

OzarkCon Complimentary Audio Test Oscillator Kit

A Jim Kortge, K8IQY, Design

Kitted With Permission And Donated By The Four State QRP Group

It is hoped that this kit will serve as a Manhattan building primer and will also be a useful addition to your bench.

Assembly Instructions

1. Print this page. While it's printing, clean the board to remove fingerprints and allow the glue to bond.
2. Punch pin holes in center of each pad on the Board Layout picture and cut out the picture
3. Place picture on the 1.5" square board and mark through the holes with fine point marker
4. Cut 8 1/8" square pads from the strip. The strips are easily cut with ordinary scissors
5. Glue the pads, centering each on the dots marked in step 2. Allow adequate curing time before tinning. For these small pads, use a TINY dab of epoxy or Shoe Goo rather than super glue. How tiny? Try a 1/32" to 1/16" diameter spot. Transfer the glue to the board with a toothpick. If you choose to use Super Glue, see the safety note below.
6. Tin each pad
7. Place and solder the resistors, checking off each one on the BOM as it's soldered (Note: R1 is mounted on end)
8. Place and solder the capacitors, checking off each one on the BOM as it's soldered (Note: C1 is over R2)
9. Place and solder the 2N3904
10. Attach a 9 volt battery or use an 8 volt regulator, and its done!

To fully benefit from using this circuit as test instrument, you may wish to add the output circuitry (R7, R8,, C6) shown in the schematic below, but the oscillator is useful as is.

Safety Note: If you do use Super or Instant Glues to glue the pads, use a gel formulation, wear safety glasses, and use adequate ventilation. (i.e. DON'T breathe the fumes when tinning). These glues have irritating chemicals.

BOM

R1	4.7K (yellow violet red)
R2	36K (orange blue orange)
R3,R5,R6	5.6K (green blue red)
R4	470 ohms (yellow violet brown)
C1,C3,C4	.01 uf (103) (C1 over R2)
Q1	2N3904 (easier to install before C2)
C2	10 uf electrolytic
C5	.22 uF (224)
1.5"x1/8"	Manhattan Pad Strip
1.5"x1.5"	Copper Clad Board

Actual Size Board Layout

Enlarge On Screen To View Parts.
Use Page Scaling = NONE To
Print Actual Size in Adobe.

