

2014 Can Am Commander - Maverick Radiator Relocation Installation Instructions

What comes with the kit

2 CNC Machined Aluminum mounting brackets

1 Aluminum Cross Member

2 Aluminum "INNER" clamps

2 Aluminum "OUTER" clamps

2 pcs M6 x 1.0 x 60mm long SHCS

2 pcs M6 x 1.0 x 75mm long SHCS

4 pcs M8 x 30mm long SHCS

8 pcs M8 x 40mm long SHCS

1 Powder coated Steel face plate

4 aluminum bushings (1.240" long)

Face Plate & Screen Hardware

- 4 pcs 1/4" x 1" Carriage bolts

- 8 pcs 1/4" nuts

- 8 pcs 1/4" lock washer

- 8 pcs 1/4" flat washers

- 4 pcs 1/4" STAINLESS Flat washers

1 powder coated perforated steel screen ([\\$20 Option/upgrade](#))

20 feet of 1" heater hose

12 feet 1/4" clear overflow bottle hose

10 pcs - 1" Hose Clamps

2 pcs - 3/4" Hose Clamps

2 pcs - 1" Hose Barbs

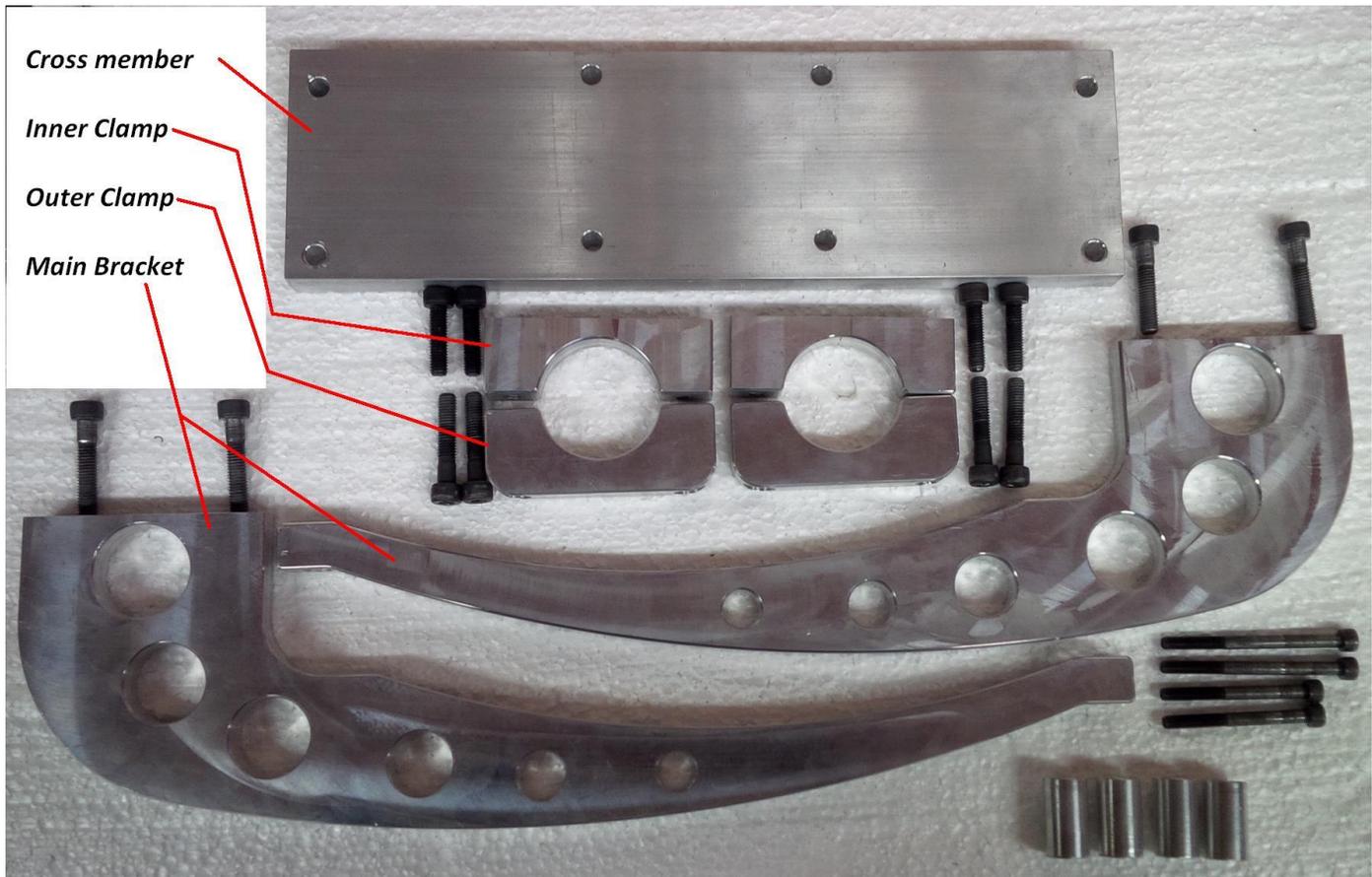
1 pc - 1" 90 degree hose Barb

10 Feet of Heat Tape

6 Black Zip Ties

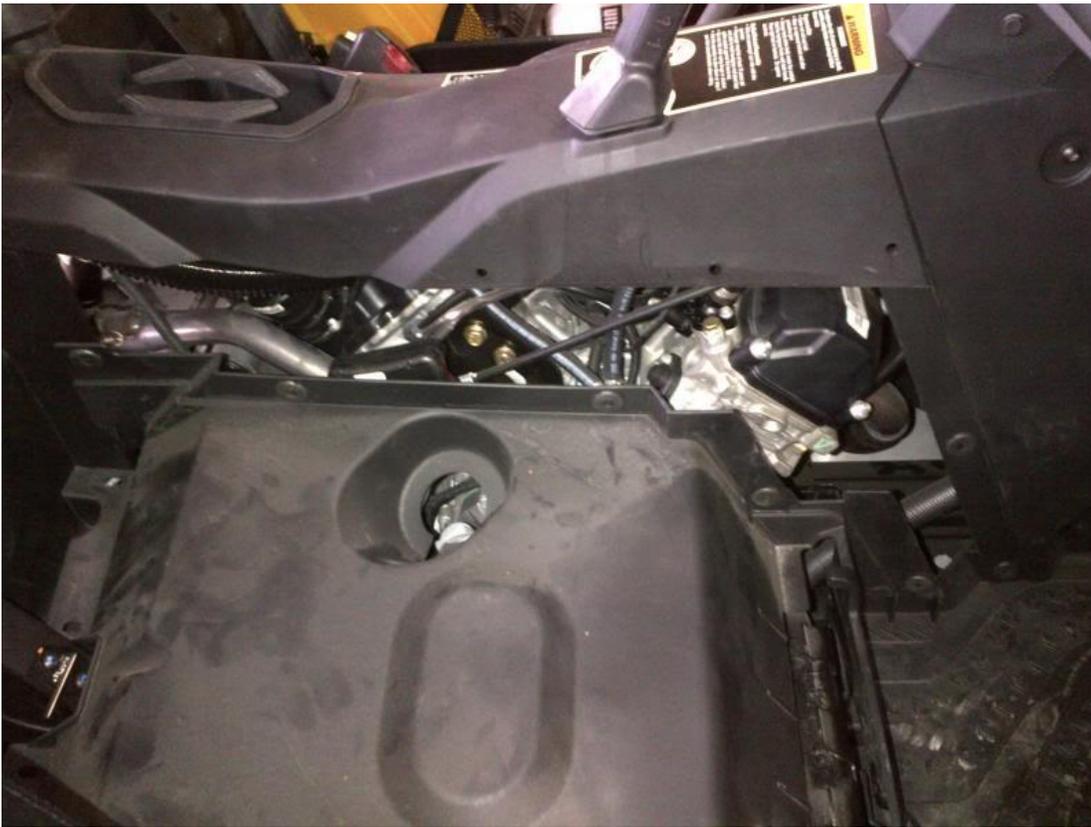
12 feet dual fan wire

4 Heat Shrink butt connectors



Installation Instructions

- Remove the front splash guards under the front fender.
- There are small clips that hold the main front hood in place as well as a few nuts and bolts in various locations, removing some of these to get the main hood lifted up will make it easier to remove the radiator. This rad is pretty large and it will make you work for it to get it removed.
- Remove both sides to the center console, these are secured with the standard plastic push pins and some bolts



-Remove the bolts holding the fan to the radiator and unplug the fan and lean it back towards the cab of the machine.

-Disconnect the lower rad hose from the bottom of the radiator and allow the coolant to drain. Removing the fill cap may speed up the process

-Disconnect the upper rad hose on the opposite side of the rad

-Remove the top 2 bolts that hold the radiator in place, the bottom is only secured by 2 posts on the bottom of the radiator. With the 2 bolts removed, you can lean back and lift the radiator out of the 2 post holes at the bottom. You can now slide the radiator out the side towards the passenger side front tire, turn the tire all the way to the right for extra room.

