

CFMOTO CFORCE 800 XC (2019-2021)

Radiator Relocation Kit Installation Instructions

Removing the Radiator

1. Remove front plastic racks and center access cover



2. Remove inner fenders
3. Unplug the Temp sensor from the radiator and the fan plug
4. Disconnect the 2 small overflow hoses from the radiator fill neck, but remember that the top one goes to the Overflow Jug, and the bottom one goes to the Radiator



5. Place large waste oil pan under the Radiator
6. Remove the radiator fill cap
7. Disconnect the lower radiator hose and collect all draining coolant for proper disposal



8. Disconnect the short Fill Neck hose from the Radiator



9. Remove the 2 bolts holding the fill neck in place and remove it from the ATV



10. Disconnect the upper radiator hose (last hose to remove)

11. Remove the 2 bolts holding the Overflow Jug in place and then remove the jug from the ATV

12. Turn the handlebars all the way to the left and then Remove the front left wheel from the machine

13. Remove the 4 bolts that secure the fan assembly to the radiator and carefully slide the fan assembly out from the left hand side.

14. Carefully pop the fuse/relay block off of the 2 gromets that hold it in place so you can access the 2 top rad mounting bolts



15. Remove the 2 top rad mounting bolts and carefully pull UPWARDS so the 2 bottom posts come out of their mounting holes

16. Carefully slide radiator out the left hand side

17. Re-install front left wheel

18. Thoroughly wash out and rinse the Radiator until you can see light through the entire rad, I personally just use a garden nozzle and a hose and rinse from both sides for about 10 minutes until all water flowing through all of the fins is clear and has no blockages from mud or debris.

Before



After



Installation of Radiator and Rad Kit

1. Lay the face plate, face down on a non scratch surface like a towel or cardboard and bolt the 2 side plates on using 4 of the $\frac{3}{4}$ " long carriage bolts, 4 washers and 4 locknuts.



2. Place the 2 long 3-1/2" carriage bolts through the 2 square holes at the top of the face plate, put the 2 square aluminum spacers over the 2 long bolts, and place a washer on top of each square spacer



3. Take the 2 rubber bushing off of the 2 bottom posts of the radiator and put them into the 2 suitable holes in the bottom bend on the face plate.



4. Place Radiator into the bracket by first putting the 2 bottom posts into the 2 rubber bushings, then align the 2 top mounting holes to go onto the 2 long carriage bolts.



5. Place the long mounting bracket in place next and use 2 washers and 2 locknuts to secure the radiator into the bracket. NOTE*** YOU MAY NEED TO BEND THE LARGE TAB ON THE FRONT UP YOUR RADIATOR A LITTLE BIT TO PREVENT IT FROM HITTING THE RAD KIT FACE PLATE!



6. Use 2 of the $\frac{3}{4}$ " long carriage bolts and 2 lock nuts to secure the fill neck to the mounting bracket. The hose connected to the fill neck will need to be rotated slightly so it will line up with the orifice on the radiator once the fill neck is bolted in place.



7. Now flip the entire kit with radiator installed over and set it flat as if it were being set onto the machine, this is how the fill neck should look once it is installed and the hose is re-connected to the rad.



8. Take the little overflow hose that connected the fill neck to the radiator and cut it where this one is marked in green, then connect it like the red line indicates.





9. Cut both of the original factory hoses back just behind the factory bend by about 2 inches.



Cut about 1" longer than this for the hose on the left hand side as it will be used later on!!!



10. Take the supplied heater hose and feed one end of it through the top where the access cover is, put 1 end of the hose through where the original fill neck location is, and the other end through where the original overflow location was. The hose will be sticking out the top like a big loop

11. Using 2 of the 90° hose barbs, make a connection on both ends of the supplied heater hose and connect the hose barbs to the factory hoses on the left and right side, this will make it seem like 1 big complete loop from the right side upper hose to the left side lower hose. Don't worry, we will be cutting the supplied hose later on to complete the plumbing circuit, this method just makes sure you don't cut one too short and 1 too long by mistake. It helps to use soapy water or WD-40 on the hose barbs to install them all the way into the hose. Use the supplied hose clamps to secure these connections.

Right side



Left side



12. Cut and splice the supplied wire into the temp sensor plug and the fan plug as pictured to make sure they are long enough to be re-connected once we are finished with the installation. The supplied BUTT connectors are heat shrinkable for a better seal, I also recommend a good electrical tape job for added security with the connections.

Temp Sensor, cut it so you have enough room on either side to strip and re-connect the wires. You will have to do this 2 times for the temp sensor and the fan wire, pictured below is just the first connection.



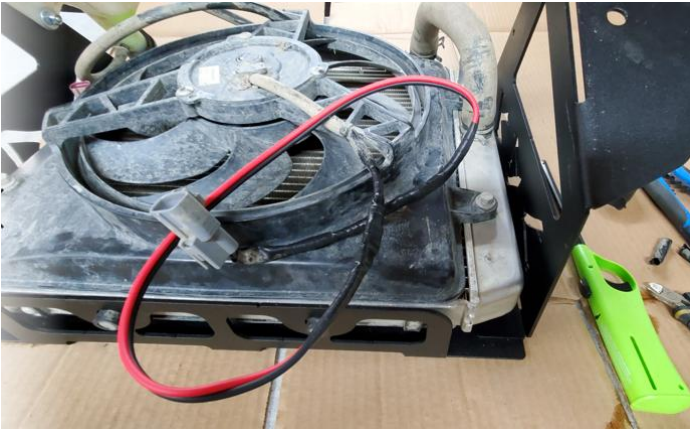
Here is the second connection for the temp sensor creating 1 continuous wire for the plug.



