

Tuning the Antenna

This antenna requires a good earthing system. Twelve 4m wires were buried in the lawn by using a spade to create a slit to drop the wire into. Later an additional 10m surface wire was added to bring the SWR down to 1.25:1 reading.

The antenna wire is cut to the length calculated by the formula,

$$\frac{1}{4}\lambda = 234 / F \text{ MHz (Feet)} \text{ or}$$

$$\frac{1}{4}\lambda = 75 / F \text{ MHz (metres)}$$

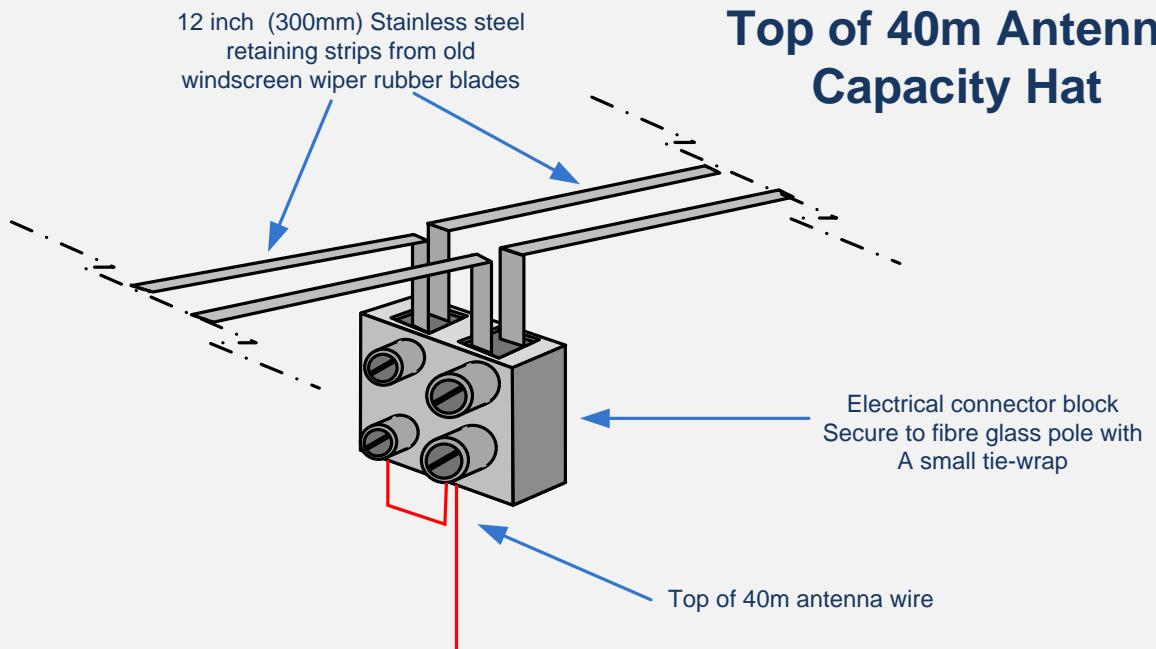
This works out as 33.2 ft (10.12m).

When spiral wrapping the antenna wire, cut the wire slightly over-size, and wind a few 1" (25mm) spaced turns at the bottom. These can be unwound during tuning, and the antenna shortened more easily without having to keep dropping the antenna each time.

