



VHQ HEXBEAM ASSEMBLY INSTRUCTIONS

Thank you for purchasing the highest quality, highest performing Hexbeam available. We have done most of the work for you by assembling most of the time-consuming steps in our factory, bringing you an easy to assemble antenna. Of course, it's always best to have experienced hams to help you, and a couple of helping hands as well.

Please use the caution you would use with any antenna installation and place the antenna in a clear area away from people and powerlines to avoid RF contact and exposure as outlined in many antenna book references. Mount your antenna in a secure manner. For your safety and others, please ground your antenna and mast using the guides from ARRL and other qualified sources.

UNPACKING

Your VHQ Hexbeam is shipped to you in one large box that contains everything you will need to complete the assembly of your antenna. There are no other parts necessary to run to the hardware store and purchase.

The box contains the following:

- 6- Sets of Support Arms (spreaders) wire guides installed.
- 6- Wire antenna elements, one for each band.
- 1- Completed center post with coax standoffs attached.
- 1- Mounting plate with top and bottom aluminum hubs.
- 6- High strength support cords for fiberglass arms.
- 6- Ice/wind cords.
- 3- Forward mounting spreader cords (intermediate cords).
- 5- Ferrite Chokes.
- 1- Allen wrench for tightening hub screws.

Unpack the contents of the box and identify each part



PREPARATION

You will notice each part is clearly marked and identified.

Most people find that painting the fiberglass spreader arms prevents UV damage to the arms, and we suggest you use an outdoor paint such as KRYLON or other commercial outdoor paint. It is Imperative that you lightly sand and clean the tubes prior to painting to get proper adhesion Please note that each section

of spreader arms slides into a larger section, and paint thickness may make the arm insertion difficult, so don't paint in this area. Allow the paint to dry completely prior to assembly.

It is a good idea to place your mounting plate on a support top about waist high. This makes assembly easier in future steps. You can put your mast in a bucket filled with sand and place your mast in an upright position should you not have a suitable support.

As a first step, place the Hex plate on your or support as shown in the picture below. Then insert the large diameter fiberglass spreader arm into the U-Bolts, tightening both clamps evenly. Wire guides should be out near the ends of the rods. Make a point of having the wire guides facing up at 90 degrees. Fig.2



Fig.2

Next, Place the center post into the base plate with the HEX stickers aligned as shown in the picture below. And then tighten the two set screws Firmly as shown, Fig.3