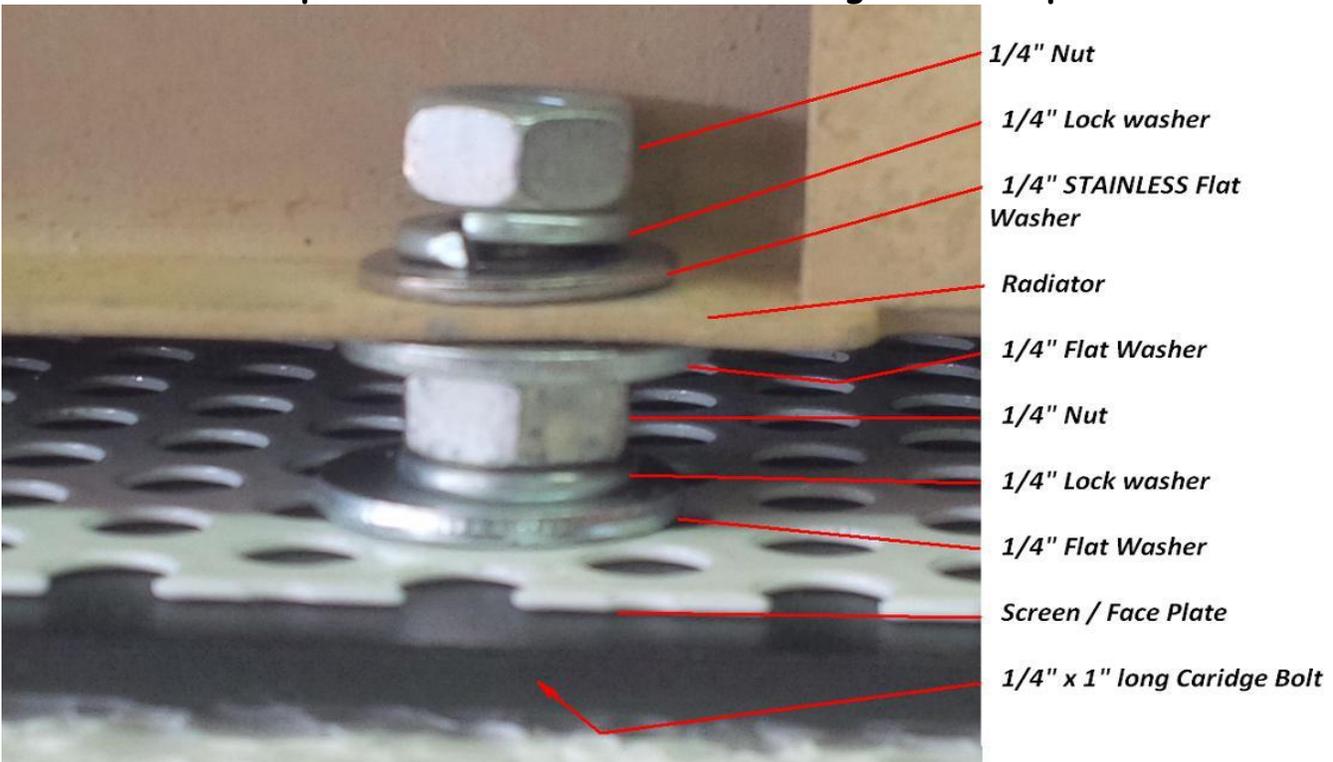
-With the radiator out and completely drained, now is a good time to fully clean it. A good aluminum spray cleaner and a garden hose work very well, make sure you get ALL of the mud out of the entire radiator.

-There is a T Fitting between the thermostat and the top hole of the radiator, this is where the fill neck and cap are located, you need to remove the T fitting

along with the fill neck/cap assembly and the piece of hose that went to the top of the radiator. The overflow tube also needs to be removed from the fill neck

