



## X5D FMIC Install Instructions

**\*\*Recommended conditions for Loctite bonding are room temperature or warmer and at least several hours to cure. Plan your install accordingly\*\***

- 1) Remove intake duct and engine cover
- 2) Remove 4 bolts to top crossbrace and disconnect cable out of retention clips. Slide to right to clear AC line on left, then slide up to the left and out of the way.



- 3) Remove upper cold side charge pipe connection, move to the right of ASV and back to help with radiator fan removal.
- 4) Unplug radiator fan connector on passenger side. While lifting up, push driver's side retention clip, then fold inward. Push in passenger side retention clip and lift radiator fan up and out



5) Remove front plastic shield underneath bumper

6) Remove front bumper. Great DIY found here: <https://www.youtube.com/watch?v=ANdhr3S4D0>

7) Remove left and right airducts by removing the push-clip through the inner fenderwell and 8mm screw on each



- 8) Remove both bumper reinforcement braces. Detach radiator shroud, 2 upper nuts and 2 lower bolts. Move forward away from intercooler.



- 9) Remove lower steel brace, factory intercooler and cradle. Remove hot side hose and cold side charge pipe.

10) Install machined turbo fitting

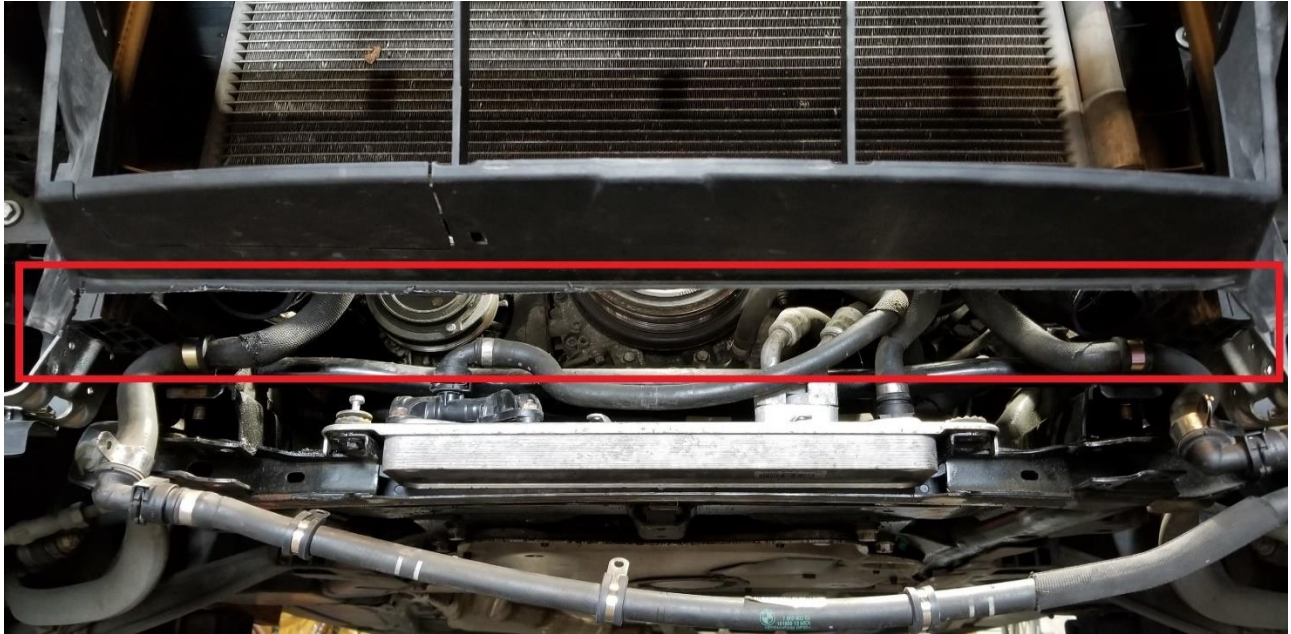
- a. Prep turbocharger outlet with included scotchbrite pad
- b. Clean inside of included turbo fitting and turbocharger outlet with cleaner (brakeclean, acetone, etc)
- c. Test fit machined turbo fitting onto turbo outlet. If it does not slip on either slight heat may be needed to install (heat gun or plumber's torch) or LIGHT and even tapping with a hammer
- d. Apply included Loctite 620 onto leading edge of turbo outlet (completely around as shown)



- e. Fully secure fitting onto turbo outlet. Let cure undisturbed for at least 30 minutes



11) Using cutoff wheel, reciprocating saw, etc, trim front of radiator shroud for ATM intercooler just inside of the corner as shown



