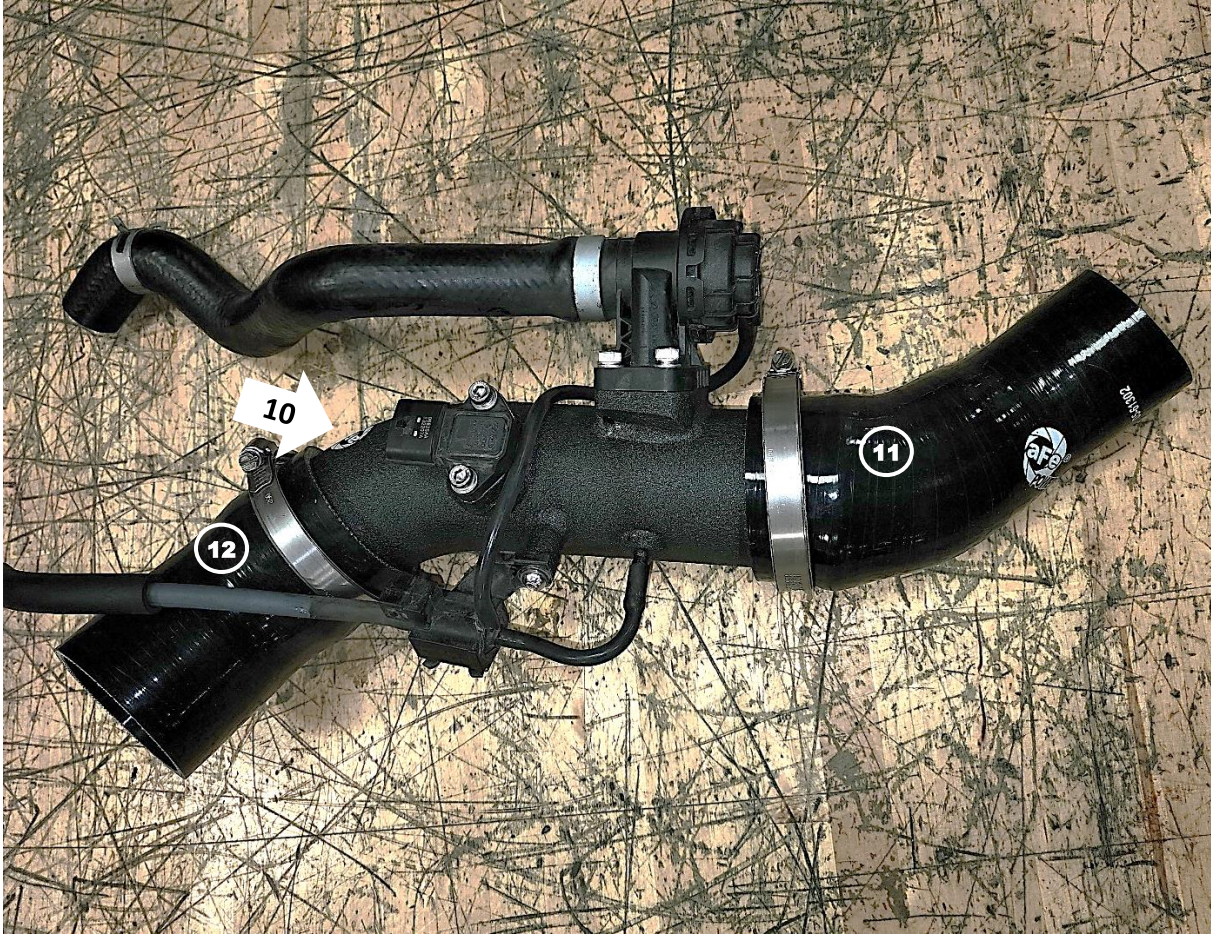


7. Disconnect the electrical connections for the Manifold Absolute Pressure (MAP) sensor and the turbo boost solenoid (5)
8. Disconnect the vacuum hose from the intake manifold for the turbo boost solenoid (6)
9. Remove the cap from the hose clamp screw and loosen the clamp securing the factory cold side charge pipe coupling to the throttle body (7) and disconnect it from throttle body.



10. Remove all of the screws and clips from belly pan and remove it from the vehicle (8).

11. Remove the cap from the hose clamp screw and loosen the clamp securing the factory cold side charge pipe coupling to the intercooler (9) and remove the charge pipe from the vehicle.

