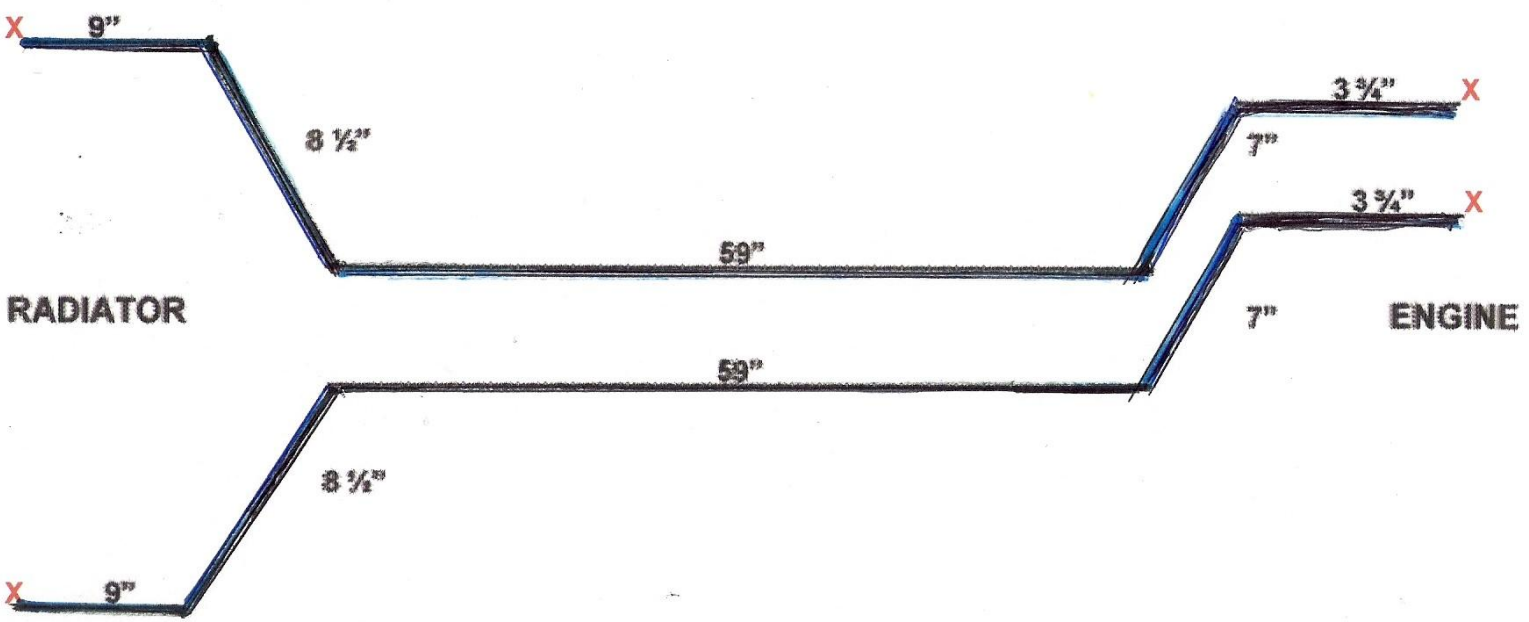
FIAT X1/9 COPPER RE-PIPE DIAGRAM

Tool List, Materials List, and Instructions



Materials List:

1. 174.5” of 1” Type L or Type M Copper Pipe get at least 16 feet. (One standard 10’ section and one 6” section = 1’ 5” to spare. Purchasing two 10 foot sections would make it really easy. ~$75.00 - $85.00)
2. 8 - 1” 45 degree Slip Fittings (~$28.00)
3. 4 - 1” to 1 ¼” Slip Adapters (~$15.00, for a better fit to the radiator hose ID at each end. See **X**’s on diagram)

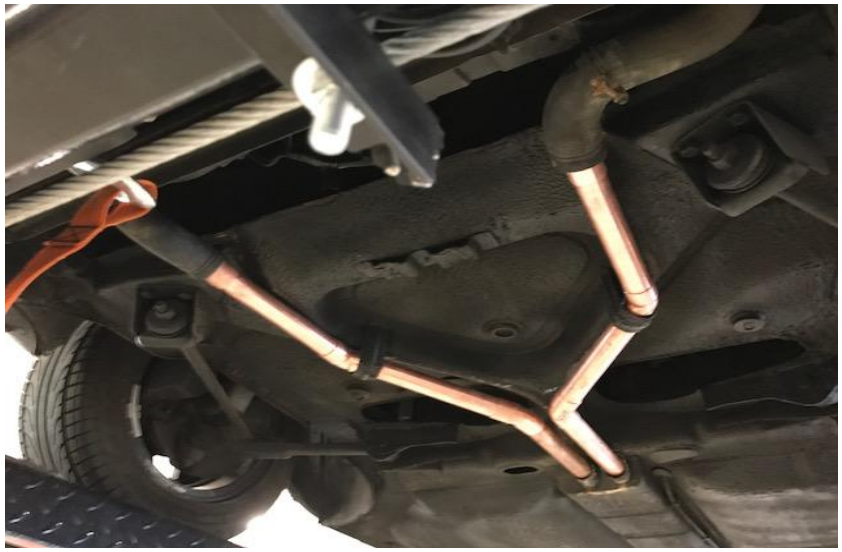
Tool List:

1. Hack Saw or Cut-off Wheel
2. Propane Torch with MAPP Gas for a hotter flame, Flux and a small roll of Silver Solder
3. Pipe Cutter
4. Files and/or Emory Paper and/or Scotch-Brite pads

Method:

1. Using a cutoff wheel or Hack Saw, or Sawsall, cut off old pipe as close to the “trough” as possible and practical. Use caution near the Speedo Cable and your surroundings. Cut in sections at the radiator end so that supports can be reused for the new pipe, if desired.
2. Cut the new copper pipe, first cutting the one 6 foot section to 59” and 59” out of the 10 foot section for 2 lengths.
3. Then cut 2 lengths each measuring 3 ¾”, 7”, 8 ½” and 9”.
4. Mock up the pipe by first sliding the two 59” sections INSIDE the old pipe in the trough. Use WD40 to ease the fittings in place sliding them to the hilt.
5. Position all the fittings and adapters to emulate the old pipe. They will APPEAR to hang a bit lower in the front as of this design, but if you wish you can better follow the curvature UP against the pan by using 4 more 45 degree fittings. I didn’t feel it was worth the bother. If you do not wish to NOT use the stock hangers for a “better fit”, then you will need to experiment with the 8 and 9 inch sections lengths. Another option is one can use 4 adapters and just the straight length of pipe through the trough… and then use long flexible radiator hoses (and 1” to 1 ¼” slip joint adapters) and be done.
6. Remove everything, clean, add plenty of flux and then reassemble. Check again and realign. Solder by heating each joint separately and flowing the solder completely around each joint. Wear glasses and gloves and have fun.

Tony Natoli, June 2017



Looking from the front towards the back…

Looking forward from the back towards the radiator…

Left side view…

Looking forward from the engine.