



advanced FLOW engineering

Instruction Manual P/N: 46-20424-B

BladeRunner – Intercooler Tube Combo Kit

Make: **GMC** Model **Sierra 1500** Year: **2019 - 2020** Engine: **L4 – 2.7L(t)**

Make: **Chevrolet** Model **Silverado 1500** Year: **2019 - 2020** Engine: **L4 – 2.7L(t)**



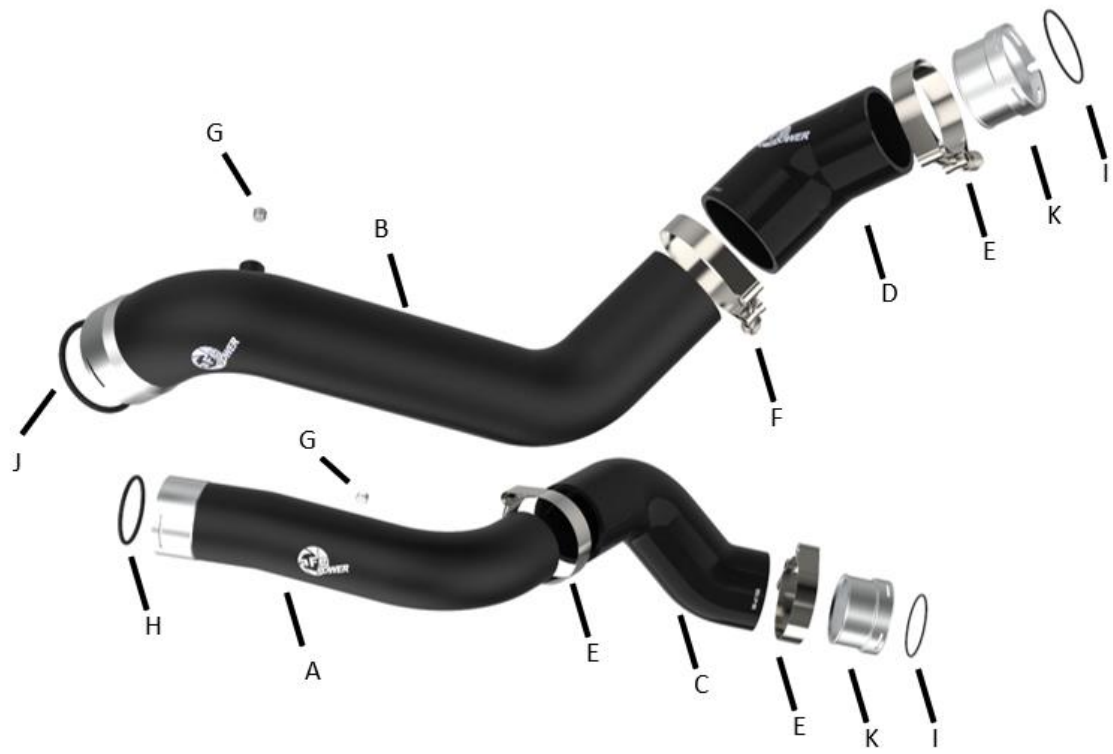
- Please read the entire instruction manual before proceeding.
- Ensure all components listed are present.
- Ensure you have all necessary tools before proceeding.
- Do not attempt to work on your vehicle when the engine is hot.
- Disconnect the negative battery terminal before proceeding.
- Retain factory parts for future use.

Label	Qty.	Description	Part Number
A	1	Tube, Hot Side: 46-20424-B	05-61094B
B	1	Tube, Cold Side: 46-20424-B	05-61095B
C	1	Coupling, Hot Side: 46-20424	05-61102
D	1	Coupling, Silicone Rdr Ebw: 3" to 2.50"ID x 45 Deg	05-60661
E	3	Clamp, Spring Loaded T-Bolt: 2.85"	05-60039
F	1	Clamp, Spring Loaded T-Bolt: 3.25"	03-50530
G	2	Plug, Hex Hd Socket: 1/8" NPT	03-50029
H	1	O-Ring, -226	05-61036
I	2	O-Ring, 55mm ID x 2mm W	03-50642
J	1	O-Ring, 66mm ID x 5mm W	05-61025
K	2	Adaptor, I/C: 46-20424	05-61100

