



advanced FLOW engineering

Instruction Manual P/N: 46-20648-B

BladeRunner – Hot Side Charge Pipe Kit

Make: **Hyundai**

Model: **Veloster N**

Year: **19 - 22**

Engine: **L4–2.0L(t)**

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



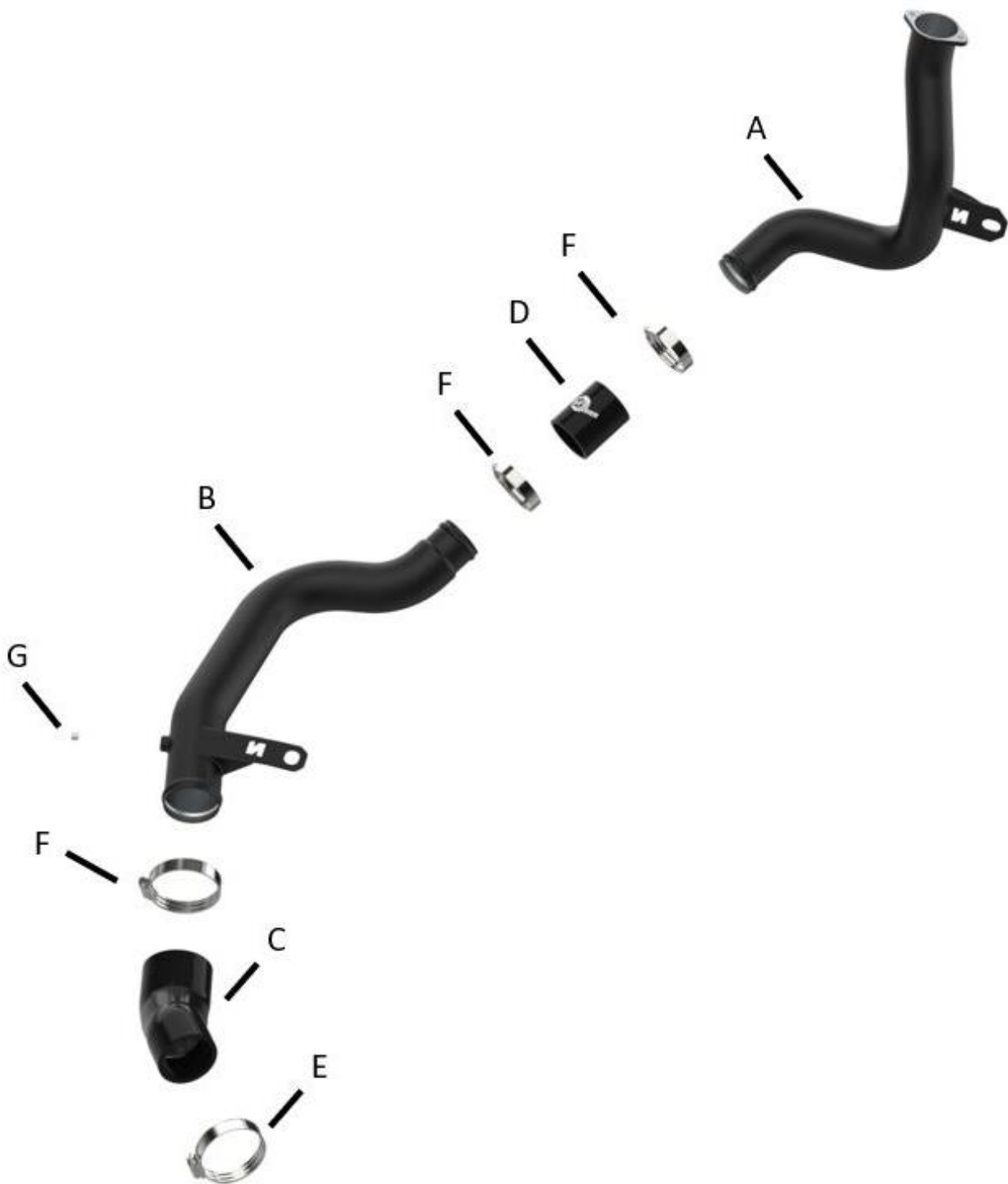
- Please read the entire instruction manual before proceeding.
- Ensure all components listed are present.
- If you are missing any of the components, call customer support at 951-493-7100.
- Ensure you have all necessary tools before proceeding.
- Do not attempt to work on your vehicle when the engine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

