Buddistick PRO HF Vertical Antenna

OVERVIEW

The BUDDISTICK PRO HF vertical antenna is based on a new feed point design called the "Versahub", which provides the ability to configure the antenna as a tabletop, tripod or mast mounted vertical antenna for the HF bands. It is a great companion to compact lightweight portable HF/VHF/UHF transceivers with power handling up to 250W PEP.

ASSEMBLY

The optional five section shock cord legs can be configured for use as a tabletop assembly or a free-standing tripod base.

Tabletop Base Assembly

For tabletop operation set up the BUDDISTICK PRO using the three mini leg sockets.

A self-supporting stand-alone tripod can be configured by folding the legs and using the one-wrap strap to secure the other sections.

Insert the toggle on each leg into the leg socket by stretching the cord and allowing the leg to snap into place in the leg socket in the base (see Figure 1.)

Stand-alone Tripod Base Assembly

To create a full-size tripod extend the legs before inserting them into the base, attaching with the toggles as described above.

Figure 1 Inserting tripod legs

Additional stability can be added to the tripod by suspending a weight from the bottom of the Versahub base using a small eye hook secured to the bottom of the Versahub.

Use with a mast or monopole

The underside of the Versahub has a female thread (1/4" x 20) compatible with most camera mounts. This allows you to use a monopole or mast mount to support the antenna. The three Versahub leg sockets can then be used for guying using the optional guy kit.

Antenna Assembly

Antenna Arms

Thread the two rigid antenna 11 inch arms together and screw the assembly into the central Versahub housing above the BNC connector (Figure 2.).

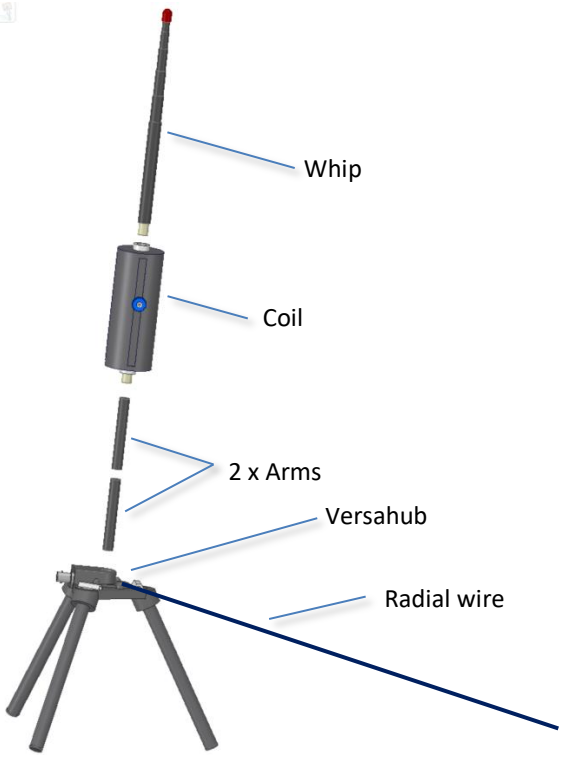

Figure 2 Exploded view of antenna

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Loading Coil

Screw the coil into the end of the arms and then add the whip to the top side of the coil.

Figure 3 Installing a coil clip

Coil clips should be added to the coil to set the coil inductance for several bands. Several coil clips can be installed at a time speeding up switching between bands. The clips have a hook shaped end which slips over the winding at the desired location. Unscrew the colored knob almost completely to fully extend the hook and angle the hook as shown in Figure 3. Hook the clip onto the desired coil turn (see Table 1 on page 3) then rotate the clip so that is perpendicular to the winding and gently tighten the knob. Plug the mini banana plug into the hole at the top of the coil clip.

Telescopic Whip

Fully extend the telescopic whip and screw the whip into the top of the coil.

Radial Wire

Attach one end of the radial wire to the terminal behind the center post (do not remove the wire from the winder).

Unwind enough wire to make the length approximately one quarter wavelength on the operating band and using the winder as a support attach the far end to a short non-conductive post or convenient point (on top of bushes or low tree limbs, for example) about 2 – 4 feet above the ground (see Figure 4). ***The elevated radial must always stay at least 2 feet above ground!***

Color coded tags are attached to the wire to indicate the approximate length to set the elevated radial, see Table 1 for details.

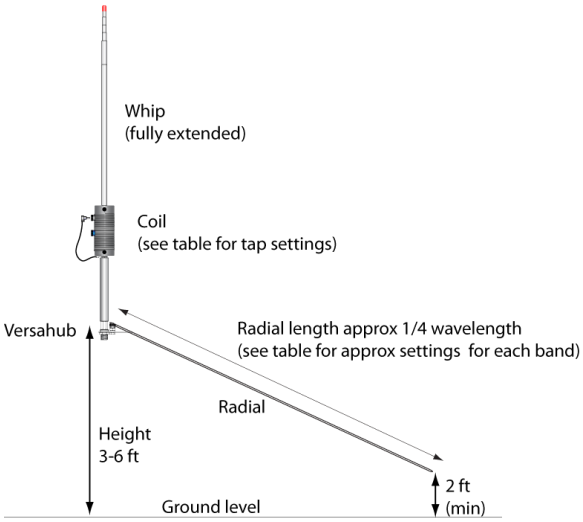

Figure 4 BUDDISTICK PRO Antenna Configuration

TUNING

The antenna can be tuned for operation on any band from 40m through 6m by adjusting the position of the tap on the coil and the length of the radial (see Table 1).

The radial is approximately one quarter of a wavelength on the band you are operating on. Color coded tags are attached to the radial wire indicating the correct position for each band.

Multiple coils taps can be set to accommodate operation on multiple bands (plug into the one corresponding to the one on which you intend to operate).

Tuning can be optimized for an excellent match using an antenna analyzer. As some fine tuning may be required, remember to write down the combination of settings which gives the best results in your particular setting. The name of the game is reproducibility.

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Recommended Settings

The table below shows setting for the major bands using the standard-length 66 inch whip. Because this antenna is fully adjustable it can also be tuned for other frequencies outside the ham bands. Keep accurate notes as adding additional antenna arms or longer whips will change the settings.

Table 1 Antenna Settings

BAND	ARMS	COIL	COIL TAPS	RADIAL TAG COLOR	RADIAL LENGTH (INCHES)	WHIP LENGTH
40m	2	Y	39	Orange	362	Fully extended
20 m	2	Y	13	Blue	162	Fully extended
17 m	2	Y	9	Brown	119.25	6 sections minus 4 inches
15 m	2	Y	6	Red	110.25	Fully extended
12 m	2	Y	4	Yellow	95.5	Fully extended
10m	2	Y	2	Grey	81	Fully extended
6m	0	N	N/A	Black	42.5	5 sections

NOTES:

1) Set radial length at appropriate mark for the intended band.
2) Coil tap positions are counted from the top of the coil (the first turn on the coil is at the top).
3) The coils are marked with alternate blue/black markings for every 5th turn, making counting very quick.
4) The coil is not used for the 6 m band.
5) Usually only need to adjust whip lengths for 6m and 17m.

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