

KBM PART# EJTI-OE



## KILLER B MOTORSPORT EJ HARD TURBO INLET INSTALLATION GUIDE

*This install took place on a 2019 STI. Here is what is in the box-*



Shown above: Killer B Part# **EJTI-OE** Kit for the OEM sized turbocharger.

### **WHATS INCLUDED:**

- Killer B hard inlet.
- Turbocharger coupler.
- ¼" NPT plug.
- ¼" NPT to 3/8" straight barbed fitting.
- ¼" NPT to 3/8" 90Degree barbed elbow fitting.
- 3/8" NPT to 5/8" 90Degree barbed elbow fitting.
- 1x small clamp for BPV return hose.
- 1x medium clamp for coupling the coupler to the turbocharger.
- 1x large clamp for coupling KBM inlet to offset coupler.

### **TOOLS USED:**

- a. 3/8" drive ratchet, extensions and assorted sockets.
- b. Flathead screwdrivers: Regular size and extra small.
- c. Assorted pliers.
- d. Hobby knife with new blade.
- e. Teflon tape/thread sealer.
- f. Hex bit drivers or allen wrenches.
- g. 10mm wrench, geared wrench works great.

\*You will be removing the throttle body, be sure to have a new gasket on hand.

04+ STI Throttle by WIRE P/N: 16175AA243

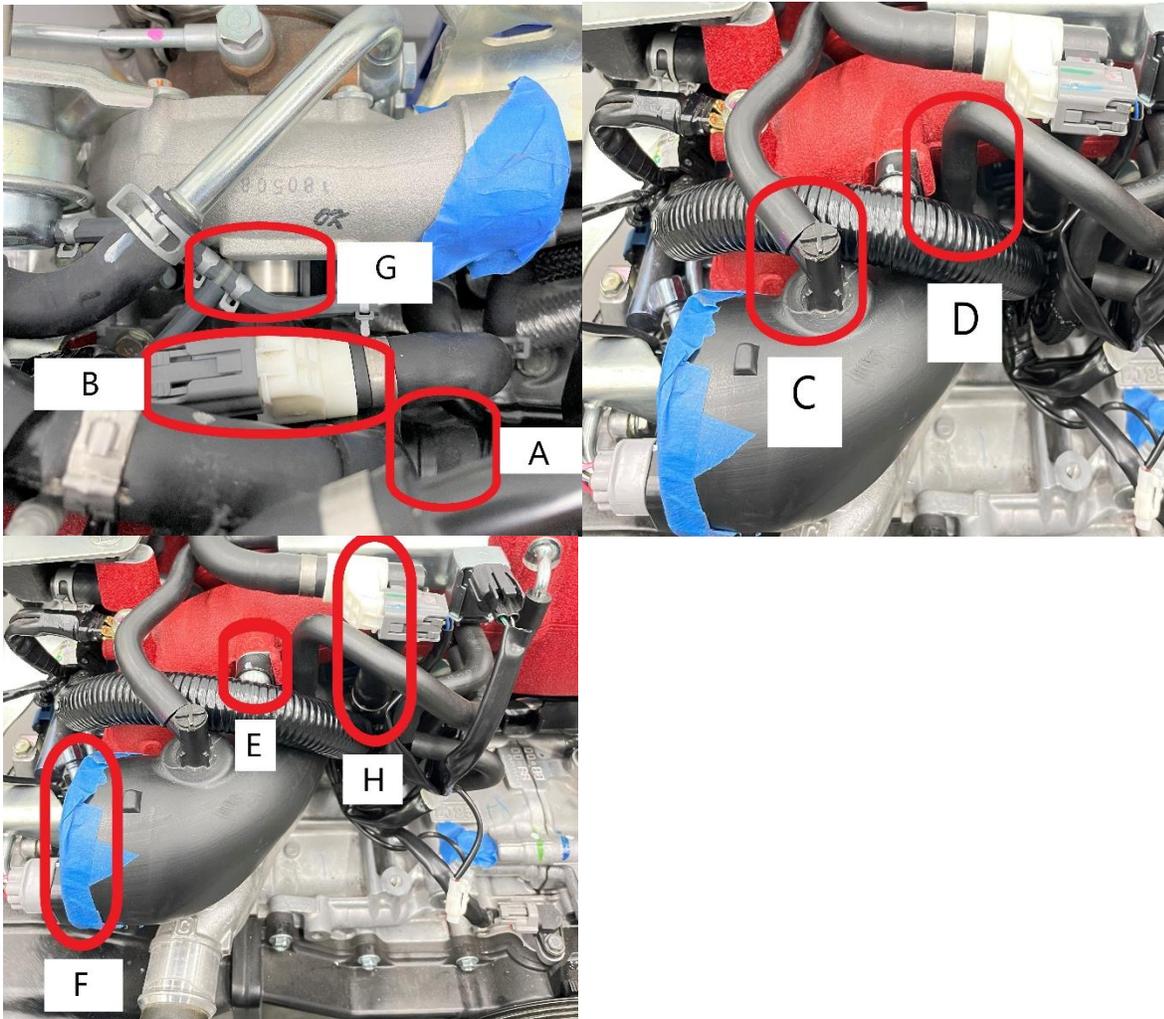
02-05 WRX Throttle by CABLE P/N: 16175AA223

