



advanced FLOW engineering

Instruction Manual P/N: 46-20568-B

BladeRunner – Charge Pipe Kit

Make: **Toyota**

Model: **Tundra**

Year: **2022+**

Engine: **V6 – 3.5L(tt)**



- 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.

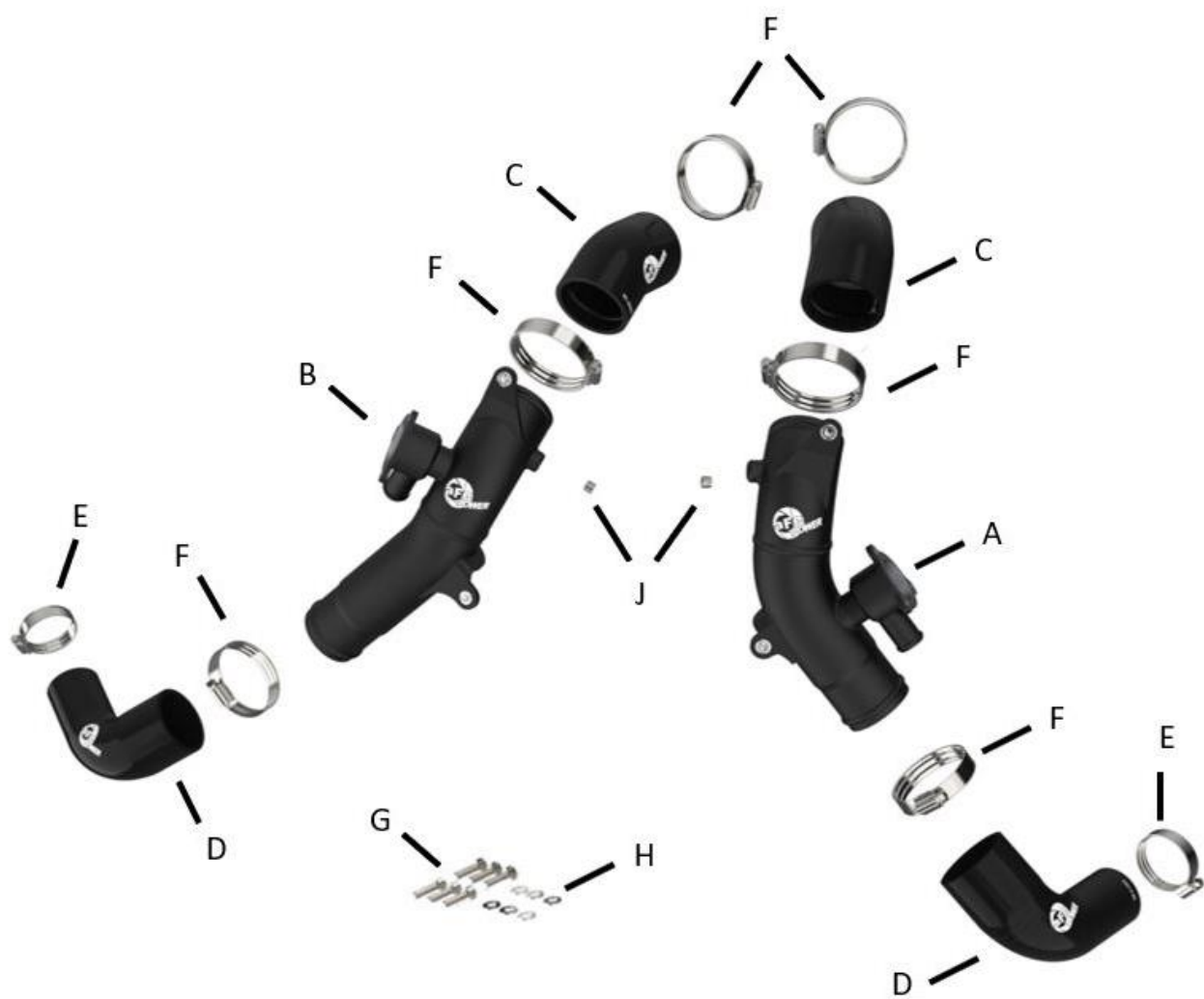
Label	Qty.	Description	Part Number
A	1	Tube, DS Hot Side: 46-20568	05-61276B
B	1	Tube, PS Hot Side: 46-20568	05-61277B
C	2	Coupling, Silicone Elbow: 2.5"ID x 30 Deg w/bead	05-61652
D	2	Coupling, Silicone Reducer Elbow: 2.5" x 1.75" 75DEG	05-61253
E	2	Clamp, SmartSeal, 032 (1.94" – 2.31")	03-50655
F	6	Clamp, SmartSeal, 044 (2.50" – 3.06")	03-50656
G	6	Screw, Socket Head Cap: M6x1.0x20, S/S	03-50241
H	6	Washer, M6 (12mm OD x 6.4mm ID)	03-50177
J	2	Plug, Hex Hd Socket: 1/8" NPT (Zn Plt)	03-50029

