Quick Soldering Gun Tip

I was doing some wire antenna work when my 1955 vintage Weller (100 W/140 W) soldering gun tip broke. I’ve replaced the tip many times over the decades, but this time I couldn’t find a replacement tip at the regular hardware stores. A large commercial supplier wanted $12 for a two-pack of tips, so I decided to try a homebrew solution. I snipped off a 10-inch scrap of #12 AWG residential ground wire and bent it into the shape of the broken gun tip. I pinched the tip end together to make it beefy and add mass. Finally, I made sure I inserted the nuts onto the new tip ends before screwing the nuts into the barrel section into three equal lengths. Then I ran the paracord through those three pieces before tying a bowline knot (see Figure 2). This support arrangement doesn’t pinch the feed line, and allows it to move back and forth freely with the wind.

— 73, Cameron Conover, AJ4TW, 4234 Brentonshire Ln, High Point, NC 27265, aj4tw@arrl.org

Supporting Balanced Window Line

I have a long run of 450 Ω balanced line running from the house to my extended double Zepp (EDZ) antennas. [The EDZ is a dipole-type antenna whose legs are each longer than 1/2 λ, typically 0.64 λ per leg. The EDZ will radiate with a gain of 3 dBi but requires a tuner. — Ed.] The feed line needed some support to stay overhead as it crossed the backyard and out of the way of traffic. At first, I just tied a bowline knot on the end of a length of paracord to support the feed line, but I found that the knot would pinch the window sections on the feed line together — not an ideal arrangement. I came up with this simple idea to avoid that situation. I took apart an old ballpoint pen and cut the barrel section into three equal lengths. Then I ran the paracord through those three pieces before tying a bowline knot (see Figure 2). This support arrangement doesn’t pinch the feed line, and allows it to move back and forth freely with the wind.

— 73, Cameron Conover, AJ4TW, 4234 Brentonshire Ln, High Point, NC 27265, aj4tw@arrl.org

Indicator Lamps Help with Remote Troubleshooting

When constructing a device that will be mounted out of reach, it is very helpful to install one or more indicator lamps so you can see the device’s status from a distance. This can be especially useful when the device is up on your tower. While building a coaxial antenna relay, I added an LED to show when power is applied to the relay coil (see Figure 3). If, at some time in the future, I throw the switch and nothing happens, I can go outside and see if power is reaching the box or if the problem is somewhere closer to the ground. — 73, Al Yerger, K2ATY, 1312 Union Ave, Newburgh, NY 12550-8907, k2aty@arrl.net

More On Furnace RFI

In the September column, Tom Traughber, WØZX, related how he solved an RFI problem with his new furnace.1 John Majka, K9AAN, wrote in to point out that the sheet-metal motor enclosure Tom ultimately used to shield the motor might not provide adequate ventilation. John suggests that a good-quality steel screen or similar material be used and to make it as large as possible.

1T. Traughber, WØZX, “Cooling a Hot RFI Problem,” QST, Sep 2015, p 64.