40 Meter End Fed Half Wave

This antenna works on 40, 20, 15 and 10 Meters, often without a tuner. It can be made for less than $100.

List of parts:

(I was going to include the URLs of the parts used from Amazon but they were ridiculously long. Instead I've included the names that a search of Amazon should result in the correct part.)

49:1 UNUN: Search for "End Fed Antenna, Portable No Tune End Fed Half Antenna"

I've ordered 2 of these and when I got them they had 64:1 on the UNUN. Don't worry. It will work.

18 Gauge Wire: Search for "18 Gauge Wire 70ft, 18 Awg Stranded Wire"

Make sure you order 70'. When you tune it you'll trim it down to around 65 – 66 '.

RG58 Coax: Your preference. I used: "CB Coax Cable 49.2ft RG58 Coaxial Cable"

You want at least 50' with PL 259 connectors on both ends.

Snap on Choke: Search for: "10PCS Noise Filter Cable Ring, Snap on Ferrite Ring Core"

Construction:

1. Prepare the 18 gauge wire: If you using 2 conductor wire / speaker wire separate the wires. You'll now have 2 wires incase you screw up. :)

Connect the wire to the connection point on the UNUN.

<-------- This thing.

2, Preparing the Coax: The antenna uses the shield of the coax as a conterpoise so you want to “choke” it 1/5 of a wave length from the UNUN on the lowest frequency used. This is around 27' for 40 meters. This is where you'll snap on 5 to 6 of the ferrite cores.

3. Tuning: Try mounting the antenna at least 5' off the ground for it's first tuning. Using a NanoVNA check it's SWR on 40, 20, 15 and 10. Trim the wire a bit at a time until you get good readings on all 4 bands.

Once you've got fairly decent reading on the bands you can deploy it several ways. Most people mount the UNUN around 6' off the ground and slope the other end up to a tree. I have my home antenna's UNUN at the corner of my eaves with the wire stretched across the yard to an old clothesline pole around 58' away. The last 8' drops straight down forming an L. The main antenna is around 18' above the ground. The best thing about this antenna is it's easy to experiment with and it works. Have fun.

Dave, VE7BBV