

ZEROFIVE-ANTENNAS MULTIBAND GROUNDPLANE VERTICAL ANTENNA INSTALLATION TIPS MANUAL

This manual is for the 10-80 meter freestanding Ground Plane vertical antenna. The 10-80 meter ground plane is a huge antenna weighing 29 lbs. It is not recommended to mount is antenna on the roof of your house. This ground plane stands 43 feet in height, and has 6 aluminum 133 inch radials. The radials have a total diameter of 22.5 feet, so a proper mounting location must be chosen.

Unpacking your vertical

Your ground plane vertical antenna comes shipped in 1 carton. There are 2 radial packs and a vertical element pack. The assembled base section with transformer is the 4th pack. Unwrap the bubble packing from the base section and put it aside. Unpack the vertical section and slide the tubing into the next smaller size up to the black marks for all the sizes. The vertical element is configured with 2 tubing piles, one side has the even sizes and the other the odd sizes. The tubing will be assembled back and forth between the 2 piles. Next slide the whole element into the base section and tighten the clamp. Make sure you do not over tighten the clamps. Unpack one of the radial packs and start with the 3 smaller pieces of tubing and slide them into the next bigger 3 sizes up to the black marks. The next 3 pieces are the inner elements which have a clamp on each end. Slide the sections you just prepared into one end of the inner element up to the black mark. Now you have 3 complete radials. Assemble the next radial pack the same way and you will now have six.

MOUNTING

Your 10-80 ground plane will work best mounted in your yard on a pole cemented in the ground. Due to the size of this antenna, it is best to keep it at 6 to 7 feet off the ground to reduce the risk of coming in contact with the ends of the radials. It will also be better for cutting the grass under the vertical. The ground plane accepts up to a 1 7/8 inch outside diameter mast up into the base tube. It is secured by tightening the six 5/16 bolts with a 1/2 inch box wrench. Only tighten the bolts enough to hold the vertical in place. **DO NOT OVERTIGHTEN THESE BOLTS.**

SUPPORT MAST

Use a 10 foot length of 1 7/8 inch outside diameter strong pipe. This should be cemented 3 to 4 feet in the ground and 6 to 7 feet sticking out of the ground. The hole should be 10 inches diameter and 36 inches deep. Back fill with 2 inches of gravel at the bottom and pack it down. You can use a 10 inch round Sona tube form 48 inch long sold at Home Depot. Put your pipe in the center of the hole and plumb it straight. You may want to tie it off so it does not shift while you pour the cement. You can use regular bags of cement to fill the hole up. Once it is dry you are ready to mount your new ground plane vertical. You will mount the base section with the vertical element first. You will need a step ladder to reach the top. Stand the vertical upright and slide it over the top of your mast and tighten the six 5/16 bolts. **DO NOT OVERTIGHTEN THESE BOLTS.** Next you will be installing the radials. Do one at a time by sliding the big end with the clamp over one of the solid mounting pegs. Tighten the clamp and repeat for the last 5 radials. After the radials are installed, check to see if the feed wire is touching any of the radials. It should be centered between 2 of them. You do not want this wire to touch any metal and arc over to ground. You will need to ground this vertical, so it is recommended to use one 8 foot ground rod. This can be installed in the ground at the base of the mounting pipe. You will need to run a #8 stranded wire from the ground rod to one of the bottom bolts of the base tube on the antenna. If you will be installing a lightning arrestor, it is best to install it just before the coax enters the house. Not at the base of the mounting pipe for the antenna.

SELECTING YOUR COAX

Good quality coax is a must for any high power high performance installation. 100 feet is the minimum required length to use for this vertical. Belden RG-213 coax is suitable for use with this vertical. It is low in loss and flexible.

SELECTING A TUNER

You will need a wide range tuner for this vertical to run Legal limit power. Palstar has a great line of roller inductor tuners that will work with this vertical.