Rubberdown Customs Inc.
2022 CF Moto Z-Force 950 HO
SxS rad Relocation Kit

Important notice, it will make installation easier and coolant flow smoother if we use some parts of the factory hoses. Cutting parts from these factory hoses will be required and will need to be figured out by the installer the best way he sees fit to do so.

Removing the rad and hoses from the Machine

- Drain radiator for proper legal disposal. Remove the radiator fill cap and disconnect the lower rad hose on the radiator. Once it has drained, disconnect the other 2 hose connections on the radiator.

NOTE: Important for later on!!! The lower rad hose on the rad goes to the lower hose connection on the motor, the middle hose on the rad goes to the fill cap, and the upper rad hose goes to the upper connection for the motor.

- Remove the overflow bottle and the fill neck from the machine.

- Remove the front center plastic Radiator guard from the machine, there are several bolts and push-pins on the front clip/hood area to remove in order to access all of the bolts holding the rad guard in place.

- Cut the fan wire approximately 6” from the fan motor.

- Un-bolt the fan assembly from the radiator and push it black slightly to make room to pull out the rad.

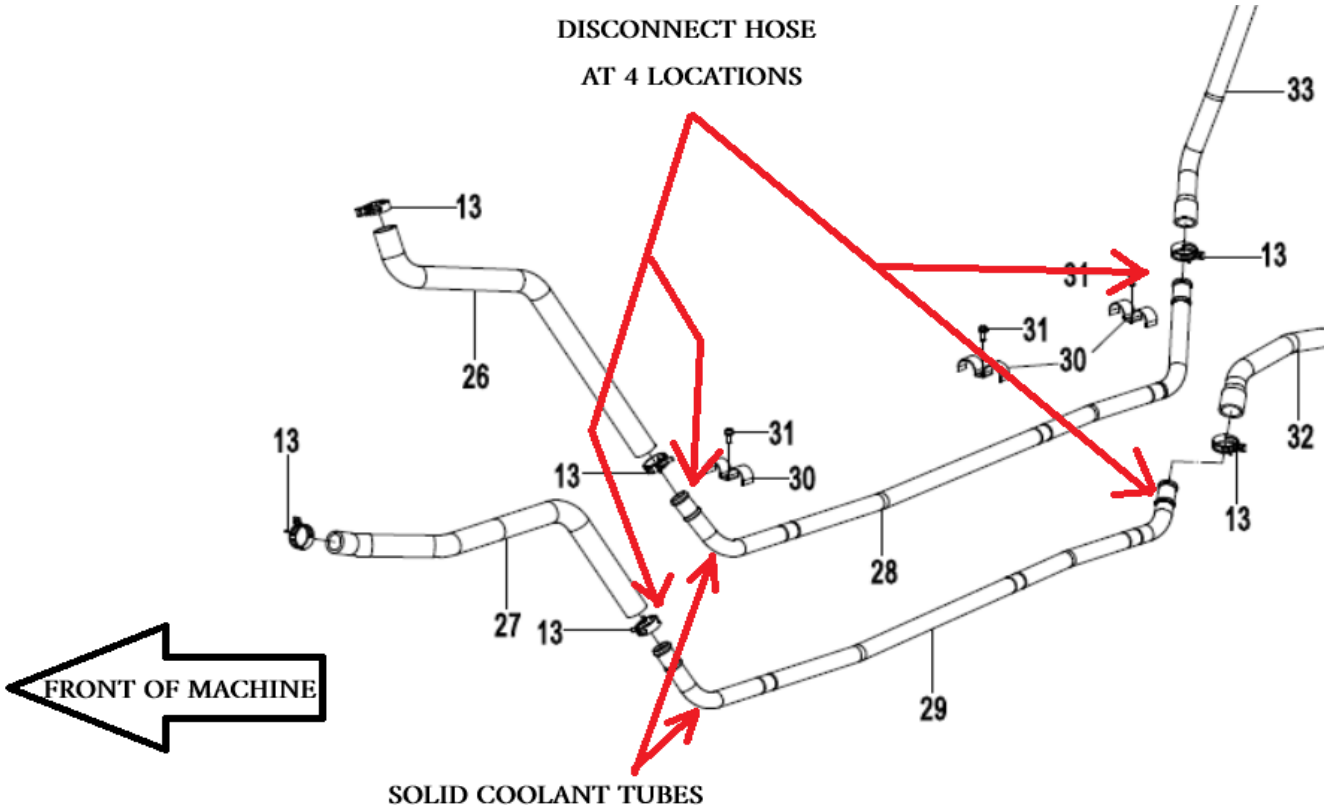
-Un-bolt the radiator (2 bolts at the top) and it can be lifted upwards to pull the 2 bottom mounting posts free and make it able to be removed. The best way to remove it is to turn the front tires all the way to the right and pull the rad out on the passenger side of the machine.