Installation will require the following tools:

7mm socket, 10mm deep socket, 13mm socket, 7/16" deep socket, 5mm allen wrench, 6" extension, ratchet, pick, flat head screwdriver, thread sealant, grease

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 the two (2) screws securing the engine cover to the intake tube (1).
4. Disconnect the Mass Air Flow sensor (2) from the intake tube
5. Disconnect the crankcase breather hose (3) by pushing in the clip and pulling the hose out.
6. Disconnect the purge valve line and electrical connection (4)
7. Loosen the clamp (5) securing the intake tube to the air box.
8. Loosen the clamp securing the intake tube to the turbo inlet.
9. Remove the two (2) nuts securing the intake tube to the engine (6)



10. Remove the intake tube from the vehicle.

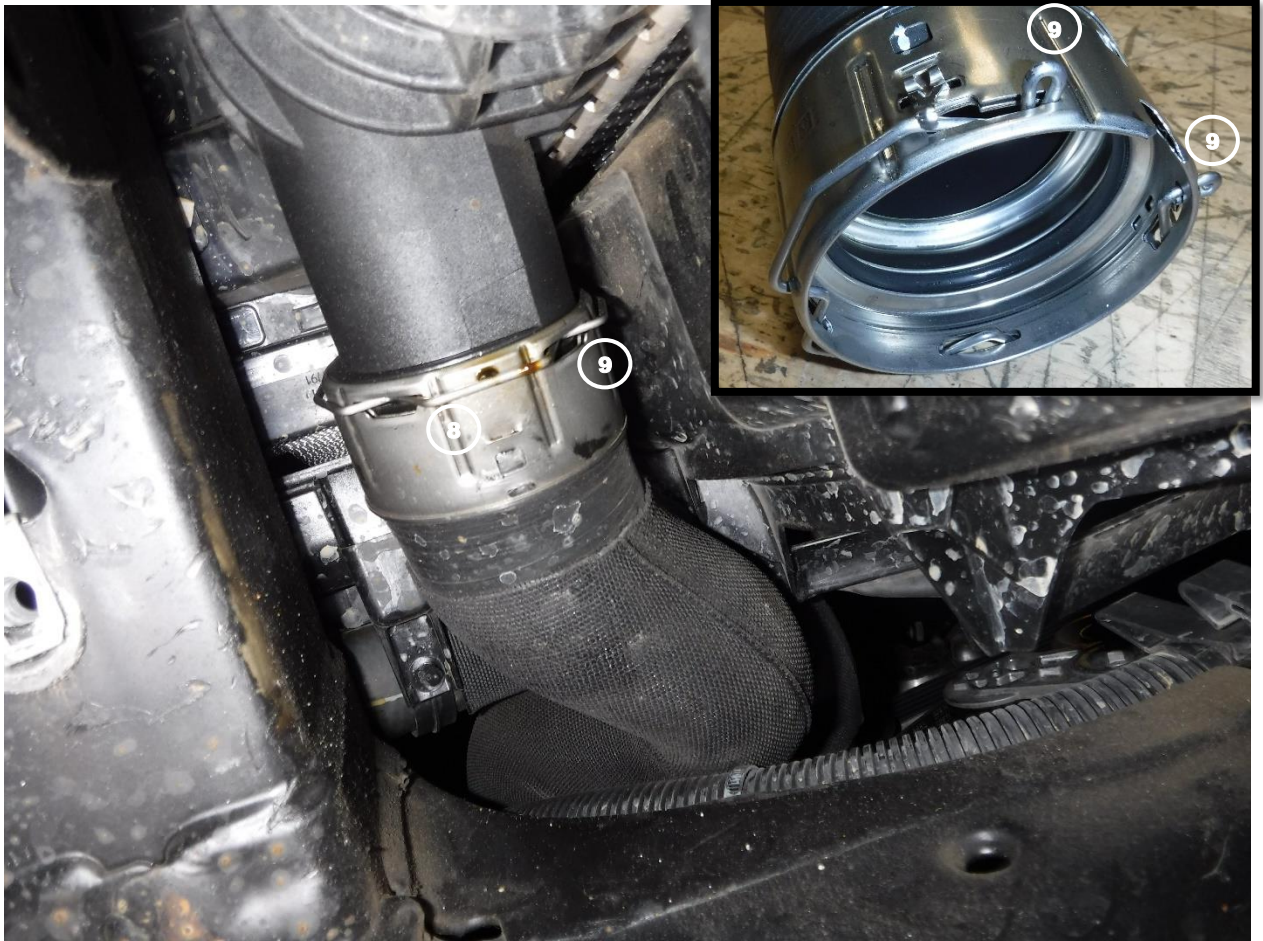
11. Remove the clip ⑦ securing the intercooler tube to the turbo located on the passenger side of the vehicle

