

The MK-112 Mast Kits are designed to support the BWD/BWDS/BWDI series of folded dipole antennas as well as the AC/ACS/ACI series of End-Fed Vee antennas. The roof mount series includes the MK112-RM mast anchor which is designed to secure the bottom of the mast to a variety of roof tops. The supports on each side are hinged so that it can be used on flat, sloped, or peaked roofs. The mast sleeve is able to be pivoted, allowing assembly of the mast while it is laying down, and then lifting with the guys into the upright position.

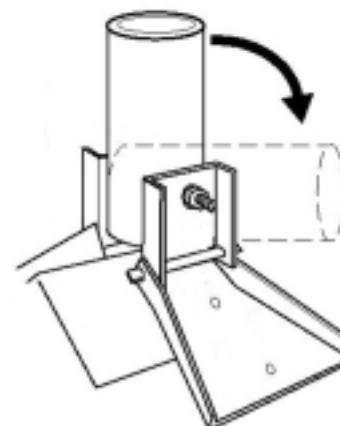
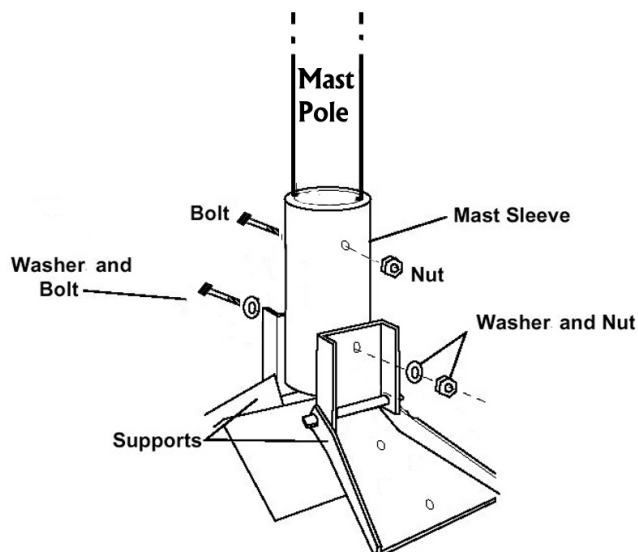
Antenna Preparation

If you are using a folded dipole antenna (BWD/BWDS/BWDI), assemble the MK112-CM center mount to the antenna. Refer to the separate instruction sheet that comes with the mount. For permanent mounting, attach the clamps to the back of the mount and to the top mast pole. In this case, the halyard line and pulley on the top mast pole are not used. Attach the end lines to the antenna (Figure 3). Tie the line through the holes in the end spreader. The line to the top of the antenna should be tied approx 3 inches shorter than the bottom line. This will pull harder on the top antenna wire and prevent windmilling. Once the antenna is up on the masts, if it does not hang vertically, you may need to further shorten that top line.

The End-Fed antennas (AC/ACS/ACI) do not need any preparation.

Mast Assembly

- (1) Take the bottom section of the antenna mast and insert it into the mast sleeve. The bottom section has two holes in it. Turn it to align the holes in the mast pole with the holes in the sleeve. Using the figure below as a guide, assemble the bolts, flat washers, and locknuts through the supports, sleeve and mast. Tighten the upper bolt which only goes through the sleeve and mast pole. The bolt which goes through the supports should be tightened so that the mast sleeve is still just able to be rotated.
- (2) Place the assembly where it is to be mounted, and attach it with lags or bolts as appropriate. There will be little force on this mount as the guy lines support the mast, but ensure that you are attaching to something that is structurally sound.
- (3) Pivot the mast down to the roof. You may attach the balance of the mast at this time. Refer to the instruction sheet which comes with the mast.



(4) Assemble the mast sections together (Figure 4). The joiner pieces go into the mast pole ends. Line up the holes, and insert the 1/4-20 hardware. Tighten until just snug - do not crush the fiberglass. If you are assembling a 24 foot mast, the middle guy ring must be placed onto the mast end before joining the next piece (Figure 5). The mast pole with the halyard pulley goes on top.

(5) Place the guy ring on top of the mast, near the pulley (Figure 6). Clip the guy lines onto the guy ring(s). A 12 foot mast uses 25 Ft guys (blue marker). A 24 foot mast uses 25 Ft guys (blue marker) for the lower ring, and 50 Ft guys (red marker) for the upper ring. If needed, use the additional 50 Ft line (red marker) for the halyard on the 24 foot mast. Use 25 Ft lines (blue marker) for halyards on end masts. Straighten out all lines along the mast, in preparation for standing the mast up. Now is the time to get rid of any tangles. Attach the coaxial cable to a hard affixed folded dipole at this time.

(6) If you are mounting a folded dipole (BWD/BWDS/BWDI) you must attach the antenna to the mount, and partially unroll the ends before raising the mast. It is helpful to have an additional person for each antenna end to keep the antenna from tangling. To hard affix this to the mast, attach the mount to the top mast pole with the supplied clamps. (If you have the ability, you may find it easier to erect the mast and then attach the antenna/mount to the top after guying.)

(7) When all is ready, raise the mast. You must have people pulling on both the middle and top guy lines to keep the mast straight while raising. Do not allow the top of the mast to whip when it gets near vertical.. When it is stood up straight tie off the mast guy lines, and then tighten the nut on the base.

The guy lines must be at a 45 degree angle to the mast, or greater.

If you do not pull the mast up carefully, keeping it straight and supported with all of the guys, you will break it.

(8) Raising the end-fed antenna (AC/ACS/ACI) is quite simple. After unrolling, tie the halyard line (50 Ft, red marker) to the insulator that is preassembled onto the antenna wire. Hoist the antenna to the top with the lanyard.

(9) If you are not hard affixing a folded dipole, it may be pulled up with the halyard line attached to the top of the mount. Clip the halyard lines on the end masts to the rings on the antenna ends. Pull the end lines just enough to snug the antenna. Do not try to make the antenna wires perfectly straight - you will use too much tension. A little droop is okay. Retension the mast guy lines at this time if necessary to keep the masts vertical.



FIG 3 (Folded Dipole Only)



FIG4



FIG5



FIG6