- Once the rad is removed, take the fan assembly out the same way. Remove the protective screen on the rad.

- Wash the radiator, the fan assembly and the protective screen. **MY SUGGESTED CLEANING METHOD**, lean radiator against a wall or a tree and wash it with a **STANDARD** garden spray nozzle, **NOT** a pressure washer. Spray the hose directly at the radiator, not from an angle and rinse until it looks clean, flip the rad and repeat on the back side. Flip back and forth until the rad it completely cleared of mud in every opening. This takes anywhere from 10 minutes to 40 minutes in my experience.

- Remove the 2 forward coolant hoses from the 2 steel coolant tubes that run from the front of the machine to the back of the machine. Place a waste oil pan below these fittings as more coolant will come out. These hoses are sealed at the connection and take a little force to break that seal. Repeat

this step at the back of the machine at the rear end of the 2 long coolant tubes, again, catch the coolant that comes out for proper disposal.



- Blow all coolant out of the 2 long steel coolant tubes, and if possible rinse them with fresh water from your hose, blow them out again so they are clean and dry inside those 2 coolant tubes. We will be using one of them later on to run our fan wire so its good to have them clean and cleared out.

- Remove the access cover for the air filter as well as the access cover below that AND the longer formed cover. The longer cover can be tricky, its best if it sits in the sun a little bit or warm it up a little bit with a hair dryer or heat gun so it doesn't crack when removing it. There is also an access panel behind the passenger seat that will need to be removed for easier access to everything around the motor.

REMOVE THESE 3 PIECES

MOUNTING THE RAD KIT

- Now that the rad has been cleaned and should be dry by now, bolt the fan assembly and the screen back onto the radiator.

- Using the four 1” long ¼” button head bolts 4 washers and 4 nylock nuts, bolt the 2 aluminum mounting bars to the inside of the rad kit as pictured below, pay attention to the hole positions in the picture, if installed correctly, there will be 2 holes on each aluminum mount that line up with 2 opened holes on the rad kit.

