



advanced FLOW engineering

Instruction Manual P/N: 46-20414-B

BladeRunner – Intercooler Tube Combo Kit

Make: Volkswagen Model: GTI Year: 2015-2020 Engine: L4 – 2.0L(t)
Make: Volkswagen Model: Golf R Year: 2015-2019 Engine: L4 – 2.0L(t)
Make: Volkswagen Model: Jetta GLI Year: 2019-2020 Engine: L4 – 2.0L(t)

Make: Audi Model: A3 Year: 2015-2020 Engine: L4 – 2.0L(t) Make: Audi Model: S3 Year: 2015-2020 Engine: L4 – 2.0L(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
А	1	Tube, Hot Side	05-61089B
В	1	Tube, Cold Side	05-61090B
С	1	Coupling, Silicone Elbow Rdr: (2.75"x2.5") 34 Deg	05-61091
D	1	Coupling, Silicone Elbow Rdr: (2.75"x2.38") 115 Deg	05-61092
Е	1	Coupling, Silicone Elbow Rdr: (2.5" x2.38") 90 Deg	05-61096
F	1	Coupling, Silicone Turbo Outlet	05-61114
G	1	Clamp, Spring Loaded T-Bolt: 2.06"	03-50613
Н	2	Clamp, Spring Loaded T-Bolt: 2.5"	03-50560
I	3	Clamp, Spring Loaded T-Bolt: 2.85"	05-60039
J	2	Clamp, Spring Loaded T-Bolt: 3.00"	05-60435
K	2	Screw, M6x1.0x20	03-50241
L	2	Washer, M6	03-50177
М	2	Plug,1/8" NPT	03-50029

Installation will require the following tools:

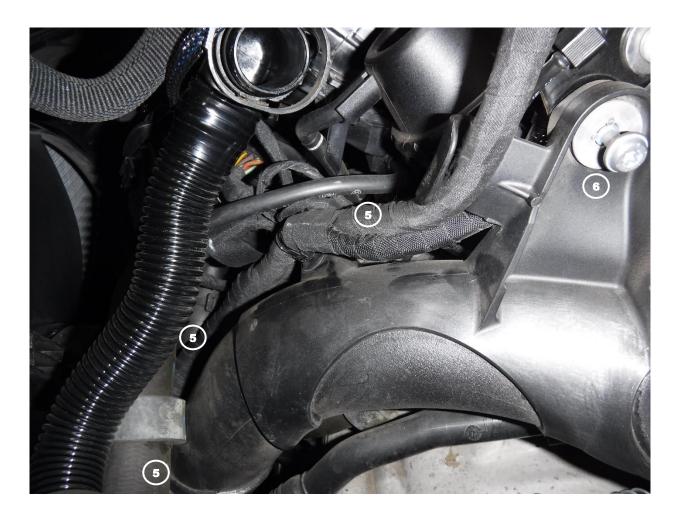
T15 socket, T20 socket, T25 socket, T30 socket, 7mm socket, 7/16" deep socket, 5mm allen wrench, 6" extension, ratchet, pick, flat head screwdriver, thread sealant, grease

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 lifting straight up on it from all four (4) corners.
- 4. Disconnect the blow off valve recirculation hose 2 by squeezing on the raised sides at the same time and pull it off of the air intake box.
- 5. Disconnect the vacuum hose 3 from the air intake box
- 6. Loosen the clamp securing the air intake tube onto the turbo inlet tube 4
- 7. Remove the intake tube and box from the vehicle together by lifting the air box straight up out of its mounting grommets.

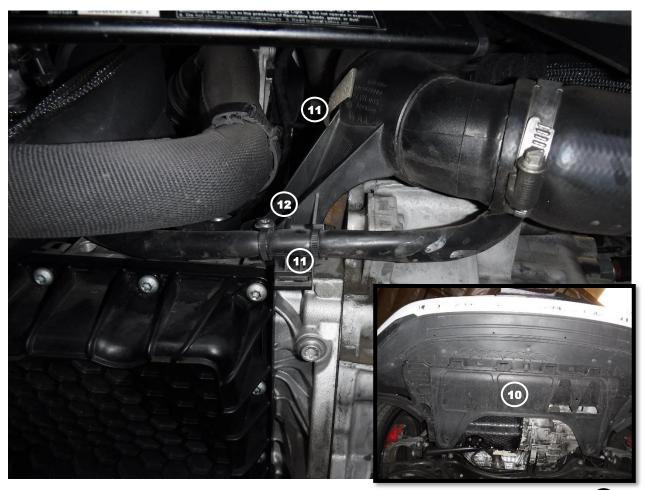


- 8. Unclip three (3) clips securing the wire harness to the factory hot side intercooler tube 5.
- 9. Remove the screw securing the hot side intercooler tube onto the engine 6.



