



advanced FLOW engineering

Instruction Manual P/N: 46-20415-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)**



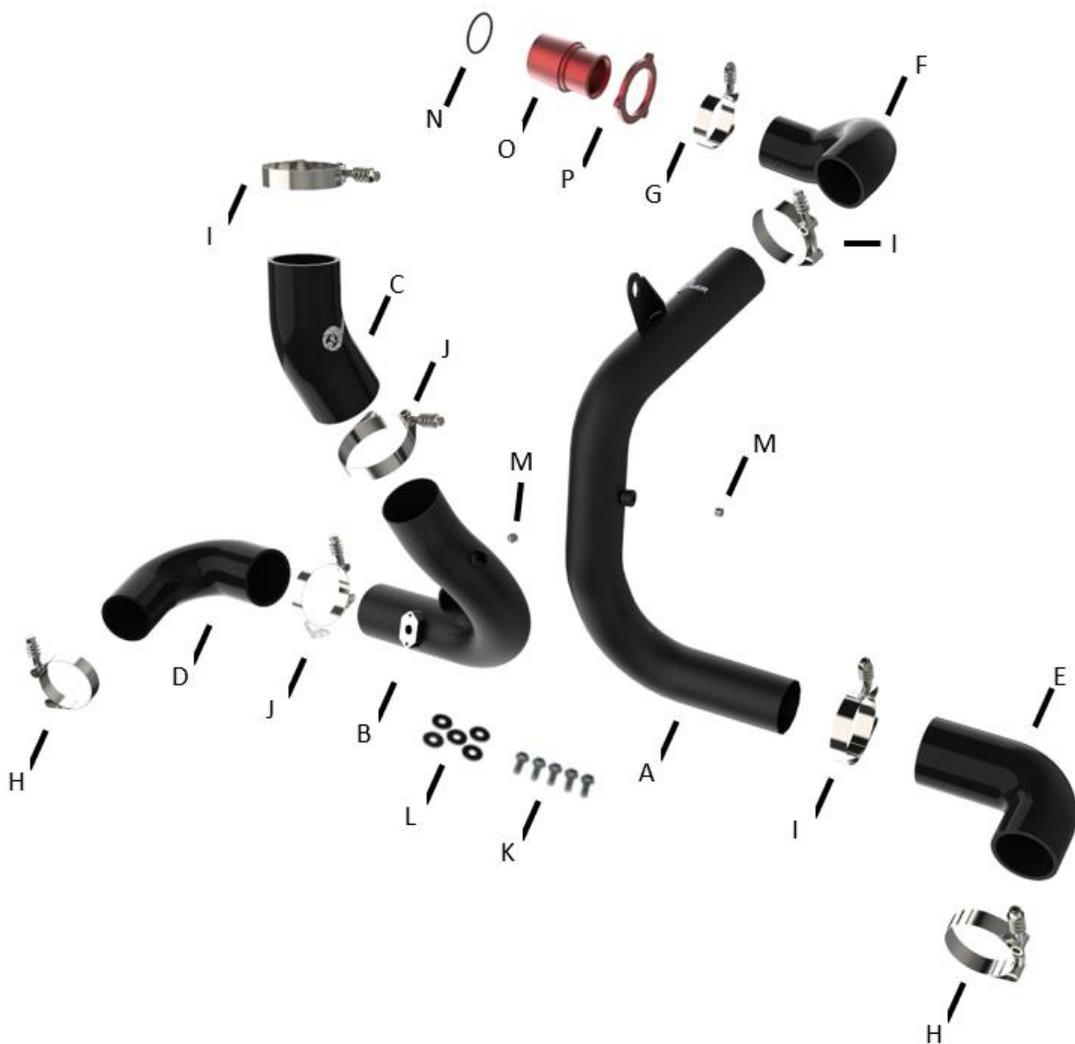
- Please read the entire instruction manual before proceeding.
- Ensure all components listed are present.
- If you are missing any of the components, call customer support at 951-493-7100.
- Ensure you have all necessary tools before proceeding.
- Do not attempt to work on your vehicle when the engine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