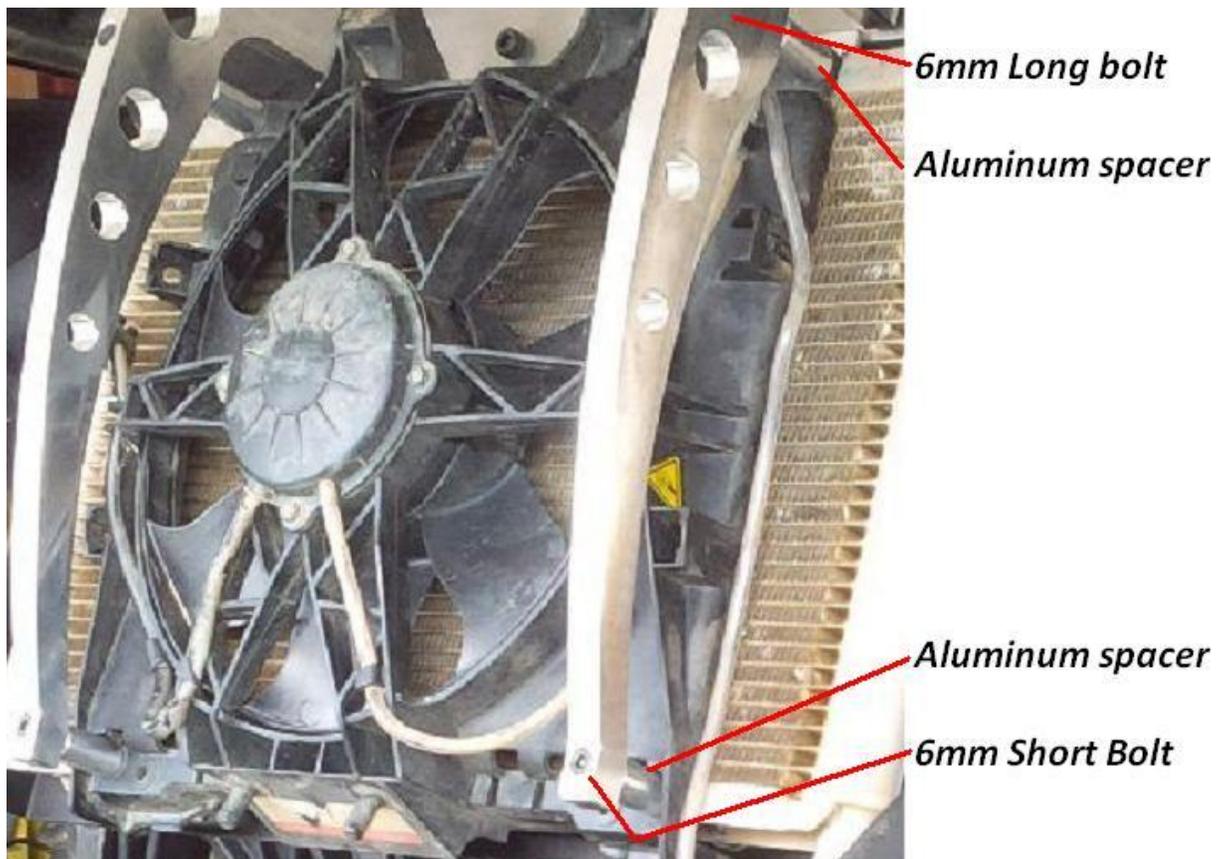


-You will need to re-use parts of the factory hoses so set them aside for now
-You can now bolt the Steel face plate and optional screen to the front of the radiator by bolting it into the 4 oval holes on the radiator, see the picture below for the sequence of hardware while bolting the face plate to the radiator.