Installation will require the following tools:

8mm socket, 10mm socket, 5mm allen wrench, 3/16" allen wrench, T30 Torx socket, 6" extension, ratchet, pick, & thread sealant

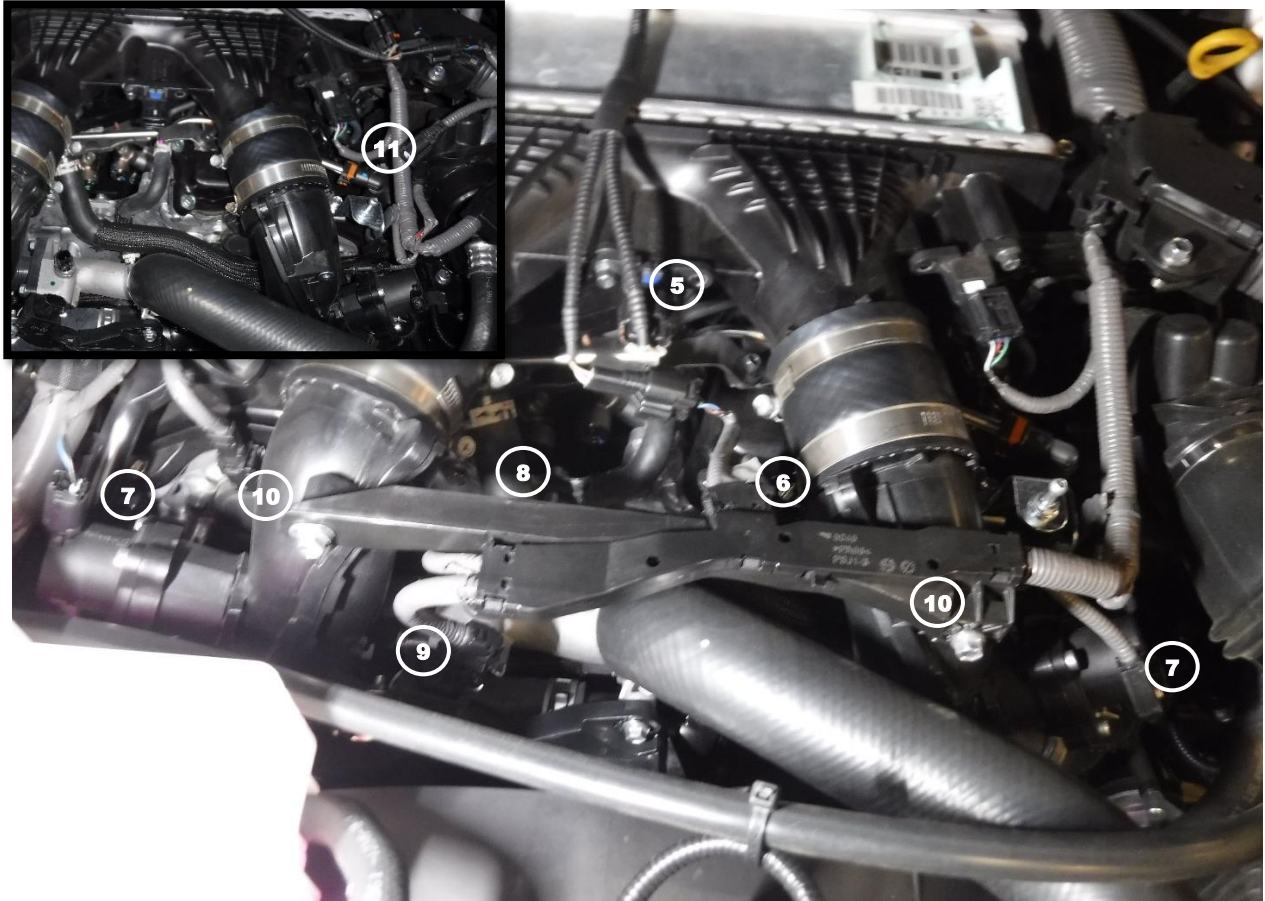
Warranty Information available at <https://afepower.com/contact#warranty>

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.