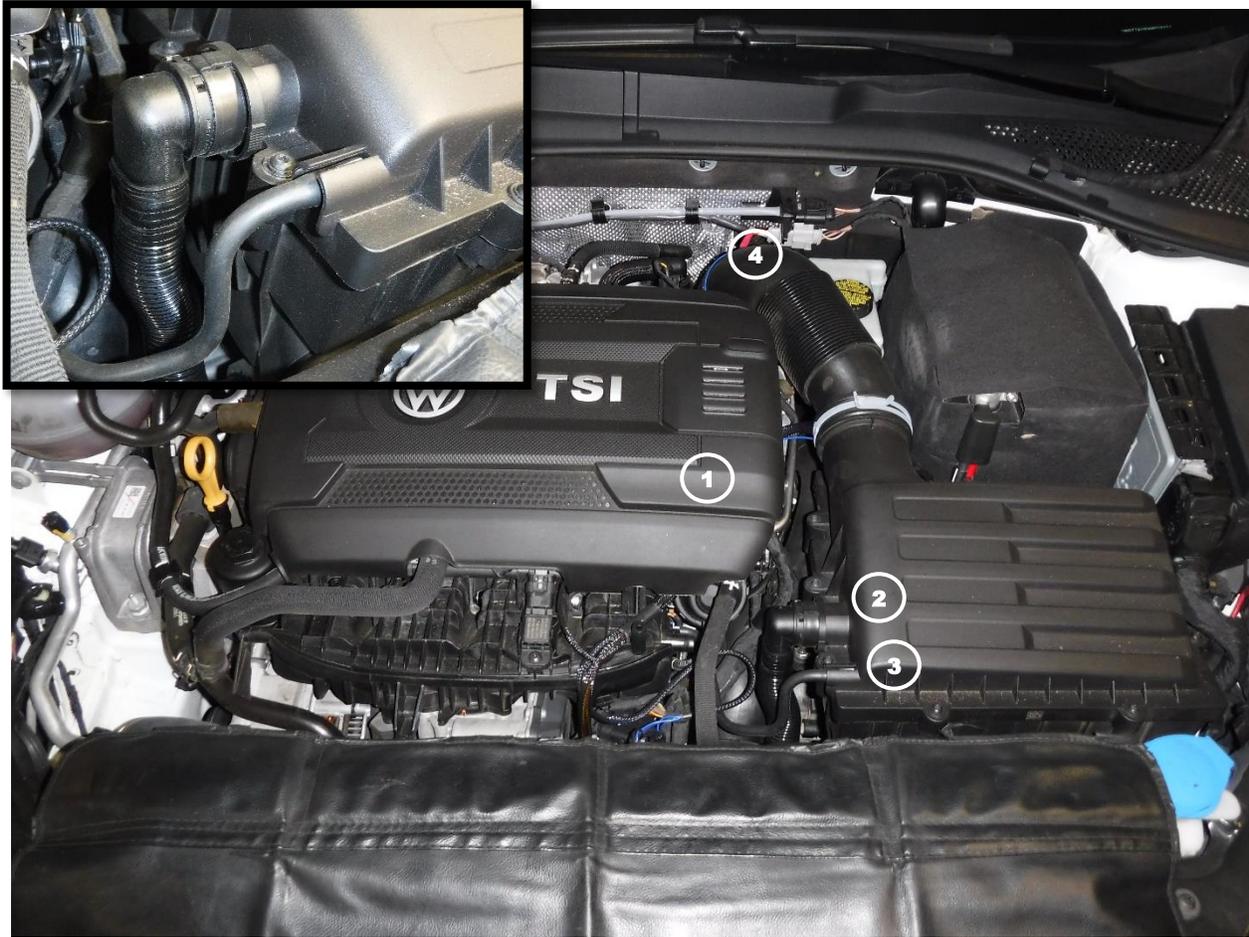
Label	Qty.	Description	Part Number
A	1	Tube, Hot Side	05-61089B
B	1	Tube, Cold Side	05-61090B
C	1	Coupling, Silicone Elbow Rdr: (2.75"x2.5") 34 Deg	05-61091
D	1	Coupling, Silicone Elbow Rdr: (2.75"x2.38") 115 Deg	05-61092
E	1	Coupling, Silicone Elbow Rdr: (2.5" x2.38") 90 Deg	05-61096
F	1	Coupling, Silicone Turbo Outlet	05-61097
G	1	Clamp, Spring Loaded T-Bolt: 2.38"	03-50570
H	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	5	Screw, M6x1.0x20	03-50241
L	5	Washer, M6	03-50177
M	2	Plug, 1/8" NPT	03-50029
N	1	O-Ring, (-226)	05-61036
O	1	Adaptor, Turbo Outlet	05-61104-1
P	1	Flange, Turbo Outlet	05-61104-2

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.

