

## 40M Inverted Vee

As shown below, this simple antenna can be used in various configurations for 40/80/20 or any WARC band or a combination of them. The basic antenna consists of an Inverted V connected to a balun such as the 1:1 Ugly Balun, which is in turn connected to the coaxial feeder to the radio. Various feedlines are available such as the G5RV utilizing 300Ohm ladder feedline.

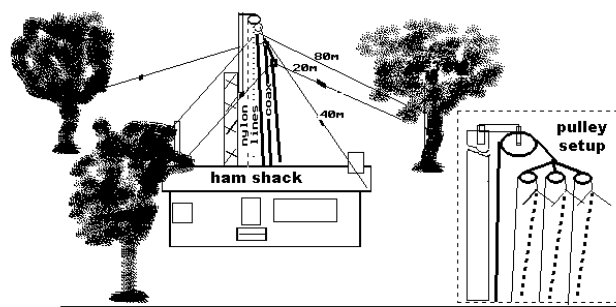
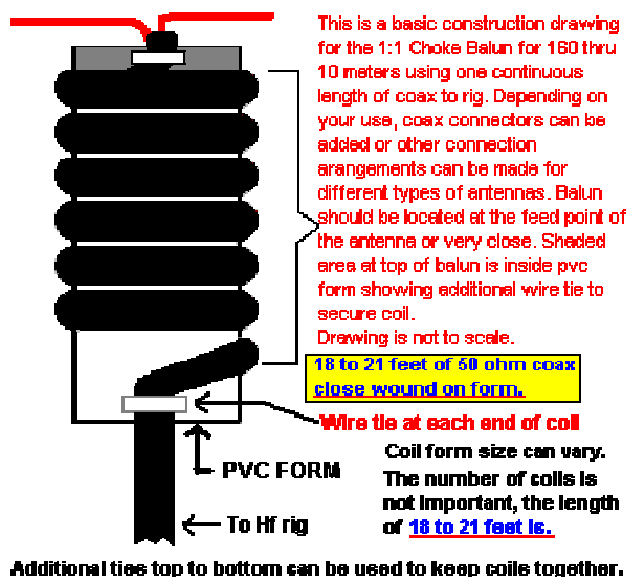
I use the Ugly Balun with RG8 Coax feeding a combination of 80/40/20m elevated at 12m in an Inverted V as a very successful antenna. These are in turn connected to a pulley with 3mm nylon rope which is used to raise or lower the system for maintenance.

### Construction Notes:

The construction of the Inverted V is quite simple and follows the same formula as for a standard dipole.  $468/\text{fMhz}$  (Four Hundred Sixty Eight divided by the Frequency in Megahertz give you the total length in feet for a 1/2 wave dipole). In practice you will use two wires, each being 20m long. The antenna 2.5mm insulated copper wire. If you start with two 20m long wires, you do not have to measure the turning or ending points, they will fall in place depending upon the height you install the horizontal portion of the antenna.

The height of the feed-point can vary considerably, however, the higher the better. If you can only go up 10 or 12m, the antenna will still perform almost as well, but you will require a further horizontal distance to work in. With the feed-point at 15m, the sloping elements are roughly 20m long at 13m away from the push-up pole. Any distance from 13m to 26m in length seems to make little difference in the performance of this antenna.

A balun is not an absolute necessity, however, if space constraints keep you from obtaining a spread between the sloping wires greater than 90 degrees, then a balun is strongly suggested.



HUJW

For all practical purposes, installation is the same as for an inverted V, a feed type insulator or balun is assembled with the coax and both of the 20m long wires. Connection of the coax is the same as for a standard dipole. The center conductor goes to one wire and the shield to the other wire. The feed insulator or balun is now hoisted to its permanent position on your push-pole, tower, gable or wherever you are mounting your antenna.