12) Cold side charge pipe fitting - **\*\*If OEM seal is expanded/swollen from age do not use it as it will be damaged during installation. - Can be swapped out with the OEM hot side seal (smaller diameter) if necessary**

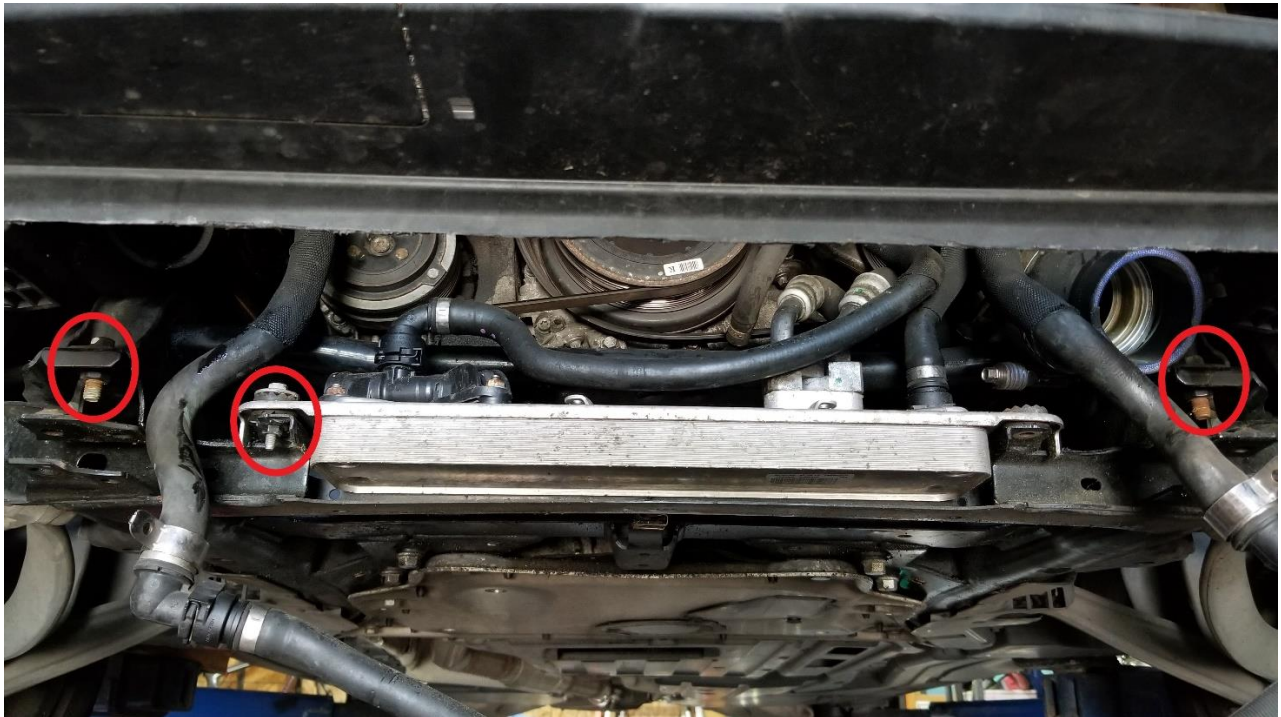
- a. Clean any oil/grit from cold side quick release end and OEM seal.
- b. Remove retaining ring from supplied aluminum fitting and lubricate the inner diameter
- c. Install fitting onto cold side charge pipe squarely using a pliers, vise, etc. **\*\*Be careful seal is not damaged/caught on the indicated edges (below) as it passes them.** After retaining ring notch clears the seal, reinstall the retaining ring and push fitting flush against flange insuring both ears are clear.



13) Place reducer hose onto fitting flush with edge. Clamp large clamp on edge as shown (orientation can be fine-tuned once the intercooler is installed.)



14) Remove transmission cooler mounting bolts (2 total) and front swaybar bolts. Lift transmission cooler up and back to help with intercooler install



15) Secure hoses to front swaybar bolts using the included 1" hose straps. Retighten swaybar bolts.