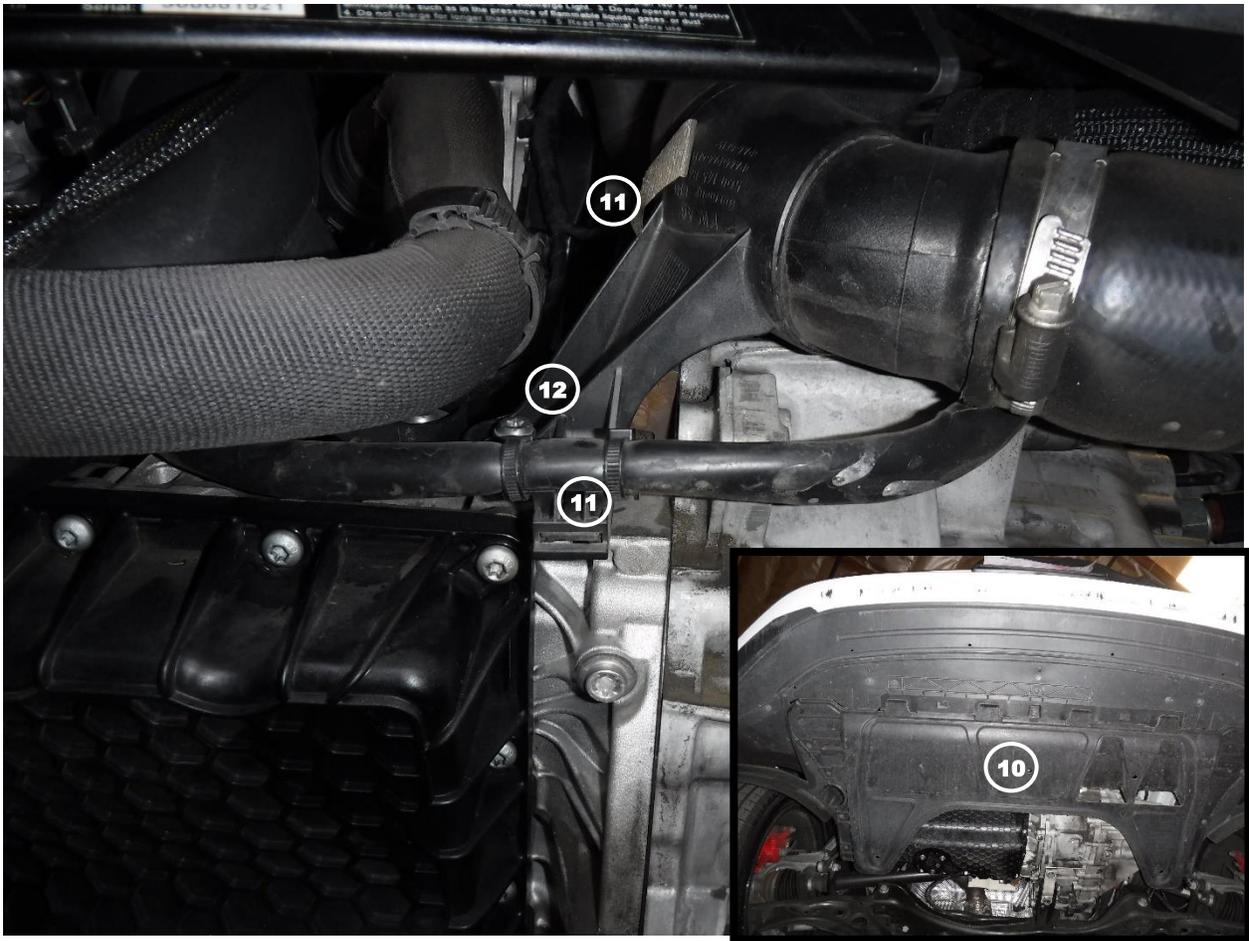


8. Unclip three (3) clips securing the wire harness to the factory hot side intercooler tube (5).
9. Remove the screw securing the hot side intercooler tube onto the engine (6).



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

11. 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)

