



## advanced FLOW engineering

Instruction Manual P/N: 46-20509-B

BladeRunner - Charge Pipe Cold Side Kit

Make: Kia Model: Stinger Year: 18-22 Engine: V6 – 3.3L(tt)
Make: Genesis Model: G70 Year: 19-22 Engine: V6 – 3.3L(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.

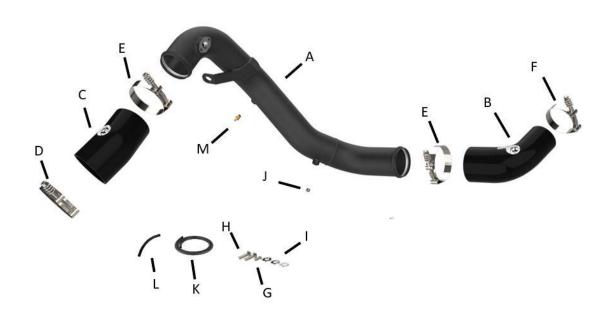
Label	Qty.	Description	Part Number
Α	1	Tube, Cold Side: 46-20509-B	05-61219B
В	1	Coupling, Silicone Reducer Elbow: 3" x 2.5" 75 Deg	05-61221
С	1	Coupling, Silicone Reducer Elbow: 3.15" x 3" 20 Deg	05-61222
D	1	Clamp, Spring Loaded T-Bolt: (3.5" - 3.75") (ss)	03-50376
Е	2	Clamp, Spring Loaded T-Bolt: (3.25" - 3.5") (ss)	03-50530
F	1	Clamp, Spring Loaded T-Bolt: (2.75" - 3") (ss)	05-60039
G	1	Screw, Button Head Socket: M6x1x12	03-50102
Н	2	Screw, Socket Head Cap: M6x1.0x20, S/S	03-50241
I	3	Washer, M6 (12mm OD x 6.4mm ID)	03-50177
J	1	Plug, Hex Head Socket: 1/8" NPT (Zinc Plated)	03-50029
K	1	Hose, Vacuum: 5/32" ID, Black: 10"	05-00122
L	1	Hose, Vacuum: 5/32" ID, Black: 4"	05-00122
М	1	Nipple, Brass Hose: 3/16ID x 1/8npt	03-50191

### Installation will require the following tools:

8mm socket, 10mm socket, 12mm socket, 14mm socket, 7/16" deep socket, 3/16" allen wrench. 5mm allen wrench, 8mm allen wrench, 6" extension, ratchet, flat head screwdriver, pick, pliers, thread sealant.

Warranty Information available at <a href="https://afepower.com/contact#warranty">https://afepower.com/contact#warranty</a>

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.





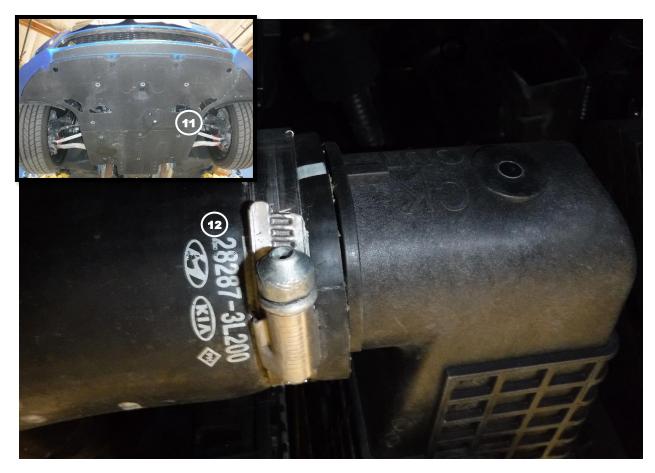
- 1. Park vehicle on level ground and engage the parking brake.
- 2. Disconnect the negative battery cable.
- 3. Remove the engine cover 1 by firmly pulling up on all four corners.
- 4. Remove the strut brace 2 from the vehicle on the passenger side .
- 5. Loosen the clamp securing the air intake tube to the intake box 3 and disconnect from air box.
- 6. Remove the three screws securing the intake box to the vehicle 4 on the passenger side.
- 7. Lift the entire air box up and towards the rear of the vehicle to remove it from the vehicle.



