Electronic Tool Tip #14 – Solder Pot

If you find yourself having to tin a multitude of wire leads, as I often do, it may be time to make a small investment that will pay big dividends in time and performance.

Recently, I began offering a certain piece of test equipment for sale. In preparation of these units for sale, either as completed units or as buyer-assembled kits, it is necessary to strip and tin both ends of a total of twenty-four lengths of hook-up wire. Tinning that many wires can be quite tedious when done individually using a soldering iron. In addition, care must be taken to avoid the formation of any solder lumps, points, or drips on the leads, as they may need to fit into holes either on the PCB or in the connection tab of a jack, switch, and so forth. I wanted a better way of doing this, and that better way came in the form of a question asked by one of our fellow GCARC members. **Frank Romeo N3PUU** asked me if I was using a solder pot to tin the wires. Of course, I immediately reasoned, "Why not?".

The solder pot that I chose is perfect for my needs. It has a 50mm diameter to its vessel, and the kit includes a spare vessel and a solder scraper paddle. The heat time is quite short. I used solid 63/37 Sn/Pb solder that I purchased in one-pound stick form, having cut four one-inch pieces from the stick. The solder was molten and ready to use in about five minutes. Vessel temperature is adjustable within the range of approximately 200°C to 450°C via a front panel potentiometer. Heating is by way of a nichrome wire that is wrapped around the vessel, which is in turn secured to the base via two machine screws. This arrangement makes it very difficult to overturn the vessel. This unit is rated at 150 watts and operates on 117VAC house current. The front panel has the temperature control and a power switch, which is illuminated when powered "ON". One gripe that I have is that the power switch is installed backwards to my expectations. I would expect the rocker to be "DOWN" on its near side in the "OFF" position; in practice, it is just the opposite.

The tinning process involves first stripping the desired length of the wire to be tinned, and then twisting the strands together tightly. Next, dip the bare end of the stripped wire into some liquid rosin flux, and then dip it into the molten solder and pull it right out. Voilá! A clean and uniformly tinned wire end is the result. Tinning a full set of twenty-four wires – meaning forty-eight tinned ends, took all of three minutes using this method, and the tinning job was perfectly achieved.

This solder pot is available online from Amazon, at a price of $17.97 (USD) plus shipping if you are not an Amazon Prime member. Of course, the government has to get its share, so tax will also be applied. Point your browser to https://www.amazon.com/dp/B08V161KKH if you want to investigate this item for yourself.

As a final note, I should point out that for the sake of convenience, I also purchased the consumable supplies – the solder and the flux – from Amazon. The solder, https://www.amazon.com/dp/B0CDV5172Q, came in at a whopping $27.99 per pound, and the flux, https://www.amazon.com/dp/B005DNR01Q, cost $17.99 for a 4.2 fluid ounce (125ml) bottle.