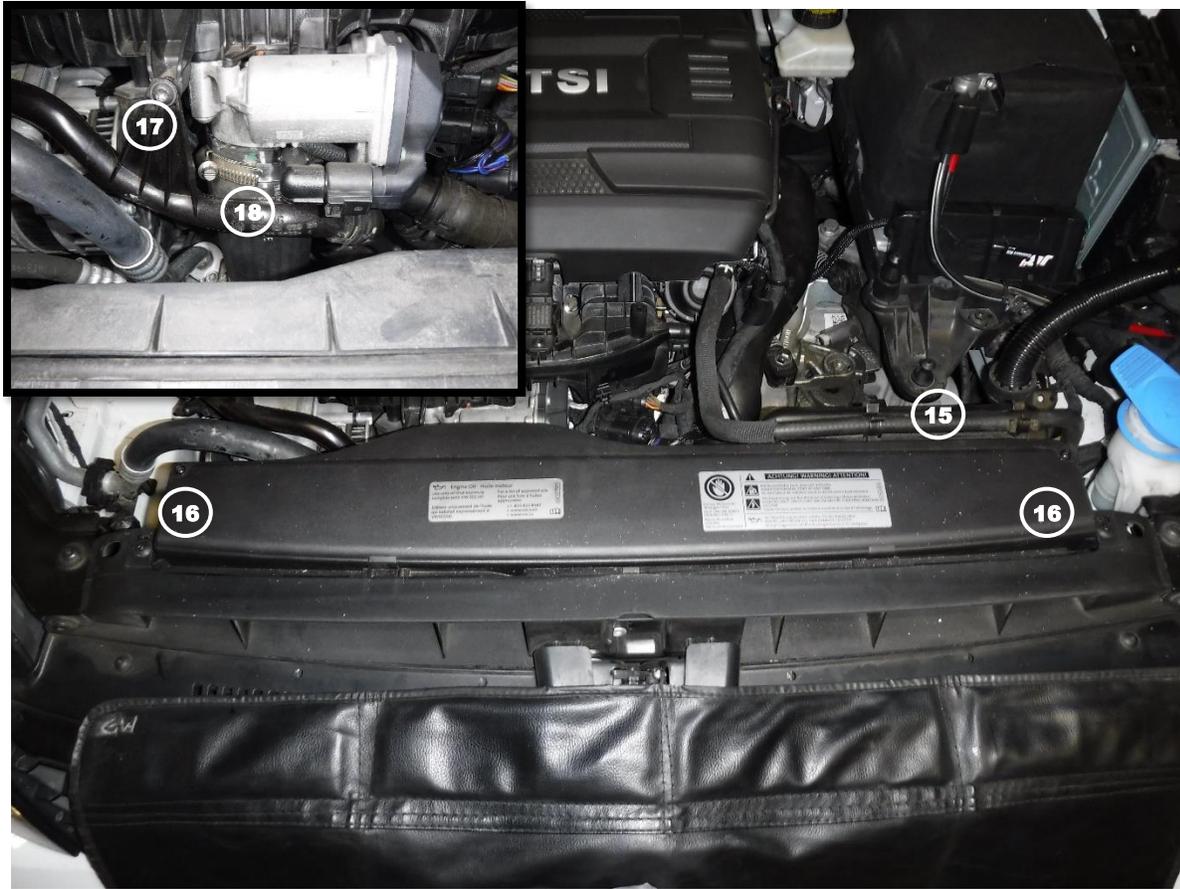


15. Loosen the two (2) clamps securing the lower rubber hot side intercooler hose onto the intercooler and the hot side intercooler tube (13) located on the driver side of the vehicle.
16. Remove the rubber hose from the vehicle.
17. Carefully maneuver the hot side intercooler tube out of the vehicle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