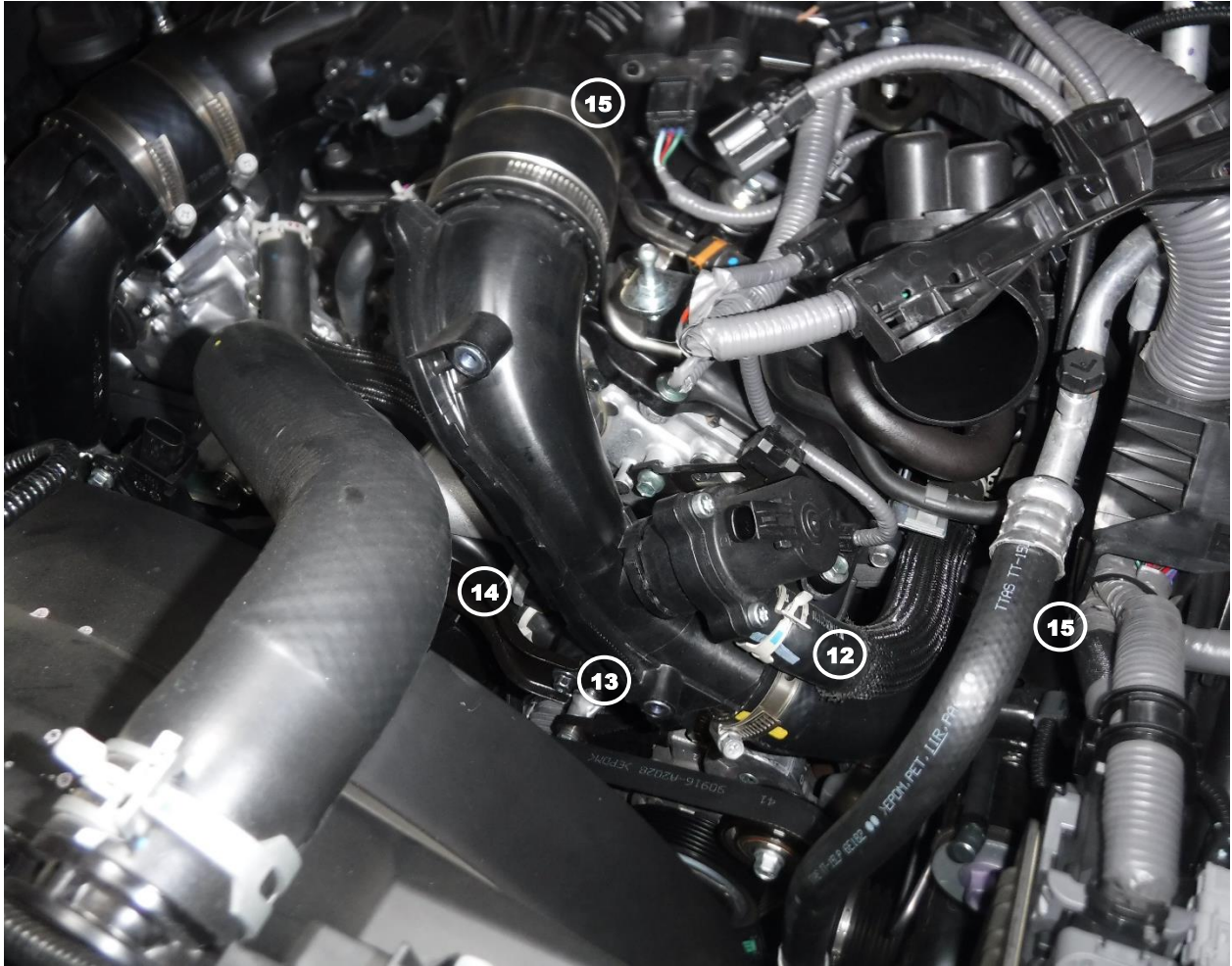




1. Park the vehicle on level ground and engage the parking brake.
2. Disconnect the negative battery cable.
3. Remove the engine cover from vehicle by lifting upwards on the front, then pulling the cover forward to remove the cover from the vehicle.①
4. Disconnect the air intake sensor from the air intake tube and the unclip harness from the air box②on both sides of the vehicle.
5. Loosen the clamp securing the air intake tube onto the turbo inlet tube③on both sides of the vehicle.
6. Unclip the top of the air box from the bottom of the air box④then remove the air intake tube and top from the vehicle on both sides.