12. Disconnect the intercooler tube from the turbo.



13. Underneath the vehicle, remove the four (4) screws ⑧ securing the front half of the splash guard.

14. Remove the splash guard from the vehicle.



15. Release the factory retaining clip from the hot side intercooler connection by pulling back on the clip on the raised areas **9** to lock it in the open position on both sides.
16. Pull the lower tube connection apart and remove the hot side intercooler tube from the top of the vehicle.



17. Release the factory retaining clip from the cold side intercooler connection by pulling back on the clip on the raised areas (10) to lock it in the open position on both sides.

18. Pull the lower cold side intercooler tube connection apart from the intercooler.



19. Release the factory retaining clip from the cold side tube engine connection by pulling back on the clip on the raised areas (11) to lock it in the open position on both sides.
20. Pull the upper tube connection apart and remove the cold side intercooler tube from the top of the vehicle.



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 plugs (12) into the threaded fittings on both of the aFe intercooler tubes.

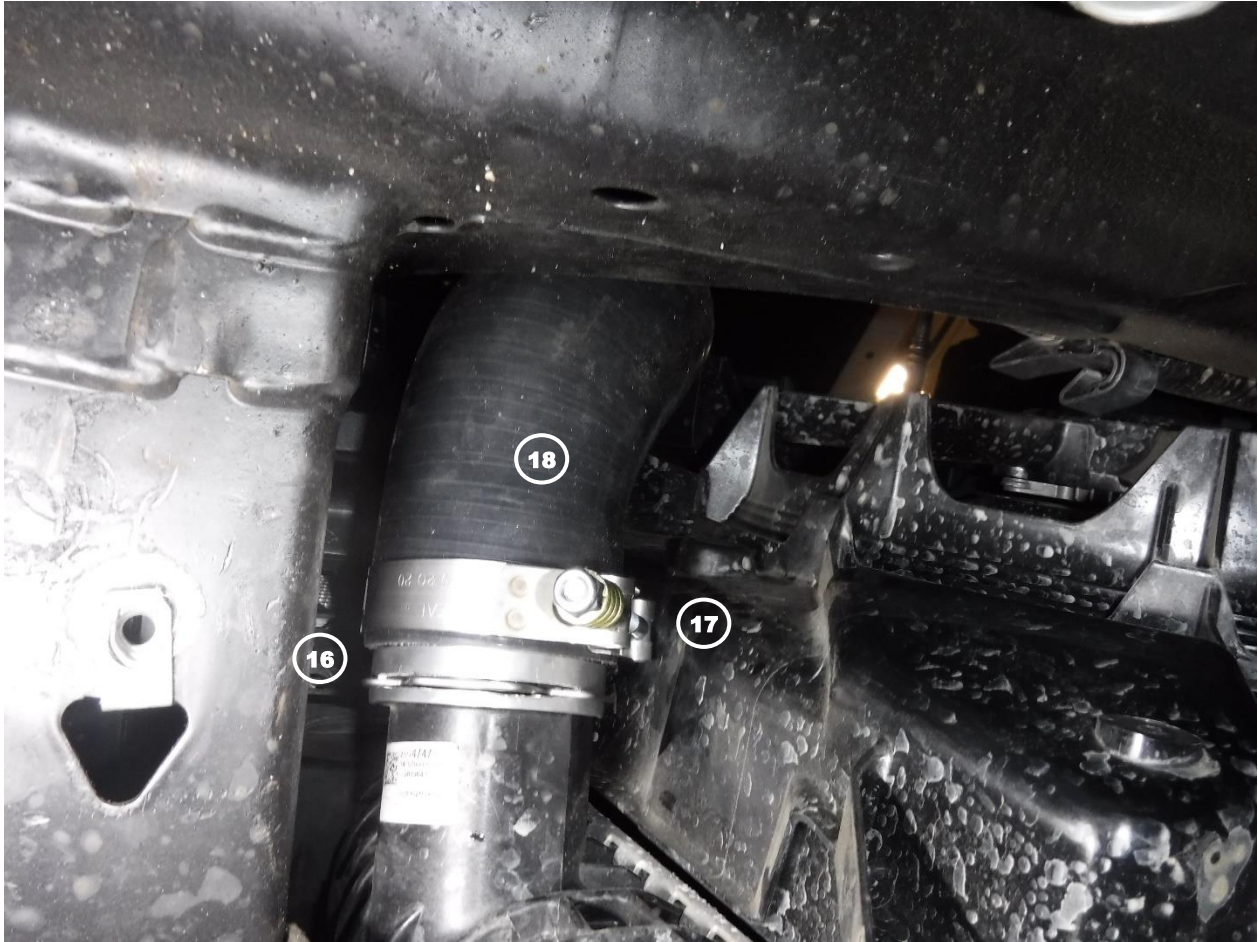


Note: Be sure to lubricate the O-rings with grease to prevent them from tearing during installation.

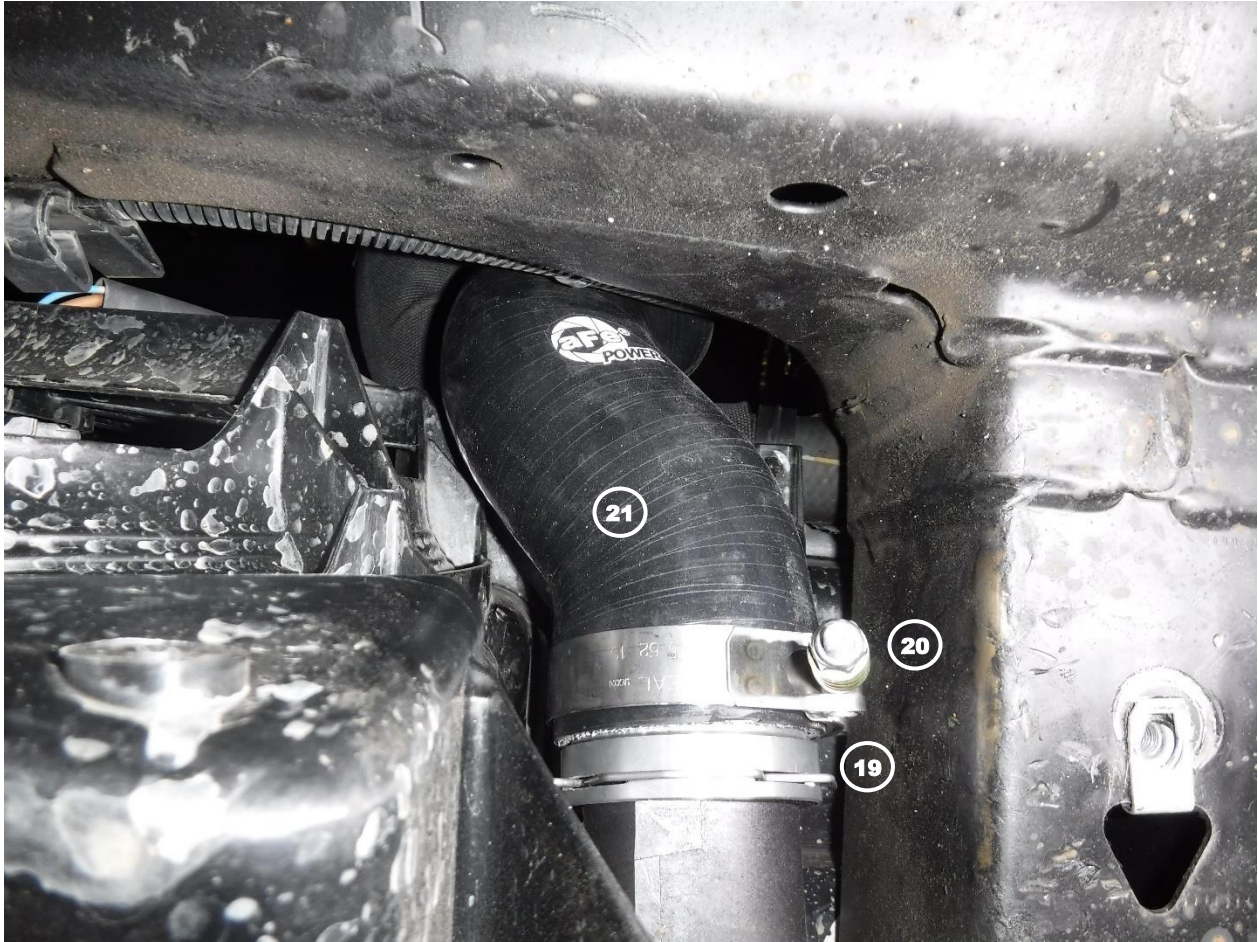
22. Install the two (2) supplied 55mm ID x 2mm W O-rings (13) into the each of the grooves on the aFe intercooler adapter as shown above.