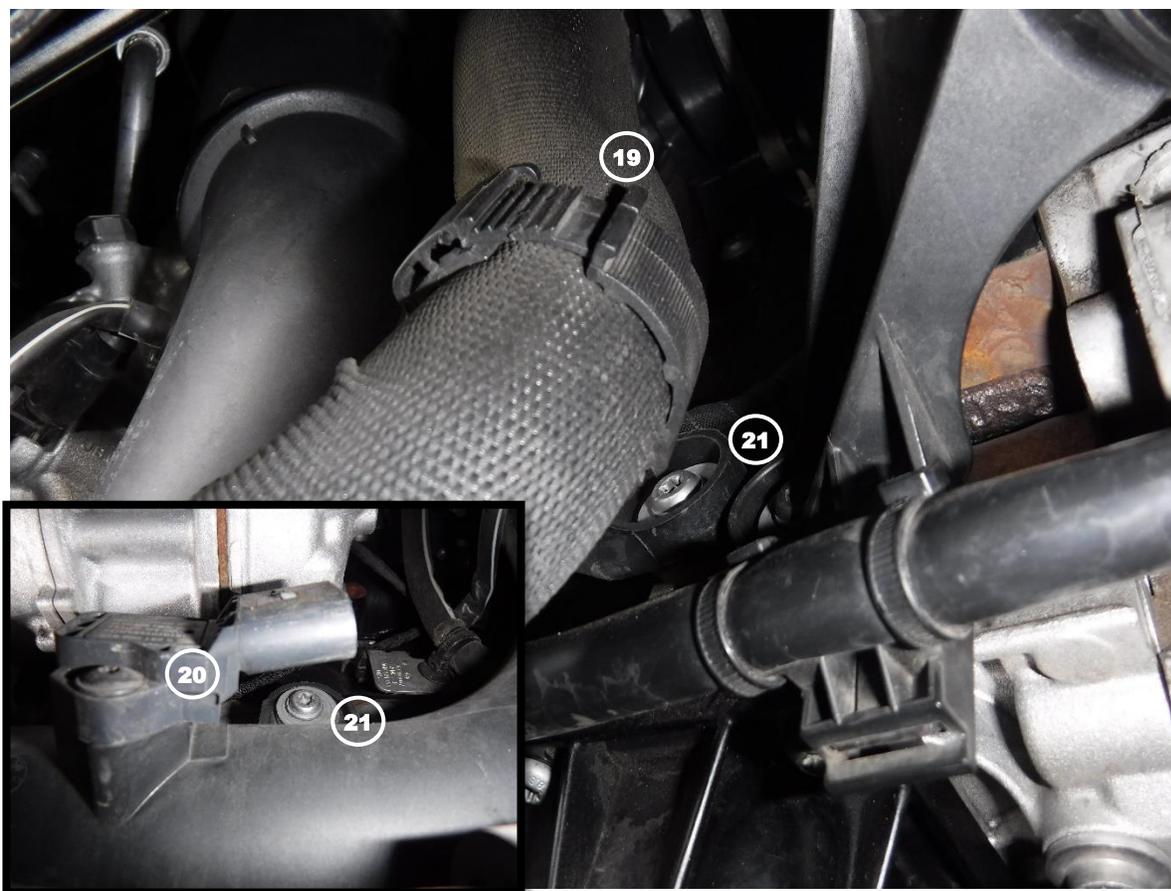


Note: Be sure not to misplace the O-ring on the back side of the turbo muffler

18. Remove the three (3) screws securing the turbo muffler onto the turbo (14)
19. Remove the turbo muffler from the vehicle.



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



24. Unclip the radiator hose from the cold side intercooler tube (19)
25. Disconnect the electrical connection for the Manifold Absolute Pressure sensor (MAP) (20)
26. Remove the two (2) screws securing the cold side intercooler tube to the engine (21)
27. Loosen the clamp securing the cold side intercooler tube coupling to the intercooler.
28. 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 leaking

29. If you are not using any aftermarket sensors, install the supplied 1/8" NPT plugs (22) into the threaded fittings on the both of the aFe intercooler tubes.

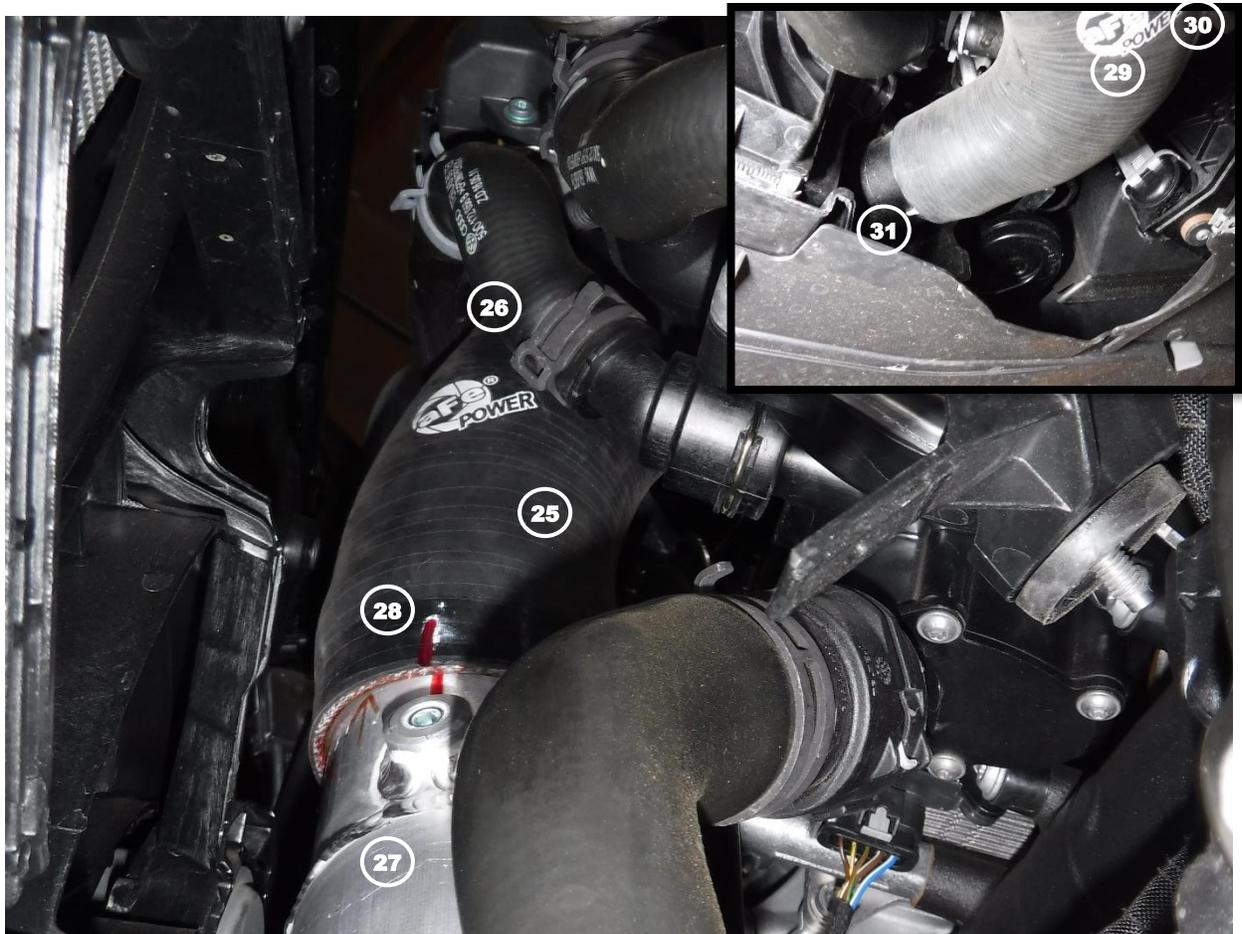
30. Remove the MAF sensor from the factory cold side intercooler tube (23)

