advanced FLOW engineering

Instruction Manual P/N: 46-20339-B

Make: **GM** Model: **2500/3500** Year: **2017-2018** Engine: **V-8 6.6L (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, Cold Side: 46-20339-B	05-60818B
B	1	Coupling, Silicone Hump: 3"ID x 3.93"L	05-60302
C	1	Clamp, Spring Loaded T-Bolt: 3.38"- 3.69" Dia	03-50376
D	1	Plug, Hex Hd Socket: 1/8" NPT (Zn Plt)	03-50029
E	1	O-Ring, Buna-N (-335)	03-50580
F	1	Clamp, Spring Loaded T-Bolt: 3.25" Dia	03-50530

Tools Needed: Screwdrivers, long extension, ratchet, 8mm socket, 10mm socket, 11mm socket, 13mm socket, 3/16” allen wrench, 10mm wrench, grease, thread sealant.

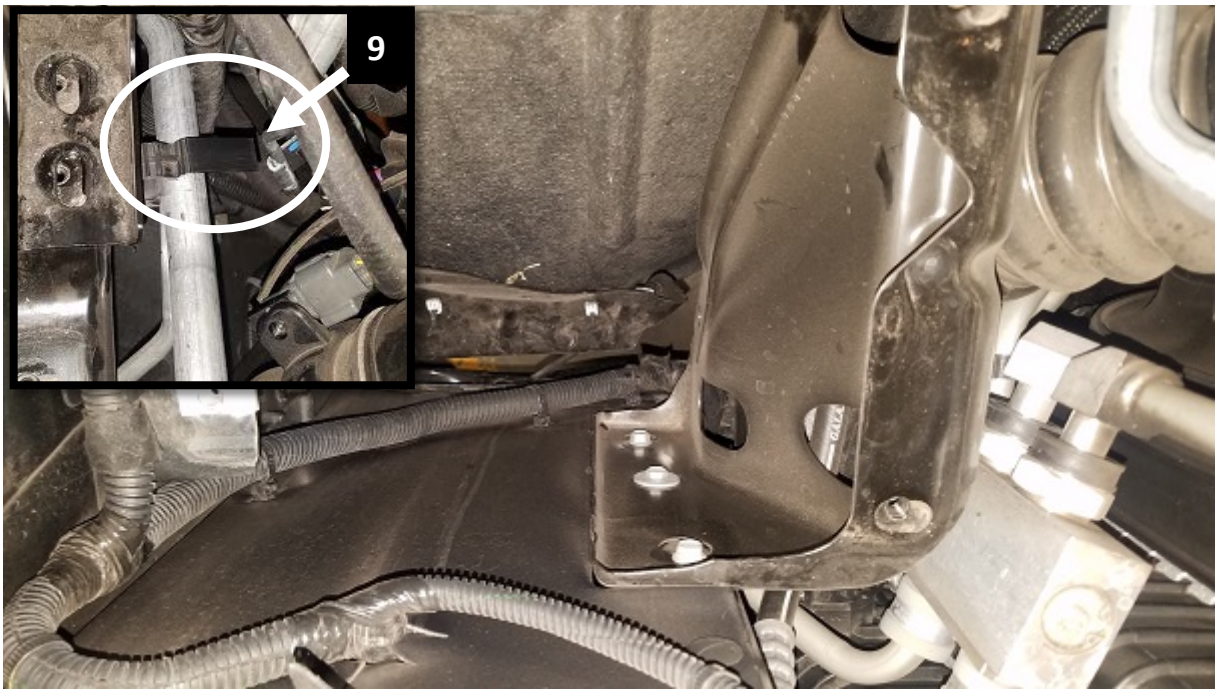
Note: Legal in California for use on race vehicles only. The use of this device on vehicles used on public streets or highways is strictly prohibited in California and others states that have adopted California emission regulations.