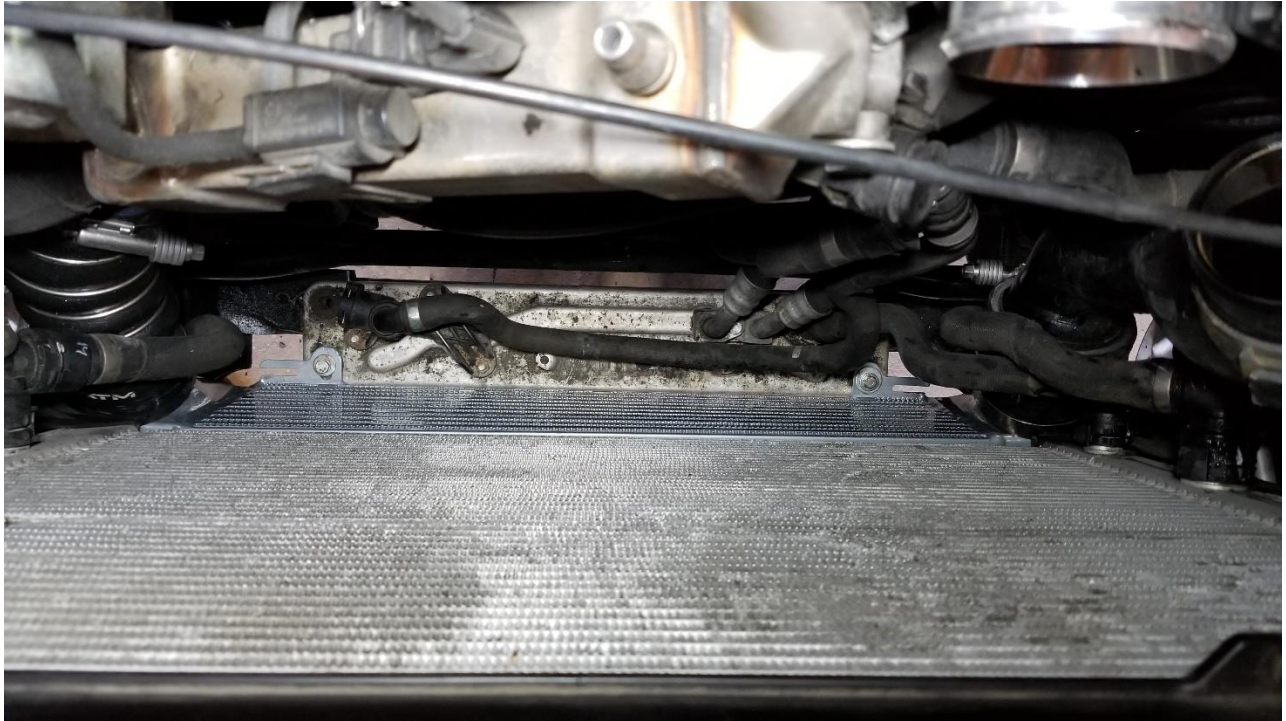
16) Place hot side hose onto turbo outlet fitting while holding clamp up over the fitting, feeding the hose into the clamp. Orient clamp in approximate position shown. Intercooler end will terminate just below the bottom of the radiator. Place 2<sup>nd</sup> clamp on the intercooler end of the hot side hose using pic below as a reference.



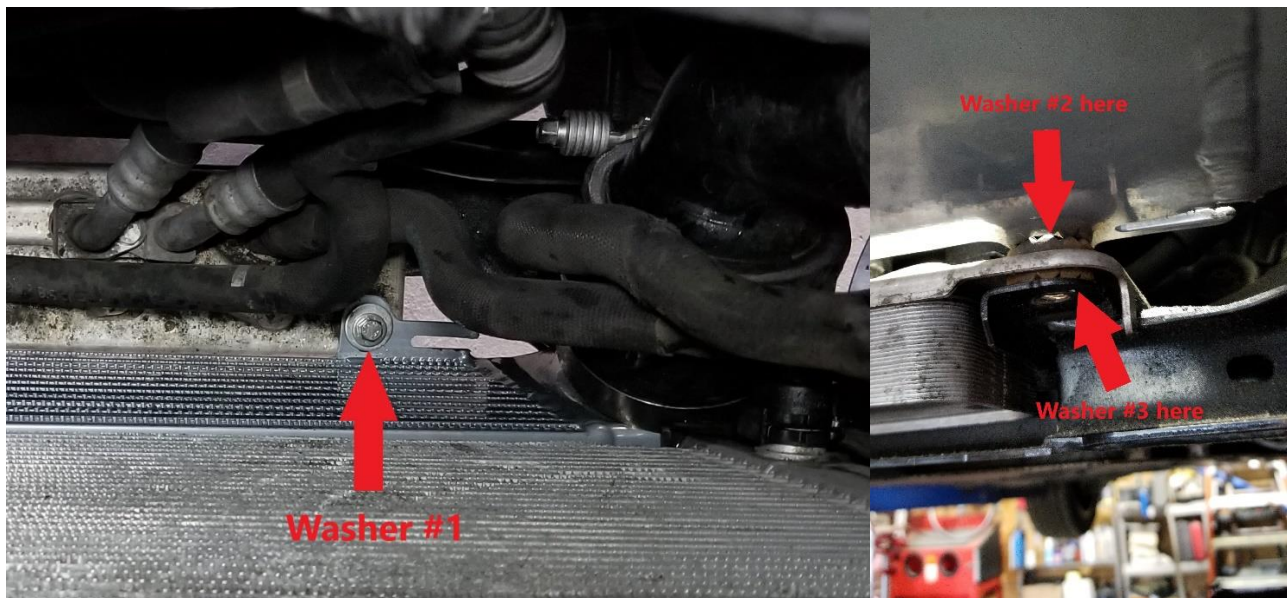
17) Lubricate inlet and outlet (silicone spray recommended) and lift ATM intercooler up and in, feeding inlet into the hot side hose. Leave clamp loose at this time

