

Before starting installation unbox all turbo kit contents and organize on a cart or table  
It's highly recommended to zip tie all vacuum lines & use Loctite BLUE on all fasteners

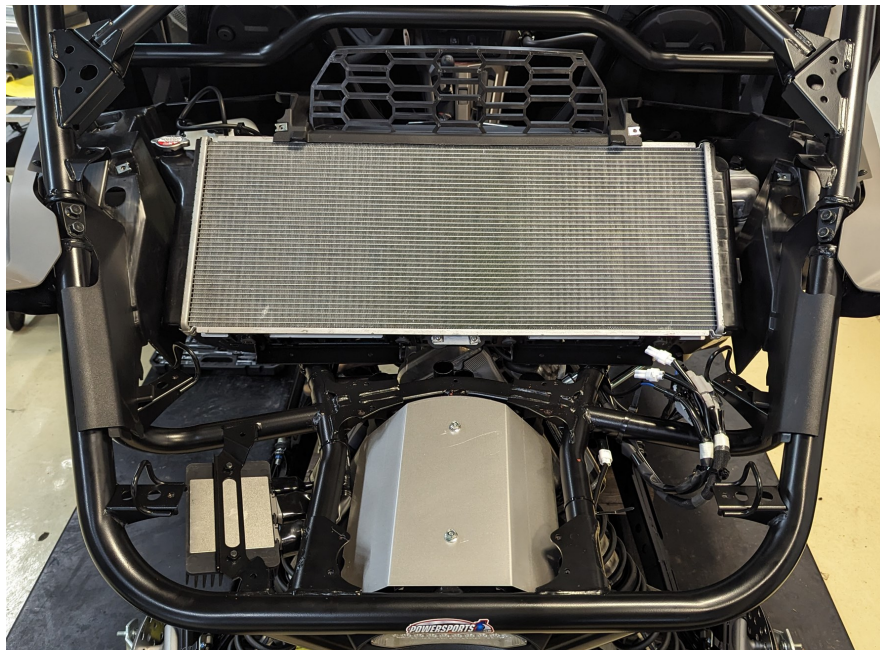
1. From the bed area remove the top plastic covers.

Follow this link for the Yamaha Work Shop Manual (WSM) pages for these pieces:

[2019+ WSM Bed Removal](#)

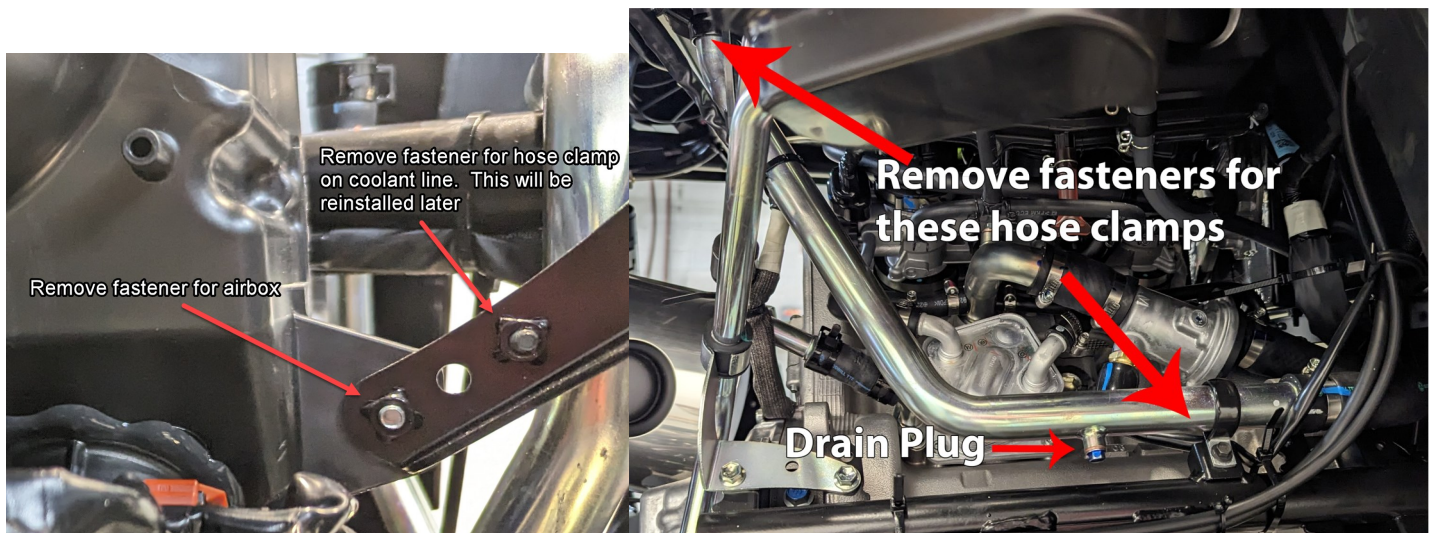
The brake light can be left on, unless you are removing the stock muffler, removing the tail light can make that job much easier (but not required)