A
C
B
D
E
F

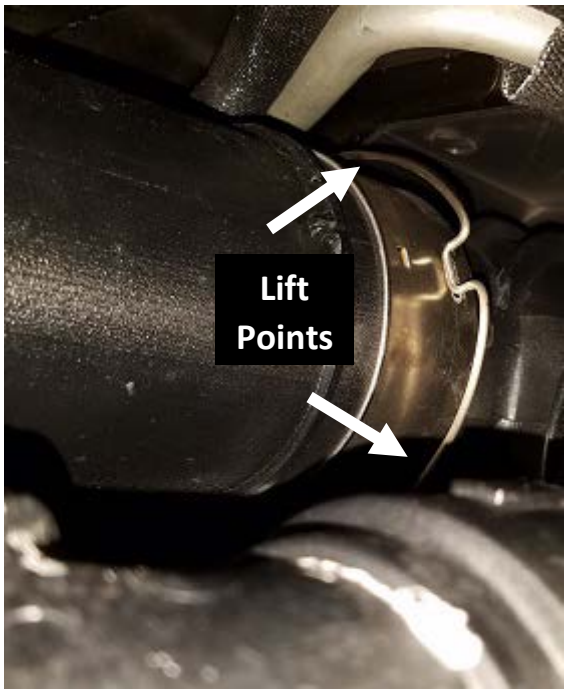
1. Park vehicle on level ground and engage the parking brake.
2. Open the hood and disconnect the negative battery cable from both batteries.
3. Locate the plastic cold side intercooler tube, it will be on the passenger side of the vehicle below the air intake tube.

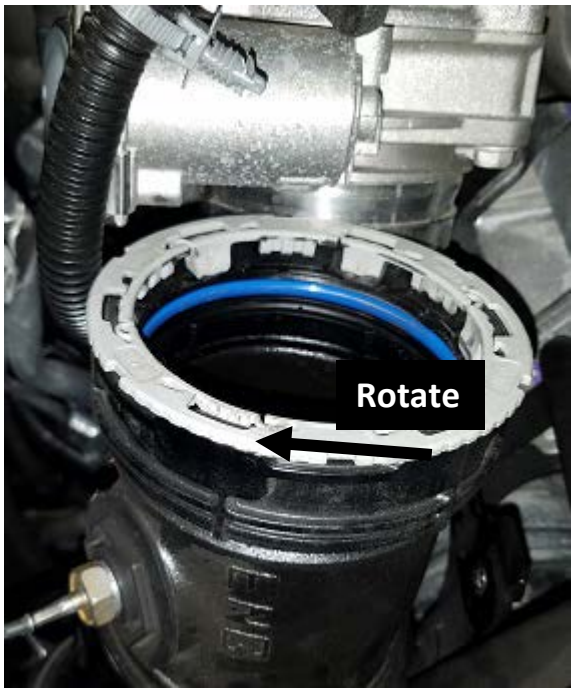
4. Disconnect the sensor from the air box and unclip the wires from the air box housing.
5. Loosen the clamp securing the intake tube to the turbo inlet tube, using an 8mm socket, then disconnect the tube.
6. Remove the air box and tube from the vehicle by lifting the entire air box up out of the rubber mounts.

Note: be careful not to brake the overflow hose on the radiator.