18) While holding intercooler up, replace the auto trans cooler back into place under the intercooler bracket

- 19) Replace cold side pipe in approximate location, insert onto outlet of intercooler with clamp in same direction as shown. Leave loose at this time.



- 20) Replace OEM transmission cooler bolts, passenger side goes through the intercooler mount plate. Insert included M6 bolt through front driver side mount. Washers go on top of intercooler mount plate, in between intercooler and rubber bushing, and below frame w/nut. Push intercooler forward as far as it will do. Do not tighten yet.





- 21) Using supplied mounting screws on each side, sandwich thin washer in between the intercooler (flat side in) and plastic mount, with the thick washer/bracket below the mounting tab as shown. Confirm intercooler is as far forward as possible and not touching condenser on the ends. Tighten mounting screws while pushing towards the center of the intercooler to ensure as much of the mounting tab is engaged. Snug both sides.



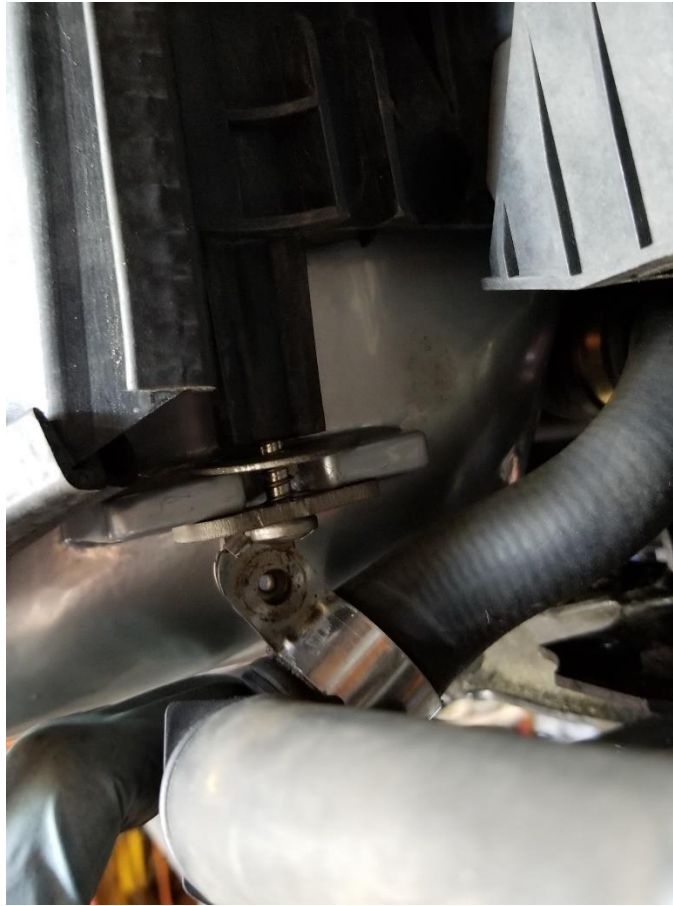
- 22) Tighten all transmission cooler mounting bolts.

- 23) Tighten hot side clamps fully. Place cold side charge pipe in proper location and tighten.  
**\*\*Ensure clamps on both sides will not making contact with hoses or swaybar mounts.**

- 24) Replace steel brace below intercooler and tighten. Using 3 included hose loops w/stubby M6 bolts, secure hose to bottom of the intercooler.



25) Secure mounting tab hose connections as shown using supplied hardware



26) Reinstall fan, guiding the lower tabs into intercooler mounts.

27) Remainder of installation is a reverse of disassembly

28) Enjoy!