I cut the fan plug AT THE FAN, not below the front rack, its easier to work on it up here and then just plug it back together down below. Heres is the CUT



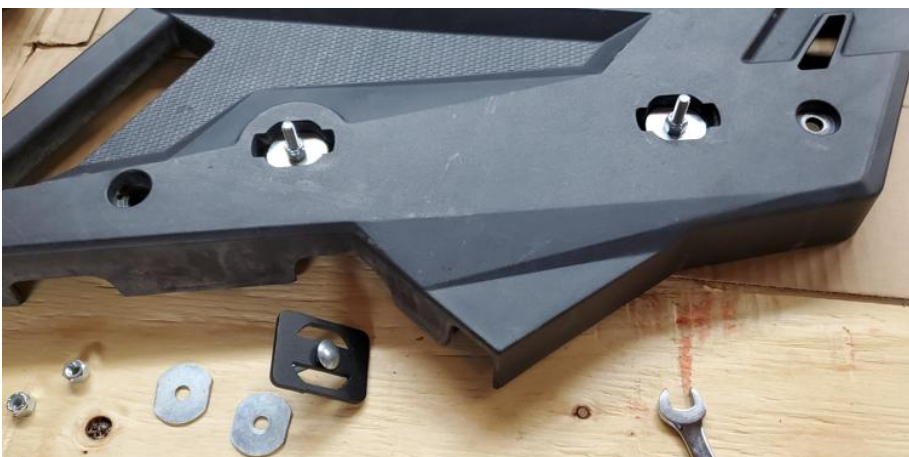
And here is the splice and the added electrical tape for extra security and strength.



13. Take the longer of those 2 factory pieced of hose that we cut off earlier and attach one to the lower radiator orifice. Also install one of the 90° elbows so we can make the connection later on.



14. Take the left and right sides of the front rack and install the mounting hardware for the rad kit. Using the 4 small odd shaped brackets, 4 of the 1-1/4" long carriage bolts, 4 of the modified fender washer and 4 of the lock nuts. The lock nuts don't have to be super tight, these are just to hold the mounting brackets in place.



14. Bolt the right and left side front racks back onto the machine

15. Place the radiator kit with rad installed onto the front rack carefully lining up the 4 mounting bolts with the 4 mounting holes on the 2 side plates. Use 4 of the washers and 4 of the locknuts to bolt the rad bracket into place.

16. Cut the supplied heater hose loop so that you have a nice smooth connection with the upper radiator orifice on the right hand side of the rad. This hose is $\frac{3}{4}$ " inside diameter, the factory hose is a Metric size that is hard to find in North America so it will be tight getting the connection made, BUT if you use a hair dryer or heat gun on LOW you can warm up the end of the hose enough that it will slip right on. I recommend some WD-40 on the orifice and a glove because the hose will be very warm.



17. Cut off any excess supplied $\frac{3}{4}$ " heater hose and make a connection to the 90° hose barb for the left side to complete the plumbing circuit. You should have about a foot extra of heater hose. The access cover is in this picture but it will not be installed for this step.



18. Plug the temp sensor plug back into the temp sensor and and the fan plug back together

19. Using 2 of the ¾" long carriage bolts, 2 washers and 2 locknuts, bolt the over flow jug to the left side plate as pictured (standard bolts where used for this picture, use the carriage bolts for your installation) and re-connect the overflow hose to the fill neck. Route the other hose out of the way so if it needs to push out coolant, it doesn't splash onto you while you are riding.



20. Now that the rad kit is assembled and the rad is in the kit and the hoses are all plumbed, its time to add the Stabilizing Brace. There are 2 Large metal brackets, a left handed and a right handed one, along with some carriage bolts, some zip ties and 2 short pieces of split 1" heater hose. Add the brackets as pictured below, once installed, use the split heater hose pieces and the zip ties to protect your coolant hoses from rubbing on the Stabilizing Bracket.





21. Take the access cover and modify the “LIP” on the underside as pictured, I used a grinder with a flap wheel to remove the material at these 3 tabs marked with green tape, do this on both sides as pictured below. This will allow you to use the cover with the rad kit installed.



BEFORE



AFTER



22. Carefully measure where you need to cut your holes and slots on the top of your access cover so it can slide back into place and clear the hoses and wires. This machine ended up looking like THIS, I had used a 1-1/2" hole saw and a hand saw to make the angled slots. Smooth all sharp edges!



23. Now the access cover should be able to slide in from the front of the machine between the steel rack and the bottom of the radiator kit.



24. Use the supplied zip ties to secure the wires so they are nice and neat and wont get caught on anything.

BURPING THE SYSTEM

1. Fill radiator with coolant and put coolant in the overflow jug so its between min and max levels in the jog.
2. Leave radiator cap off and start the machine, let it idle for a few minutes, if coolant level drops or air blows out the fill neck, add more coolant.
3. If coolant level doesn't drop at all, rev up the RPM's a bit for a few seconds at a time up and down for a few minutes, this should warm up the engine and allow the temp to rise and the t-stat to open, therefore expelling more air and allowing

you to add more coolant. Do this until the fan has cycled, this means the system is cycling and the air should all be coming out and being replaced by coolant.

4. Once you think it's fully burped, put the cap on and let it cool down, once it's cooled down, remove cap and repeat burping steps to be sure all of the air has been removed and the coolant level is full.

5. For your first few rides, bring some extra coolant along just in case there is any air left in the system and your level needs to be topped up.