Once everything is removed, your YXZ should look like this:

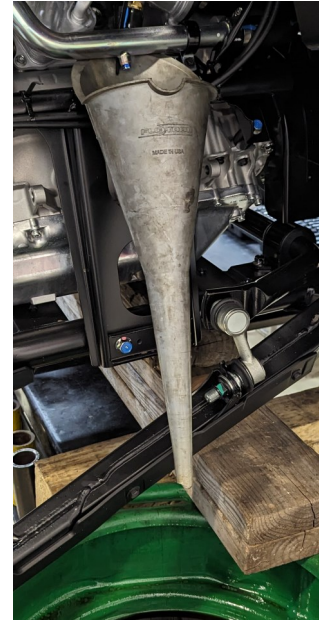


2. Locate the rear intake bracket. Remove the 8mm fastener connected to the intake housing and also the hose clamp attached the coolant line. Further down the coolant line is another hose clamp attached to the frame. Remove that fastener too. Both of these hose clamps will be reinstalled at a later time. With the coolant line free from the frame, use the drain port pictured below, and drain the coolant from the radiator.

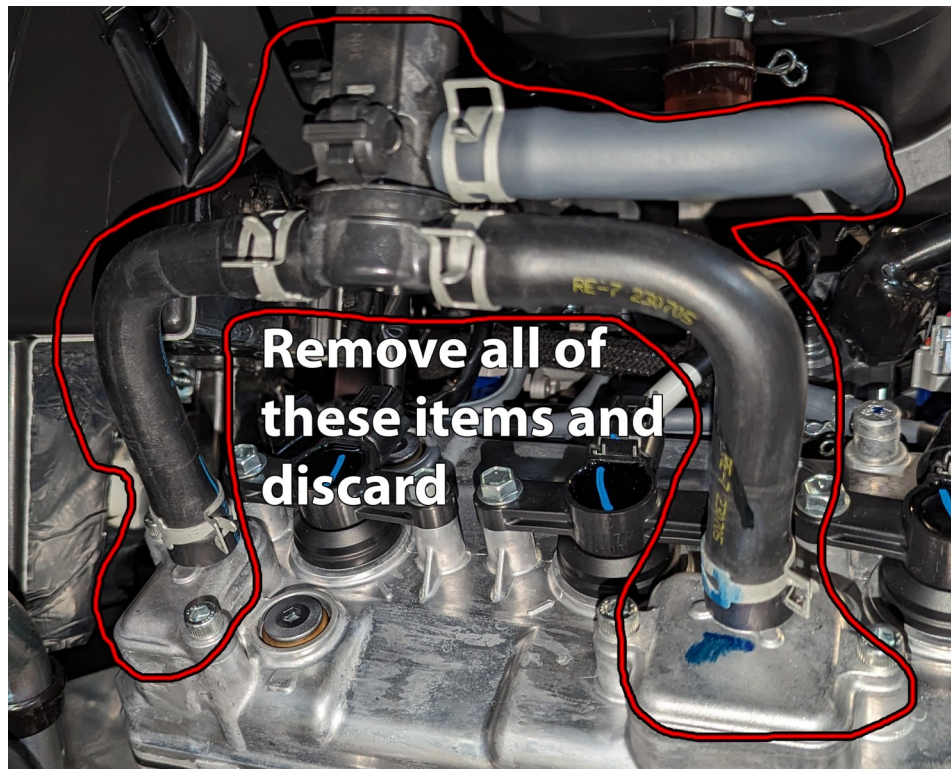
**DO NOT REFILL THE COOLANT UNTIL KIT IS COMPLETELY INSTALLED**



Shown here is one method of draining the radiator without making too much of a mess.



3. Remove Radiator:  
Remove the bolts from upper radiator brackets.  
Unhook the clear tubes from the radiator fans and disconnect both of the fan connectors from underneath the bed.  
Remove both coolant hoses from the radiator.  
Remove the radiator by sliding it forward and upwards. Set aside for reinstallation
4. Remove emissions plates and tubes from the valve cover with 4mm allen. Unplug the solenoid and remove from chassis bracket.  
\*\*If you are installing a Stage 1 kit - tape up the end of this connector on the harness to protect it  
Install the black DLP block off plates but keep the bolts loose on the large plate (a bracket will be installed later using those bolts)