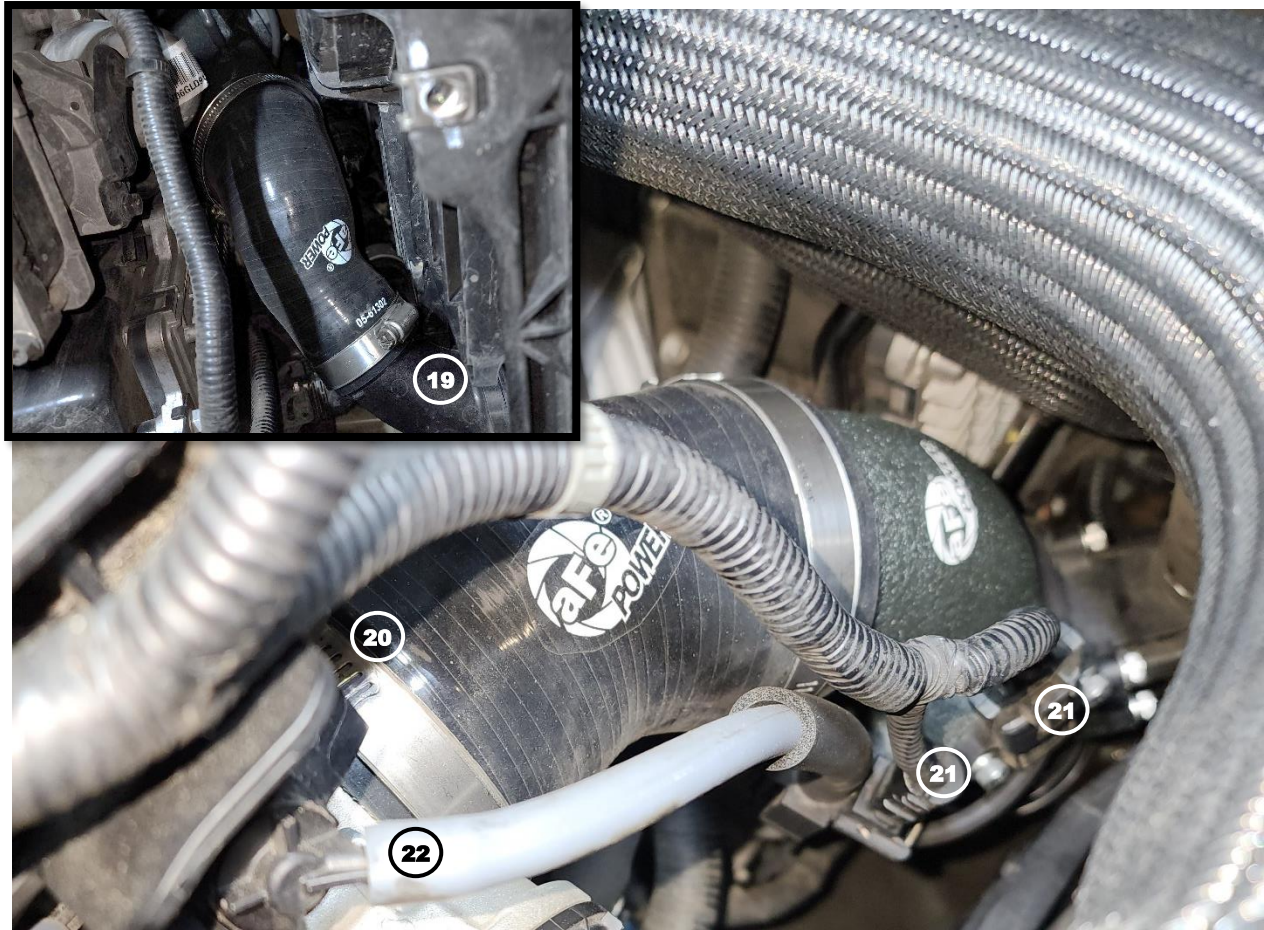


Note: Be sure to use thread sealant on the plug or sensor to prevent any leaking

12. If you are not using any aftermarket sensors, install the 1/8" NPT plug (10) into the threaded fitting on the aFe cold side charge pipe.
13. Install the larger side of the aFe elbow reducer coupling, 2.75"x 2", (11) and one of the supplied 056 SmartSeal clamps onto the longer end of the aFe cold side charge pipe, do not tighten the clamp yet.
14. Install the aFe elbow coupling, 2.75"x 36 degrees, (12) and one of the 056 SmartSeal clamps onto the shorter end of the aFe cold side charge pipe, do not tighten the clamp yet.
15. Adjust the couplings in a similar direction as the factory cold side charge pipe.



16. Transfer the factory diverter valve onto the aFe cold side charge pipe (13). Secure it with four (4) of the supplied M6 x 1 x 20mm screws and M6 washers.
17. Transfer the factory turbo boost solenoid onto the aFe cold side charge pipe (14). Secure it with the supplied M6 x 1 x 12mm screw and M6 washer, be sure to install it in the same orientation as it was removed.
18. Transfer the factory MAP sensor onto the aFe cold side charge pipe (15). Secure it with two (2) supplied M6 x 1 x 20mm screws and M6 washers.
19. Lubricate the nipple fitting on the aFe cold side charge pipe and install the supplied 4" long silicone hose. Connect the opposing end to the bottom port of the turbo boost solenoid (16).
20. Install one of the supplied 11" long silicone hoses onto the aFe cold side charge pipe connecting the diverter valve to the side port on the turbo boost solenoid (17).
21. Install the remaining supplied 11" long silicone hose onto the aFe cold side charge pipe connecting it to the top port on the turbo boost solenoid (18) the opposing end will later be connected to the intake manifold.



Note: Be sure to thoroughly clean all oil residue off of the connections before installing any of the aFe charge pipes into the vehicle

22. Install the aFe cold side charge pipe into the vehicle from the top. Connect the aFe elbow reducer coupling, 2.75" x 2", to the intercooler (19) with one of the supplied 032 SmartSeal clamps, do not tighten the clamp yet.
23. Connect the aFe elbow coupling, 2.75" x 36 degrees, to the throttle body along with one of the supplied 056 SmartSeal clamps, (20) do not tighten the clamp yet.
24. Adjust the couplings as necessary and be sure the aFe cold side charge pipe is not touching anything.
25. Tighten all of the clamps on the aFe cold side charge pipe.
26. Reconnect the electrical connections for the MAP sensor and the turbo boost solenoid (21)
27. Reconnect the vacuum hose to the intake manifold for the turbo boost solenoid (22)



28. Reinstall the air intake box into the vehicle (23)
29. Reinstall the air intake tube into the vehicle (24)
30. Reconnect the two (2) hoses to the back of the air intake tube (25)
31. Reconnect the diverter valve recirculation hose to the front of the air intake tube (26)
32. Reconnect the negative battery cable.
33. Installation is now complete.

Note: Be sure to check all connections after 50-100 miles.

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