### **REMOVAL:**

1. Raise hood.
2. Remove battery negative terminal.
3. Remove belt cover.
4. Disconnect and remove alternator belt and alternator.
5. Disconnect the electrical connector from the power steering pump.
6. Unbolt the 3 power steering bracket bolts from the engine block and slide the bracket toward the front of the vehicle.
7. Loosen and remove the top mount intercooler if equipped.
8. Remove the throttle body: Disconnect electrical connectors only. **(LEAVE THE COOLANT LINES ATTACHED)** Loosen and remove the throttle body coupler and then the throttle body from the intake manifold. Lean the throttle body toward the pitch mount.
  - a. Discard and replace throttle body gasket with a new part.
9. If equipped, unbolt the evap and/or purge solenoid from the intake manifold.

10. Disconnect the following connections from the OEM inlet:

- a. Bypass valve return hose.
- b. "Blow-by" sensor at the front of the turbocharger. Remove the grey connector from the oem inlet using a small flathead screwdriver.
- c. Wastegate duty solenoid return hose.
- d. Evap/Purge hose.
- e. The 6mm internal hex screw securing the inlet to the intake manifold.
- f. Post-maf coupler and clamps.
- g. The clamp securing the turbo inlet to the turbocharger.
- h. Remove the PCV vacuum source, behind the power steering pump.



**WHITE/GREY PCV CONNECTOR MOD AT TURBOCHARGER:** For this procedure, refer to our EJ AOS INSTALL GUIDE. This can be found on the website within the page for the EJ AOS, under "additional information."

\*If you do not have an AOS on your car, type the link below to check out our EASY TO INSTALL and EASY TO MAINTAIN air/oil separators.

<https://www.killerbmotorsport.net/oiling-products/air-oil-separation.html>

If you have an AOS installed, skip over the following note and proceed to STEP 11.

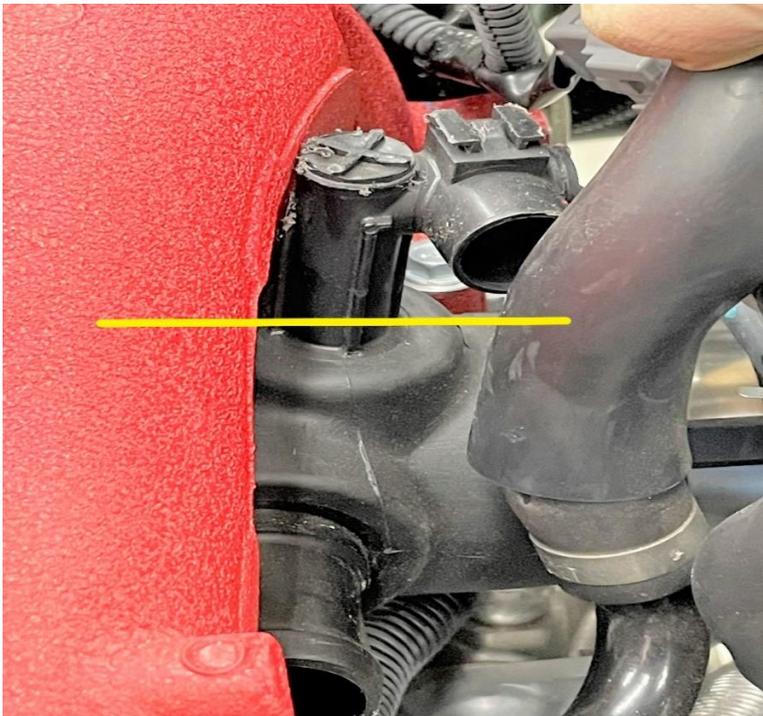
\*\*\*To make this turbo inlet work with a stock pcv system, you may need to source a few parts.

Adapt this hole to work with your stock pcv system:

-The threaded hole where the plug goes is  $\frac{1}{4}$ "NPT.

-The OEM pcv hose inside diameter is  $\frac{1}{2}$ ".

11. To remove the factory inlet \*efficiently\*, cut along the line shown below with side cutting pliers or snips. If you want to preserve the OEM inlet refer to the factory service manual for removal.