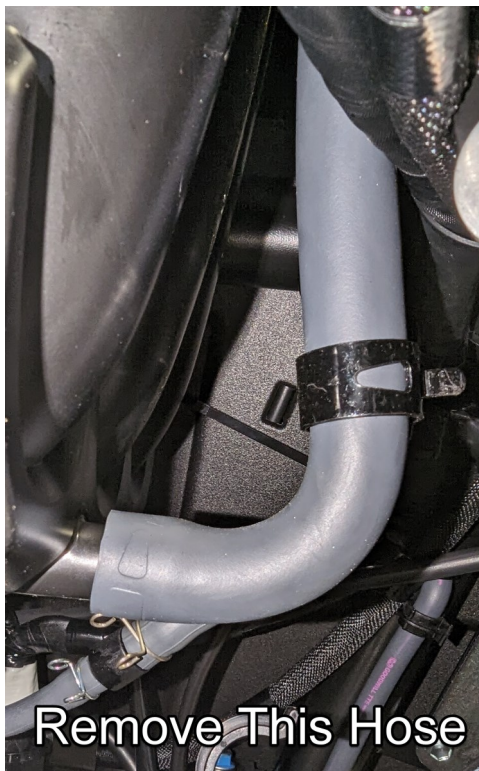


5. **\*\*OPTIONAL\*\***

If you choose to, this bracket can be removed. There is no other use for this bracket with our kit or any other product. If you would ever want to reinstall the air injection system, then keep the bracket.



6. Remove the (2x) bolts that hold the factory plastic intake box on.  
The front intake bolt, directly behind the passenger seat, will require a long extension to remove
7. Remove the rubber line that goes from the top of the plastic oil separator to the air box and install the supplied mini air filter in its place.



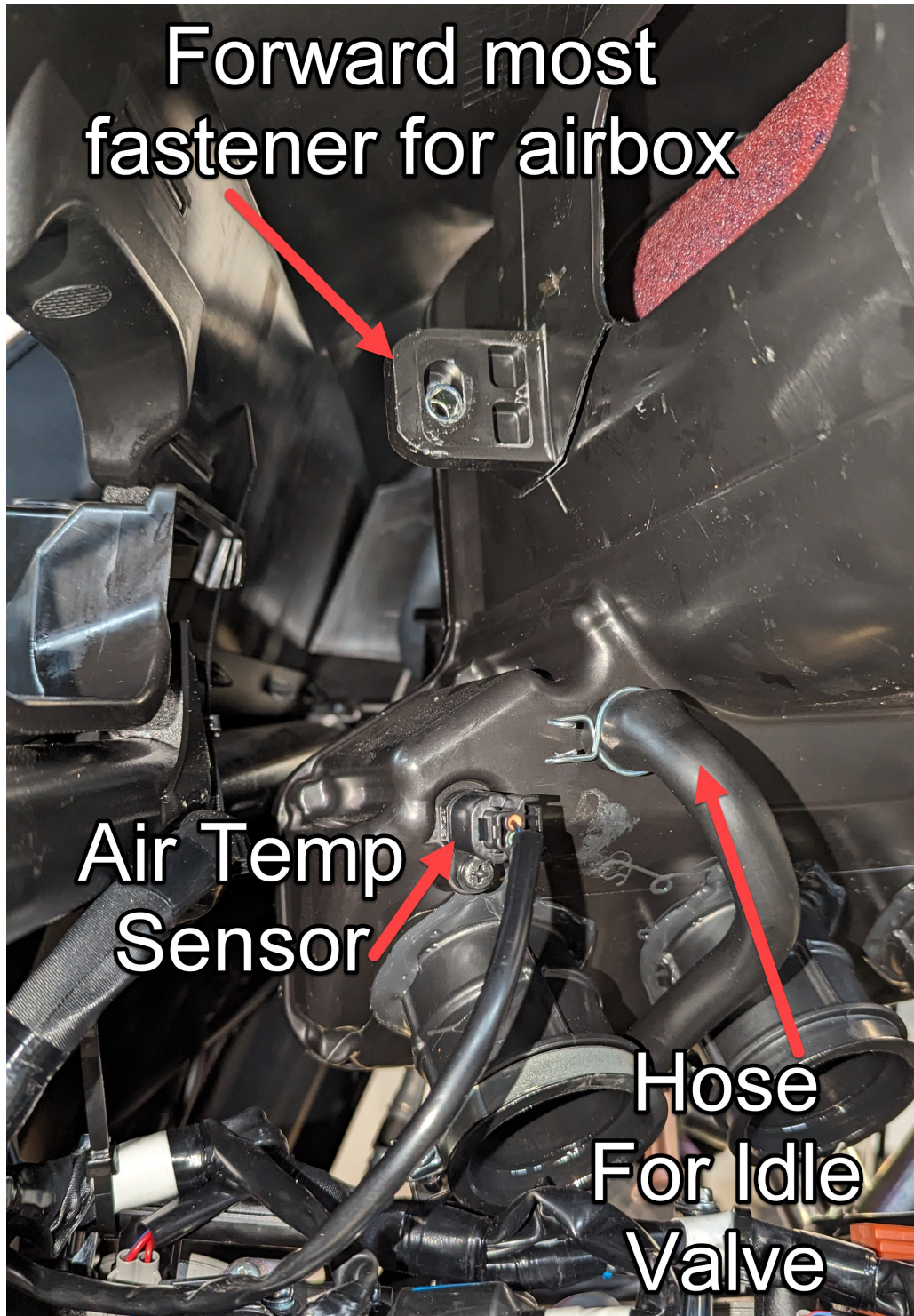
Remove This Hose



Filter replaces hose that connected to the stock airbox

8. Loosen the intake clamps on the throttle bodies, unplug the intake air temp sensor, and remove the hose for the idle / air valve (this will be connected to the intercooler).  
Remove the intake box.