Note: The retaining clips will need to be removed from both factory intercooler tubes for reuse with the aFe intercooler tubes

23. In order to remove the retaining clips, lift the metal retainer (14) up enough to slide the retaining clips out of the factory intercooler tube connections and remove the clips from the intercooler connection sides of each of the intercooler tubes.
24. Install the factory retaining clips, removed from Step 22, onto each of the aFe intercooler adapters (15)



25. Install one of the aFe intercooler adapters (16) from the previous step onto the driver side intercooler connection underneath the vehicle, ensure the retaining clip snaps into the groove on the intercooler all the way around the fitting.
26. Install one of the supplied 2.85" spring-loaded T-Bolt clamps (17) over the fitting from the previous step.
27. Install the aFe silicone reducing elbow coupling: 3" to 2.50"ID x 45 Deg (18) onto the aFe intercooler adapter, do not tighten the clamp yet.
28. Install the supplied 3.25" spring-loaded T-Bolt clamp over the aFe coupling from the previous step.



29. Install one of the aFe intercooler adapters (19) from Step 24 onto the passenger side intercooler connection underneath the vehicle, ensure the retaining clip snaps into the groove on the intercooler all the way around the fitting.
30. Install one of the supplied 2.85" spring-loaded T-Bolt clamps (20) over the fitting from the previous step.
31. Install the aFe silicone hot side coupling (21) onto the aFe intercooler adapter, do not tighten the clamp yet.