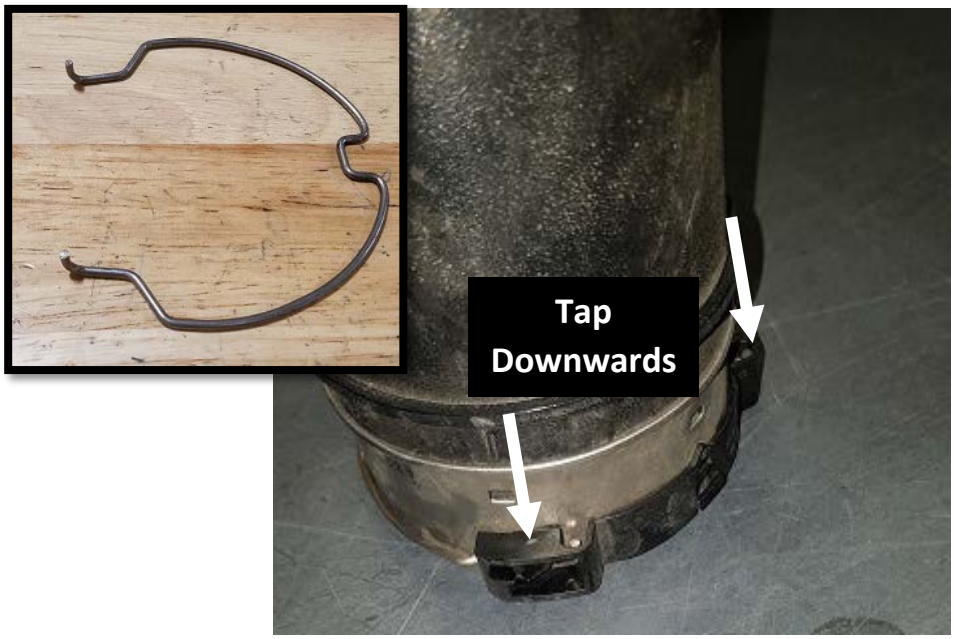


7. Remove the four bolts securing the air box mount to the support bracket, using a 10mm socket.
8. Remove the two bolts securing the coolant overflow bottle to the support bracket, using a 10mm socket.
9. Unclip the transmission lines from the support bracket, using a screwdriver.
10. Remove the center bolt from the support bracket and loosen the remaining two bolts, using a 10mm socket.
11. The support bracket can now slide upwards and be pulled out of the vehicle.