- Using the 4 U-Bolts, bolt the rad kit onto the roll cage as pictured. There are 2 small pieces of cut heater hose, these can be placed between the front face of the rad kit and the roll cage at the LOWER U-BOLT connection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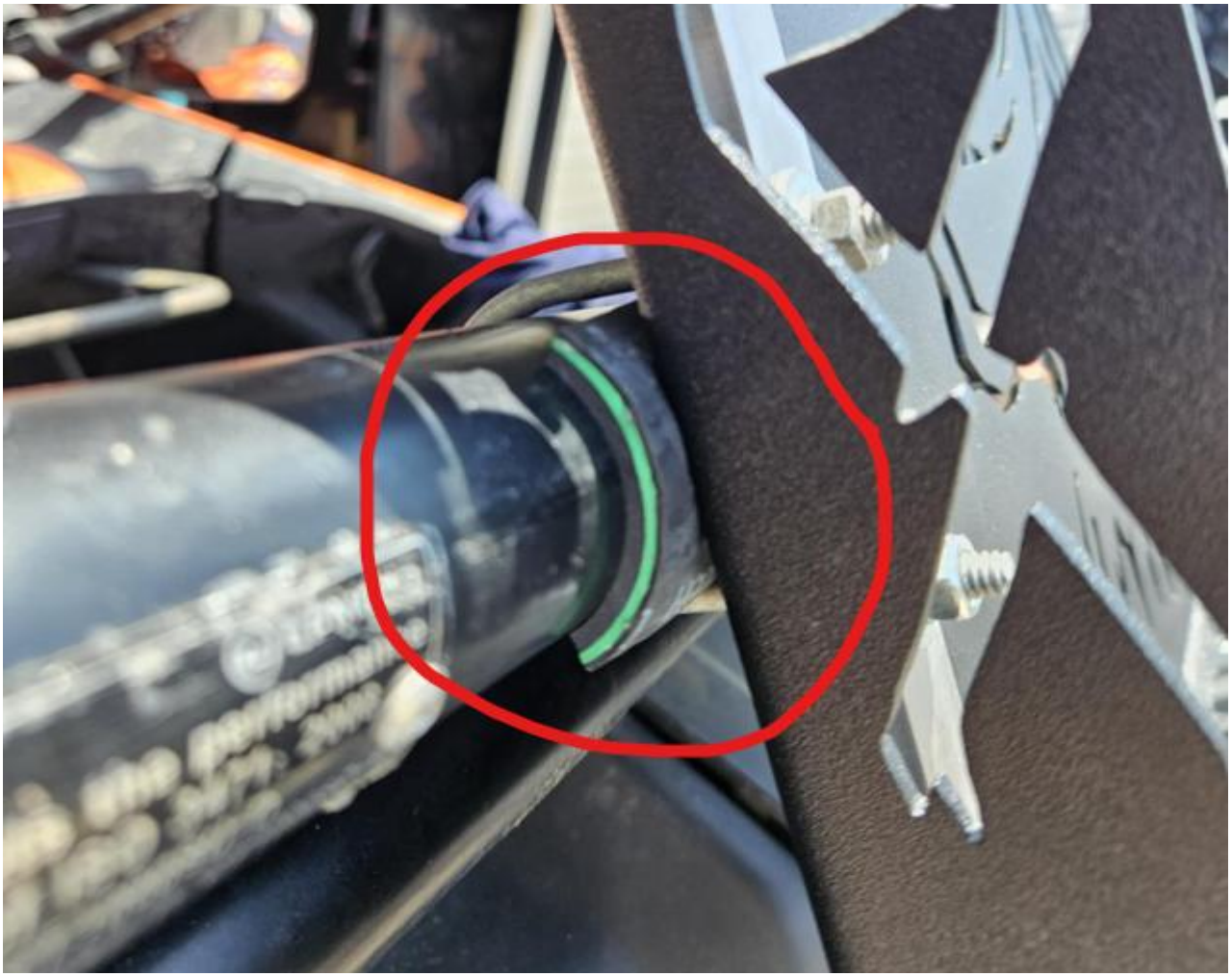
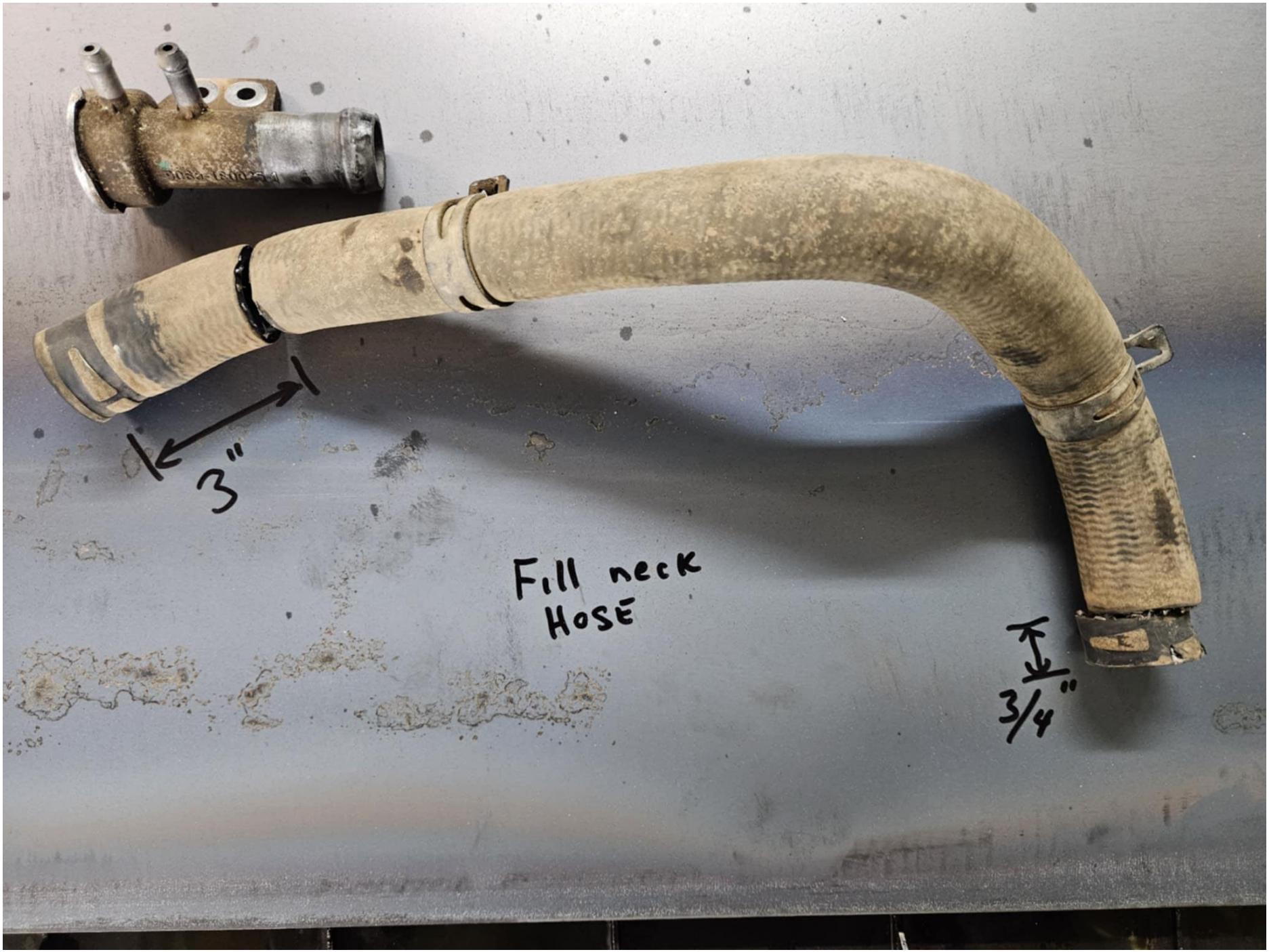
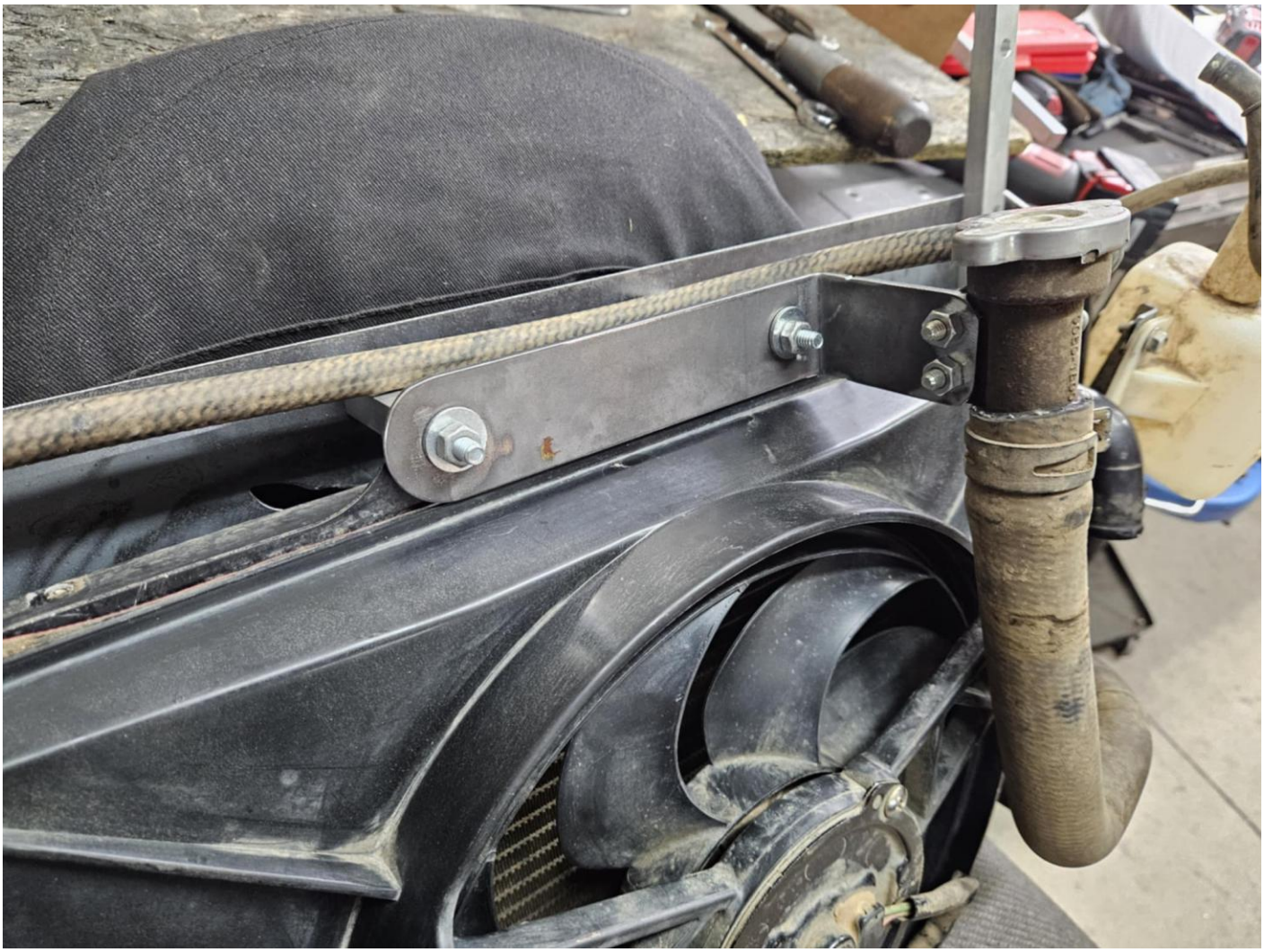
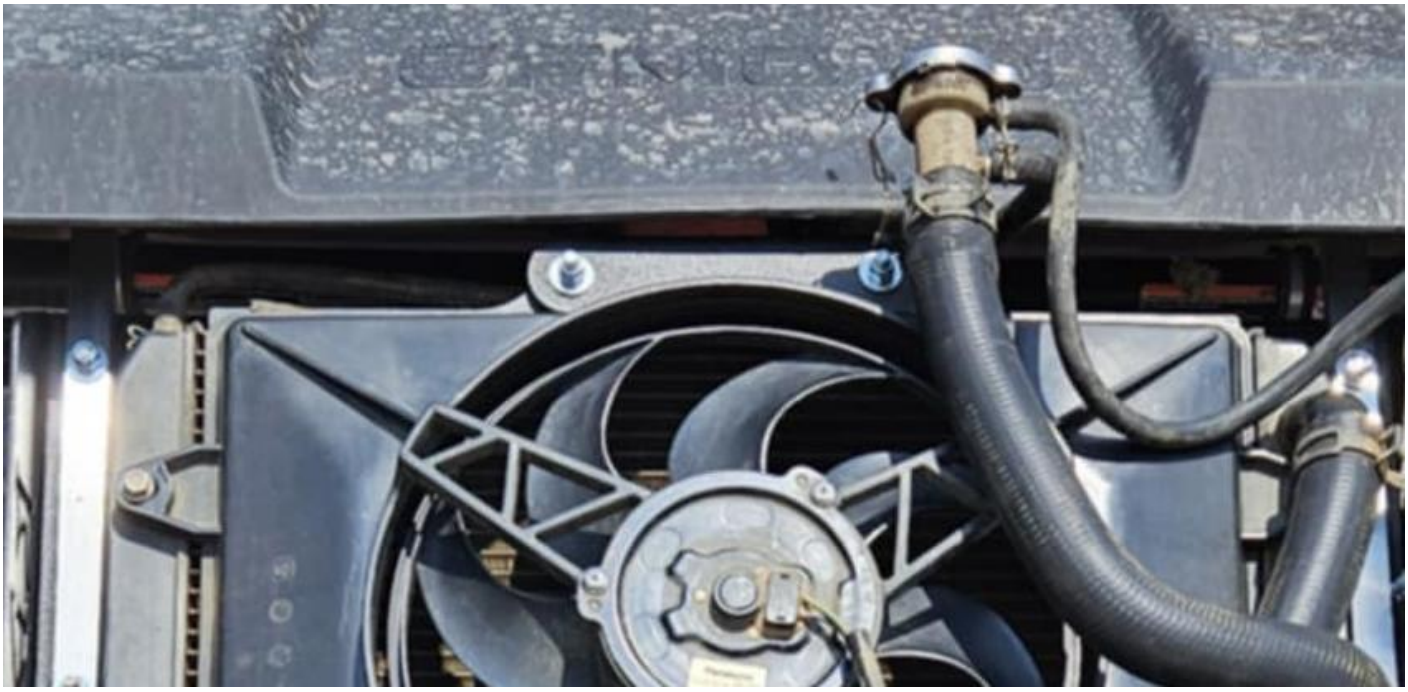