10. Loosen the two (2) clamps securing the hot side intercooler tube onto the turbo outlet (8.)

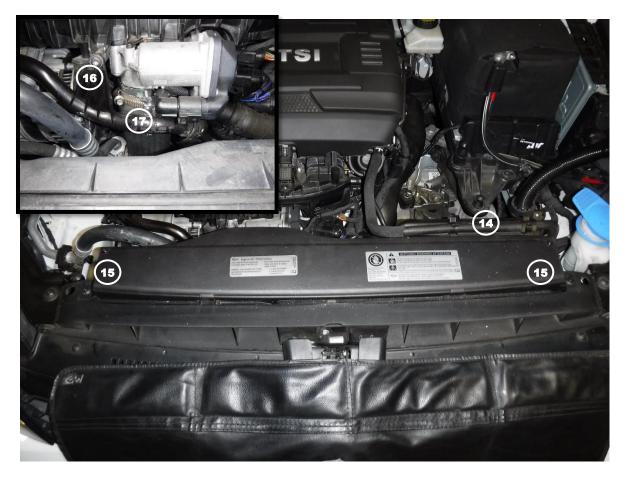
 ${\bf 11.}\ {\bf Remove\ the\ coupling 9} from\ the\ vehicle.$



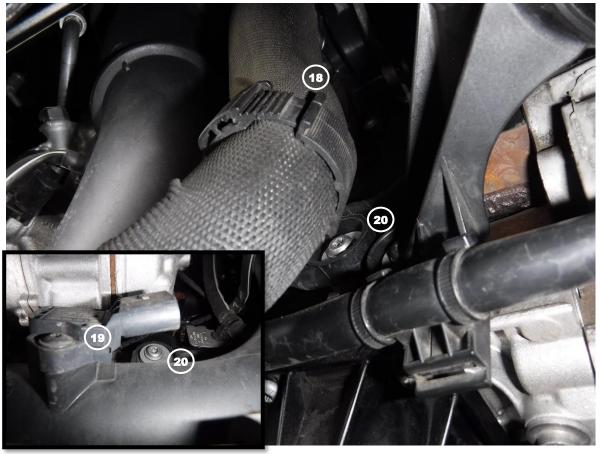
- 12. Underneath the vehicle, remove the screws securing the plastic splash guard onto the vehicle 10.
- 13. Unclip the two (2) clips securing the wire harness to the factory hot side intercooler tube 11
- 14. Remove the screw securing the hot side intercooler tube onto the engine 12



- 15. Loosen the two (2) clamps securing the lower rubber hot side intercooler hose onto the intercooler and the hot side intercooler tube (13) located on the driver side of the vehicle.
- 16. Remove the rubber hose from the vehicle.
- 17. Carefully maneuver the hot side intercooler tube out of the vehicle from the top.



- 18. Unclip the hose from the air intake scoop 14
- 19. Remove the two (2) screws securing the air intake scoop to the vehicle 15 and remove from the vehicle by lifting upwards.
- 20. Remove the screw securing the plastic hose to the intake manifold 16
- 21. Loosen the clamp securing the factory cold side intercooler tube to the throttle body 17



- 22. Unclip the radiator hose from the cold side intercooler tube 18
- 23. Disconnect the electrical connection for the Manifold Absolute Pressure sensor (MAP) 19
- 24. Remove the two (2) screws securing the cold side intercooler tube to the engine 20
- 25. Loosen the clamp securing the cold side intercooler tube coupling to the intercooler.
- 26. Remove the cold side intercooler tube with couplings from the vehicle.

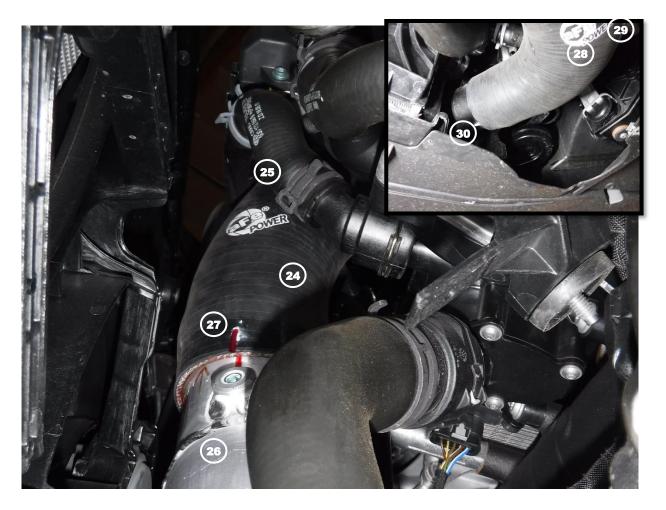


Note: Be sure to use thread sealant on the plug or sensor to prevent any <u>leaking</u>

- 27. If you are not using any aftermarket sensors, install the supplied 1/8" NPT plugs 21 into the threaded fittings on the both of the aFe intercooler tubes.
- 28. Remove the MAP sensor from the factory cold side intercooler tube 22

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

- 29. Install the MAP sensor, from the previous step onto the aFe cold side intercooler tube.
- 30. Secure the MAP sensor using the two (2) supplied M6x1.0x20mm screws and washers.
- 31. Transfer one of the mounting gromets and screws 23 from each of the factory intercooler tubes onto the aFe intercooler tubes, be sure to install them in the same orientation.