Label	Qty.	Description	Part Number
A	1	Tube, Hot Side Upper: 46-20628	05-61298B
B	1	Tube, Hot Side Lower: 46-2064X	05-61299B
C	1	Coupling, Silicone Dbl Elbow Rdr: 2.5" x 2"	05-61301
D	1	Coupling, Silicone Straight: 2.25"ID x 3"L	05-01242
E	1	Clamp, SmartSeal, 032 (1.94" – 2.31")	03-50655
F	3	Clamp, SmartSeal, 044 (2.50" – 3.06")	03-50656
G	1	Plug, 1/8" NPT	03-50029

Installation will require the following tools:

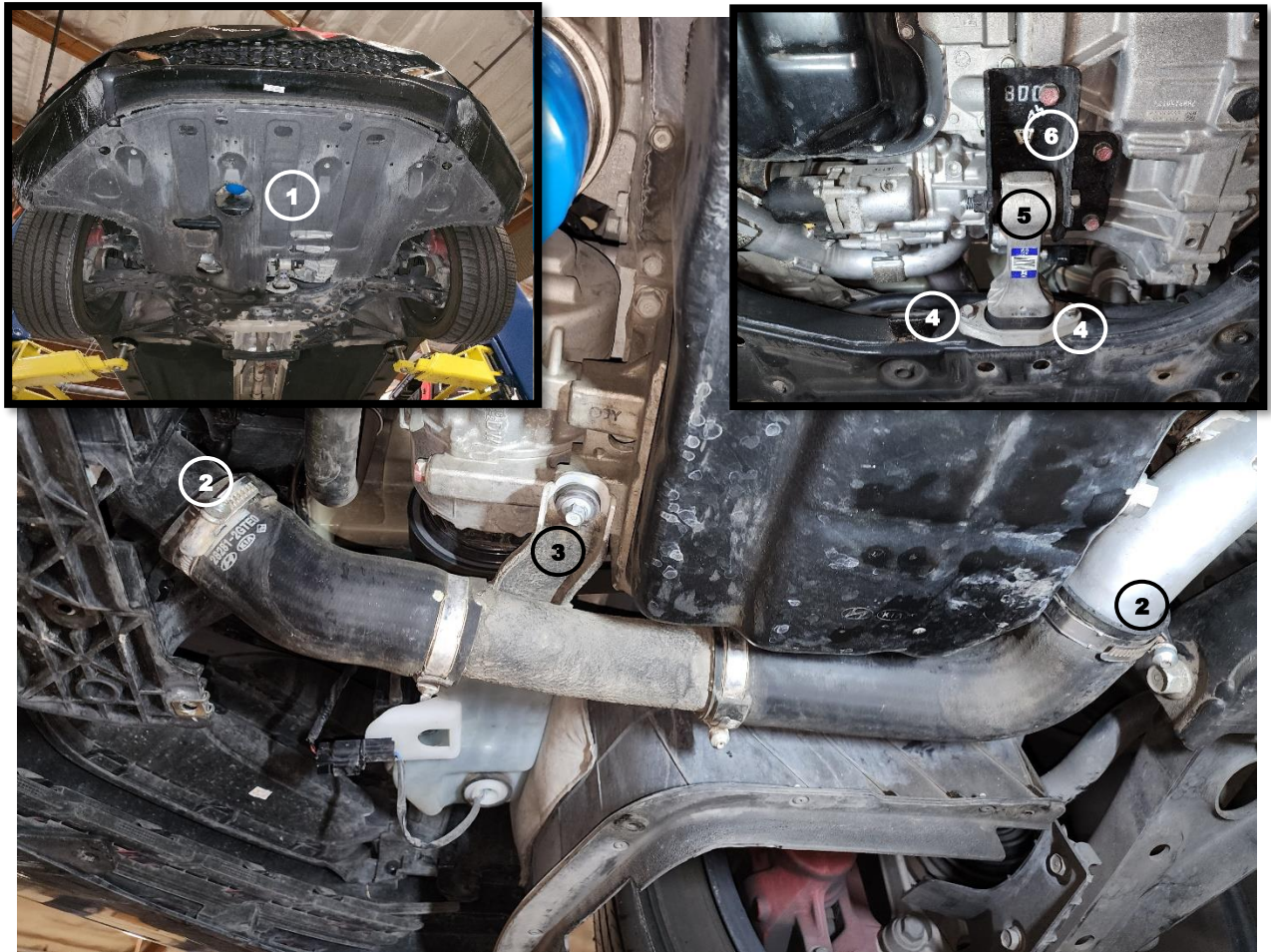
8mm socket, swivel, 18"L extension, 10mm socket, 14mm socket, 17mm socket, 3/16" allen wrench, 5mm allen wrench, ratchet, pick, flat head screwdriver, thread sealant