- You can now place the radiator into the rad kit, the 2 rubber bushings on the bottom of the radiator, its best to take them off the radiator and place them into the 2 holes on the rad kit, this makes it easier to get the posts in the lower mounting holes.

- Once the rad is in place, use the 2 square aluminum bushings, the 2 long carriage bolts, 2 washers, 2 nylock nuts AND the fill neck bracket to bolt the radiator in place. Pictured below is the completed connection also showing how the fill neck is to be attached. I actually cut the fill neck hose as marked to make it all fit together cleaner.


3"
Fill neck
Hose
3/4"





- To mount the overflow bottle, remove the factory mount from the overflow bottle and re-position it as pictured with the factory hardware so it can be mounted to the rad kit as pictured below. Use two of the ¾” long button head bolts, 2 washers and 2 nylock nuts to bolt it to the radiator kit. Notice the routing of the small hoses on the overflow bottle. The “DRAIN” hose was re-positioned to run from the overflow bottle to the fill neck. Use the supplied clear hose for the drain hose as pictured.

Plumbing The Lines & wiring The Fan

- At this point, all of the hoses are removed except the 2 steel solid coolant tubes, these stay in place as they are.

- Cut the UPPER heater hose about half way between the engine connection and the solid coolant tube. Then install a 3/4” STRAIGHT hose barb into that upper engine hose. On the bottom end of this hose barb, use a piece of the FACTORY coolant hose that has been set aside, use a piece that has a 1” I.D. on the end but is 3/4" ID on the rest of the hose, this will be the size change from the engines 3/4" hose to the radiators 1” orifice size. Next, install a 1” 90° hose barb into that short factory hose we just installed. See descriptive picture below.

- Route 1 of the supplied 4’ hoses through the eccess at the bed of the machine where we removed the air filter access covers. Route it down to the 1” 90° hose barb and make that connection using the supplied hose clamps. Leave the top end of the hose alone for now.

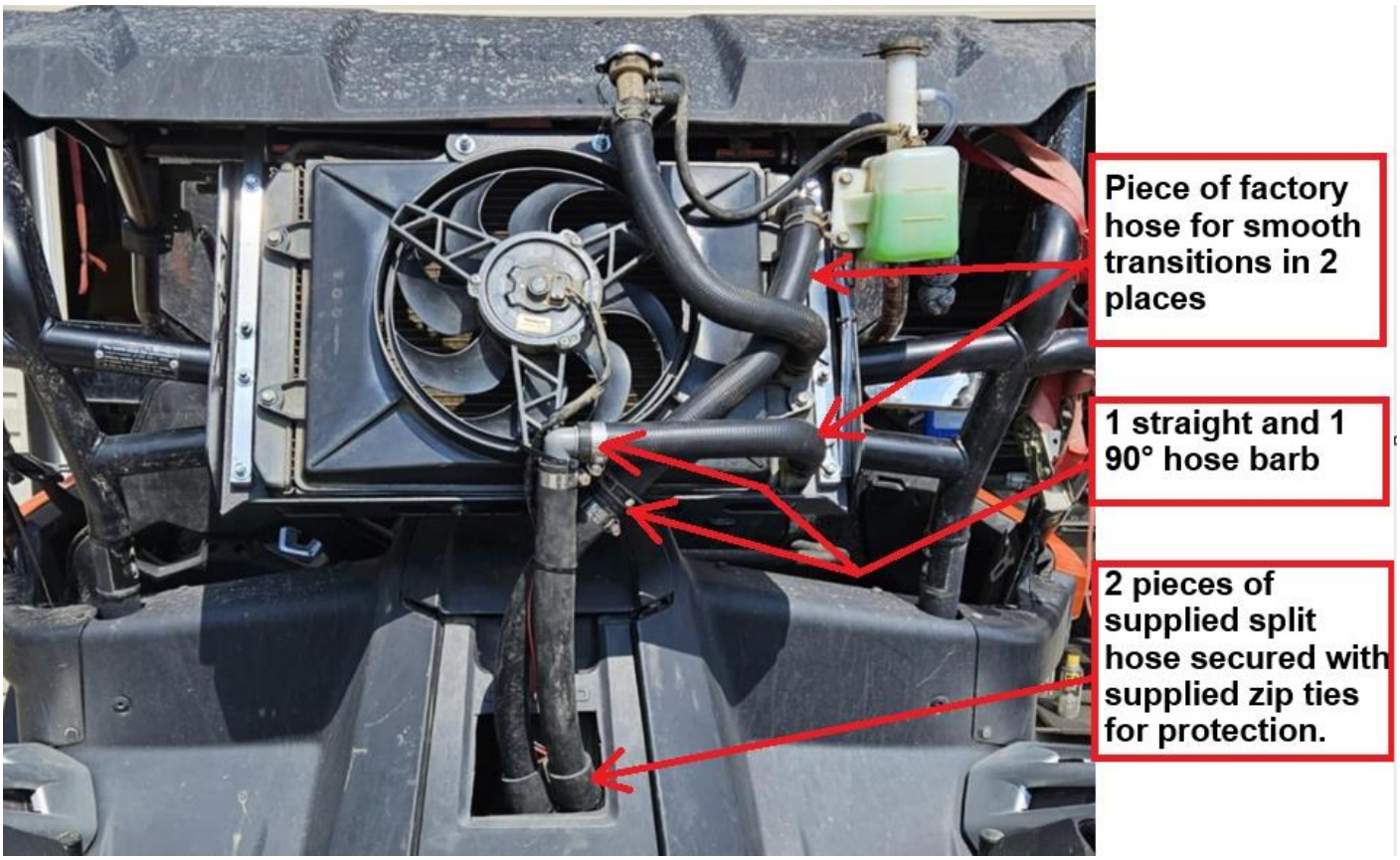
- Remove the short factory hose off of the LOWER engine connection and cut it shorter to make room for a 1” 90° hose barb to be installed on the opened end. Install the hose barb and route the 2nd 4’ heater hose the same way and make this connection.