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

31. Install the MAP sensor, from the previous step onto the aFe cold side intercooler tube.

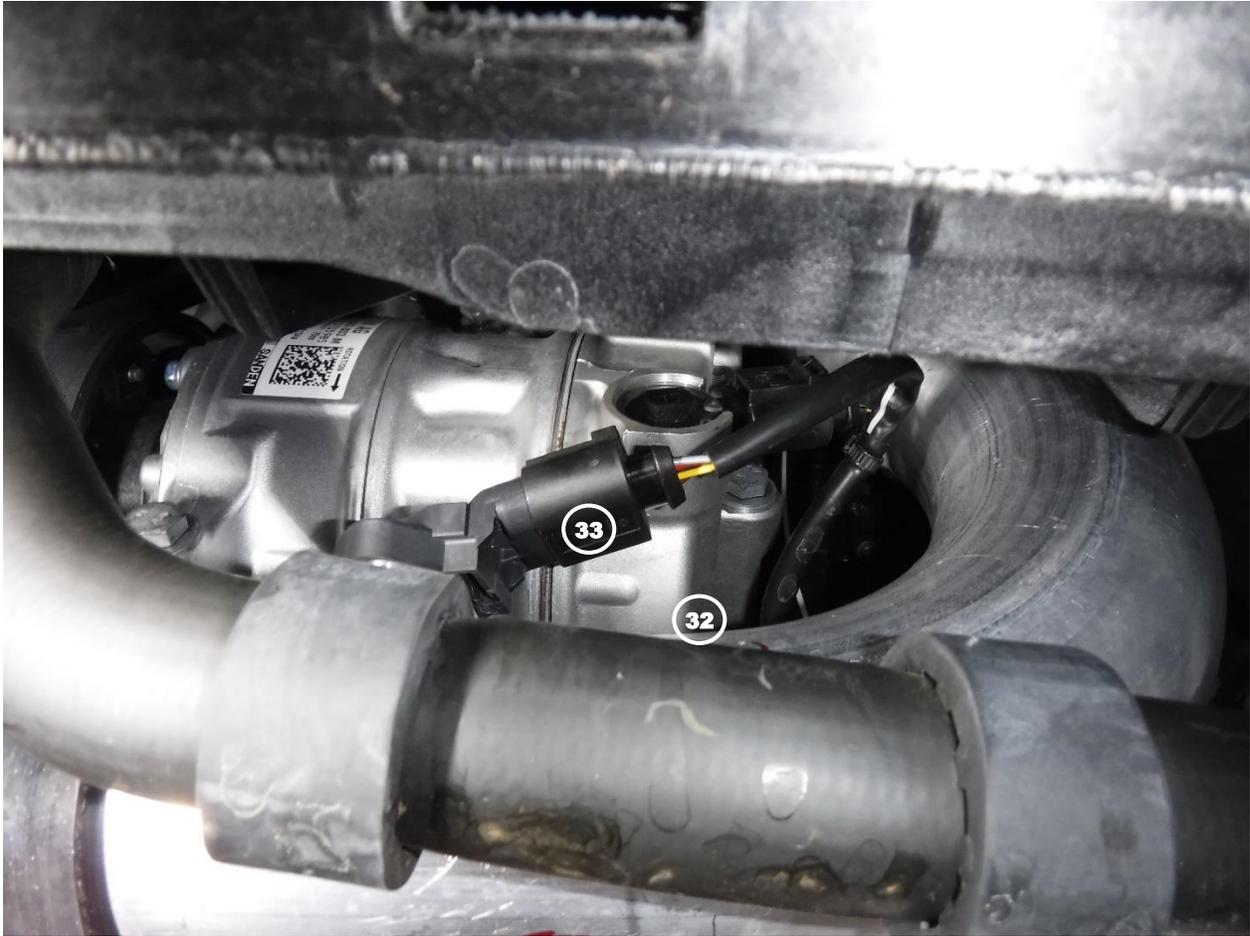
32. Secure the MAP sensor using two (2) of the supplied M6x1.0x20mm screws and washers.