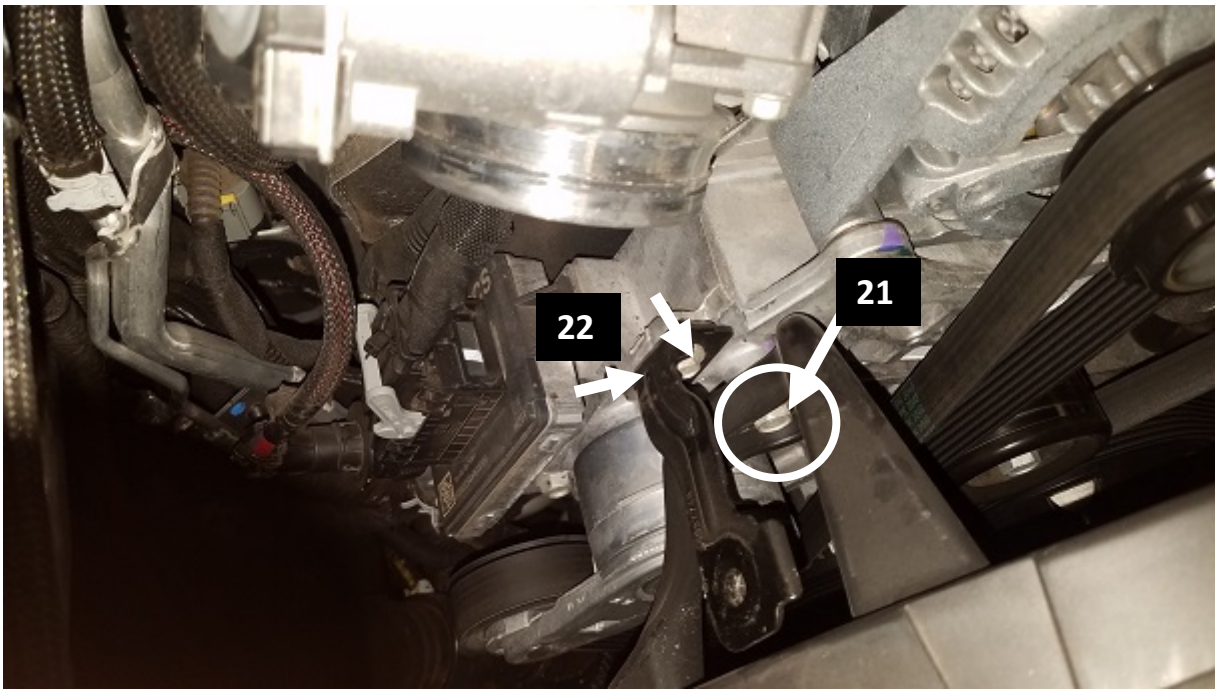




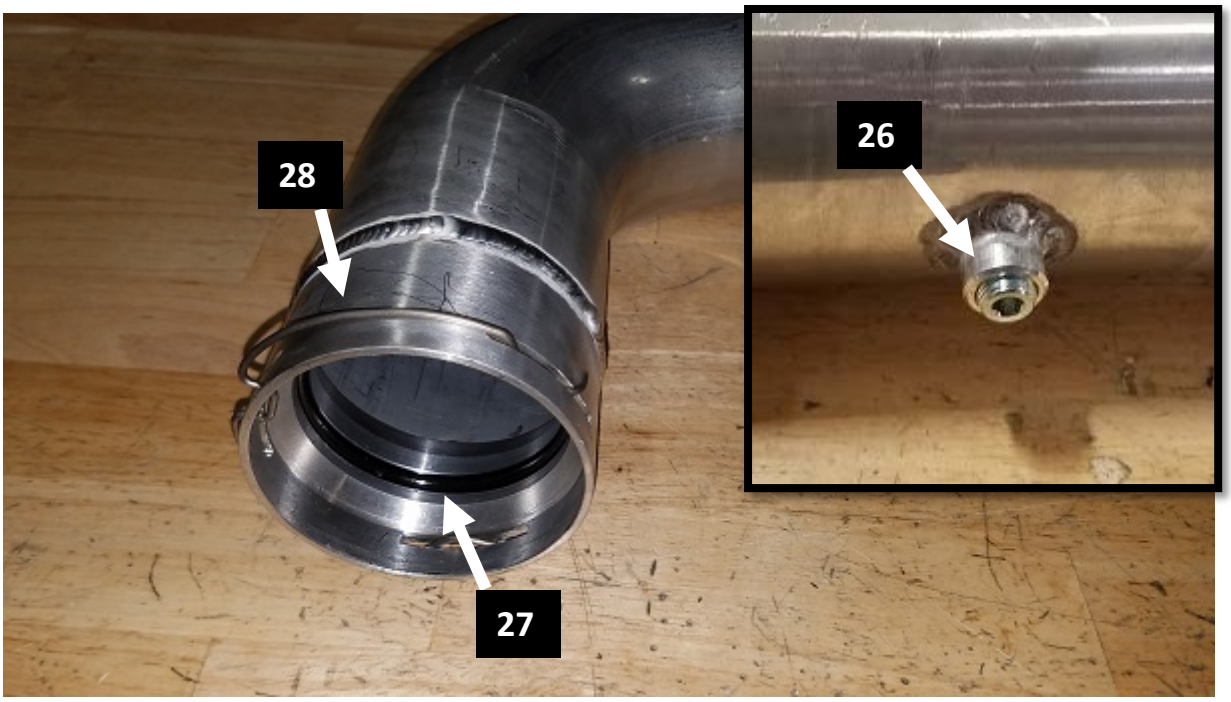
12. Unplug the temperature sensor on the intercooler tube from the engine harness.
13. Remove the bolt securing the tube to the mounting bracket, using a 13mm socket.
14. To disconnect the intercooler tube from the engine you will need to rotate the grey ring at the top of the tube to the left slightly and pull it downwards to release it from the engine.
15. To disconnect the intercooler tube from the intercooler you will need to lift both sides of the retaining clip that secure the intercooler tube to the intercooler using two flat head screwdrivers and pull the intercooler tube off the intercooler at the same time.
16. The intercooler tube can now be removed from the vehicle.



17. Stand the factory intercooler tube up on the end with the metal adapter.
18. The plastic clip will need to be removed from the intercooler tube my tapping it downwards on each side.
19. Once the plastic clip is removed you can now remove the metal retaining clip for reuse with the aFe intercooler tube.
20. Remove the temperature sensor from the factory intercooler tube using a 14mm wrench.