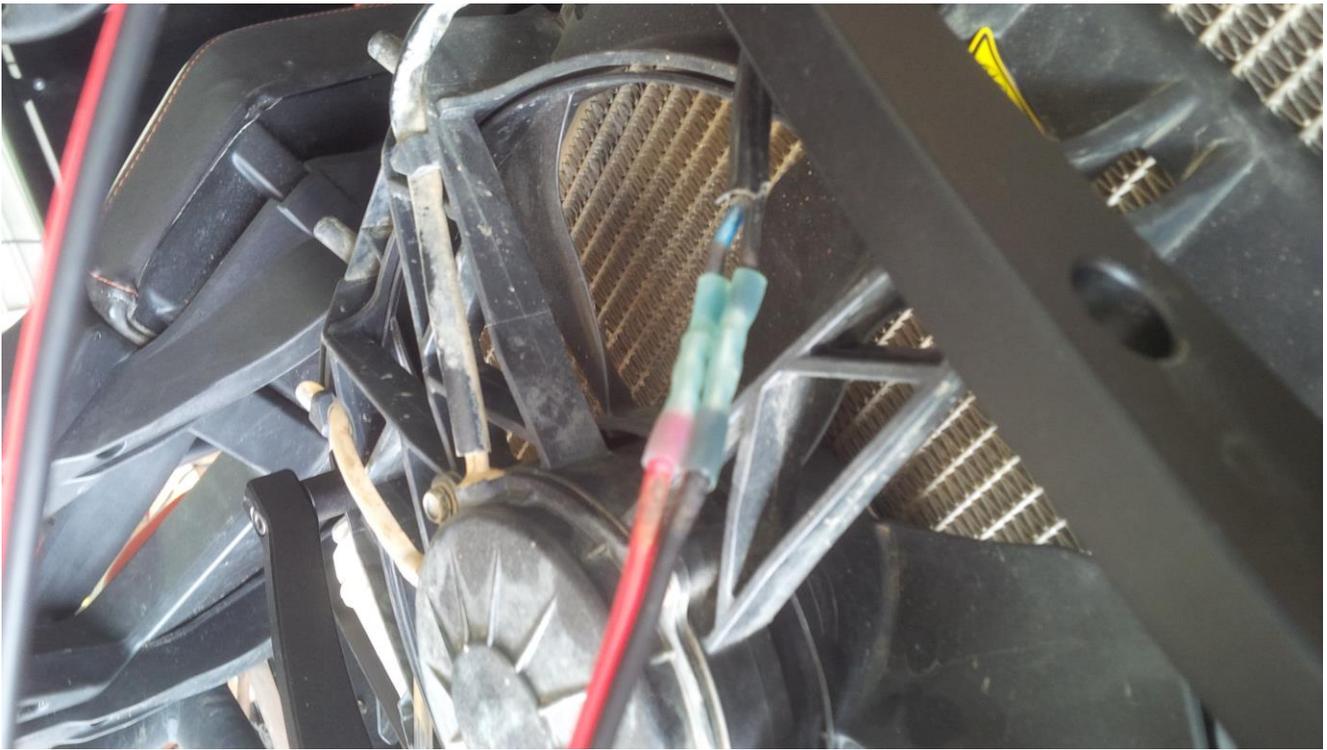


-Install the 2 larger mounting brackets to the radiator using the supplied 6mm

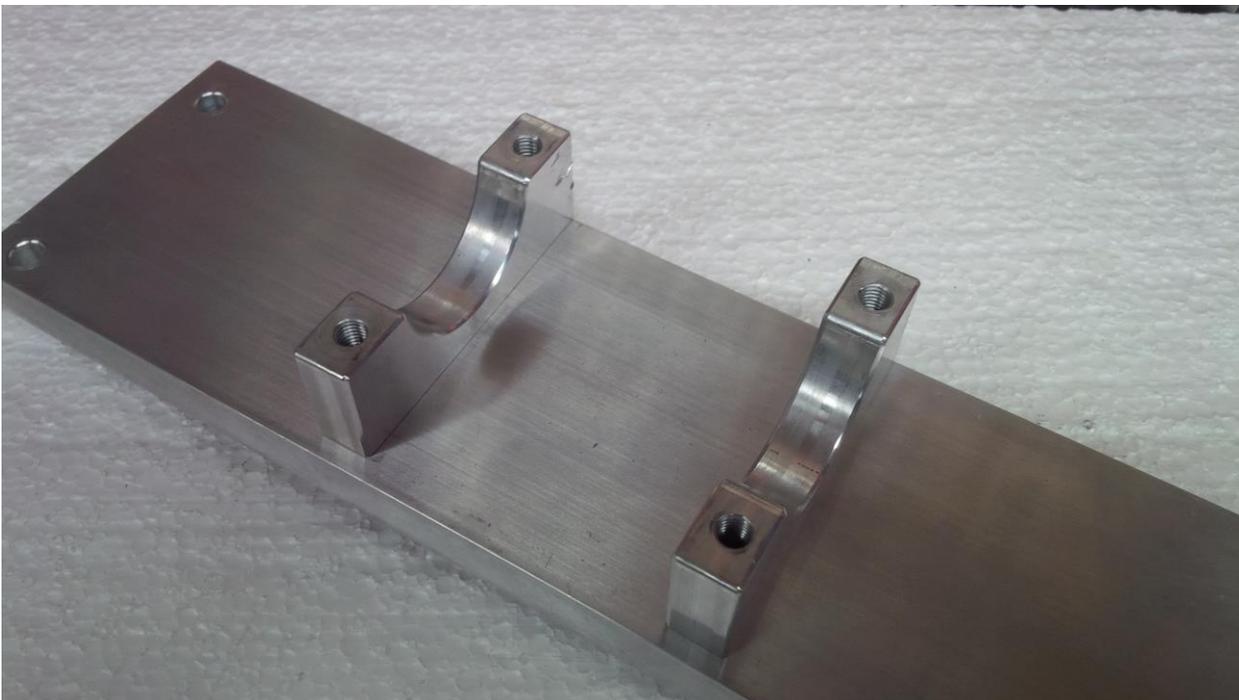
hardware and round aluminum spacers. The bolts will thread right into the factory threaded clips on the radiator.



-While the radiator is out and easy to work on, Cut the plastic sleeve back on the fan plug wires at the fan and then cut the plug wires leaving enough room to strip and re-connect the wires. Using the shrinkable butt connectors, connect the end of each supplied wire to the wires on the fan assembly by crimping them and then use a lighter to shrink them for a sealed connection. It is easier if you splice the wire at the radiator so the plug can be plugged in under the hood rather than trying to splice wires up under the hood with limited room.



-Using 4 of the 8mm x 30mm long Allen bolts, bolt the "INNER" clamps to the center section of the Crass Member. TAKE NOTICE THAT THEY ARE NOT CENTERED FROM TOP TO BOTTOM!!! The side that is almost flush with the Cross Member and 1 side of the clamps, this is the TOP and this is very important!



-Now loosely bolt the Cross Member to the roll cage using the 2 "OUTER" clamps and 4 of the 8mm x 40mm long Allen Bolts. Do NOT tighten the clamps yet, get them just tight enough to allow you to rotate the Cross Member on the roll cage if needed! Getting the upper bolts in place for the radiator and radiator bracket is a tight fit, rotating the cross member might be required to get the head of the outer upper bracket bolt in place due to the new factory gusset plates on the roll cage.