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

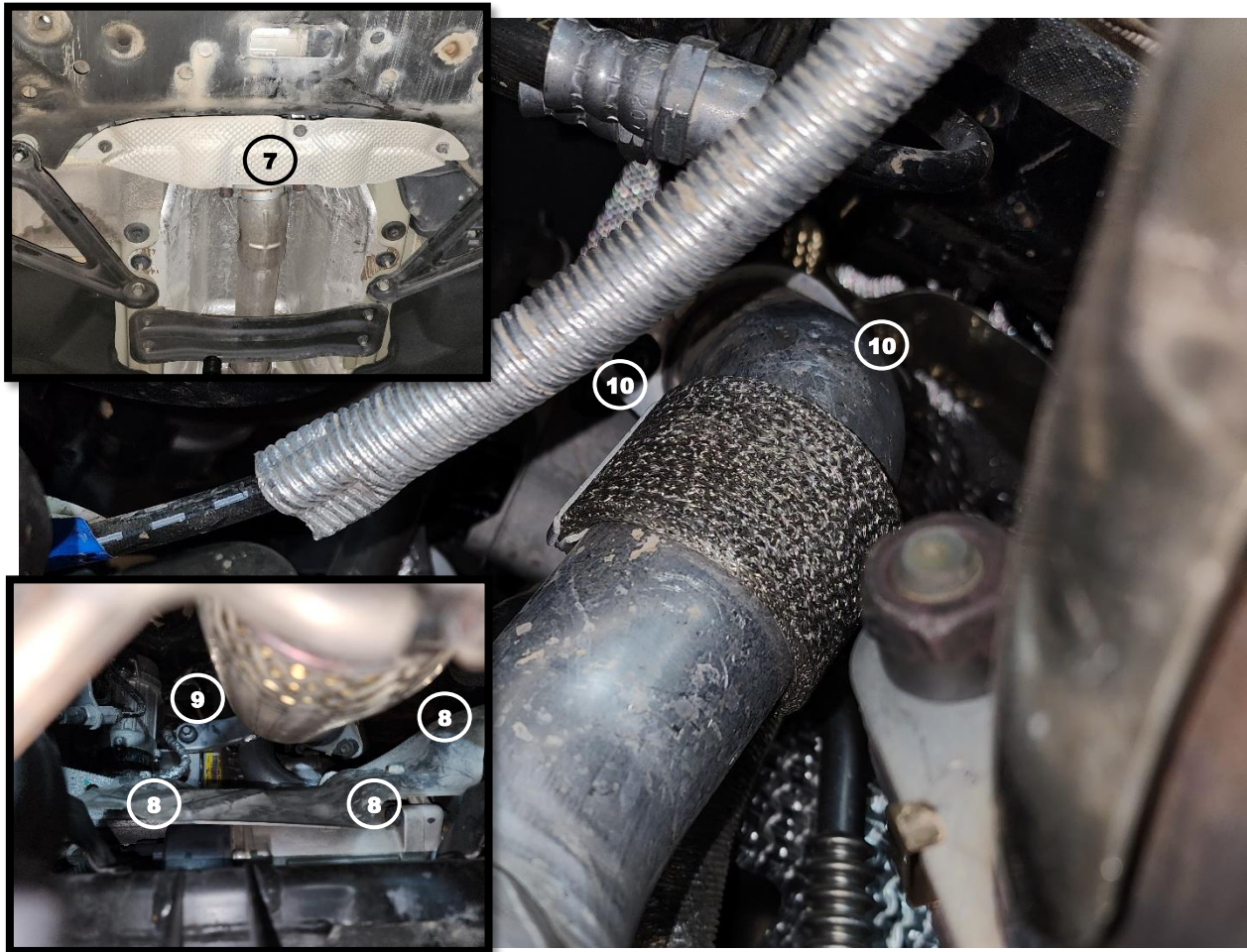




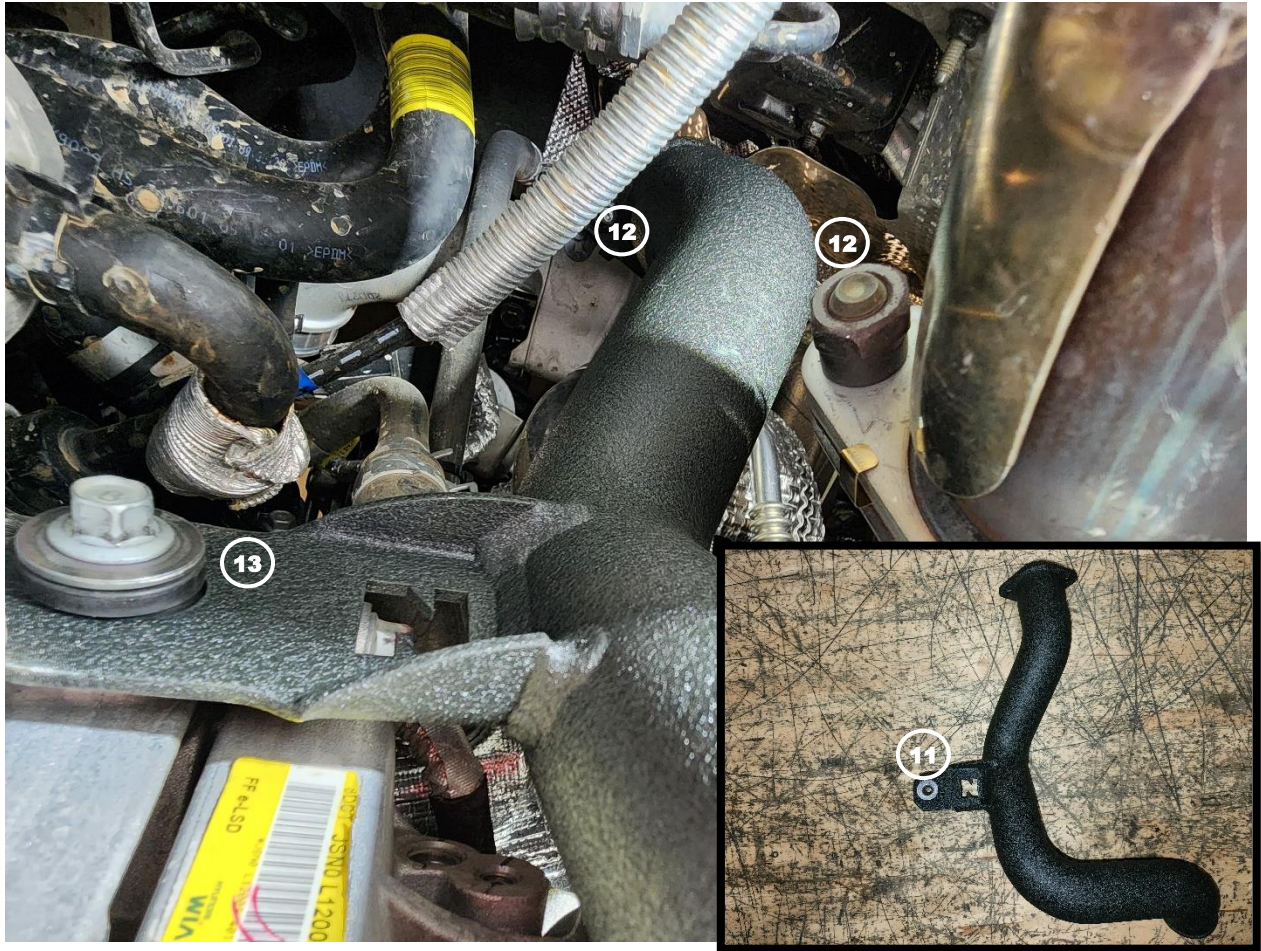
1. Park vehicle on level ground and engage the parking brake.
2. Disconnect the negative battery cable.