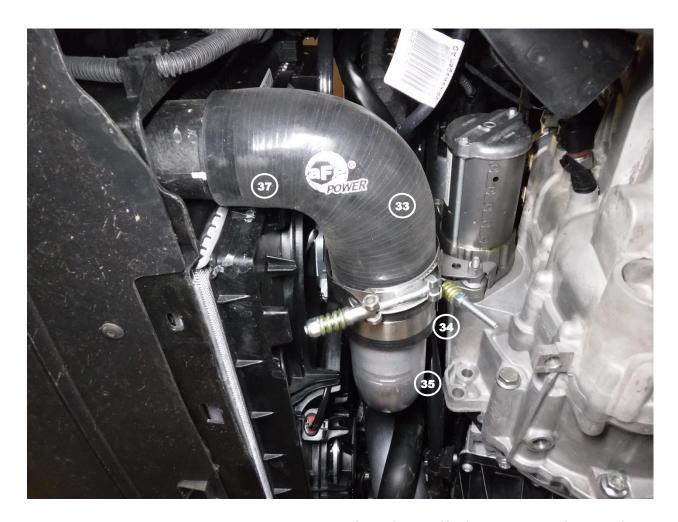


Note: Be sure to thoroughly clean all oil residue off of the connections before installing any of the aFe couplings onto the vehicle

- 32. Install the aFe silicone elbow reducer coupling, 2.75"x2.50" 34 Deg, 24 and one of the supplied 2.85" spring-loaded t-bolt clamps 25 into the throttle body of the engine, do not tighten the clamp yet.
- 33. Install the aFe cold side intercooler tube 26 and one of the supplied 3.00" spring-loaded t-bolt clamps 27 onto the coupling from the previous step, do not tighten the clamp yet.
- 34. Install the aFe silicone elbow reducer coupling, 2.75"x2.38" 115 Deg, 28 and the remaining 3.00" spring-loaded t-bolt clamp 29 onto the end of the tube from the previous step, do not tighten the clamp yet.
- 35. Install the coupling from the previous step onto the intercooler along with one of the supplied 2.50" spring-loaded t-bolt clamps (30) do not tighten the clamp yet.

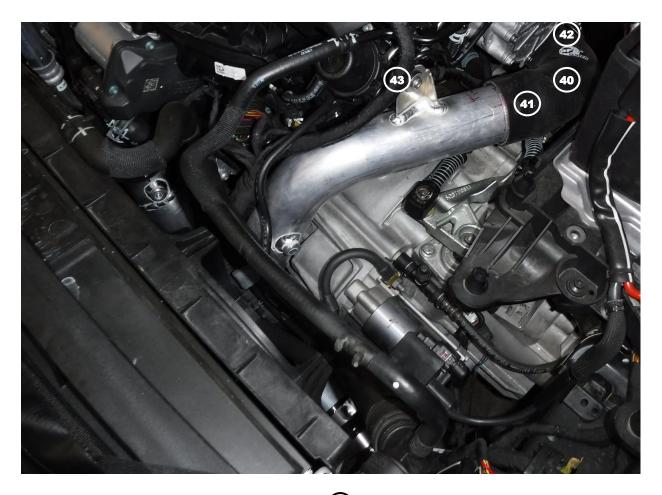


- 36. Ensure the aFe cold side intercooler tube is not touching anything metal.
- 37. Secure aFe intercooler tube to the engine using the factory hardware 31
- 38. Tighten all of the clamps.
- 39. Reconnect the electrical connection for the MAP sensor 32
- 40. Reinstall the screw securing the plastic hose to the intake manifold from Step 20.



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

- 41. Install the longer side of the aFe silicone elbow reducer coupling, 2.50"x2.38" 90 Deg, 33 and one of the 2.85" spring-loaded t-bolt clamps 34 onto the shorter end of the aFe hot side intercooler tube 35 do not tighten the clamp yet.
- 42. Carefully maneuver the aFe hot side intercooler tube with the coupling over the transmission from underneath the vehicle.
- 43. Install the coupling from Step 41 along with one of the 2.50" spring-loaded t-bolt clamps 36 onto the end of the intercooler, do not tighten the clamp yet.



- 44. Install the aFe silicone turbo outlet coupling 40 and the remaining 2.85" spring-loaded t-bolt clamp 41 onto the end of the aFe hot side tube, do not tighten the clamp yet.
- 45. Install the coupling from the previous step onto the turbo outlet along with the supplied 2.06" spring-loaded t-bolt clamp 42 do not tighten the clamp yet.
- 46. Ensure the aFe hot side intercooler tube is not touching any metal surfaces.
- 47. Secure aFe intercooler tube to the engine using the factory hardware (43)
- 48. Tighten all of the clamps.



- 49. Reinstall the air intake scoop into the vehicle.
- 50. Reinstall the air intake tube and air box 44 into the vehicle.
- 51. Secure the air intake tube onto the turbo inlet tube 45
- 52. Reconnect the vacuum hose 46 onto the air intake box
- 53. Reconnect the blow off valve recirculation hose 47 onto the air intake box.
- 54. Reinstall the engine cover 48 onto the vehicle.
- 55. Reconnect the negative battery cable.
- 56. Install is now complete.

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