-With the help of a second set of hands, you can now hold the radiator assembly up to the cross member and have someone install the last of the 8mm x 40mm long Allen bolts to secure the radiator, face plate and radiator Aluminum brackets. You can tighten these 4 bolts between the brackets and the cross member.

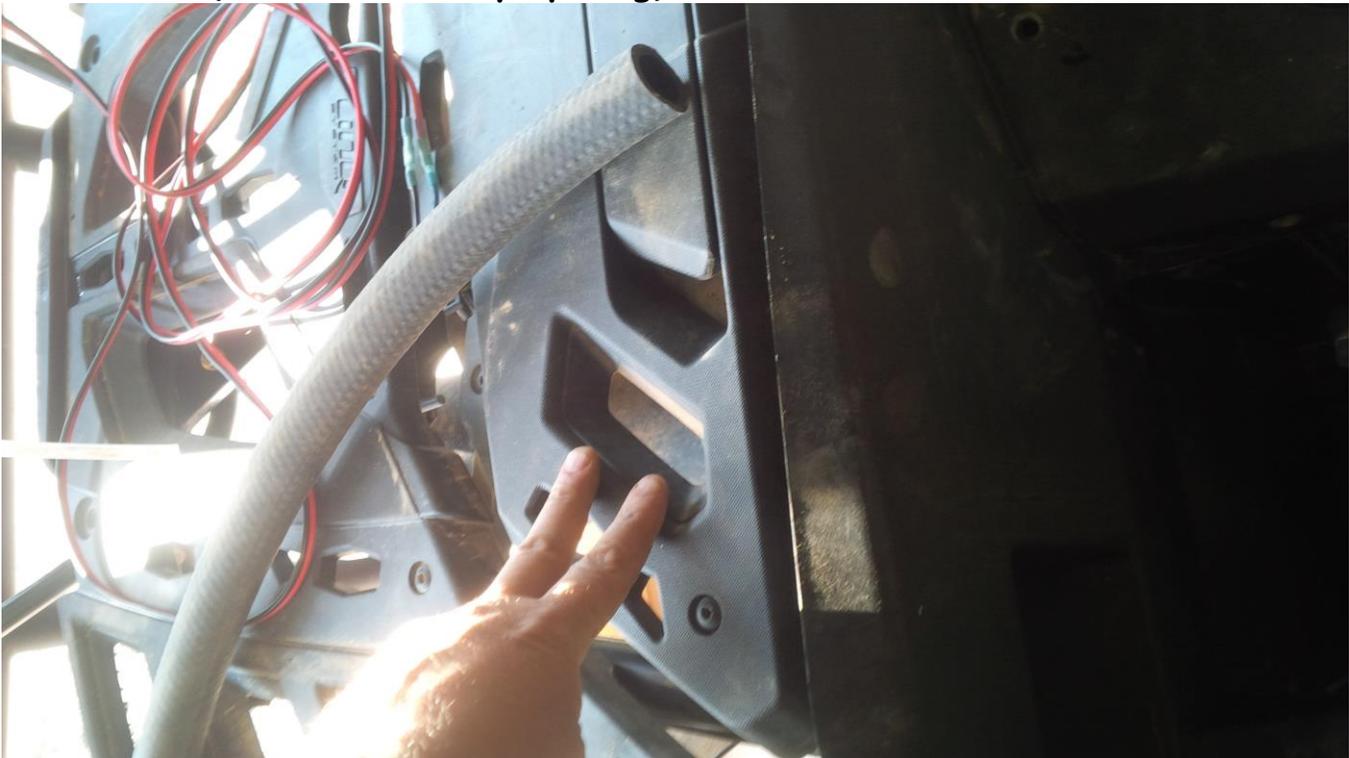
-Rotate the rad kit into a position that works for you and be sure to tighten the roll cage clamp bolts evenly so you have an even gap on both sides of each clamp.

-You will now need to decide where YOU want to run your hoses. Below are 2 options I have used, the first was in a Snorkeled Commander, the second was in a Maverick. Keep in mind, you will have to drill or cut a hole or an oval large enough to run 2 pcs of 1" heater hose, 1 pcs of overflow hose and wire through hole you make.

COMMANDER (drilled in the center console)



MAVERICK (modified factory opening)





-Run the supplied heater hose from the back, through the hole you cut for the hoses, down and along the right side of the motor, connecting the end to the bottom of the thermostat housing, this hose will then be cut at the rear end of the machine, cut it off just long enough to connect to the bottom of the radiator on the right hand side. Use the supplied 1" hose clamps to secure the hose to the thermostat housing but do not attach it to the radiator



-DEPENDING ON HOW YOU WANT TO ROUTE THE HOSES AT THE RADIATOR, you may want to take one of the factory hoses that we removed and cut off a section as pictured below, then use this section on the bottom of the radiator, this will give us a nice smooth transition if you are running the hose to the center console.



