



advanced FLOW engineering

Instruction Manual P/N: 46-20594-B

BladeRunner – Charge Pipe Combo Kit

Make: **Ram**

Model: **1500**

Year: **2020-2022**

Engine: **V6–3.0L(td)**



- 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.

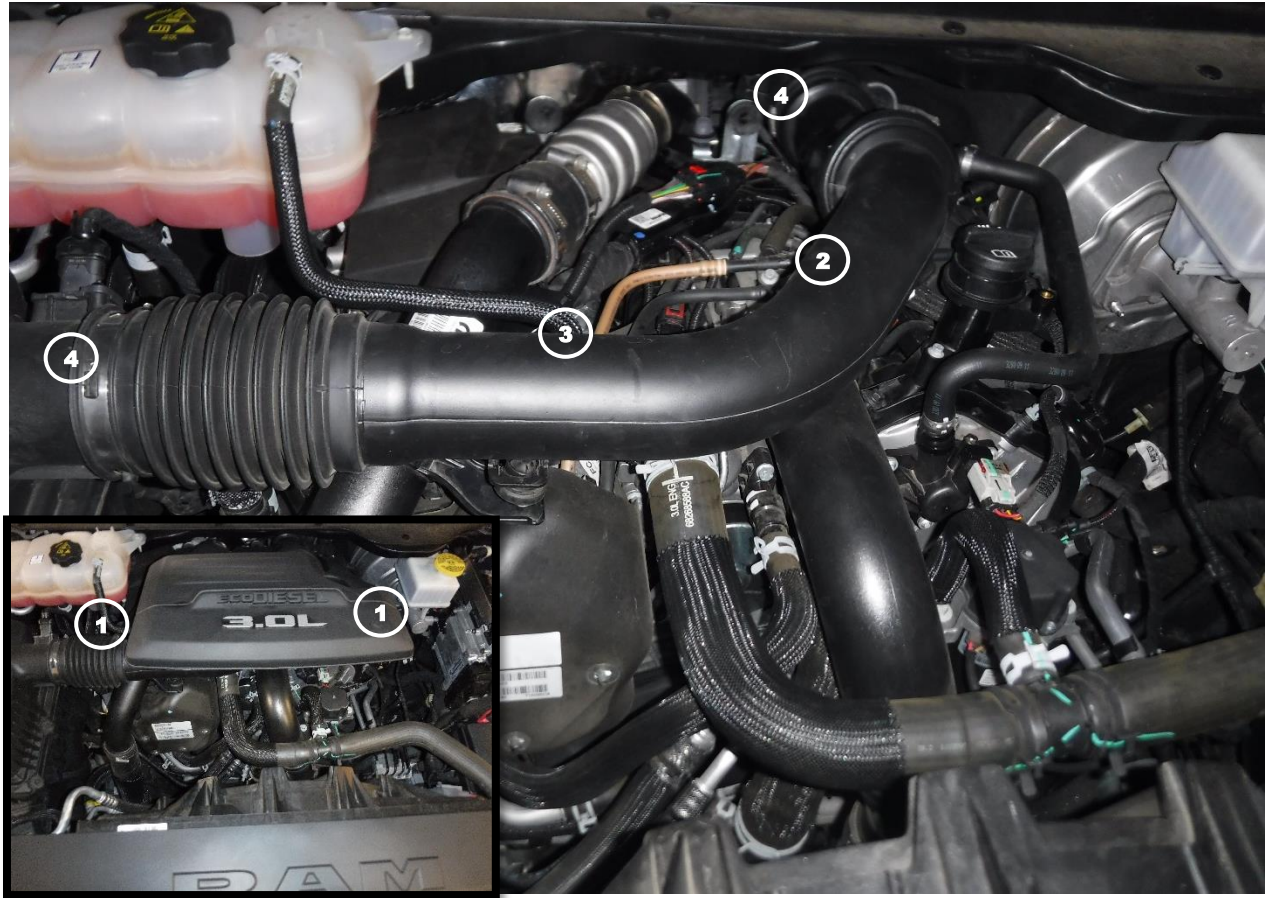
Label	Qty.	Description	Part Number
A	1	Tube, Hot Side Upper	05-61282B
B	1	Tube, Hot Side Lower	05-61283B
C	1	Tube, Cold Side Upper	05-61284B
D	1	Tube, Cold Side Lower	05-61285B
E	1	Coupling, Silicone Hump: 2-3/4"ID x 7"L w/Int Bead	05-60382
F	1	Coupling, Silicone Elbow: 3"ID x 45 Deg	05-60433
G	2	Clamp, Spring Loaded T-Bolt: 3.00"	05-60435
H	2	Clamp, Spring Loaded T-Bolt: 3.25"	03-50530
J	1	O-Ring, Viton (-226)	05-61036
K	2	O-Ring, 60mm ID x 4mm W	05-60615
M	1	O-Ring, 60mm ID x 4.5mm W	05-61598
N	2	Plug, 1/8" NPT	03-50029