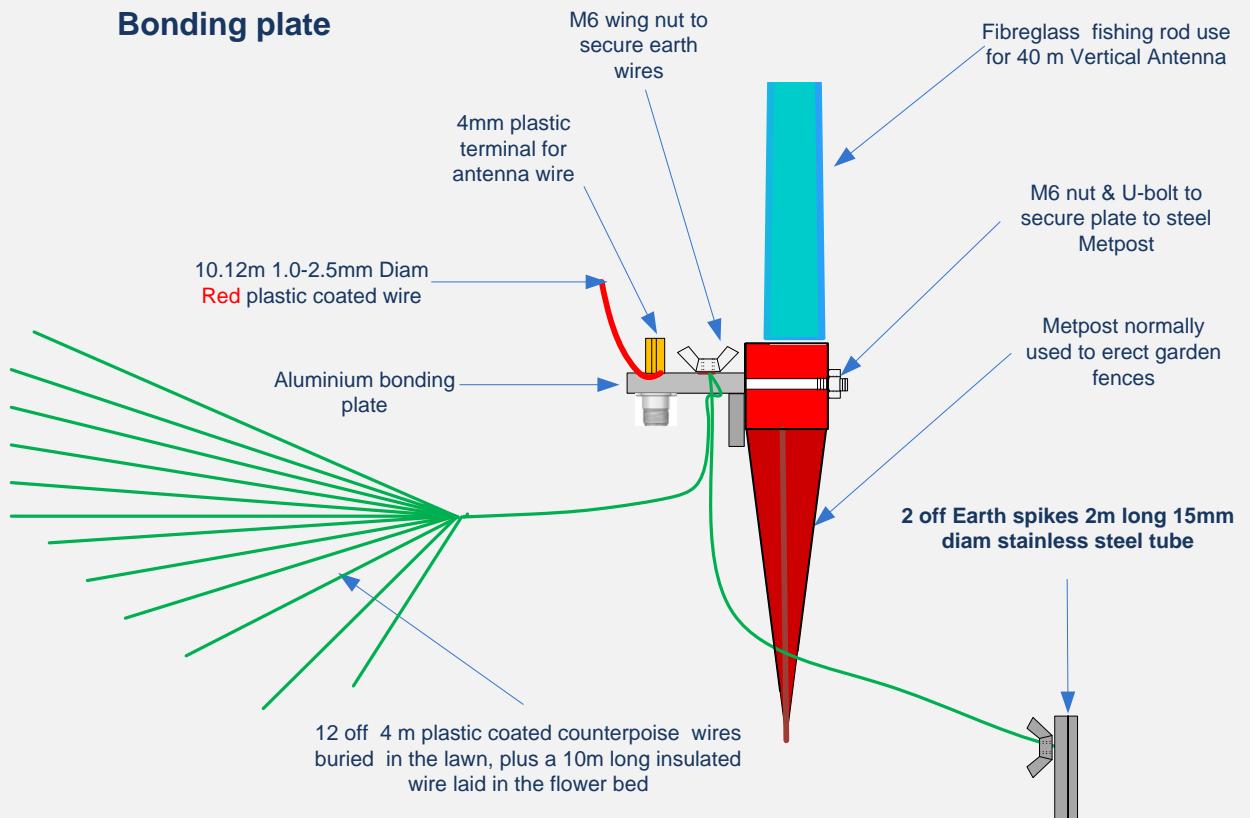
The ferrite Choke BALUN will help to keep the RF out of the shack.



Top of 40m Antenna Capacity Hat



Mast's Antenna & RF Earth Bonding plate

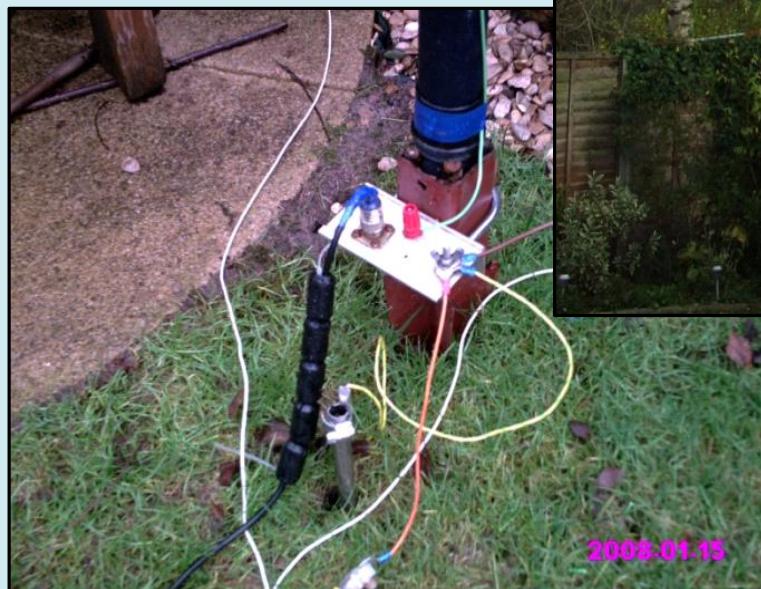
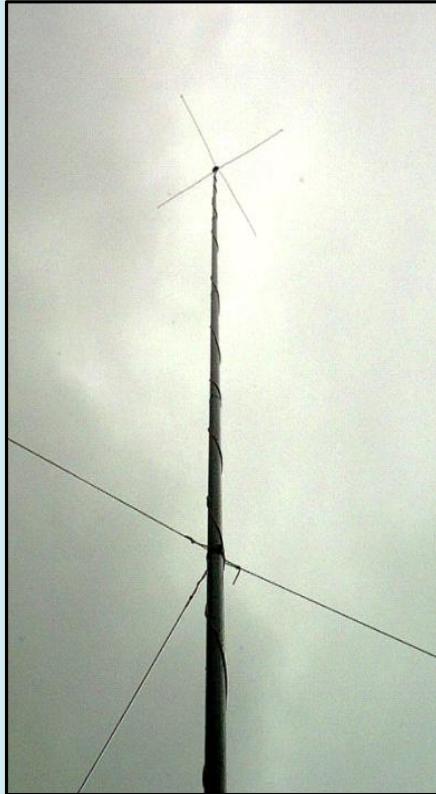


40m Quarter Wave Vertical End Fed Antenna – G8ODE



Here's one I made earlier & it works very well even at 400 watts !

In practice the 3 guy ropes half way up have worked very well even with gusts of wind up to 50mph. The thin top section takes the strain and just gently flexes.



G8ODE

2008.01.15