- Now that the hoses are all connected at the engine end of things, lets make the upper hose connections. BUT before we can do that, we need to trim a little plastic on one of those covers.

- Cut a hole to clear the 2 coolant hoses in this access cover. I did a nice large square hole so there is no rubbing all around the hoses.

- Once you get that hole cut, you can re-install that access cover, remember to be careful, it needs to really flex to be removed and put back in place.

- Now you can complete the hose connections as pictured below. As I mentioned at the very beginning, using some of the factory bits and pieces of hose will make this look and flow smoother. I did re-use the factory hose clamps at the Radiator and use the supplied hose clamps for ALL other connections.



Wiring The Fan

- Strip the casing off the fan wires at both end and put the heat shrinkable butt connectors on the 4 exposed wires.

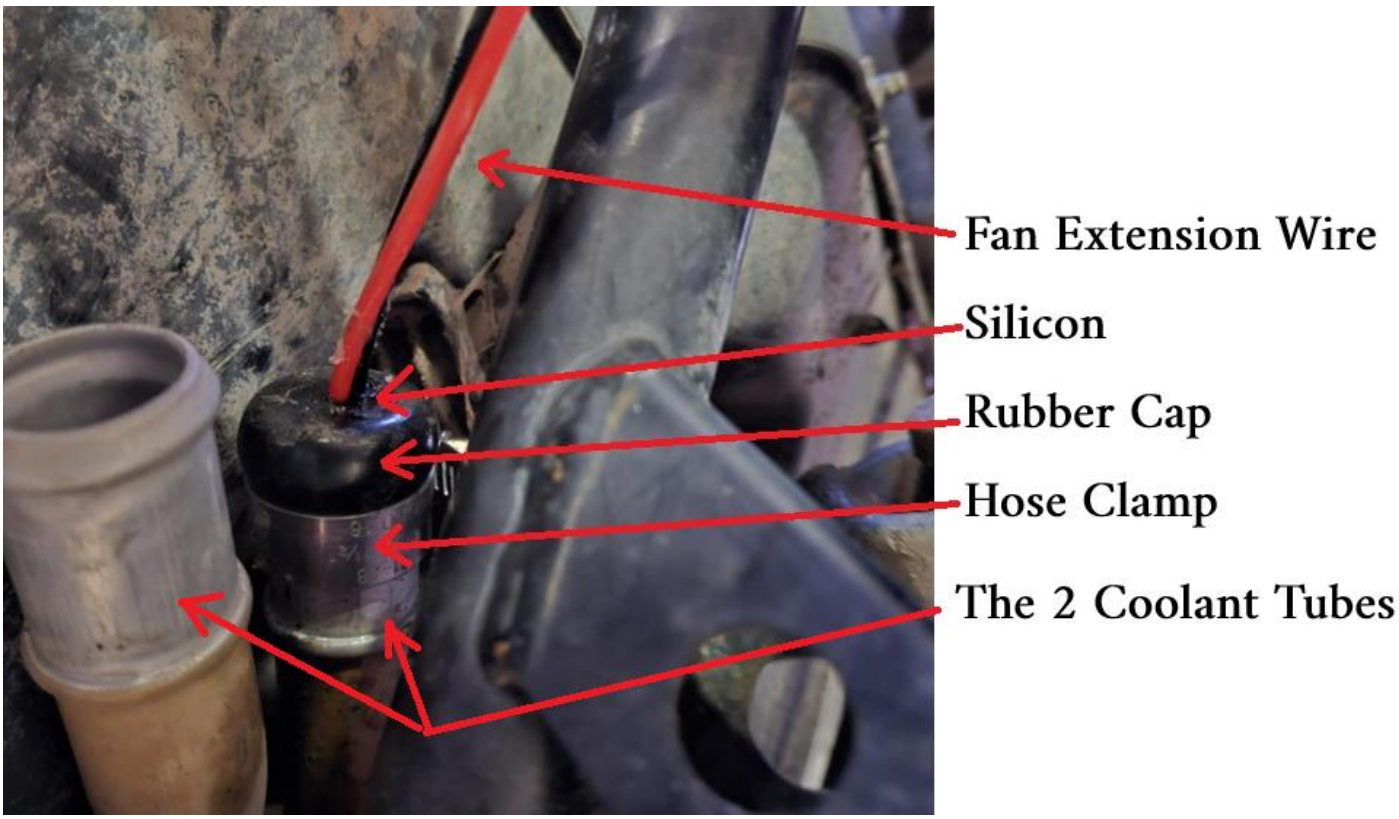
-Strip only 1 end on the supplied wire and make the connection ONLY at the front of the machine for the fan wire extension for right now. Make sure you crimp and heat shrink these butt connectors.

- Push the extension wire through one of the supplied rubber caps, you will need to drill a small hole in the end of the rubber cap, make it as small as possible so its just large enough to fit the wire through the hole.

- Now run the supplied wire through the solid upper coolant tube, we are using this as a “conduit pipe” for the fan wire extension. The rubber cap can be hose clamped onto the front end of the coolant

tube/Conduit. Use a little silicone around the wire to seal that rubber cap, you can put some silicone on the inside and the outside before hose clamping it in place.