- 8. Disconnect the bypass hoses from the passenger side diverter valve (5).
- 9. Loosen the clamp connecting the air intake tube to the turbo inlet 6 and remove the tube from the vehicle.
- 10. Remove the mounting bolt from the vacuum distribution box and disconnect the vacuum hose from the cold side charge pipe.
- 11. Disconnect the electrical connector from the Manifold Pressure Sensor on the cold side charge pipe (8)
- 12. Remove the bolt securing the cold side charge pipe to the hot side charge pipe (9)

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

13. Remove the cap from the hose clamp screw and loosen the clamp securing the cold side charge pipe to the throttle body 10 and disconnect it from throttle body.



- 14. From underneath the vehicle, remove all screws and retaining clips securing the belly pan (11) and remove it from the vehicle.
- 15. Loosen the clamp securing the cold side charge pipe to the intercooler (12) and disconnect the coupler from the intercooler.
- 16. Remove the cold side charge pipe from the vehicle through the top.



- 17. Transfer the factory Manifold Pressure Sensor from the factory charge pipe to the supplied aFe cold side charge pipe (13) and secure it using the two of the supplied M6 screws and washers
- 18. Transfer the factory mounting grommet and spacer from the factory charge pipe to the supplied aFe cold side charge pipe 14

### Note: Be sure to use thread sealant on the brass NPT fitting to prevent any leaking

- 19. Install the supplied brass hose nipple fitting on to the upper NPT port on the aFe cold side charge pipe (15)
- 20. If you are not using any aftermarket sensors, install the remaining 1/8" NPT plug (16) into the bottom threaded fitting on the aFe cold side charge pipe.



- 21. Install the supplied aFe silicone reducer elbow (3.15" x 3") 20° to the cold side charge pipe (17) with one 3.25" 3.5"" spring-loaded T-bolt clamp and one 3.5" 3.75"" spring-loaded T-bolt clamp for the throttle body. Do not tighten clamps yet.
- 22. Install the aFe cold side charge pipe into the vehicle from the top 18 and connect the coupling to the throttle body.
- 23. Install the supplied silicone reducer elbow coupling:  $3'' \times 2.5'' 75^\circ$  onto the intercooler outlet along with one 2.75'' 3'' spring-loaded T-bolt clamp (19) from the bottom.
- 24. Place the remaining 3.25" 3.5" spring-loaded T-bolt clamp onto the aFe cold side charge pipe and connect it to the coupling from the prevous step (20)
- 25. Adjust the charge pipe as necessary and make sure it is not touching anything and secure the cold side charge pipe to the hot side charge pipe using the factory screw (21)
- 26. Reconnect the MAP sensor connector to the sensor on the aFe cold side charge pipe (22)
- 27. Tighten all clamps on aFe cold side charge pipe.



- 28. Mount the vacuum distribution block onto the cold side aFe charge pipe 23 using the supplied socket head cap screw: M6x1.0x12 and M6 washer.
- 29. Install the supplied 10" long vacuum hose 24 from the brass nipple on the aFe cold side charge pipe to the vacuum distribution block.
- 30. Install the 4" long vacuum hose 25 from the distribution block to the diverter valve "T" connection.
- 31. Reinstall the air intake tube and air box.
- 32. Reconnect the recirculation hose between the diverter valve and the air intake tube.



- 33. Reinstall the strut brace into the vehicle 26
- 34. Reinstall the belly pan underneath the vehicle.
- 35. Reinstall the engine cover 27
- 36. Reconnect the negative battery cables.
- 37. Install is now complete.

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

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