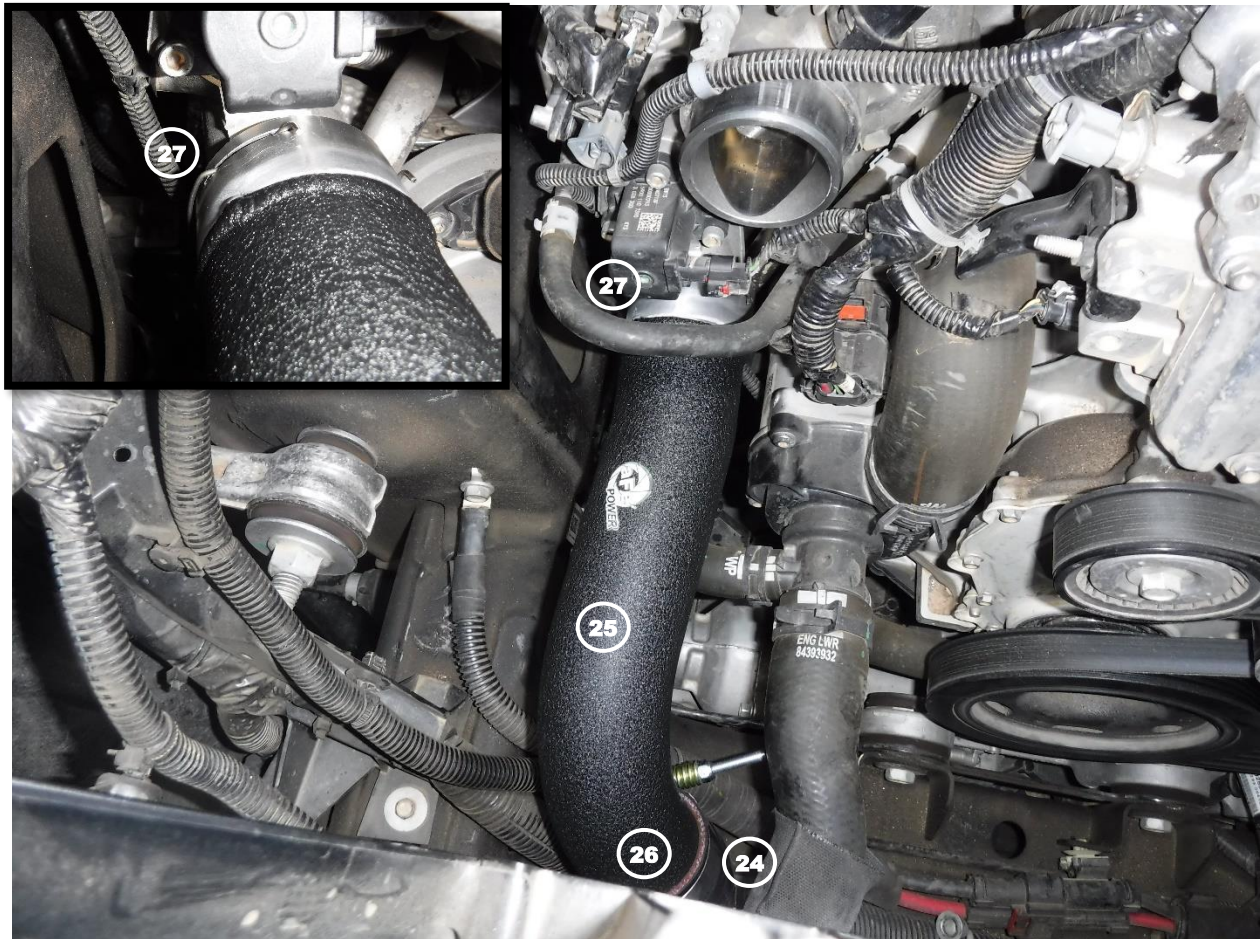


Note: Be sure to lubricate the O-ring with grease to prevent it from tearing during installation.

32. Install the supplied -226 O-ring (22) into the groove on the inside of aFe hot side intercooler tube as shown above.

Note: The retaining clips will need to be removed from factory intercooler tubes turbo connection for reuse with the aFe intercooler tube

33. Install the retaining clip from the factory hot side intercooler tube turbo connection onto the aFe hot side intercooler tube (23) as shown above.



34. Install one of the supplied 2.85" spring-loaded T-Bolt clamps (24) over the hot side intercooler coupling from the Step 31 from the top.
35. Install the aFe hot side intercooler tube (25) into the vehicle by first connecting the tube to the coupling (26) then connecting the tube onto the turbo outlet (27) ensure the retaining clip snaps into the groove on the turbo all the way around the fitting.
36. Ensure the aFe hot side intercooler tube is not touching anything and tighten all of the clamps for that tube.



