

1. Body Construction



With a hacksaw, cut the brass tube to a 6" length. Make a nice, straight cut. If you hold the pipe in a bench vice, make sure you protect the polished finish with a couple layers of masking tape and/or the weather-stripping. I used blue painter's tape, because it doesn't leave a residue.

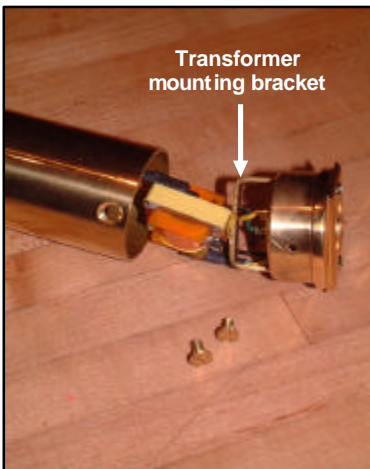
I also started the cuts with a needle file, so I wouldn't run the saw off and scratch the polished brass surface. When you're done, carefully smooth the sawed-off edges with a 180-grit sanding block or a file.

Cut the screen windows in the brass tube by, marking off the dimensions and cutting them out. If you have a set of metal calipers, you can score a line around the outside, by using the measuring points: Put one on the edge of the pipe, open the caliper to the desired length, and lock it down. Score a lateral line on the tubing by running one edge of the caliper along the bottom edge and lightly scratching the surface. I used a hacksaw on the lateral cuts, and a cutoff wheel on my Dremel for the vertical cuts. Again, the weather-stripping or masking tape works neat as a guide.

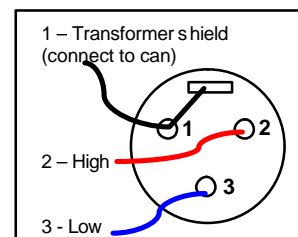


Step Drill

In the brass end cap, drill a hole big enough to mount the XLR connector. A "step drill" is useful for this. You'll also need 2 holes for the XLR mounting screws. If you don't have a big enough drill, you'll have to use a round file or something to make the hole bigger than your drill. I used a coarse grinder attached to my drill. Using this method, it takes about 15 minutes to get the hole right.



In the brass end cap, fashion a squared-off u-shaped transformer mounting bracket from the heavy brass strip, with two 90-degree bends to support the transformer above the XLR connector. Solder, epoxy, or somehow affix this mount to the brass end cap. Connect the output transformer to the XLR connector, as shown, and epoxy the transformer to the transformer mount above.



Finally, drill 2 or 3 holes through the side of the body tube at the bottom and into the end cap, to affix the end cap when it's closed. Brass, round-head screws (like in a guitar pickguard) look nice for this.