

EFHW Tuner & Link Multiband Half Wave Antenna

By Richard Ayley G6AKG

The project shown in Figure 1 is a loose and improved copy of a Hendrix End Fed Half Wave (EFHW) antenna matcher. Mark 2E0VoV gave me all the parts and assisted me getting the number of turns right on secondary, Hendrix say it should 20 turns on the secondary of T1, however it ended up as 18. I added a press switch to connect a 4.7k artificial antenna load enabling the matcher to be tuned off air - which is an added feature .

This is the third version of this project and it incorporates a transformer coupled absorption VSWR indicator which gives a sharper response than the Hendrix version. The matcher also covers the 60m band using a 220pF silver mica capacitor connected, via switch, in parallel with tuning capacitor C3 and by experimenting with the trimmers on the back of the poly-varicon capacitor (C3) I found it possible to make the match box tune from 40m all the way up to 15m! My modifications has provided two extra bands which I think made all the tinkering worth while.

I have now constructed a linked half wave radiator, shown in Figure 2, making it easy to plug and play on all the bands covered by the matcher. The antenna has not been field tested yet, so the wire lengths are approximate for each band center. I feel its a good place to start pruning - highest frequency bands first. The matcher was designed for portable QRP use up to 5W CW although it will probably survive 10W SSB.

Best 73 Rick DE G6AKG

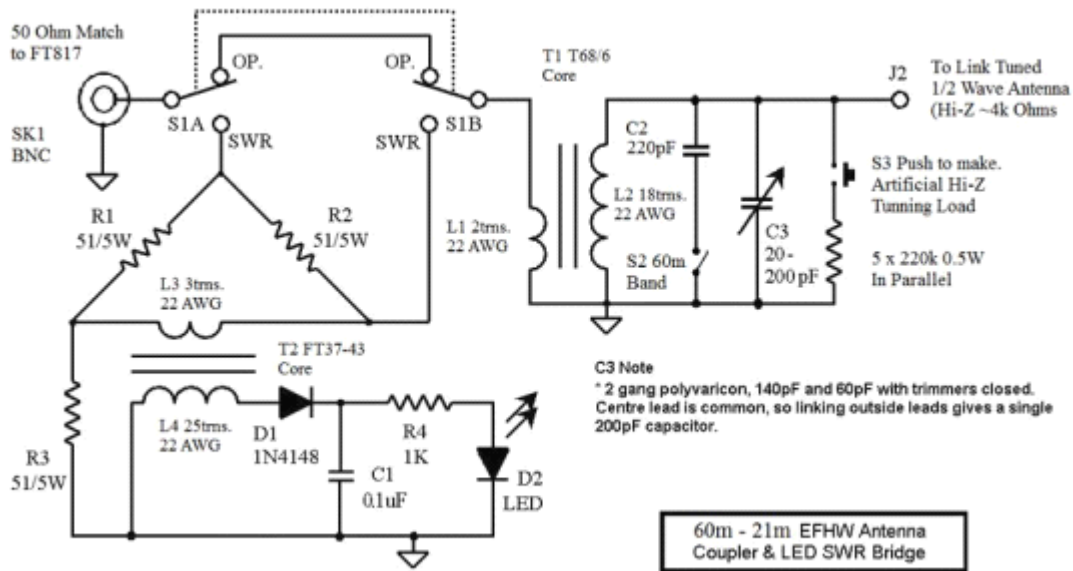


Figure 1.

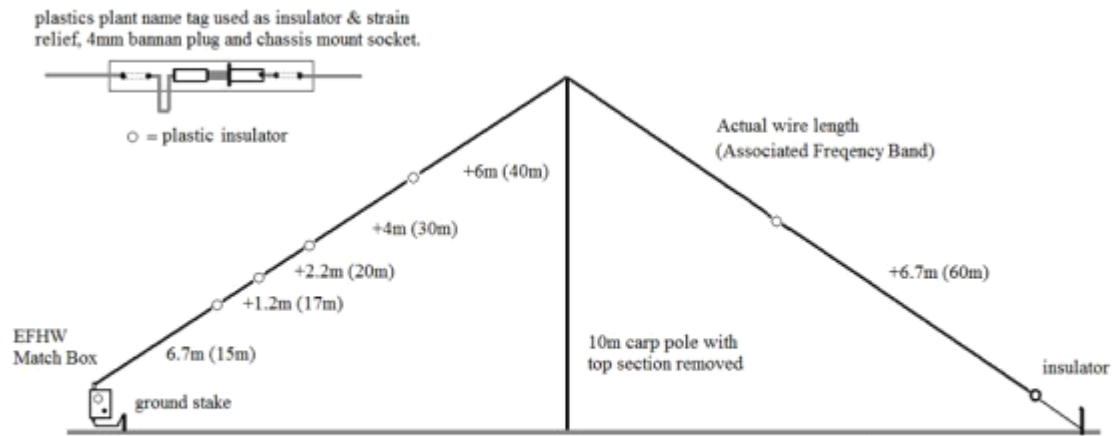


Figure 2.