

# advanced FLOW engineering BladeRunner – Charge Pipe Combo Kit

## Instruction Manual P/N: 46-20704-B

Make: **GMC** Make: **GMC** Make: **Chevrolet** Make: **Chevrolet**  Model: Sierra 2500 Model: Sierra 3500 Model: Silverado 2500 Model: Silverado 3500

Year: 2024+ Year: 2024+ Year: 2024+ Year: 2024+ Engine: **V8-6.6L (td)** Engine: **V8-6.6L (td)** Engine: **V8-6.6L (td)** Engine: **V8-6.6L (td)** 



- Professional instillation is recommended for this aFe POWER product.
- Please read the entire instruction manual before proceeding.
- Ensure all components listed are present.
- For technical support please call 951-493-7185.
- Ensure you have all necessary tools before proceeding.
- Do not attempt to work on your vehicle when the engine is hot.
- Retain factory parts for future use.

Label	Qty.	UoM	Description	Part Number
А	1	Ea.	Tube, Hot Side Upper 46-20444-B	05-61138B
В	1	Ea.	Tube, Hot Side Lower: 46-20444-B	05-61139B
С	1	Ea.	Tube, Cold Side: 46-20709	05-61440B
D	1	Ea.	Coupling, Silicone Hump: 2-3/4"ID x 4"L	05-60216
E	1	Ea.	Coupling, Silicone Elbow: 3" x 80 Deg x 30 Deg	05-61122
F	1	Ea.	Coupling, Silicone Hump: 3"ID x 4"L	05-60012
G	1	Ea.	Coupling, Silicone Elbow: (3.5" x 3.45") ID x 14 Deg	05-61142
Н	2	Ea.	Clamp, Spring Loaded T-Bolt: (3" - 3.25") (ss)	05-60435
J	4	Ea.	Clamp, Spring Loaded T-Bolt: (3.25" - 3.5") (ss)	03-50530
K	2	Ea.	Clamp, Spring Loaded T-Bolt: (3.75" - 4") (ss)	05-60024
М	1	Ea.	Adaptor, Inlet: 05-61140	05-61141
Ν	1	Ea.	O-Ring, 70mm ID x 5mm W	05-61151
Р	1	Ea.	O-Ring, 80m ID x 5mm W	05-61136
Q	2	Ea.	Plug, Hex Hd Socket: 1/8" NPT (Zn Plt)	03-50029

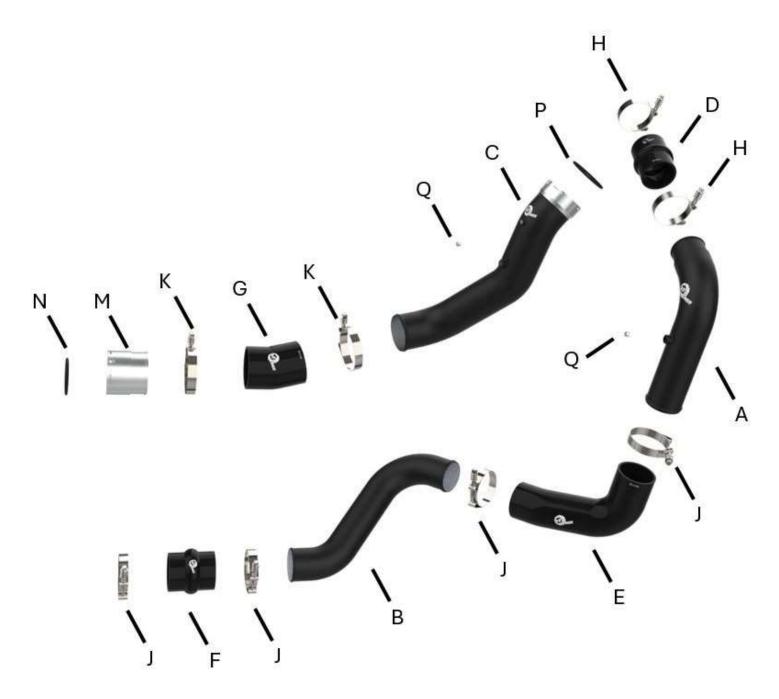
#### Installation will require the following tools:

7mm socket, 7/16 socket, 3/16" allen wrench, 15mm wrench, 24" extension, ratchet, pick, grease, & thread sealant

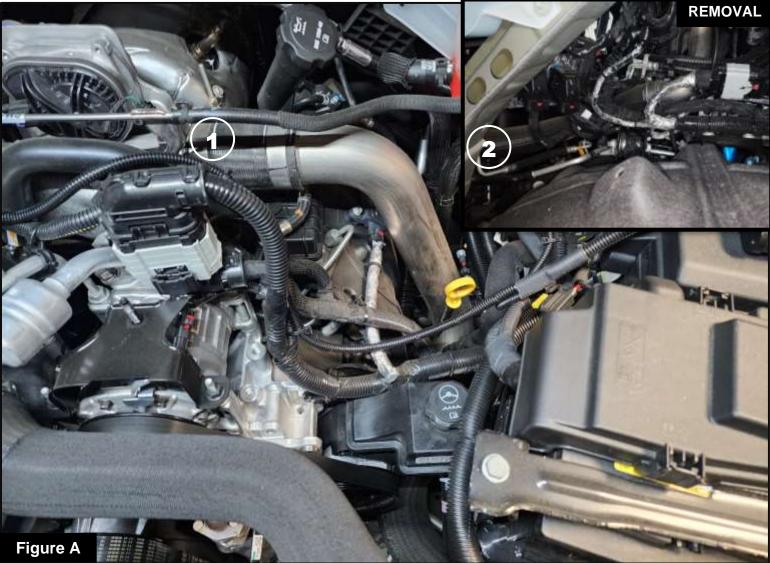
Warranty Information available at https://afepower.com/contact#warranty

**Emissions Disclaimer:** This product is not currently CARB exempt and is not available for purchase in California or for use on any vehicle registered with the California Department of Motor Vehicles.









## Refer to Figure A for Steps 1-6

- Step 1: Park the vehicle on level ground and engage the parking brake.
- Step 2: Disconnect the negative battery cables.

#### <u>It may be necessary to use a pick to break the connection between the</u> <u>charge pipe couplings and the vehicle in order to disconnect the couplings.</u>

- Step 3: Loosen the clamp securing the turbo outlet coupling to the turbo (1) and disconnect the coupling from the turbo.
- Step 4: Remove the screws securing the front driver side inner fender liner and remove it from the vehicle
- Step 5: Loosen the clamp securing the factory hot side charge pipe hose to the intercooler inlet (2) and disconnect the hose from the intercooler.
- Step 6: Remove the hot side charge pipe from the top of the vehicle.

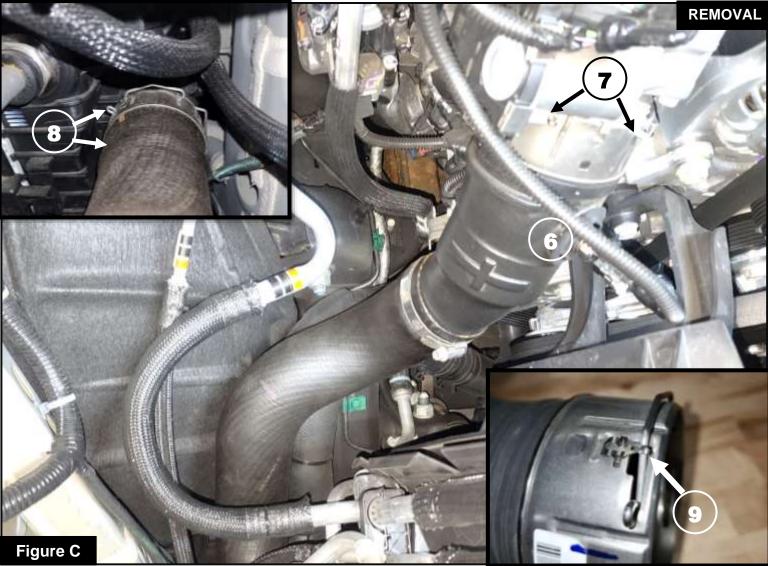




## Refer to Figure B for Steps 7-12

- Step 7: Release the safety clip, by sliding it back, then disconnect the electrical connection for the Mass Air Flow Sensor (MAF) on the air intake tube ③
- Step 8: Loosen the two clamps securing the intake tube to the turbo inlet and the intake air box, then remove the intake tube from the vehicle ④
- Step 9: Remove the nut securing the intake air box to the vehicle, then lift upwards to release the air box from the rubber grommets and remove it from the vehicle (5)