**Recommend the open throttle body ports get covered to avoid getting debris in the engine**





At this point your engine should look like the image below.

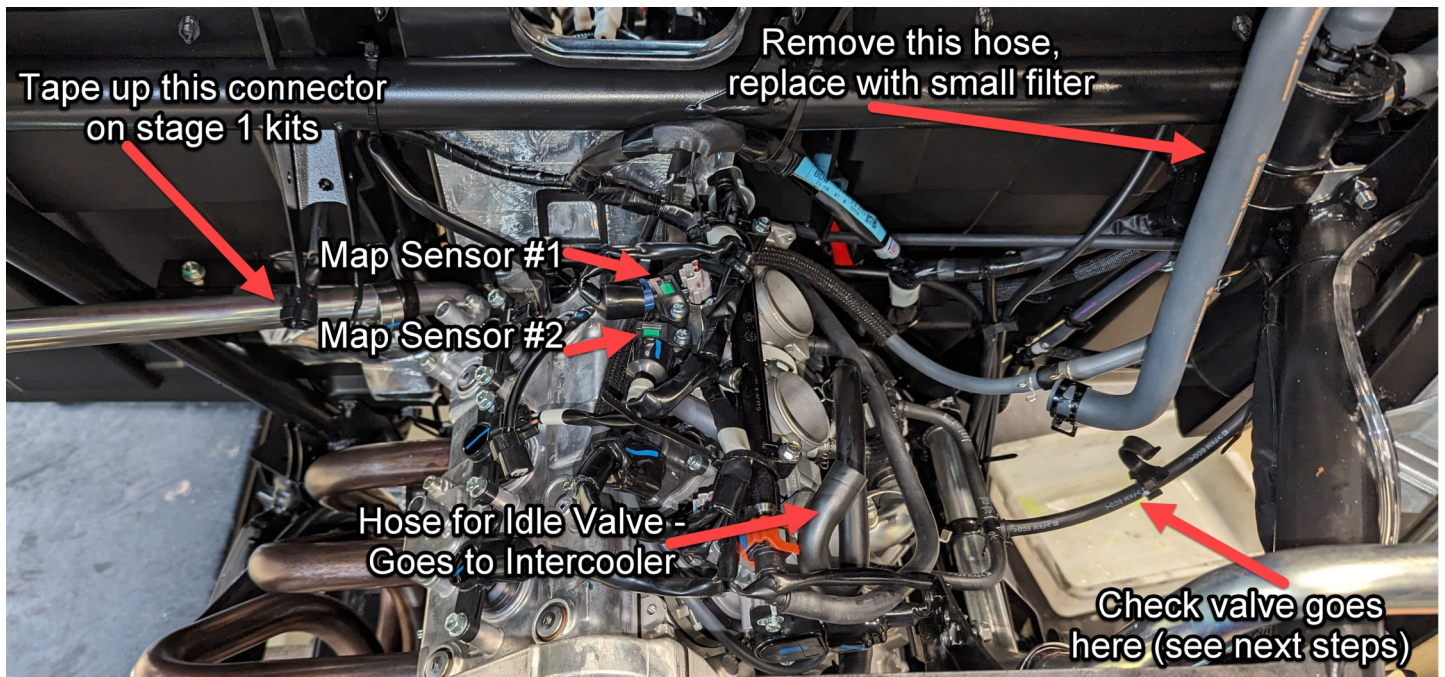
9. Install MAP Sensors

This is a very critical step—take your time.

Replace both Map Sensor #1 and Map Sensor #2 with the supplied MAP sensors.

**Do these one at a time.**

If you mix up these connectors or the vacuum lines, the engine will not run correctly.



10. Install Check Valve oriented as seen below:





11. Remove the Intake Air Temp Sensor from the stock intake box and install into the intercooler and secure with the supplied fastener



12. Remove the stock exhaust. If you plan on using the muffler / slip-on currently installed. Leave that in-place, but loosed all fasteners (do not remove them) that are holding the muffler on. You can discard the nuts holding the stock manifold on. The kit comes with new copper fasteners.