Commander routed to center console



Maverick routed almost straight down

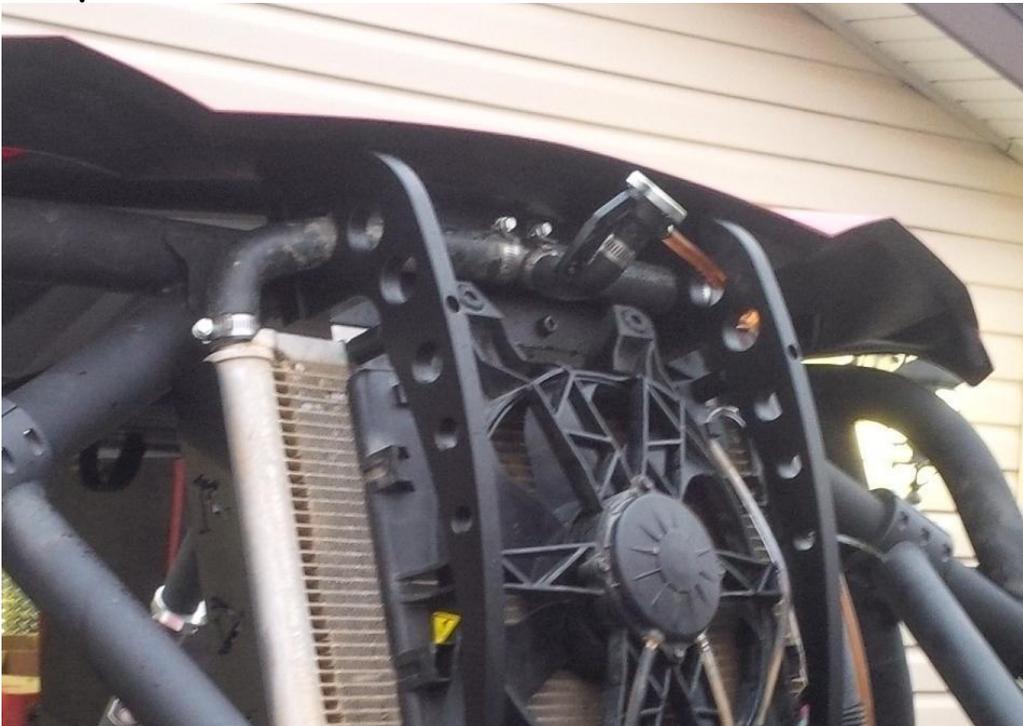


-Now you can join this lower factory section of hose with the 1" hose running to the thermostat using supplied hose barb and hose clamps.

-Run the remaining length of 1" heat hose along side the hose you already ran to the front of the machine and it will attach to the left side under the front end where the T fitting was removed using a supplied barb and hose clamps.