## Refer to Figure C for Steps 10-13

- Step 10: Release the safety clip, by sliding it back, then disconnect the electrical connection for the intake air temperature sensor on the cold side charge pipe 6
- Step 11: Expand the retaining clip securing the cold side charge pipe onto the engine inlet, then disconnect it from the engine ⑦
- Step 12: Expand the retaining clip securing the cold side charge pipe onto the intercooler outlet (8) then remove the cold side charge pipe from the vehicle.
- Step 13: Remove the factory retaining clips from the cold side charge pipe (9) Do this by gently lifting the tabs up on each side and sliding the clips out of the slots, set aside for later use.



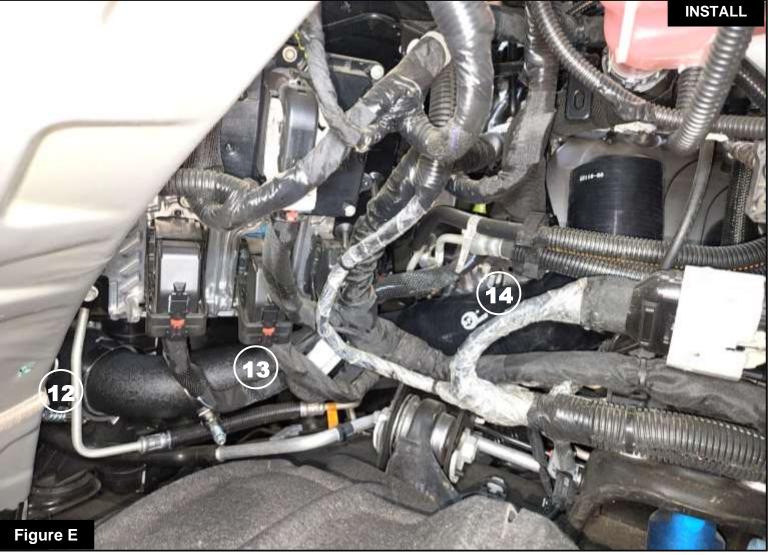


## Refer to Figure D for Steps 14-15

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

- Step 14: If you are not using any aftermarket sensors, install the 1/8" NPT plug (10) into the threaded fitting on the upper aFe hot side charge pipe.
- Step 15: Install the aFe silicone hump coupling, 2-3/4"ID x 4"L, and one of the supplied 3"-3.25" springloaded T-Bolt clamps onto the reduced end of the upper aFe hot side charge pipe 1, do not tighten the clamp yet.





## Refer to Figure E for Steps 16-18

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

- Step 16: Install the supplied aFe silicone hump coupling, 3"ID x 4"L, and two of the supplied 3.25"-3.50" spring-loaded T-Bolt clamps onto the inlet of the intercooler on the driver side of the vehicle 12 through the wheel well, do not tighten the clamps yet.
- Step 17: Install the aFe POWER lower hot side charge pipe into the vehicle (13) through the wheel well and connect it to the coupling from the previous step, do not tighten the clamp yet.
- Step 18: Install the supplied aFe silicone elbow coupling, 3"ID x 80 Deg x 30 Deg, and two more of the supplied 3.25"-3.50" spring-loaded T-Bolt clamps onto the opposing end of the lower charge pipe 14 from the previous step, do not tighten the clamps yet.





## Refer to Figure F for Steps 19-21

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

- Step 19: Install the aFe POWER upper hot side charge pipe with the coupling from Step 15 into the vehicle with one 3"-3.25" spring-loaded T-Bolt clamp (15) connecting it to the coupling from the previous step and the turbo outlet.
- Step 20: Ensure the aFe POWER hot side charge pipes are not touching anything and tighten all of the clamps. Torque all spring-loaded T-Bolt clamps to 10 Ft-lbs or until spring is completely collapsed.
- Step 21: Reinstall driver side fender liner.