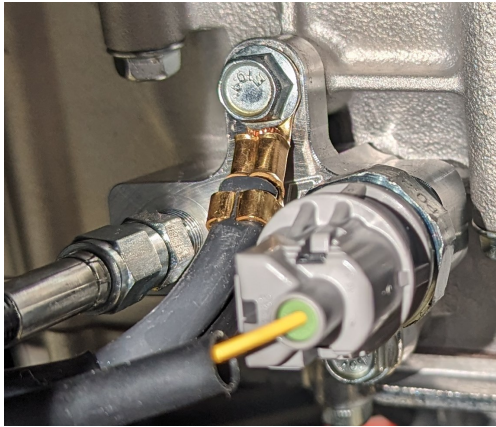
13. Make sure the copper ring gaskets are in each exhaust port



14. Below the exhaust manifold, next to the oil filter is the Oil Pressure Sensor that needs to be removed. Place a bucket / rags underneath to catch any oil that drips out. Disconnect the electrical connector to the sensor, then using a 24mm wrench, remove the Oil Pressure Sensor.
15. Remove the zip tie holding the wiring for the ground from the chassis and remove the 10mm bolt (not to be reused)
16. Using thread sealant, Install the Oil Pressure Sensor into the “M” position of the supplied Oil Distribution Block
17. Using the supplied M6 bolts, Install the Oil Distribution Block over the hole previously occupied by the Oil Pressure Sensor  
Place the ground cable on one of the bolts for the Oil Distribution Block and tighten. Make sure the ground cable doesn’t cover up the open “S” position hole.
18. Using thread sealant, Install the supplied 1/8NPT to –3AN adaptor into the forward “S” position. Only use sealant on the NPT side going into the Oil Distribution Block.
19. Again using thread sealant, install the 1/8NPT plug into the other “S” position.



20. Install the rubber grommet into the 2nd hole up on the chassis below the turbo
21. Install the straight end of the black –3AN oil feed line through the grommet and install onto the –3AN fitting on the oil distribution block.



22. Trimming the firewall for the intercooler

The last page of these instructions is a template for trimming the firewall plastic, above the stock air intake opening, to feed additional air to the intercooler. Cut out this template, tape in place and carefully cut the plastic around the template. Now is a good time to make sure you have something covering the throttle bodies so no debris gets in there.



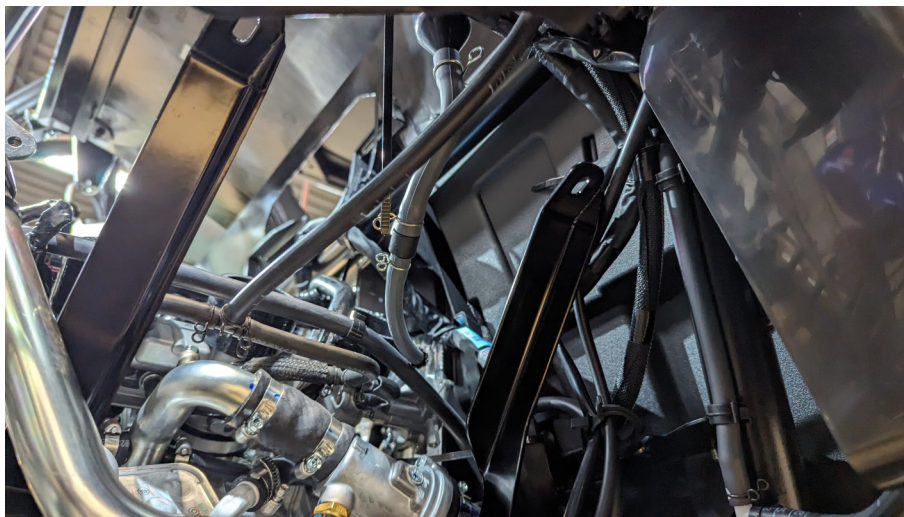
23. Install the silicone couplers over the throttle bodies. It's important to make sure these are installed evenly. If you push them down too far, they will sit crooked and not seal properly. Once installed, loosely place two hose clamps over each coupler. It's best to install these so the fastener for each clamp is below the throttle body, otherwise it will be difficult to tighten them.

I like to have all of the fasteners facing the rear of the vehicle and use a small socket wrench to tighten them.

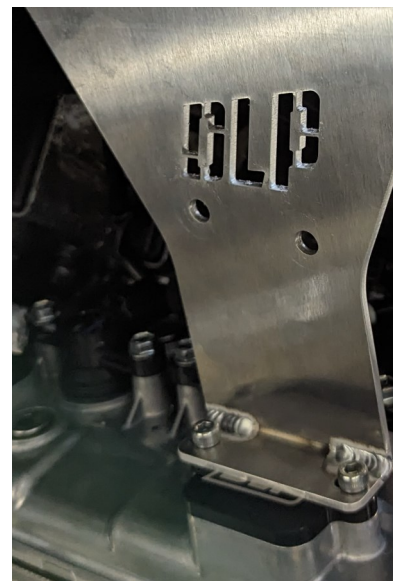
You also want to make sure none of these clamps interfere with the throttle mechanism.

