

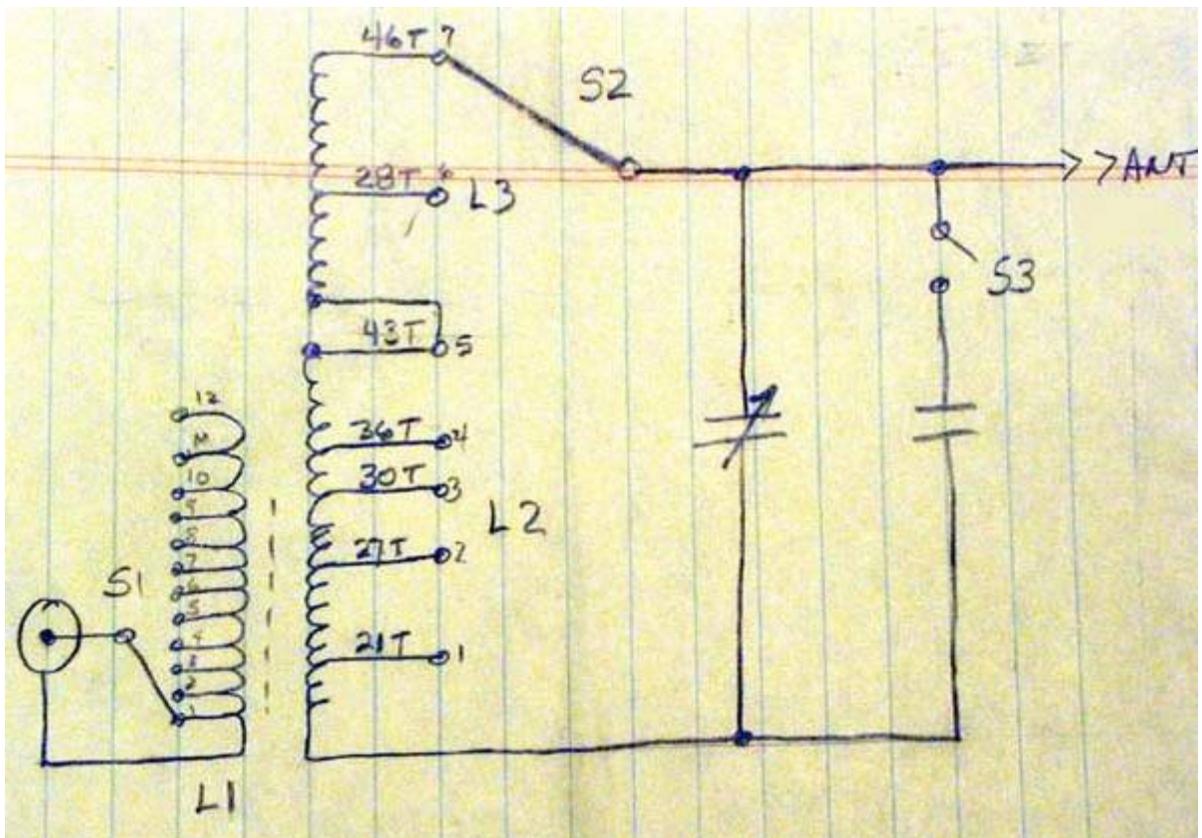
End Fed Halfwave and Tuner For 80-160



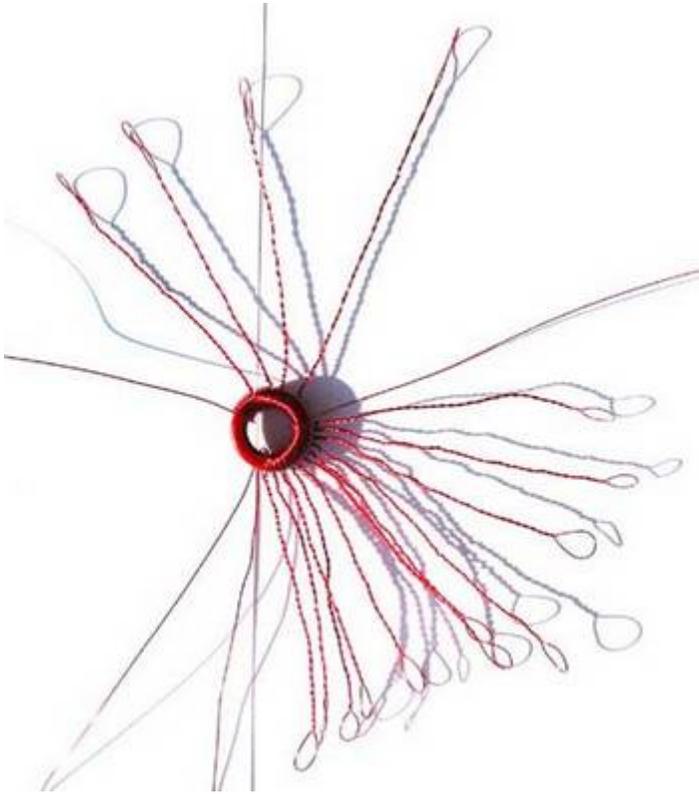
February, 2006: I built a half-sized, end fed halfwave for 160 with plans to use it during the ARRL 160 meter SSB contest. It would have been my first ever transmissions on this band. I planned to set up portable and lift the 123-foot wire with some helium balloons and operate in the QRP category. Long story short is that I drove 50 miles round trip to buy two