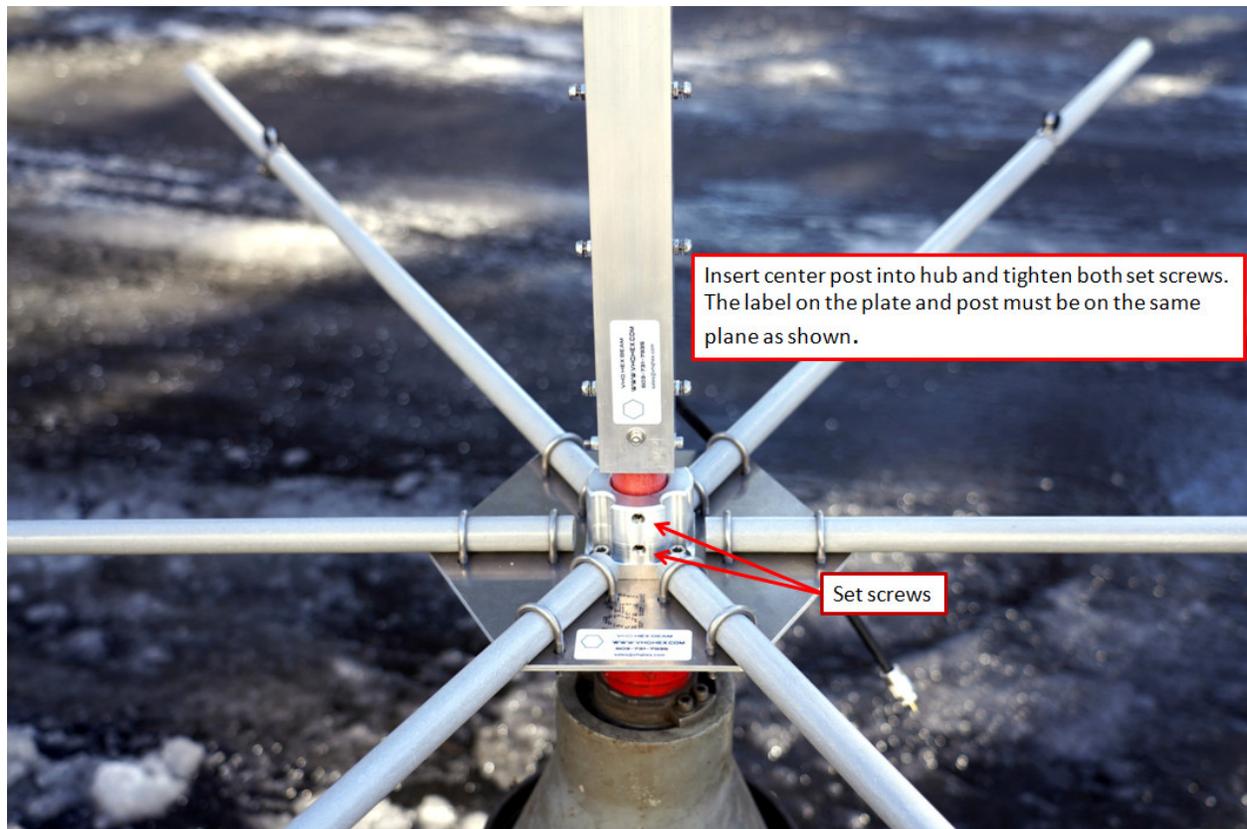


Fig.3

Place the medium fiberglass rods($3/4$ ") into the open ends of the larger diameter rods(1 "). Repeat this for the smaller diameter rods($1/2$ ") as show in fig.4 Again, all Wire Supports on All arms need to be pointing up.



Insert middle tube into end of large tube.
Push in until band clamp sits up against end of tube.
Repeat this for the smaller diameter tube.

Make sure rubber wire supports are on top of arms

Fig.4

As a note, some people have suggested a small amount of cyanoacrylate glue applied to the inserted arm to prevent arms from self-rotating over time.

At this point, your VHQ Hexbeam is starting to take shape! With the help of another person, pull the arms together as shown in fig.5 and secure the arms to the center post with the supplied Kevlar supports, and repeat this for all arms. Make sure you secure the S-Hook to the connection stub at the end of spreader arm as shown. All the arm supports at this point, attach to the eyelet on top of the center post. Make sure all S hooks are crimped closed!

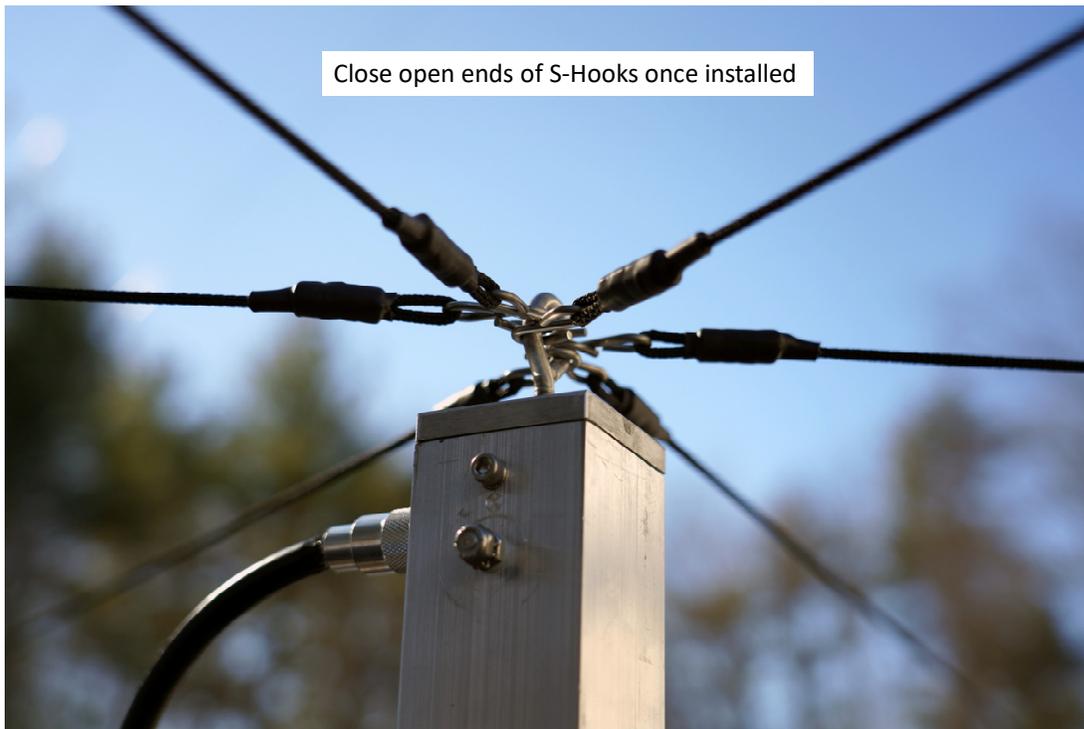


Fig. 5

You are now ready to place the wire elements for the VHQ Hexbeam for each band, starting with the 6 meter set first, and working your way away from the center post to ultimately install the 20 meter set last, as shown in fig.7 Be sure to pass each wire thru the wire support on each arm. You also should attach the coax as shown in fig. 8, routing it thru the stand-offs.