Installation will require the following tools:

8mm socket, 10mm socket, 14mm 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

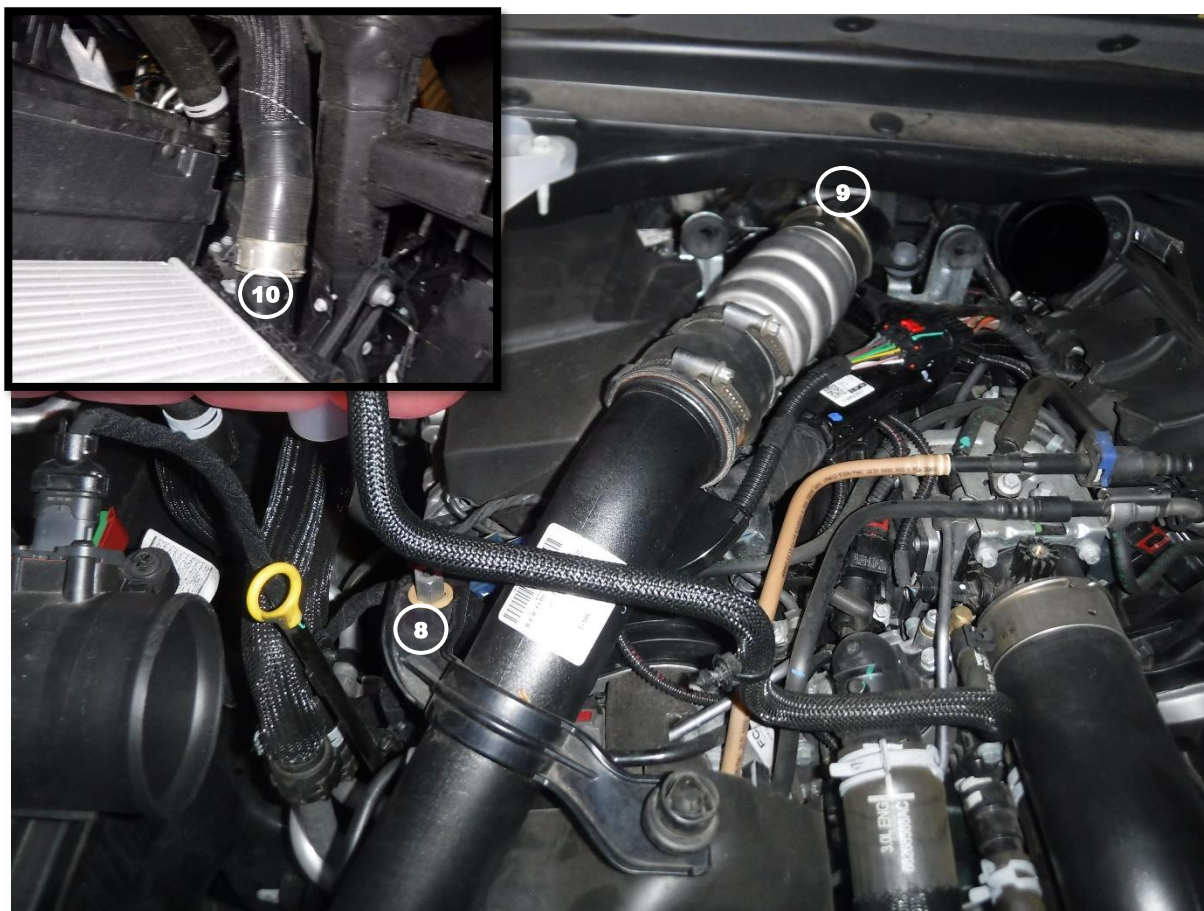




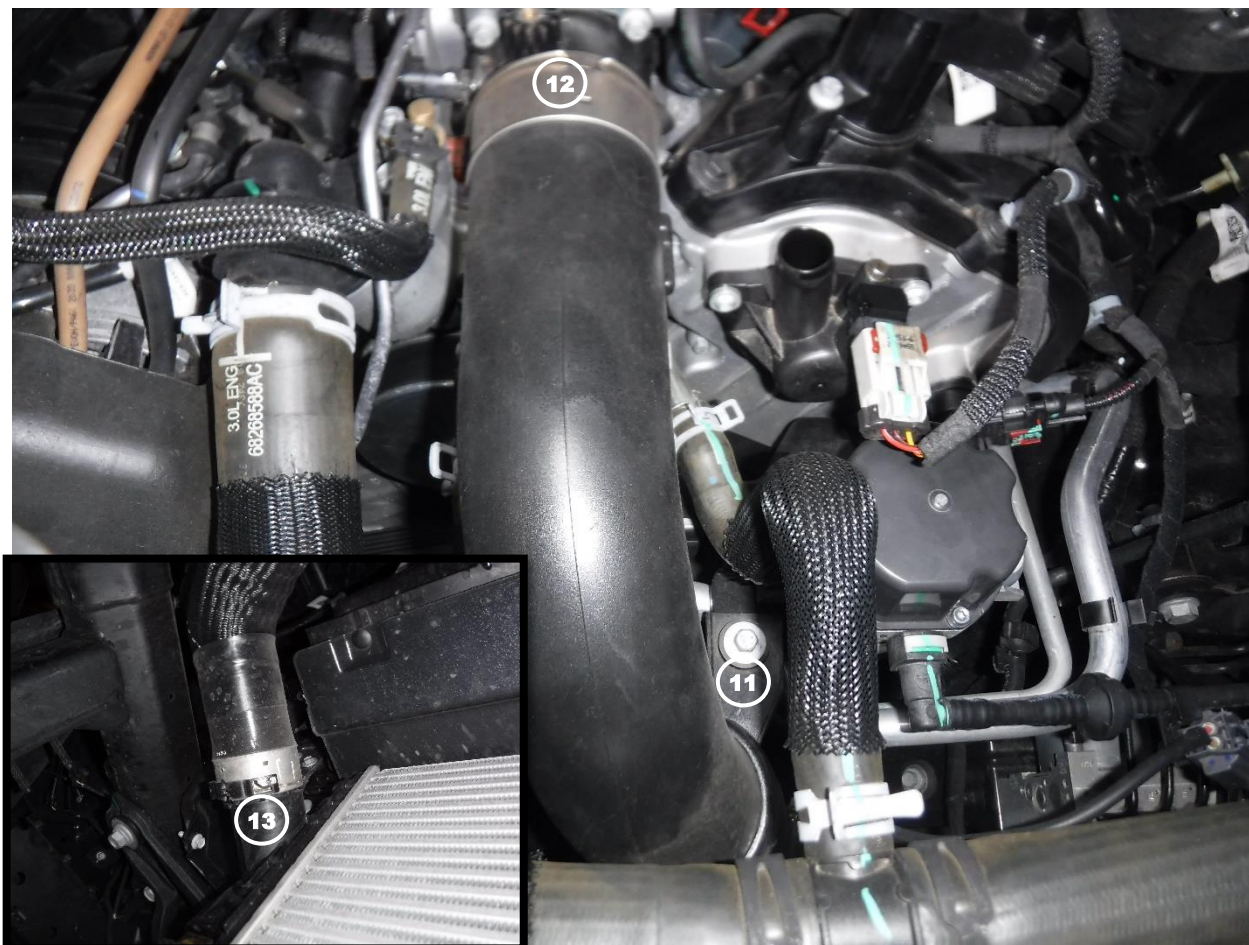
1. Park vehicle on level ground and engage the parking brake.
2. Disconnect the negative battery cable.
3. Remove the engine cover ① by removing the two screws securing it to the engine, then lift and pull forward to remove the engine cover from the vehicle.
4. Remove the screw securing the air intake tube to the engine ②
5. Disconnect coolant over flow hose ③ from the air intake tube.
6. Loosen the two clamps securing the air intake tube onto the air box and the turbo inlet tube ④



7. Disconnect the Positive Crankcase Ventilation (PCV) wire harness (5) from the air intake tube.
8. Disconnect the PCV hose from the engine (6) by squeezing the ribbed areas on the connector, then pulling it off of the engine.
9. Disconnect the air intake tube from the mounting pin on the charge pipe (7) by lifting up on the air intake tube and holding the pin in its place.
10. Remove the air intake tube from the vehicle.