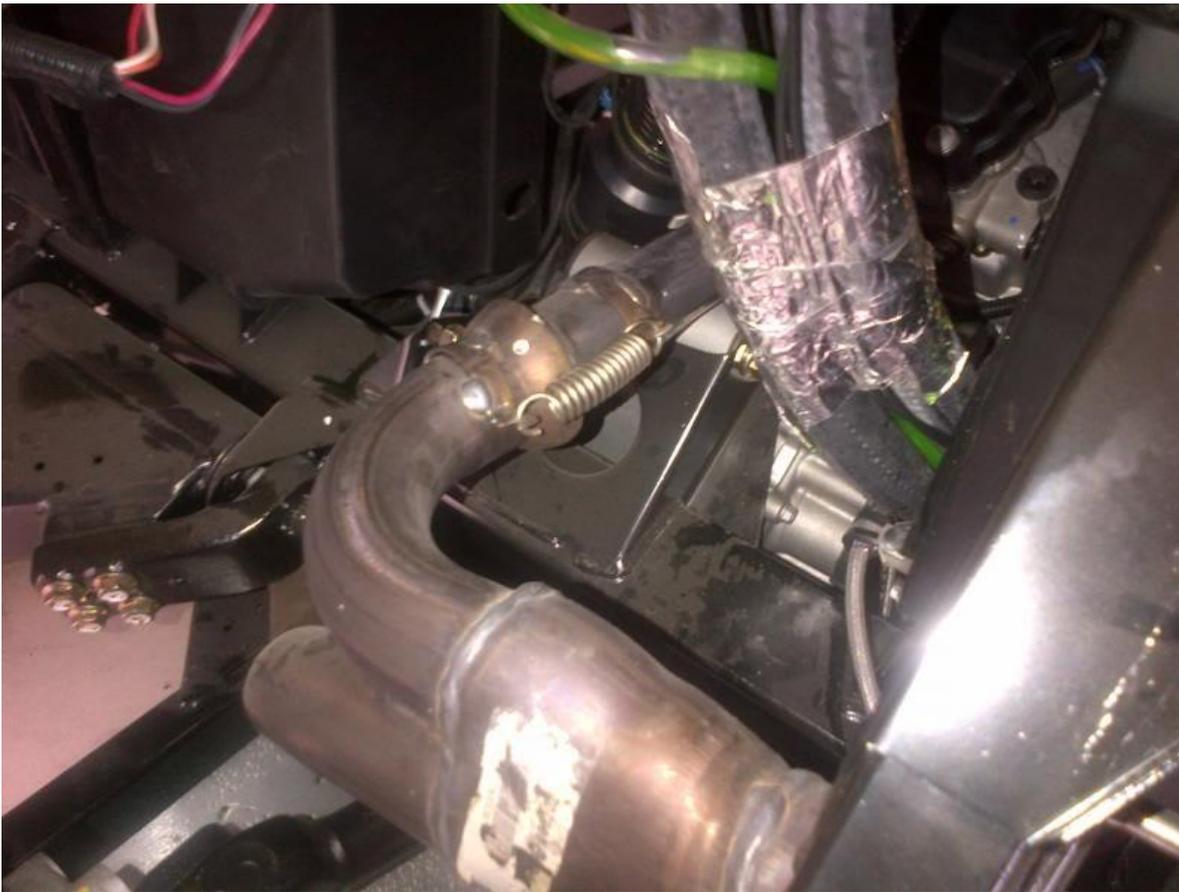


-Using the factory hose with the T fitting, attach this to the top of the radiator by feeding the factory bend through the large hole in the mounting bracket. Then take the other factory piece of hose that we cut apart earlier and connect it to the right side of the Tfitting and through the right side mounting bracket. And finally, cut the 1" supplied heater hose to the correct length and connect it to this factory hose with supplied hose barb and hose clamps.





-With the dump box tilted back on the Commander, or just under the mud guards on the Maverick, use **SOME** of the supplied heat tape to protect the heater hose from the exhaust, I would recommend maybe using some zip ties to pull the hose all the way over to the side if possible for added protection. Save some of the heat tape for the new Fan Wire and Overflow line to be used later in these instructions



-You now need to remove the short factory overflow tube from the bottom of the overflow bottle, it will be much easier if you remove the overflow bottle from the machine as the hose seems to be siliconed onto the nipple.

-Run the supplied clear tube along side the 2 new heater hoses so it can be connected to the overflow bottle and the fill neck and then re-attached to your overflow bottle.

-Run the extended fan wire to the front as well and wrap the wires, over flow tube and heater hoses with heat tape in areas where they may be exposed to too much heat from the exhaust or engine.

Filling and BURPING the System

There is a bleeder screw on the top of each cylinder, use an 8mm wrench to back this screw out a few turns and then fill the radiator with coolant. These bleeder screws will let the air escape from the system. **If you have a second person with you, push the gas pedal ALL THE WAY TO THE FLOOR, AND THEN TURN THE KEY TO THE ON POSITION AND PUSH THE START BUTTON. As**

long as you start by pressing the gas pedal all the way in and hold it in during this process, the engine will turn over and the water pump will cycle BUT it will not start the machine. Get the second person to open the bleeder screws until the air is out and coolant starts to come out, then close the bleeder screws. This is a good way to get some of the air out of the system through bleeder screws. Do NOT overtighten them, they are only threaded into plastic!!!!



-Once the system is full and coolant comes out of both bleeder screws, close them up and run the machine. As the coolant level lowers, top it up. After a few minutes put the fill cap back on. With the cap on, pressure will buildup in the system, loosen these 2 bleeder screws again to allow any air/steam to escape the system. Once you get coolant coming from the bleeder screws, close them back up, turn off the machine and let the machine cool down.

-Once the machine is cool enough to open the fill cap, check the level and top it up as needed. Put the cap back on, run the machine for a few more minutes and bleed the system again.

-Another way that worked great for me was to remove the fill neck fitting and put a large funnel into that hose and fill the funnel half full with coolant. While you hold it in place, get someone to start the machine and rev the engine every few minutes to get the coolant to cycle through the system. This will allow air to puke out into the funnel and instantly be replaced with coolant **WITHOUT MAKING A HUGE MESS!**

-Once both heater hoses are getting warm, you know the coolant is circulating and there are no air blockages in the system. I made a rubber plug to drop into my funnel once I was done using it to keep the extra coolant from spilling all over the floor or machine. I then removed the funnel and put the extra coolant back into a jug and re-installed the fill neck. See my funnel attachment below,