33. Transfer one of the mounting gromets and screws (24) 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

34. Install the aFe silicone elbow reducer coupling, 2.75"x2.50" 34 Deg, (25) and one of the supplied 2.85" spring-loaded t-bolt clamps (26) into the throttle body of the engine, do not tighten the clamp yet.
35. Install the aFe cold side intercooler tube (27) and one of the supplied 3.00" spring-loaded t-bolt clamps (28) onto the coupling from the previous step, do not tighten the clamp yet.
36. Install the aFe silicone elbow reducer coupling, 2.75"x2.38" 115 Deg, (29) and the remaining 3.00" spring-loaded t-bolt clamp (30) onto the end of the tube from the previous step, do not tighten the clamp yet.
37. Install the coupling from the previous step onto the intercooler along with one of the supplied 2.50" spring-loaded t-bolt clamps (31) do not tighten the clamp yet.



38. Ensure the aFe cold side intercooler tube is not touching anything metal.

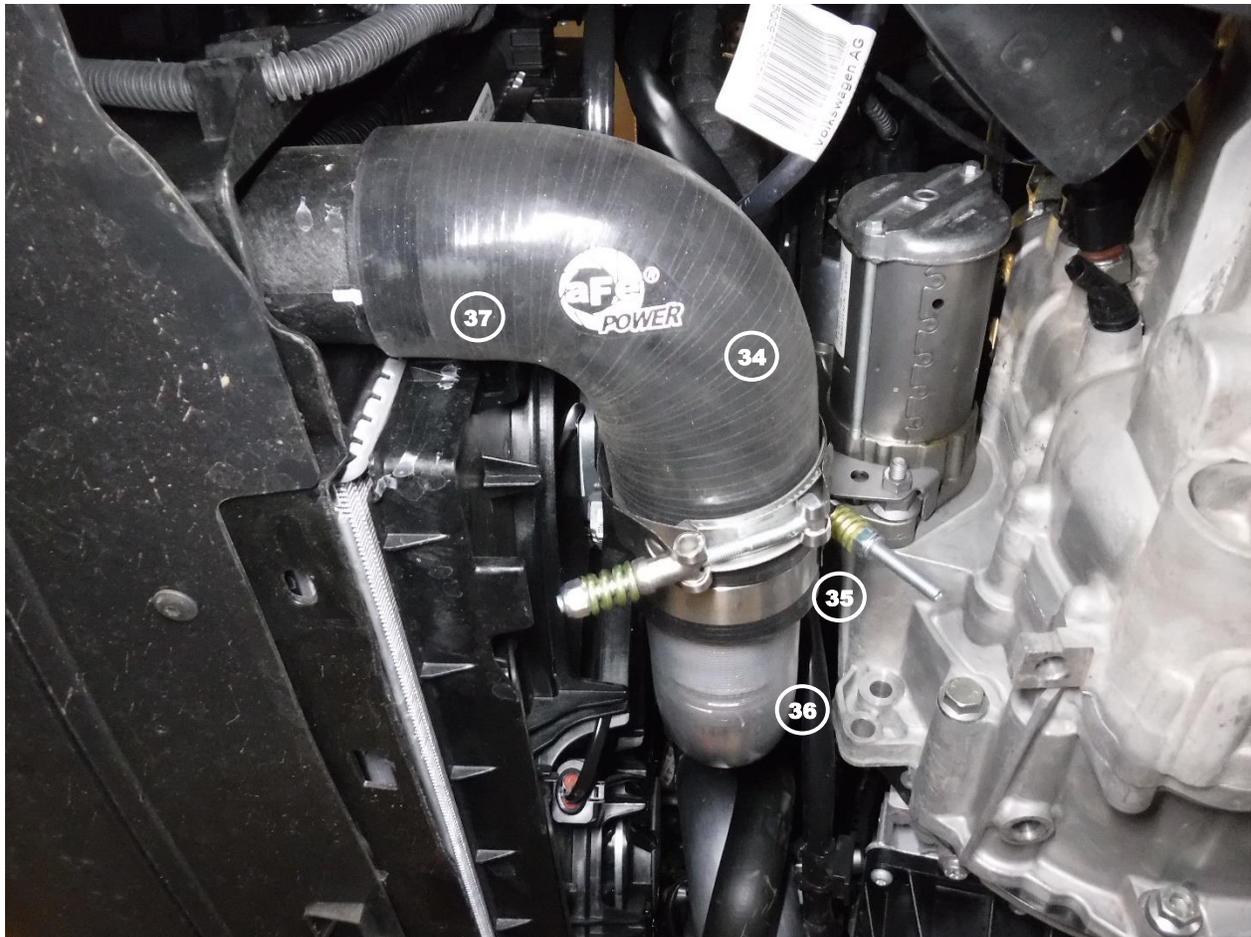
39. Secure aFe intercooler tube to the engine using the factory hardware (32)