7. Disconnect the MAP sensor connector from the heat exchanger (5).
8. Disconnect the camshaft position sensor connector located directly behind the driver's side charge pipe (6).
9. Disconnect the bypass valve actuator connector on each charge pipe (7).
10. Disconnect the coolant temp sensor connector from the water pump (8).
11. Disconnect the fan clutch connector located on the passenger side charge pipe mounting bracket (9).
12. Remove the two screws securing the wire harness to the charge pipes (10).
13. Set the harness to the side (11) to be reinstalled later.



14. Disconnect the bypass valve hose from the charge pipe on the driver's side of the vehicle **12**
15. Remove the mounting screw securing the driver's charge pipe to the charge pipe mounting bracket **13** set aside for later use.
16. Loosen the mounting screw securing the driver's side charge pipe mounting bracket to the engine and rotate down and out of the way **14**
17. Loosen the clamps securing the charge pipe couplings to the turbo and to the heat exchanger **15** on both charge pipes.
18. Remove the driver's side hot side charge pipe from the vehicle.



19. Disconnect the bypass valve hose on the passenger side of the vehicle from the turbo inlet tube, located directly above the turbo coupling (16)
20. Remove the mounting screw securing the passenger side charge pipe to the charge pipe mounting bracket (17) set aside for later use.
21. Remove the mounting screw securing the fan clutch harness to the charge pipe mounting bracket (18) set aside for later use.
22. Loosen the mounting screw securing the passenger side charge pipe mounting bracket to the engine and rotate down and out of the way (19)
23. Remove passenger side hot side charge pipe with bypass valve hose from the vehicle.



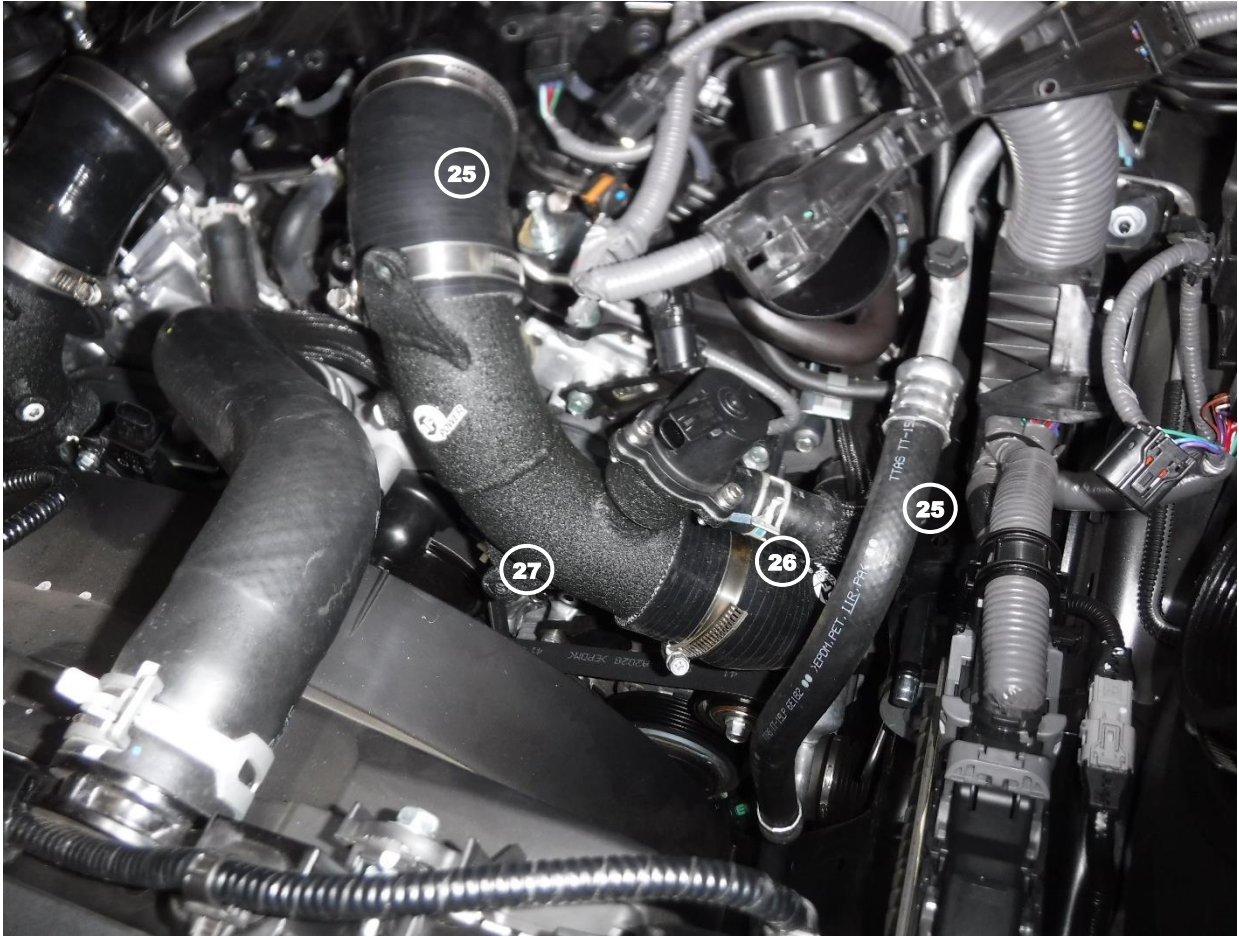
24. Remove the driver's side bypass valve actuator from the factory charge pipe (20)
25. Install the factory bypass valve actuator from the previous step onto the new aFe driver's side hot charge pipe using the supplied M6x1.0x20mm screws and M6 washers (21)
26. Repeat Steps 24 and 25 for the passenger side charge pipe.