11. Remove the screw securing the hot side charge pipe to the engine ⑧
12. Release the retaining clip securing the hot side charge pipe to the turbo outlet tube ⑨ by opening the clip from the raised portions on the clip and disconnect.
13. Release the retaining clip securing the hot side charge pipe to the intercooler ⑩ from underneath the vehicle.
14. Remove the hot side charge pipe from the vehicle from the top.



15. Remove the screw securing the cold side charge pipe to the engine (11)
16. Release the retaining clip securing the cold side charge pipe to the engine inlet (12)
17. Release the retaining clip securing the cold side charge pipe to the intercooler (13) from underneath the vehicle.
18. Remove the cold side charge pipe from the vehicle from the top.



19. Remove the air intake grommet from the mounting pin (14) if it is still connected and set it aside to be installed later.
20. Unscrew the mounting pin from the factory charge pipe (15) and set it aside to be installed later
21. The plastic retainers will need to be removed from the charge pipes by standing them up on the end with the metal adaptor and tapping it down on either side of the plastic retainer (16)
22. Once the plastic retainers are removed, remove the metal retaining clip for reuse with the aFe charge pipes.



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

23. If you are not using any aftermarket sensors, install the supplied 1/8" NPT plug (17) into the threaded fitting on the upper aFe hot side charge pipe.
24. Install the factory clips (18) onto the corresponding ends of the aFe hot side charge pipes in the same orientation as removed from the factory charge pipes.

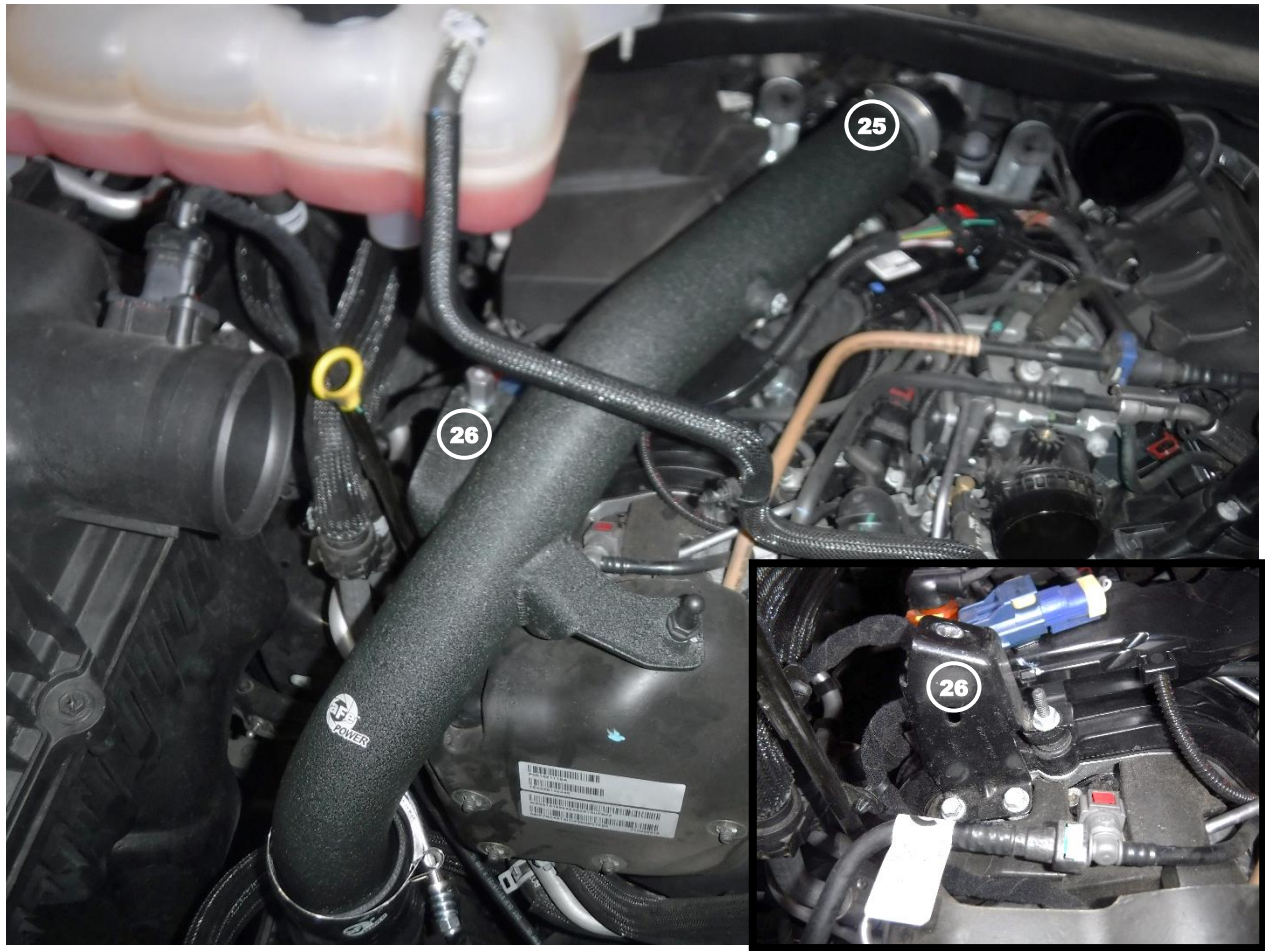
Note: Be sure to lubricate the O-ring with grease to prevent it from tearing during installation.