40. Tighten all of the clamps.

41. Reconnect the electrical connection for the MAP sensor (33)

42. Reinstall the screw securing the plastic hose to the intake manifold from Step 22.

43. Reinstall the air intake scoup into the vehicle.



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

44. Install the longer side of the aFe silicone elbow reducer coupling, 2.50"x2.38" 90 Deg. (34) and one of the 2.85" spring-loaded t-bolt clamps (35) onto the shorter end of the aFe hot side intercooler tube (36) do not tighten the clamp yet.
45. Carefully maneuver the aFe hot side intercooler tube with the coupling over the transmission from underneath the vehicle.
46. Install the coupling from Step 44 along with one of the 2.50" spring-loaded t-bolt clamps (37) onto the end of the intercooler, do not tighten the clamp yet.



Note: Be sure to lubricate the O-ring with grease prior to installation.

47. Install the supplied -226 O-ring (38) into the groove on the back side of aFe turbo outlet adapter.
48. Ensure the factory O-ring is in its proper location on the turbo outlet (39)
49. Install the aFe turbo flange over the aFe turbo adapter and carefully maneuver the assembly into the turbo outlet and secure it to the turbo using the remaining three (3) M6x1x20 screws and washers (40).



50. Install the aFe silicone turbo outlet coupling, (41) and the remaining 2.85" spring-loaded t-bolt clamp (42) onto the end of the aFe hot side tube, do not tighten the clamp yet.
51. Install the coupling from the previous step onto the aFe turbo outlet adapter along with the supplied 2.38" spring-loaded t-bolt clamp (43) do not tighten the clamp yet.
52. Ensure the aFe hot side intercooler tube is not touching any metal surfaces.
53. Secure aFe intercooler tube to the engine using the factory hardware (44)
54. Tighten all of the clamps.



55. Reinstall the air intake scoop into the vehicle.

56. Reinstall the air intake tube and air box (45) into the vehicle.

57. Secure the air intake tube onto the turbo inlet tube (46).

58. Reconnect the vacuum hose (47) onto the air intake box

59. Reconnect the blow off valve recirculation hose (48) onto the air intake box.

60. Reinstall the engine cover (49) onto the vehicle.

61. Reconnect the negative battery cable.

62. Install is now complete.

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

Warranty

General Terms:

- aFe warrants their products to be free from manufacturer’s defects due to workmanship and material.
- This warranty applies only to the original purchaser of the product and is non-transferrable.
- Proof of purchase of the aFe product is required for all warranty claims.
- Warranty is valid provided aFe instructions for installation and/or cleaning were properly followed.
- Proper maintenance with regular inspections of product is required to insure warranty coverage.
- Damage due to improper installation, abuse, unauthorized repair or alteration is not warranted.
- Incidental or consequential damages or cost, including installation and removal of part, incurred due to failure of aFe product is not covered under this warranty.
- All warranty is limited to the repair and/or replacement of the aFe part. To request Return Goods Authorization (“RGA”), email RGA@afepower.com or call (951)493-7100. Upon receipt of the RGA, you must return the product to the address provided in the RGA, freight prepaid and accompanied with a dated proof of purchase and the RGA. Upon receipt of the defective product and upon verification of proof of purchase, aFe will either repair or replace the defective product within a reasonable time, not to exceed thirty days.

<u>Product Category</u>	<u>P/N Prefix</u>	<u>Warranty duration</u>
Direct OE Replacement Filters	10, 11, 30, 31, 71, 73	Life of the vehicle
Racing Filters	18	1 year
Universal	21, 24, 72	2 years
Air Intake Systems	50, 51, 54, 55, 75	2 years
Exhaust Systems	49	2 years
Intercoolers & Intercooler Tubes	46-2	2 years
Intake Manifolds	46-1	2 years
Differential Cover	46-7	Life of the vehicle
Transmission Pans / Oil Pans	46-7	Life of the vehicle
Turbochargers	46-6	2 years
Exhaust Manifolds	46	2 years
Throttle Body Spacers	46-3	2 years
Fluid Filters	44	90 days
Pre-Filters	28	2 years
Heavy Duty OE Replacement	70	2 years
PowerSports OE Replacement	81,87	2 years
PowerSports Intake Systems	85	2 years

No other warranty expressed or implied applies nor is any person or advanced FLOW engineering authorized to assume any other warranty. Some States do not allow the exclusion or limitation of incidental or consequential damages or do not allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from State to State.



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