Note: Be sure to use thread sealant on the plugs or sensors to prevent any leaking.

27. If you are not using any aftermarket sensors, install the supplied 1/8" NPT plugs (22) into the threaded fitting on each of the aFe hot charge pipes.

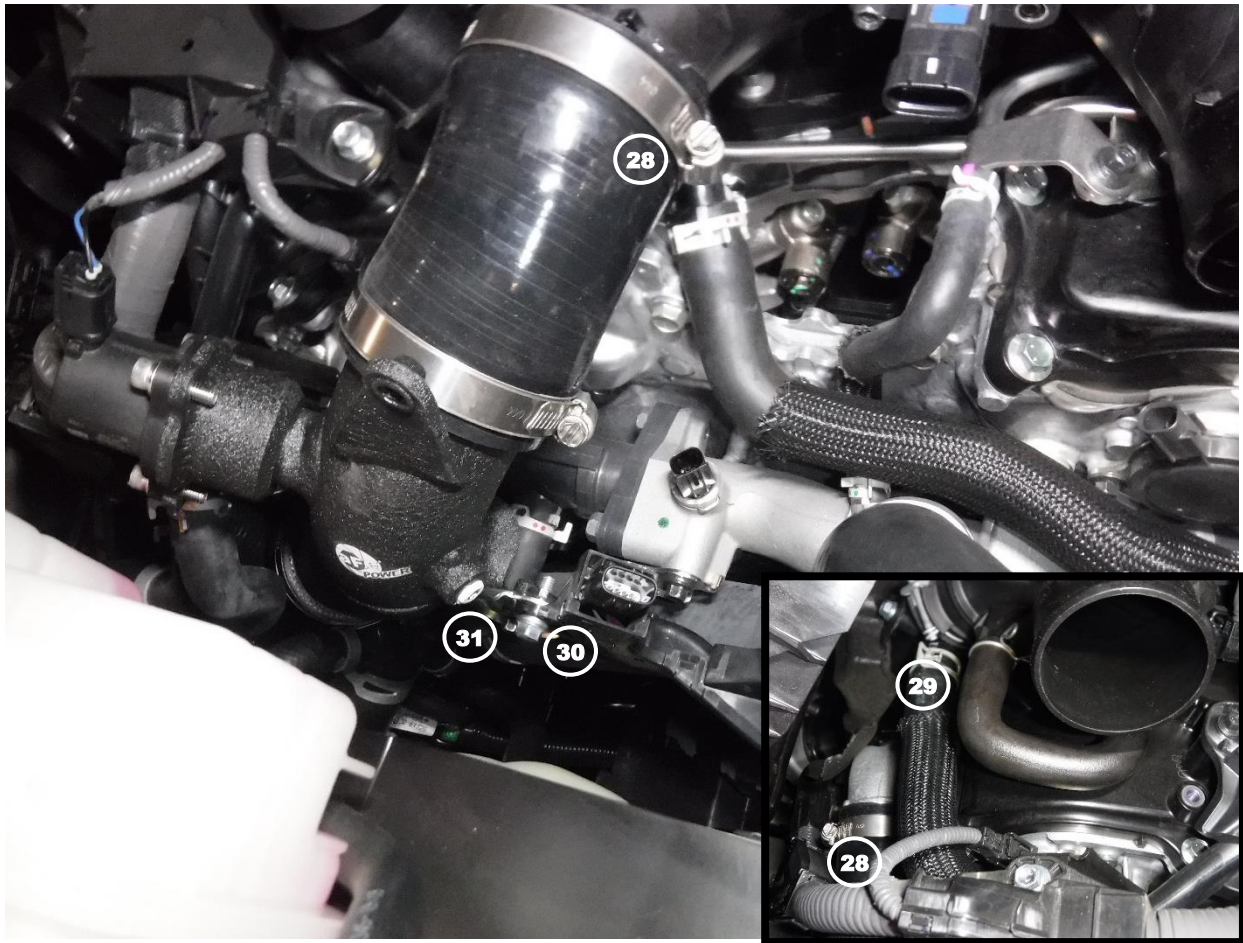


28. Install the supplied 2.5" x 30Deg coupling along with one SmartSeal, 044 (2.50" – 3.06") onto the short end of the aFe charge pipe, ensure that the bead on the inside of the coupling interlocks into the groove on the aFe charge pipe (23)
29. Install the supplied aFe silicone reducer elbow 2.375"ID x 1.75" x 75Deg coupling along with one SmartSeal, 044 (2.50" – 3.06") onto the longer end of the aFe driver's side hot charge pipe (24) do not tighten the clamp yet.
30. Repeat Steps 28 and 29 for the passenger side charge pipe.
31. Transfer the bypass hose from the factory passenger side charge pipe to the aFe passenger side charge pipe.



Note: Be sure to thoroughly clean all oil residue off of the connections before installing any of the aFe couplings onto the vehicle.

32. Install the aFe driver's side hot charge pipe assembly into the vehicle along with one SmartSeal, 044 (2.50" – 3.06") on the heat exchanger side and one SmartSeal, 032 (1.94" – 2.31") on the turbo outlet (25) do not tighten the clamps yet.
33. Install the factory bypass valve hose onto the aFe charge pipe (26)
34. Align the factory mounting bracket with the aFe charge pipe mount and install the factory charge pipe mounting screw into the mount (27) do not tighten this screw yet.



Note: Be sure to thoroughly clean all oil residue off of the connections before installing any of the aFe couplings onto the vehicle.