24. Locate the two long black brackets, these are for the intercooler on the right side (passenger) of the engine.

The bracket with the circular shaped cutout goes in the forward position. Using the supplied fastener with each bracket, loosely attach each bracket to the engine. These need to be loose until the final step of the intercooler installation.



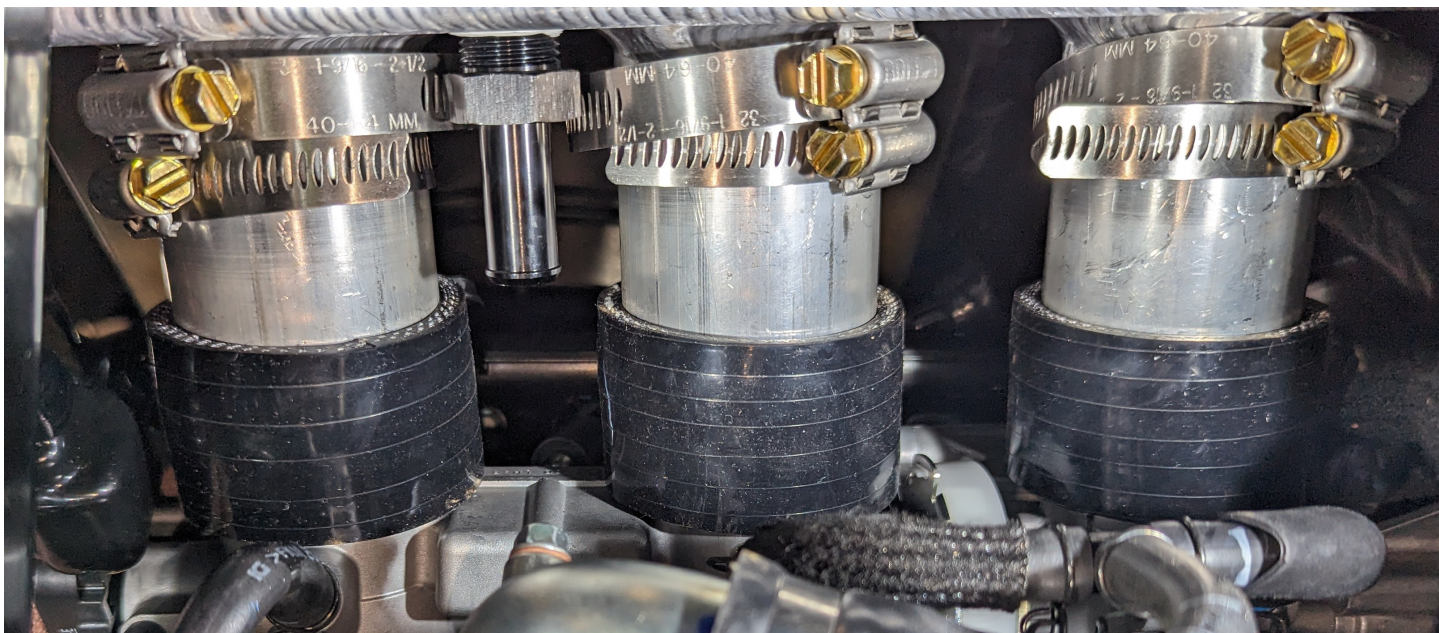
25. Locate the left (drivers side) intercooler bracket. Aluminum with "DLP" in the middle. Install the narrow side of the bracket over the larger of the two block-off plates. Again, leave these two fasteners as loose as possible until the final steps of installing the intercooler.



26. Install the air scoop on the top of the intercooler using the supplied fasteners and blue Loctite
27. Make sure the intake air temp sensor is installed on the intercooler