## Refer to Figure G for Steps 22-25

Step 22: Transfer the intake air temperature sensor from the factory cold side charge pipe into the fitting closest to the aFe POWER logo on the cold side charge pipe (16)

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

Step 23: If you are not using any aftermarket sensors, install the 1/8" NPT plug (17) into the threaded fitting on the aFe POWER cold side charge pipe.

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

- Step 24: Install the 80mm ID x 5mm W O-ring into the groove on the inside of the aFe POWER cold side charge pipe 18
- Step 25: Install the upper factory retaining clip from Step 13 onto the aFe POWER cold side charge pipe (19)



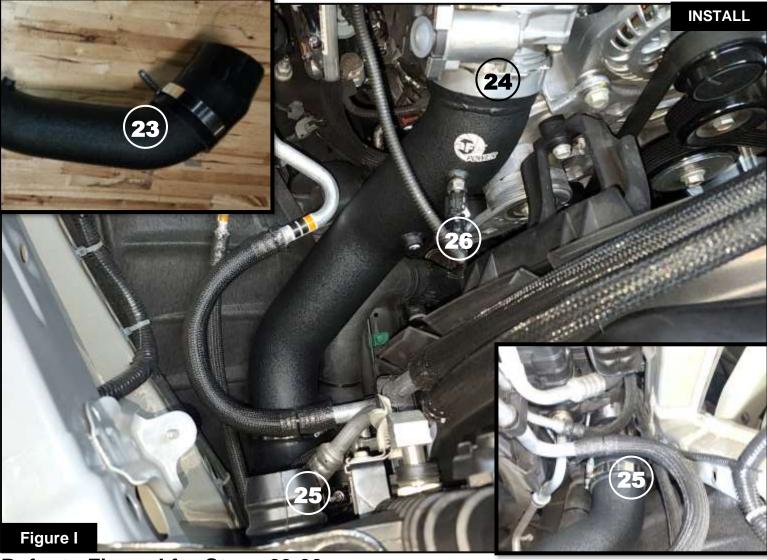


## Refer to Figure H for Steps 26-28

#### <u>Note: Be sure to lubricate the O-ring with grease to prevent tearing during</u> <u>installation.</u>

- Step 26: Install the 70mm ID x 5mm W O-ring into the groove on the inside of the aFe POWER quick connect adaptor (20)
- Step 27: Install the lower factory retaining clip from Step 13 onto the aFe POWER quick connect adaptor (21)
- Step 28: Install the aFe POWER quick connect adaptor onto the intercooler outlet, and ensure the retaining clip snaps into place all the way around (22)
- Step 29: Place one of the supplied 3.75"- 4" spring-loaded T-Bolt clamps onto the adaptor from the previous step.





### Refer to Figure I for Steps 29-33

- Step 30: Install the supplied aFe silicone elbow coupling, 3.50" x 3.45" ID x 14 Deg, and one 3.75"- 4" spring-loaded T-Bolt clamp onto the aFe POWER cold side charge pipe (23) do not tighten the clamp yet.
- Step 31: Install the aFe POWER cold side charge pipe into the vehicle by first connecting the charge pipe to the engine inlet 24 then sliding the coupling down to connect it to the quick connect adaptor 25 from Step 28. Do not tighten the clamps yet.
- Step 32: Adjust and ensure the aFe POWER cold side charge pipe is not touching anything, then tighten the clamps. Torque all spring-loaded T-Bolt clamps to 10 Ft-lbs or until spring is completely collapsed.
- Step 33: Reconnect the electrical connection for the intake air temperature sensor on the aFe POWER cold side charge pipe, then lock the safety clip (26)





### Refer to Figure J for Steps 34-38

Step 34: Install the intake air box into the vehicle, then secure it with the factory nut (27) Be sure the bottom mounting pegs go into the factory grommets.

Step 35: Install the air intake tube onto the vehicle, then secure with the factory clamps (28)

Step 36: Reconnect the electrical connection for the MAF sensor, then lock the safety clip (29)

- Step 37: Reconnect the negative battery cables.
- Step 38: Install is now complete.

NOTE: Check all clamps, and connectors are secure after 100-200 miles



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