35. Install the aFe passenger side hot charge pipe assembly into the vehicle along with one SmartSeal, 044 (2.50" – 3.06") on the heat exchanger side and one SmartSeal, 032 (1.94" – 2.31") on the turbo outlet (28) do not tighten the clamps yet.
36. Install the factory bypass valve hose onto the factory turbo inlet tube (29)
37. Align the mounting bracket with the fan clutch harness mounting hole and install the factory screw (30) do not tighten the screw yet.
38. Align the mounting bracket with the aFe charge pipe mount and install the factory charge pipe mounting screw into the mount (31) do not tighten the screw yet.



39. Reinstall the factory engine harness mount onto the aFe charge pipes using the factory mounting screws (32) aFe charge pipes will need to be adjusted at this point.
40. Once the aFe charge pipes are adjusted and the engine harness mount is installed, tighten all mounting screws and all clamps.
41. Reconnect the camshaft position sensor connector.
42. Reconnect the MAP sensor connector.
43. Reconnect the coolant temperature sensor connector.
44. Reconnect the fan clutch harness connector.
45. Reconnect the bypass valve actuator connectors on each charge pipe.



46. Reinstall the air intake tube and air box top into the vehicle and tighten the clamps (33) on both sides.
47. Reconnect the air intake sensor connector to the air intake tube and clip harness onto the air box (34) on both sides.
48. Reinstall the engine cover (35)
49. Reconnect the negative battery cable.
50. Install is now complete.

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

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