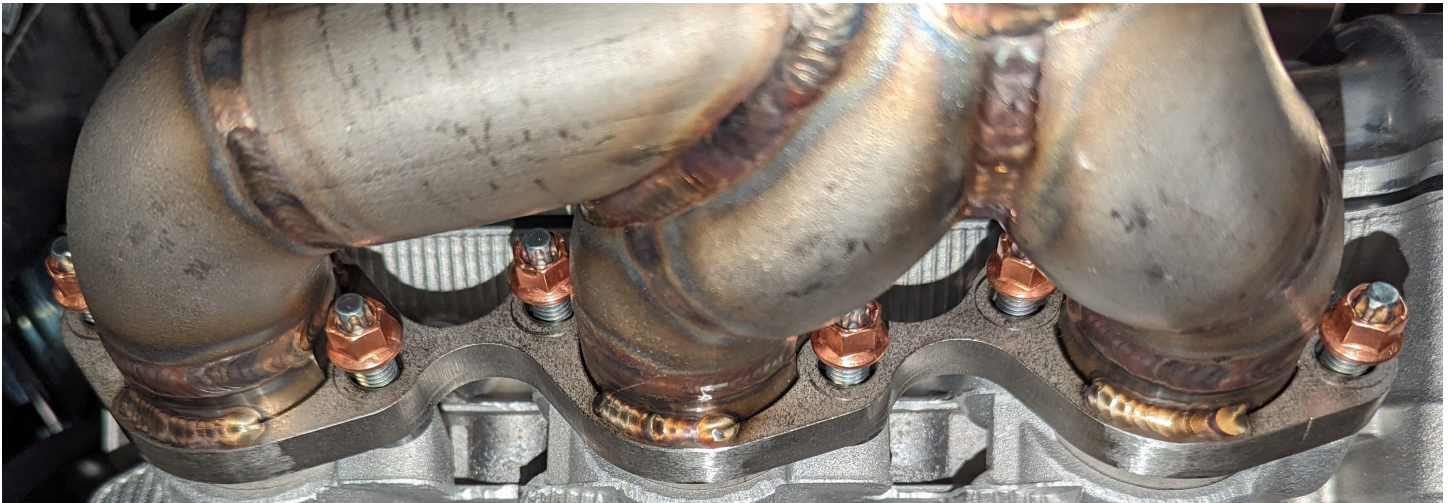
28. On the intake side (left) of the intercooler, remove the two fasteners holding on the fan & shroud assembly. Set aside for later use, the intercooler bracket is secured in this same location using those fasteners.
29. Carefully place the intercooler over the engine, lining up the throttle couplers, seat the intercooler into each coupler.
30. Attach the left (drivers side) bracket to the intercooler / fan shroud. Leave these as loose as possible for now
31. Attach the right (drivers side) brackets to the intercooler, again, leaving these as loose as possible
32. Line up all the couplers so they sit as low as possible on the throttle bodies without being crooked.



33. Once the intercooler is fully seated and couplers even, position the clamps. You want the clamps positioned as seen below. You want a small amount of silicone on the outside of each clamp. Otherwise the coupler will squish in causing a leak. Also make sure none of the clamps are interfering with the throttle.



34. With the couplers tightened, slowly tighten all the fasteners on both ends of the intercooler brackets. Do not tighten then down one at a time, move from fastener to fastener a little each time to evenly pull down on the intercooler so it stays in place. Make sure none of the couplers move or become dislodged during this step.
35. Reach your hand in between intercooler and engine and plug the air temp sensor in
36. Using the supplied hose clamp, reattach your idle air valve hose to the black nipple on the intercooler
37. Position the straight 8" silicone coupler on the intake side of the intercooler. Slide it up as far as it will go.
38. Place the hose clamps for the silicone coupler in the above step over the coupler, leave them loose.
39. Fit the new turbo manifold onto the cylinder head. This is a tight fit, wiggle the manifold around to properly seat it into the ports.  
Once seated, install the new copper nuts included with the kit. These are lock nuts, and should be difficult to screw on by hand.  
Do not tighten them one at a time. Go back and forth tighten each nut a turn or two, then go to the next one, over and over to ensure they are tightened evenly while also making sure the manifold is evenly seated





40. There are two ways to install the Turbo / Exhaust Gasket / Downpipe

A. As one complete assembly

If you didn't already, loosen up any fasteners holding the muffler / slip-on

Install the exhaust studs onto the turbo.

Place the V-Band clamp very loosely over the exhaust manifold

If there is some kind of exhaust clamp for the muffler, place that over the downpipe

Install the exhaust studs onto the turbo

Place the 5-hole gasket onto the studs

Place the downpipe on the turbo (to not tighten fasteners)

Place the whole assembly on together, starting with the downpipe into the muffler then line up the turbo with the V-Band and tighten the V-Band enough so the turbo doesn't fall off the manifold but still rotates

Once the pieces are all installed, make sure everything is lined up and square, go around all the fasteners and tighten them up—including the muffler to the frame

B. Turbo first, then downpipe

If you didn't already, loosen up any fasteners holding the muffler / slip-on

Install the turbo onto the exhaust manifold, tighten the V-band only so much so the turbo doesn't fall off. You want it to still rotate around