36" balloons from the only store in the Denver area that still carried the large latex balloons. Two was all I could carry in the bed of my pickup under the two large boxes I brought along. When the store tried to inflate them, they burst after about 30". After getting them home I discovered I actually needed three of them. Then, one burst within an hour. Oh, well. Maybe next year I'll rent one of those big helium tanks and find a four-foot weather balloon. The alligator clips are used to short out the coils. That makes the antenna a full-size halfwave on 80 meters.

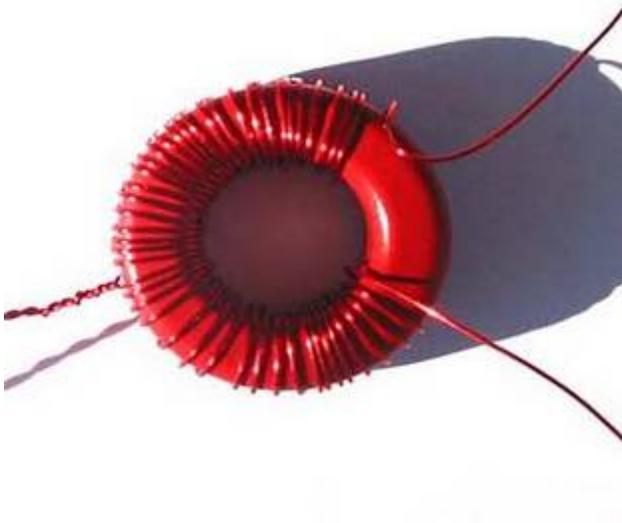
Since none of my match units would tune down to 160 meters, I built one from scratch. The general design was taken from the [Fuchs Antenna project](#). I redesigned it to work down to 160. Here is the schematic I came up with. Note: I did not need the second, fixed capacitor and left it and S-3 out.

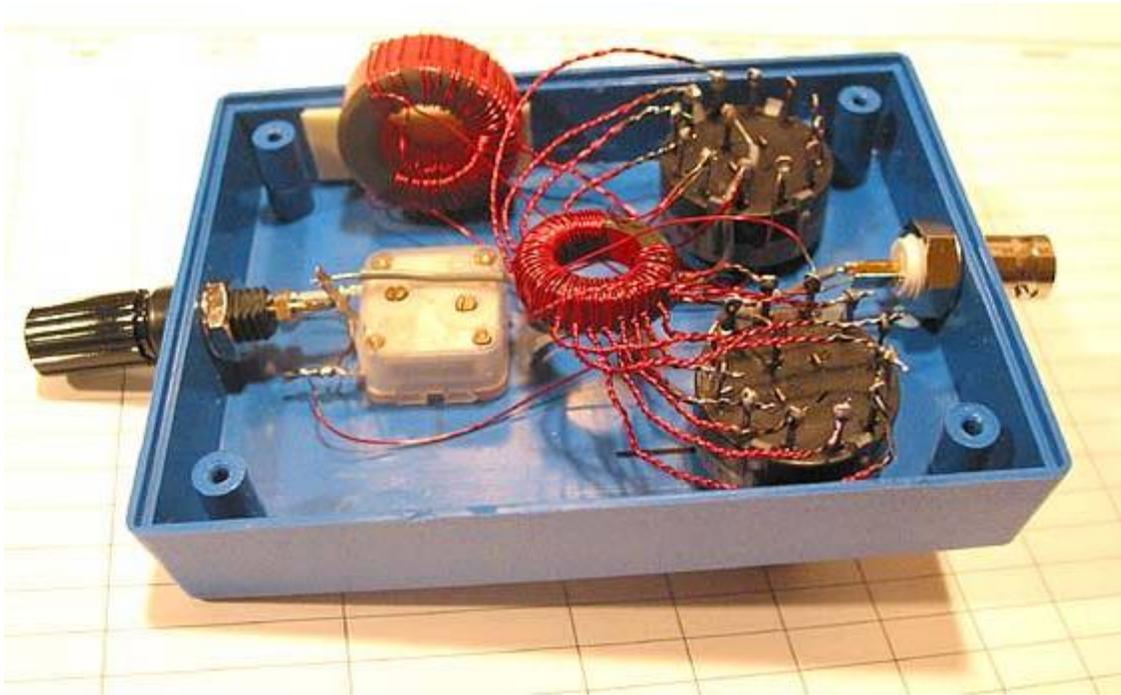






Above are the two coils before installing





The tuning capacitor is from an old AM radio, and the toroids are a T80-2 and a T106-2 from Amidon.

Here are the coils before installation.