3. Remove all of the screws and clips from belly pan and remove it from the vehicle ①
4. Remove the caps from the hose clamp screws and loosen the clamps securing the factory lower hot side charge pipe to the intercooler and to the upper hot side charge pipe ②
5. Remove the screw securing the lower hot side charge pipe to the engine ③ then remove it from the vehicle.
6. Remove the two (2) screws ④ securing the lower engine mount to the subframe of the vehicle.
7. Remove the bolt and nut ⑤ securing the lower engine mount to the engine bracket, then remove the mount from the vehicle.
8. Remove the four (4) screws ⑥ securing the engine mount bracket to the engine, then remove the bracket from the vehicle.



9. Remove the three (3) nuts securing the small heat shield to the bottom of the subframe and remove it from the vehicle (7)
10. Remove the three (3) screws securing the large heat shield to the top of the subframe, below the down pipe and move it to the side (8)
11. Remove the screw securing the factory upper hot side charge pipe to the engine (9)
12. Remove the two (2) nuts securing the factory upper hot side charge pipe to the turbo using a long extension and a swivel with a socket, then remove it from the vehicle (10)
13. Maneuver the charge pipe out from between the engine and the subframe while supporting the engine forward to gain access to remove the charge pipe from the vehicle.



14. Transfer the mounting grommet from the factory upper hot side charge pipe to the supplied aFe upper hot side charge pipe in the same orientation as removed (11).

Ensure the factory gasket did not fall off of the turbo.

15. Maneuver the aFe upper hot side charge pipe in between the engine and the subframe while supporting the engine forward to gain access to install the charge pipe into the vehicle.