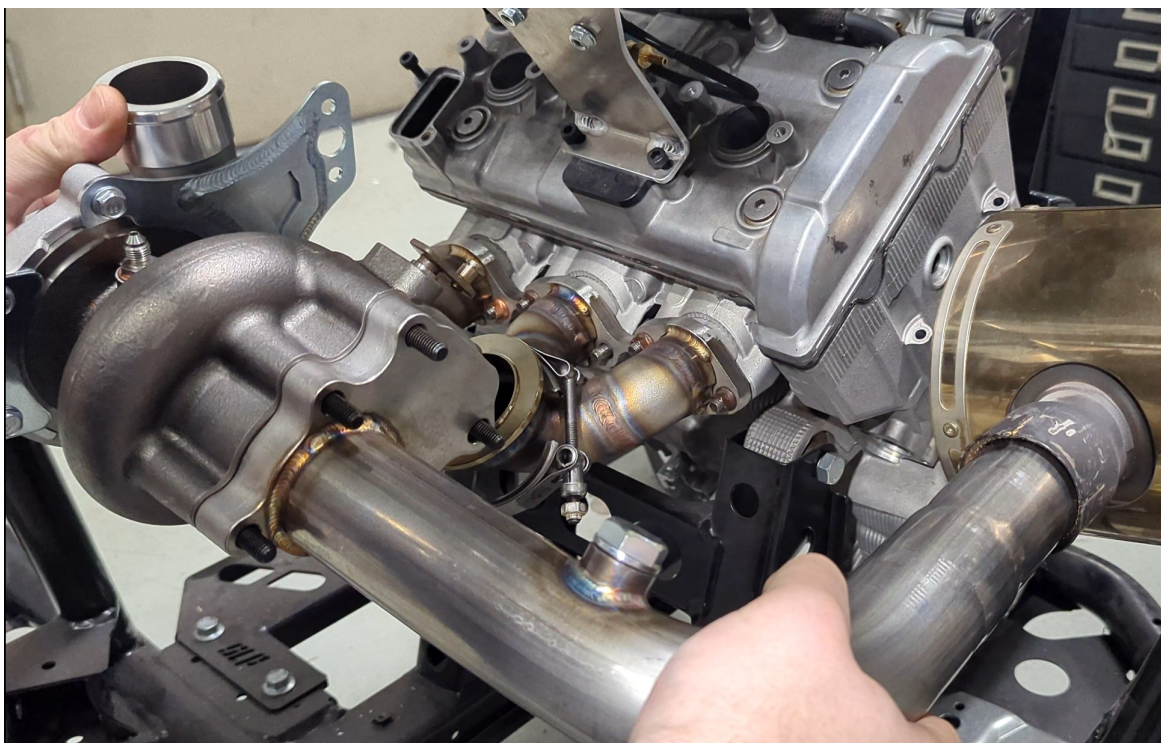
Slide the downpipe into the muffler / slip-on

Line up the flange on the downpipe with the turbo exhaust housing

Slide the 5-hole gasket in-between the turbo and downpipe

Install the exhaust studs

Once all the studs are installed, make sure everything is sitting flush / square, go around all the fasteners and tighten them up—including the muffler to the frame



41. Slide the silicone coupler from the intercooler down to the turbo outlet and fasten both hose clamps
42. Install the black -8AN fitting in place of the stator plug. Make sure there is an o-ring on the new fitting
43. Attach the -8AN hose from the bottom of the turbo to the fitting on the stator cover. One end of this hose swivels, that end goes on the turbo
44. Attach the -3AN hose connected to the Oil Distribution Block to the top side of the turbo
45. Below you will find a template for cutting out the plastics for the intake pipe.



46. Install the 135 degree silicone to the turbo inlet
47. Feed the top of the intake tube through the bed, then secure the bottom to the 135 degree coupler previously installed on the turbo
48. Standard Pod Filter—Must Be Oiled Prior To Install  
Install the Outerwears onto the oiled filter and install the filter to the intake tube.

Donaldson Intake Upgrade-Install the mounting bracket to the factory roll cage. Mount the Donaldson filter assembly (filter housing may need to be clocked before install). Install coupler onto the intake pipe and run the other end to the Donaldson Inlet.



## Installing the Fan Wiring Harness

49. Hook up the positive and negative wire to the battery (orange is positive)
50. Drill a 1/4" hole in the side of the factory plastic to mount the relay (see photo)
51. Run the intercooler fan plug (short part of the harness) through the factory plastic and plug into the fan harness on the intercooler
52. The longer part of the harness will run along the passenger side area to the front of the car. You will need to remove the center shifter plastic and a few of the clips for the side panel. You can tuck the harness into the factory rubber sound deadening material and / or zip tie to the factory harness
53. Remove the 2x allen head bolts to get access to the front side of the firewall. Unplug the white connector for accessory (cigarette) outlet and plug the harness in-line with those connectors.



## Final Assembly

54. Fill and bleed coolant system
55. Reinstall rear covers and center console
56. Install the 91 Octane sticker next to the fuel fill cap and the intercooler sticker over the inlet hole
57. AFTER THE FIRST HEAT CYCLE, RETIGHTEN ALL OF THE EXHAUST HARDWARE  
\*\*periodically check the tightness of all exhaust hardware after turbo install is complete\*\*