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

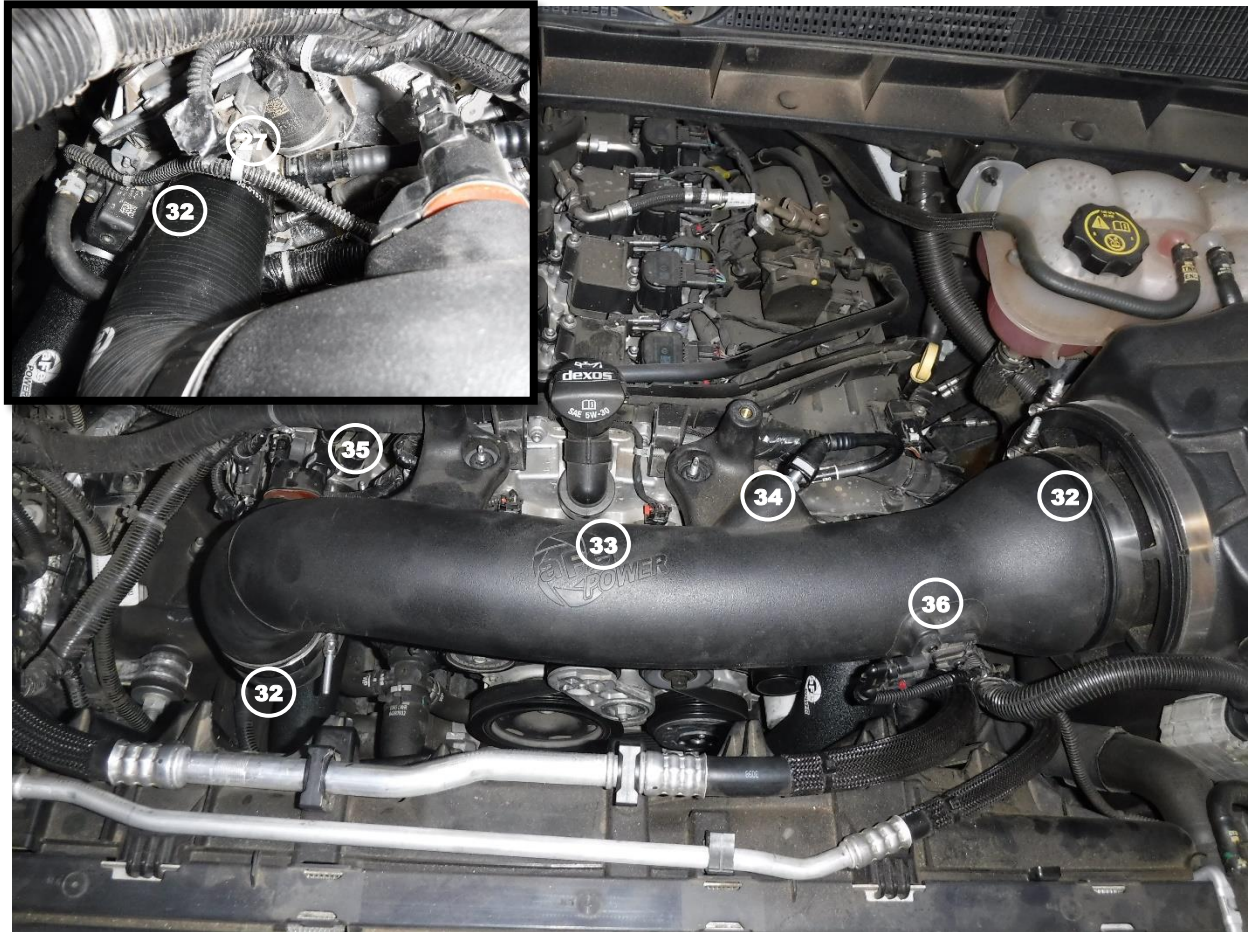
37. Install the supplied 66mm ID x 5mm W O-ring (28) into the groove on the inside of aFe cold side intercooler tube as shown above.

Note: The retaining clip will need to be removed from factory intercooler tube throttle body connection for reuse with the aFe intercooler tube.

38. Install the retaining clip from the factory cold side intercooler tube throttle body connection onto the aFe cold side intercooler tube (29) as shown above.

Note: When connecting the aFe intercooler tube to the throttle body be sure to line up the notch in the intercooler tube connection with the tab on the throttle body.

39. Install the aFe cold side intercooler tube (30) into the vehicle by first connecting the tube to the coupling from Step 27, then connecting the tube onto the throttle body (31) ensure the retaining clip snaps into the groove on the throttle body all the way around.
40. Ensure the aFe cold side intercooler tube is not touching anything and tighten all of the clamps for that tube.



41. Install the intake tube into the vehicle connecting to the turbo inlet first then to the air box (32)
42. Secure the intake tube to the engine (33) using the factory nuts
43. Reconnect the crankcase breather hose (34)
44. Reconnect the purge valve line and electrical connection (35).
45. Tighten the clamps securing the intake tube to the turbo inlet and the air box (32)
46. Reconnect the Mass Air Flow sensor electrical connection (36) to the intake tube.



47. Reinstall the engine cover (37)
48. Reconnect the negative battery cable.
49. Install is now complete.

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