12. Remove the down-ward facing M6 bolt with a 10mm tool. This will help you push the Killer B inlet past the factory hard fuel lines. Reinstall once you have



### **TRIMMING AND INSTALLATION:**

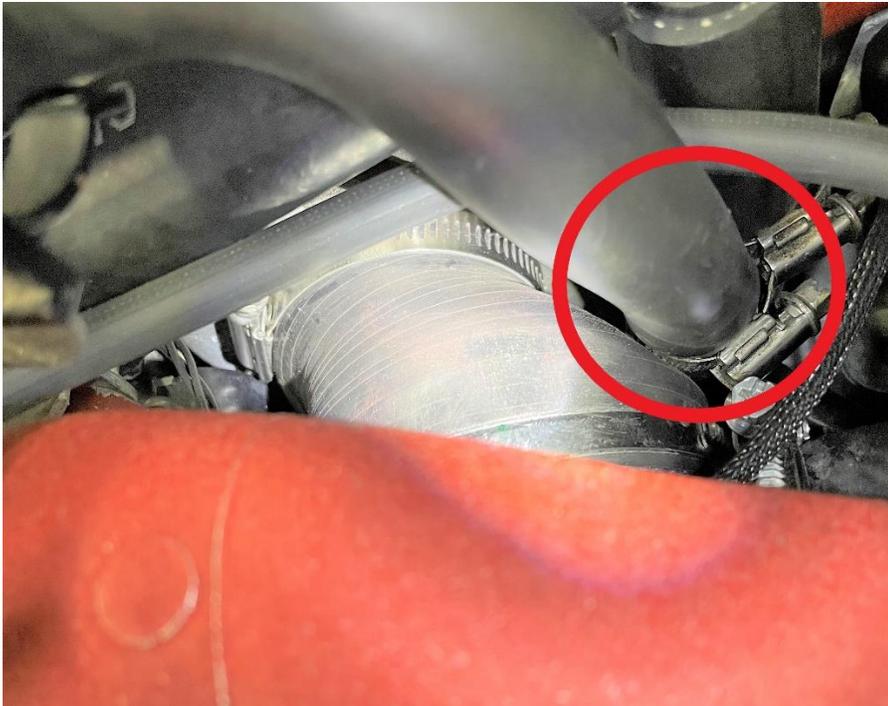
Anticipate installing and removing the inlet several times in order to accurately trim and position the coupler without overcutting it.

1. Start by installing the offset coupler on the hard inlet and secure it onto the inlet with a clamp. Rotate the saddle of the clamp around to the bypass valve boss, slightly lower.



2. Install the turbo inlet on the engine and note where the mounting tab on the turbo inlet sits in relation to the intake manifold. Make sure you clock the coupler appropriately as well.

**NOTE:** You may need to slightly bend the crossover pipe to allow clearance for the turbo inlet. To do this, remove the 5/8" hose from the crankcase crossover pipe, remove the hose clamp, insert a 3/8" extension in the pipe and carefully bend the pipe toward the centerline of the vehicle. This will allow clearance for the turbo inlet coupler. Reinstall the hose and clamp.



3. Remove/cut a small amount at a time starting with 1/8" cuts. Repeat the procedure until you have a finished result with no kinks, pinches or bends in the coupler.
  - a. The turbo inlet mounting tab should be touching the intake manifold.

4. Now that the coupler has been trimmed to exact size, apply teflon tape or thread sealer to the uncoated fittings.



**CAUTION:** When threading each NPT (tapered) fitting, watch carefully inside the inlet. Thread each fitting in until the threads of each fitting just start to stick through the inside of the inlet. While doing so, be sure to position the elbow fittings to their correct location.

5. Install 1/4" NPT plug in location shown above.
6. Install 3/8" NPT to 5/8" barbed brass elbow, it only goes in one place.
7. Install the inlet/coupler assembly.
8. Reconnect the bypass valve return hose and secure it with a clamp. Rotate the inlet clockwise to provide extra clearance for the clamp. (This is why nothing is tightened yet)
9. The engine harness needs to be routed in front of the 5/8" 90degree barbed fitting, meaning the brass fitting should sit behind the engine harness.
10. Mount the evap/purge solenoid to the intake manifold with the oem M8 bolt.
11. Mount the hard inlet to the intake manifold: Reuse the 6mm internal hex button head cap screw.
12. Visually check the turbo/inlet coupler: make sure it did not twist or pinch while fastening the inlet to the intake manifold. If it twisted or pinched, loosen the 6mm hex button head screw from the previous step and reposition/retrim the coupler.



13. Tighten the clamp that secures the turbocharger inlet coupler to the turbocharger.
14. Install the 1/4" NPT to 3/8" straight barbed fitting on the location shown in step 4.
15. Install the evap/purge hose on the supplied 3/8" straight barbed fitting.
16. Install the 1/4" NPT to 3/8" barbed elbow in the location shown in step 4.
17. Install the EBCS return hose on the supplied 3/8" 90Degree barbed fitting.
18. Reinstall air induction system: airbox, post MAF, clamps.
19. Reinstall the throttle body with new gasket, reconnect throttle body and MAP sensor connectors. Torque to factory spec. Reinstall throttle body coupler.
20. Reinstall intercooler: secure clamps and intercooler stay hardware.
21. Secure power steering bracket to the engine block, reconnect electrical connector.
22. Reinstall alternator and belt.
23. Reinstall belt cover.
24. Reconnect battery negative terminal.

Double check all fittings and clamps as you go, and once more as you finish.