25. Install the supplied -226 O-ring (19) into the groove on the inside of the upper aFe hot side charge pipe.
26. Install the factory air intake mounting pin (20) onto the upper aFe hot side charge pipe.



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

27. Install the supplied 60mm ID x 4mm W (21) O-ring into the groove on the inside of the lower aFe hot side charge pipe.
28. Install supplied aFe silicone hump coupling, 2.75"x 7"L w/int bead and one of the 3.00" spring-loaded t-bolt clamps (22) onto the end of the lower aFe hot side charge pipe (23) do not tighten the clamp yet. Be sure the bead on the inside of the coupling pops into the groove on the end of the lower aFe charge pipe.
29. Install the lower aFe hot side charge pipe (24) onto the intercooler from underneath the vehicle, be sure the retaining clip snaps into place all the way around.



30. Install the upper aFe hot side charge pipe with one 3.00" t-bolt clamp into the vehicle, first connect it to the coupling from step 28, then connect it to the turbo outlet (25)
31. Ensure sure the retaining clip at the turbo connection snaps into place all the way around.
32. Install the factory mounting screw into the mounting hole for the charge pipe (26) the mounting bracket may need to be adjusted to line up properly.
33. Tighten all of the clamps.

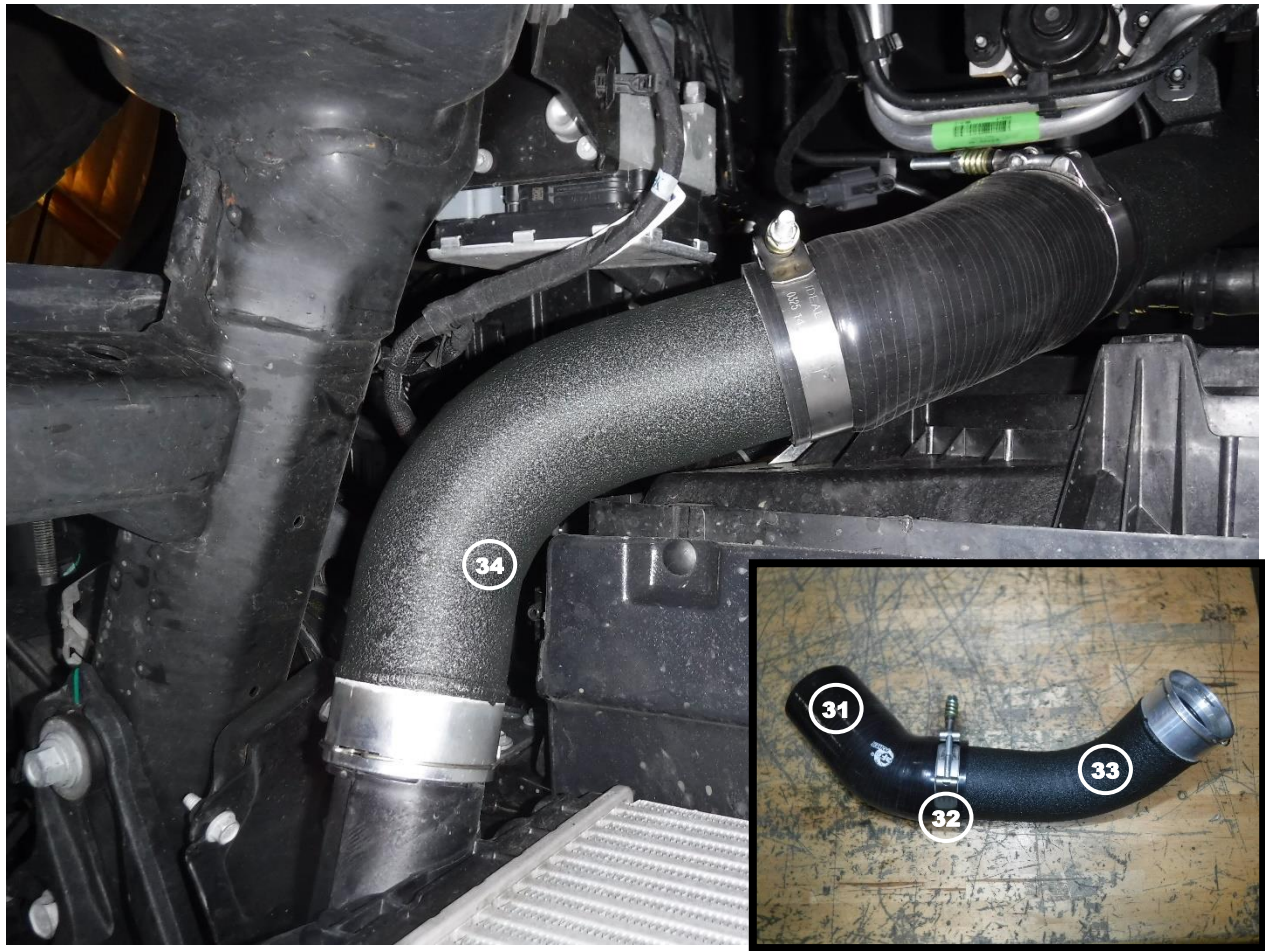


Note: Be sure to use thread sealant on the plug or sensor to prevent any leaking

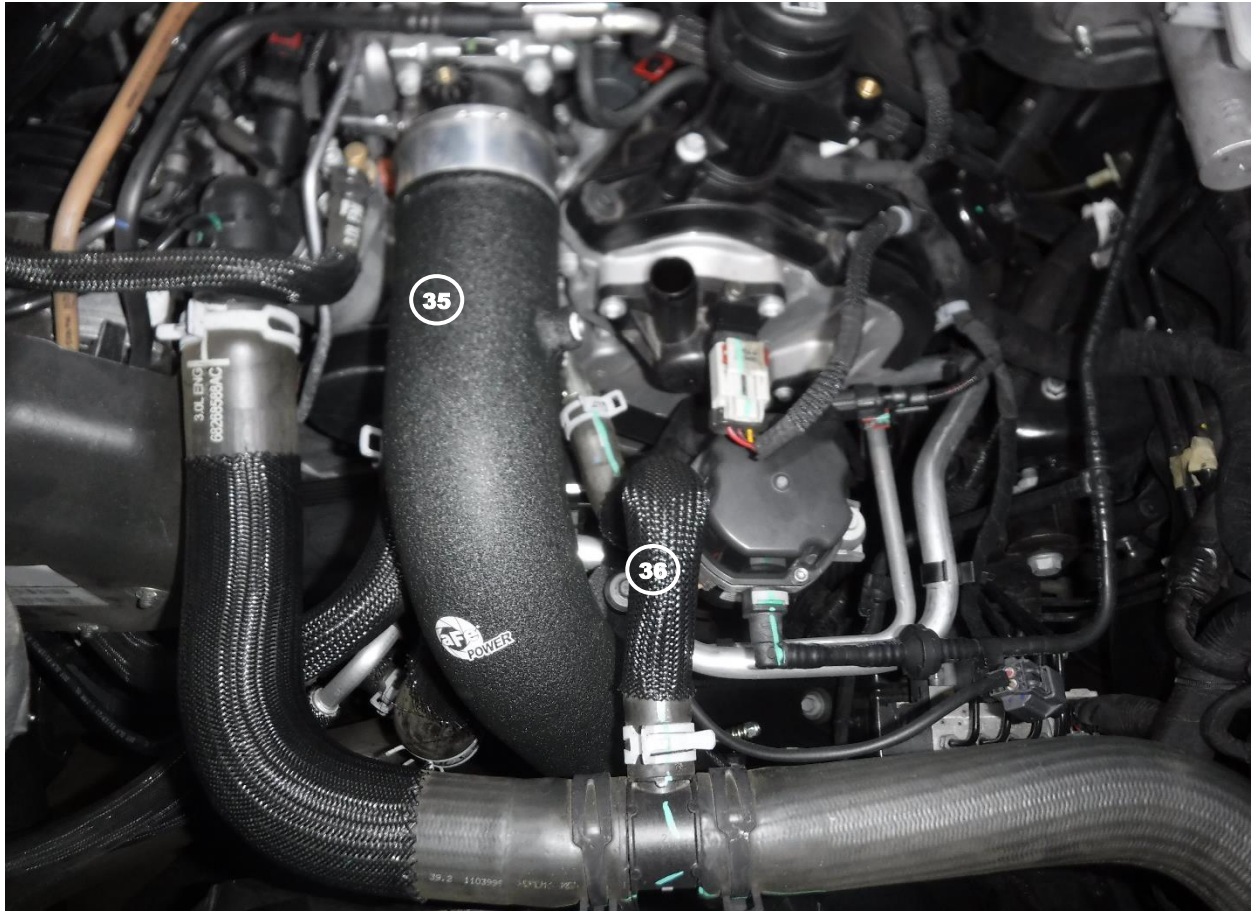
34. If you are not using any aftermarket sensors, install the 1/8" NPT plug (27) into the threaded fitting on the upper aFe cold side charge pipe.
35. Install the factory clips (28) onto the corresponding ends of the aFe cold side charge pipes in the same orientation as removed from the factory charge pipes.

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

36. Install the 60mm ID x 4.5mm W (29) O-ring into the groove on the inside of the upper aFe cold side charge pipe, and install the 60mm ID x 4mm W O-ring into the groove on the lower aFe cold side charge pipes.
37. Transfer the factory mounting grommet (30) onto the upper aFe cold side charge pipe.



38. Install the shorter side of the aFe silicone elbow coupling, 3"x 45 Deg, (31) and one of the 3.25" spring-loaded t-bolt clamps (32) onto the end of the lower aFe cold side charge pipe (33) do not tighten the clamp yet.
39. Install the lower aFe cold side charge pipe (34) onto the intercooler from underneath the vehicle, be sure the retaining clip snaps into place all the way around.



40. Install the upper aFe cold side charge pipe with one 3.25" t-bolt clamp into the vehicle, first connect it to the coupling from step 38, then connect it to the engine inlet (35).
41. Ensure sure the retaining clip at the engine inlet snaps into place all the way around.
42. Install the factory mounting screw into the mounting hole for the charge pipe (36)
43. Tighten all of the clamps.



- 44. Install the factory air intake tube mounting grommet into the intake tube (37)
- 45. Install the air intake tube into the vehicle.
- 46. Install the mounting screw for the air intake (38) then secure it to the mounting pin and tighten the clamps.
- 47. Reconnect the PCV wire harness to the sensor (39)
- 48. Reconnect the PCV hose to the engine (40)



49. Reconnect coolant overflow hose to the intake tube (41)

50. Reinstall the engine cover (42) onto the vehicle.

51. Reconnect the negative battery cable.

52. Install is now complete.

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

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