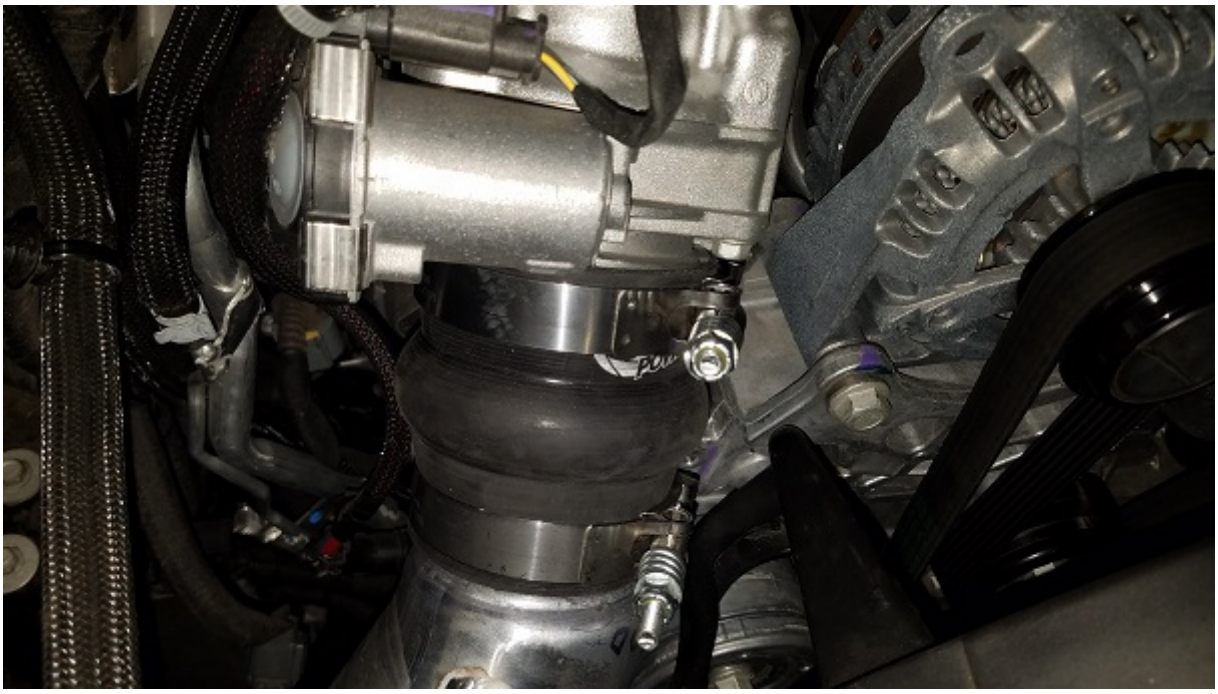
21. Remove the bolt securing the fan shroud to the engine directly behind the intercooler tube mounting bracket, using a 13mm socket.
22. Remove the two bolts securing the intercooler tube mounting bracket to the engine, using a 10mm socket and wrench.
    a. The fan shroud will need to be pulled back a little bit to remove one of the mounting bracket bolts.
23. The intercooler tube bracket will not be used anymore.
24. Install the bolt back into place from Step 21.



25. Now you can start the assembly of the aFe intercooler tube.
26. If you are not using any aftermarket sensors, install the 1/8” plug into the fitting in the middle of the aFe intercooler tube using a 3/16” Allen wrench.

    Note: Be sure to use thread sealant on the plug to prevent any leaking
27. Install the supplied O-ring into the groove on the inside of the adapter on the aFe intercooler tube.

    Note: Be sure to lubricate the O-ring with grease to prevent it from tearing during install.
28. Install the factory retaining clip into the slotted adapter on the aFe intercooler tube with the opening facing upwards.



29. Place the 3.38” clamp onto the coupling and connect the coupling to the engine.
    a. Make sure the bead on the inside of coupling locks into the groove on the engine inlet and place the clamp directly over the bead of the coupling.
30. Install the factory sensor into the aFe intercooler tube and tighten with a 14mm wrench.
31. Install the tube into the vehicle by first placing the remaining 3.25” clamp onto the end of the reduced side of the intercooler tube then connecting the tube to the engine.
32. Line up the intercooler connection with the intercooler and push firmly to connect the adapter onto the intercooler, make sure the retaining clip snaps into place on the intercooler all the way around the fitting.

33. Reconnect the temperature sensor to the engine harness.
34. Install the air box support bracket and tighten the three mounting bolts.
35. Clip the transmission lines back into place on the side of the support bracket.
36. Secure the coolant reservoir to the support bracket using the two mounting bolts.
37. Install the air box mount and secure it to the support bracket with four mounting bolts.
38. Install the air box and tube into the vehicle and tighten the clamp.
39. Reconnect the wire harnesses to the air box.
40. Reconnect the sensor plug to the air box and the battery grounds.

Install is now complete!!!

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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 nontransferable.
- 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.

Product Category	P/N Prefix	Warranty duration
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
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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