

duced a homemade template that simplified the job and resulted in a successful project. — 73, Joe Seibel, WA3SRU, 233 Lea Ln, Warminster, PA 18974-5223, wa3sru@arrl.net

Plating Nichrome Wire

I was given a Heathkit SB-200 amplifier that was mostly stock. After doing online research, I decided to do most of the modifications described by Robert Norgard, KL7FM (www.westlawn.net). One of the modifications, originally described by Rich Measures, involves replacing the anode chokes with low Quality Factor (Q) parasitic suppressors made of Nichrome resistance wire.^{1,2}

It is very hard to solder this wire. I tried acid core solder and various fluxes, but nothing worked. I contacted Caswell Inc (www.caswellplating.com), a company that specializes in small-scale plating systems, to find a way to put a solderable interface metal on the wire. They suggested their brush copper plating kit, which I purchased. [Another option would be to attach crimp-on connectors to the Nichrome wire ends. — Ed.]

The results of my first test were disappointing. The copper layer was very dark, suggesting copper oxide rather than pure metal, and it proved to be unsolderable. The instructions suggested using the plating solution for immersion plating rather than brush plating. I decided to give that a try, using the supplied 4.5V power adapter. It worked, sort of — the resulting copper layer was very soft, and more like mud than metal. After more research, I tried using a lower voltage for the process from two nickel-metal-hy-

dride (NiMH) cells. This resulted in a perfect layer of pure metallic copper plated onto the wires (see Figure 4).

Sand the leads with fine sandpaper to make sure they are clean, and avoid touching them afterward. My anode is a piece of #12 AWG wire and the cathode is the inductor. I let the leads remain in the plating solution about 30 – 45 minutes to build up a thick layer of copper on the wires. Plate *only* the ends of the leads that will be soldered to the anode resistors — not the entire choke, which would defeat the whole purpose of this process. You can purchase just the plating solution if all you plan to do is plating of this type. — 73, Bennett Wilson, AF2RF, PO Box 210321, Brooklyn, NY 11221-0321, adastra_2001@yahoo.com

Cooling a Hot RFI Problem

I replaced my 25-year-old gas furnace with a new Lennox furnace that had a 96% efficiency rating. This furnace has a “modulated” (variable speed) dc fan. When the new furnace was powered up, I immediately noticed a significant variable buzzing noise on all HF bands; turning the furnace off stopped the noise.

I called the installation company. I found it very helpful to be able to show the service technician the noise signal on my radio’s thin-film-transistor (TFT) display. The service company contacted Lennox, who immediately sent out a filter to place on the dc

input to the fan. However, installing the filter didn’t solve the RFI issue. I purchased and added some more filters, grounded the furnace with copper braid, and added shielded cable from the furnace to the thermostat. None of these solutions were effective. [When grounding an appliance’s metal cabinet, make sure all the parts of the cabinet are *electrically* connected. As with cars, many appliance metal cases are coated with a non-conductive finish electrically isolating the various parts. This nullifies the cabinet’s RF suppression ability. — Ed.]

Finally, at my suggestion, the installation company crafted a sheet metal enclosure for the motor, which was installed and properly grounded. This solved the problem.

I hope this provides a shortcut solution for anyone facing a similar problem. (It also helps to have superb installation company that stuck with me throughout the entire issue, charging it off as an installation cost at no additional cost to me). — 73, Tom Traugher, W0ZX, 8500 Montgomery Ct, Eden Prairie, Minnesota 55347, w0zx@arrl.net

Handheld Hanger

I have many handheld scanners and radios and I wanted to keep them out of the way, yet readily available. I realized that a flat-style curtain rod would work very well to hold a number of handheld transceivers or scanners. The rod can be mounted to a wall, keeping all your handhelds neat and in one place. To top it off, it’s a very inexpensive solution. — 73, Rusty Hack, NM1K, 21 Montano, Enfield, CT 06082, nm1k@amsat.org

Notes

¹R. Measures, AG6K, “Parasitics Revisited — Part 1,” *QST*, Sep 1990, pp 15 – 18.

²R. Measures, AG6K, “Parasitics Revisited — Part 2,” *QST*, Oct 1990, pp 32 – 35.

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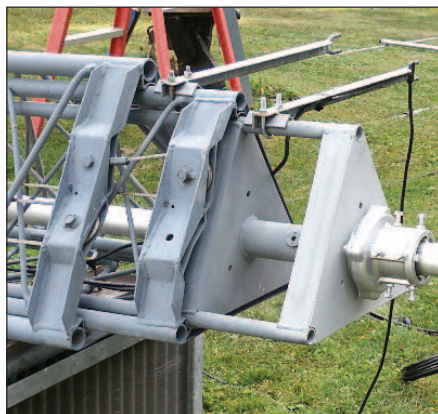


Figure 3 — The thrust bearing mounted to the tower with the mast centered within it. [Joe Seibel, WA3SRU, photo]



Figure 4 — Using copper electroplating techniques; you can tame Nichrome wire and give it an easily solderable copper coating. [Bennett Wilson, AF2RF, photo]