16. Secure the aFe upper hot side charge pipe to the turbo using the factory nuts (12)

17. Secure the aFe upper hot side charge pipe to the engine using the factory screw (13)

18. Secure the large heat shield to the top of the subframe using the factory screws.

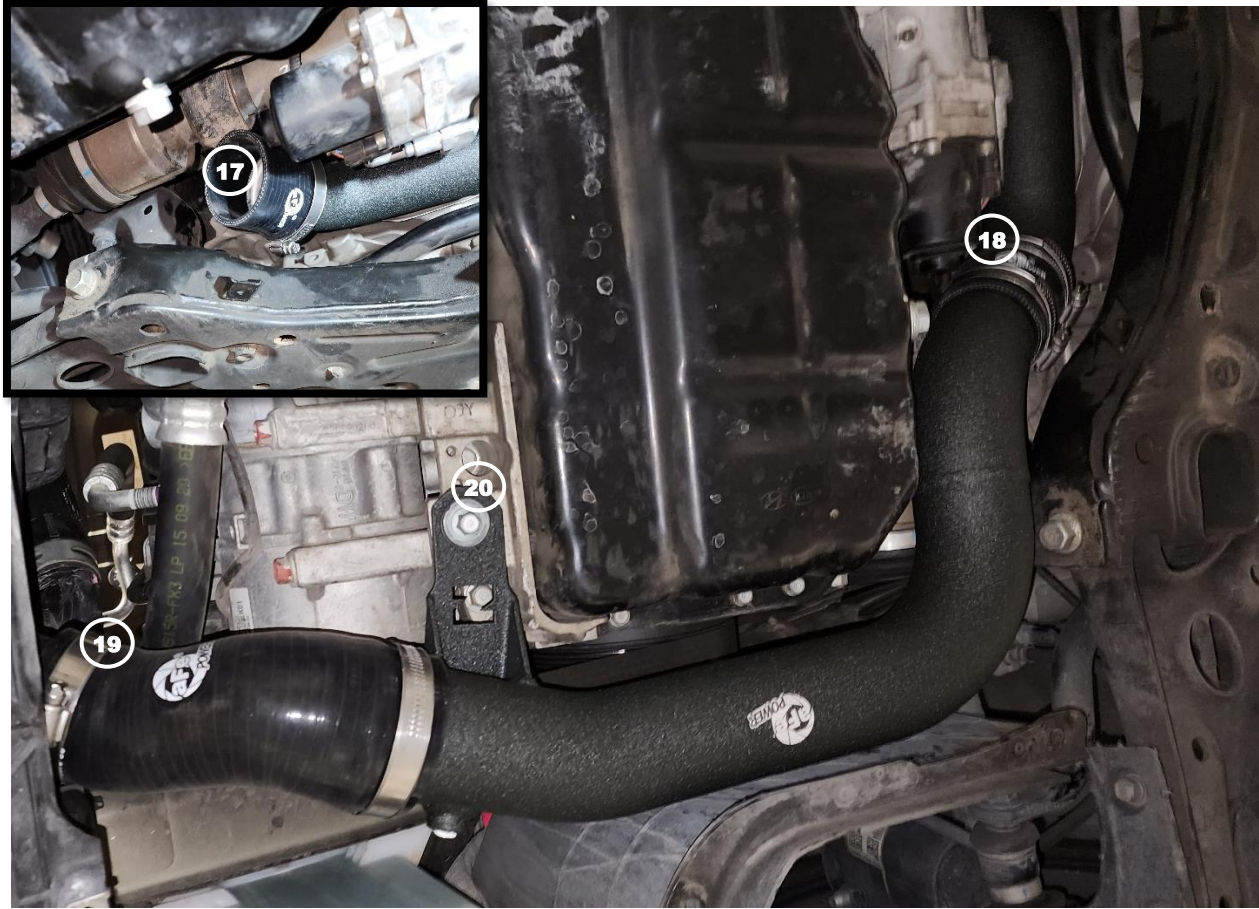
19. Secure the small shield to the bottom of the subframe using the factory nuts.

20. Reinstall the lower engine mount and bracket into the vehicle using the factory hardware.



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

21. If you are not using any aftermarket sensors, install the supplied 1/8" NPT plug (14) into the threaded fitting on the supplied aFe lower hot side charge pipe.
22. Transfer the mounting grommet from the factory lower hot side charge pipe to the aFe lower hot side charge pipe in the same orientation as removed (15)
23. Install the aFe silicone elbow reducer coupling, 2.50"x 2", (16) and one of the supplied 044 SmartSeal clamps onto the end of the aFe lower hot side charge pipe with the bracket, do not tighten the clamp yet.
24. Adjust the coupling in a similar direction as the factory hot side charge pipe.



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

25. Install the supplied aFe straight coupling, 2.25" x 3" L, onto the aFe upper hot side charge pipe along with the one of the supplied 044 SmartSeal clamps (17) do not tighten the clamp yet.
26. Install the aFe lower hot side charge pipe into the vehicle from the bottom. Connect the reduced end of the charge pipe to the aFe straight coupling, 2.25" x 3" L, along with one of the supplied 044 SmartSeal clamps, (18) do not tighten the clamp yet.
27. Connect the aFe elbow reducer coupling, 2.50" x 2", to the intercooler along with one of the supplied 032 SmartSeal clamps, (19) do not tighten the clamp yet.
28. Adjust the couplings as necessary and be sure the aFe lower hot side charge pipe is not touching anything.
29. Secure the aFe lower hot side charge pipe to the engine using the factory screw (20)
30. Tighten all of the clamps on the aFe lower hot side charge pipe.



31. Reinstall the belly pan.
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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