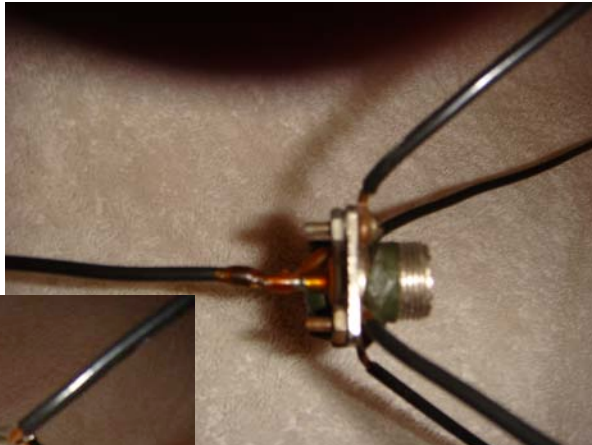


## Foxtrot Lima home built VHF Antenna

### Parts needed:

- 1 ea. SO-239 coaxial connector-silver plated
  - 4 ea. #4 brass machine screws w/ nuts & washers
  - 4 ea. 18 " long & 1 ea. 20" #12 solid copper house wire
  - 1 ea. RG-58/u (any 50-ohm coaxial cable will work)
  - 1 ea. PL-259 connector to mate to antenna
- solder with resin core solder (not acid core).



The SO-239 coaxial connector is the basis for the antenna. If you can get a silver plated connector it will be easy to solder the ground plane wires to it after you put in the #4 brass machine screws to hold the ground plane wires in place. If the connector is plated with some other material don't try to solder it (except for the center conductor, which must be soldered in place.)

This antenna uses #12 solid copper house wire (Not stranded wire). Insulation is OK. For the CGAUX VHF frequencies the ground plane wires are about 20-inches long and bent down at about 45 degrees. The center "driven element" is about 19-inches long. After assembly, clean off the resin material and bend the radials down 45 degrees.

This basic but cheap antenna will work OK but not exceptionally for all CGAUX frequencies. However it costs less than \$5.00.

The cable I use is RG-58/u, but any 50-ohm coaxial cable will work. The cable will have a PL-259 connector to mate to this antenna.

This antenna will be mounted vertically, on a pipe of metal or PVC; The cable can be inside of the pipe. It will radiate equally well in all directions. Height above ground is the most important factor.

These have measured SWR that is below 2.0 over the Aux VHF and ham 2-meter bands.