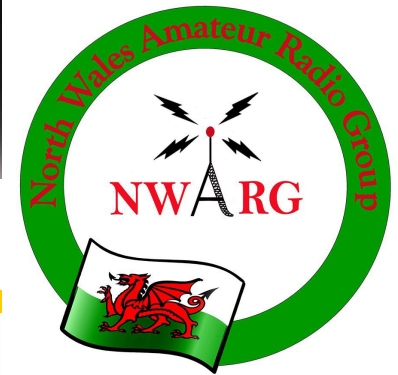


DIY

Worthwhile projects with MWOJWP

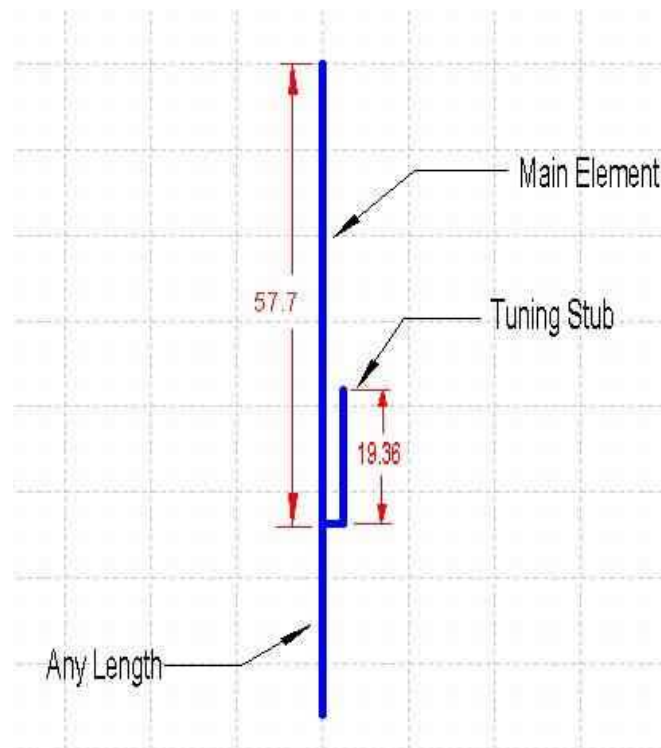


How to Build a DIY 2 Meter J-pole Antenna

If you are looking for an inexpensive, and easy to construct antenna, the J-pole antenna is a great one! In about an hours time, and about \$15 worth of materials, you can have a great performing omnidirectional j-pole antenna.

The j-pole antenna is basically an end fed half wave dipole that uses a 1/4 wave shorted matching stub as an impedance transformer. The j-pole antenna will yield slightly less than 3 DB of gain omnidirectionally.

The material I chose to build the j-pole antenna was 3/4 inch copper pipe used for plumbing. Here are the plans to build a 2 meter J-pole antenna:



The above dimensions for the J-pole are in inches. Measurements on overall length, and stub length are from the centerline of the separation pipe (horizontal) to the top of the antenna. The Connect at measurement is 2 1/4 inches from the top of the horizontal member to the point of connection. The distance between the main element of the j-pole centerline and the tuning stub centerline is 2". I cut a length of RG-8X foam coax to a length of 67" for the feed-line, and coil up 4 turns (as small as you can get it) just below the horizontal part of the matching section. This will de-couple the feed-line from the j-pole antenna, and help provide some lightning protection. Connect the center conductor of the coax to the main element, and the shield to the tuning stub of the j-pole.