- Push the other end of the new wire through the 2nd supplied rubber caps that will close off the 2 ends of the “conduit” coolant tube. Silicone the wire at the rubber cap and hose clamp this end too, theres enough wire that you wont have to pull it tight inside that conduit, leave a little slack at the front end of the machine and zip tie the wire securely so it doesn’t get pulled by branches or anything else you are riding through.



- Now route the wire up through the access panel holes in the bed of the machine and zip tie it to the heater hoses to keep it protected.

- Cust the wire to the appropriate length and strip the end and make the final connection with the heat shrinkable butt connectors. Be sure to not mix up the 2 wires when making the final connection.

Final Steps

- You can now re-assemble the front of the machine, put the factory rad guard back in place, and put all the bolts and push pins back in for the front clip/hood.

- Re-install the remaining 2 access covers at the rear of the machine.

- Make sure the wire and the hoses are zip tied and secured to prevent any chafing of the hoses.

- Fill the radiator with new coolant until its full. Fill the Overflow bottle to the FULL line on the bottle. Leave the Rad fill cap off for right now.

- Start the machine and let it warm up, the coolant level SHOULD drop almost right away. Keep topping it up as it needs it. Let the machine run until it no longer needs coolant added and put the cap on the fill neck.

- Let it run and rev up the motor a little bit to get it warm enough to cycle the thermostat and circulate the coolant. Once the fan kicks on, you know it has done this. At THIS point, turn off the machine and let it cool down.

- Once its cooled down enough to remove the Fill Cap, take it off and top up the coolant. Repeat the burping steps and see if it needs more fluid. Do this 2 or 3 times to make sure all of the air is out of the system.

- Take some coolant with you on your first few rides just in case you need to top it off again, sometimes a small air pocket takes a little while to work its way out, once it does, you can top up a little more fluid.