Fig. 7

Route Coax through standoffs and secure with included UV resistant cable ties through predrilled holes, Ferrite beads can sit between standoffs, we recommend that the coax exit the post on the number 4 or 5 spreader and be taped or cable tied to the tube

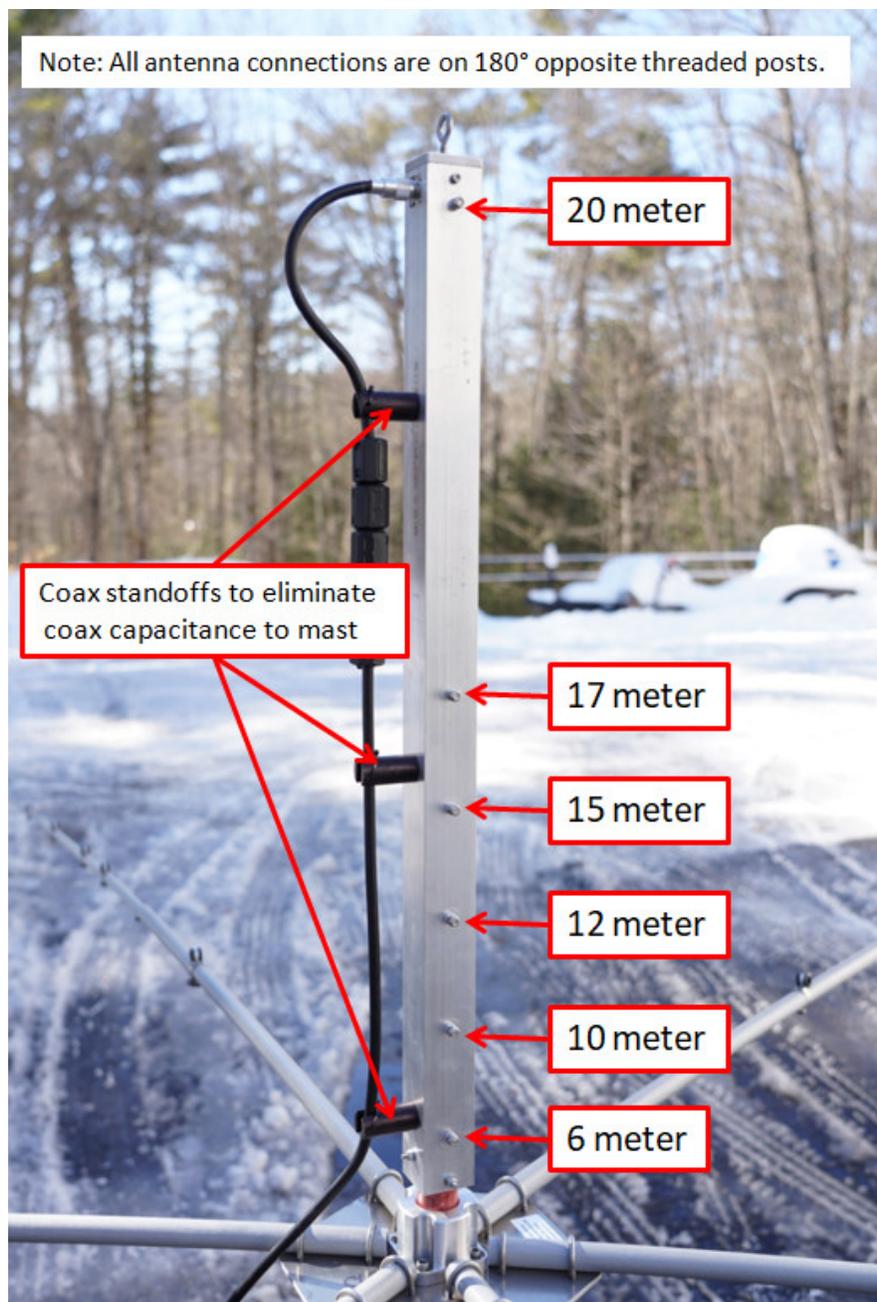


Fig. 8

Now, it is time to place the arm to arm Intermediate Kevlar Support cords as shown in fig.9

The one with the S hooks goes out at the end of arms, the medium one goes towards the end of the medium tube and the short one goes towards the lower end of the medium tube, after all wires are adjusted you can use these to straighten the driver section arms to your liking.

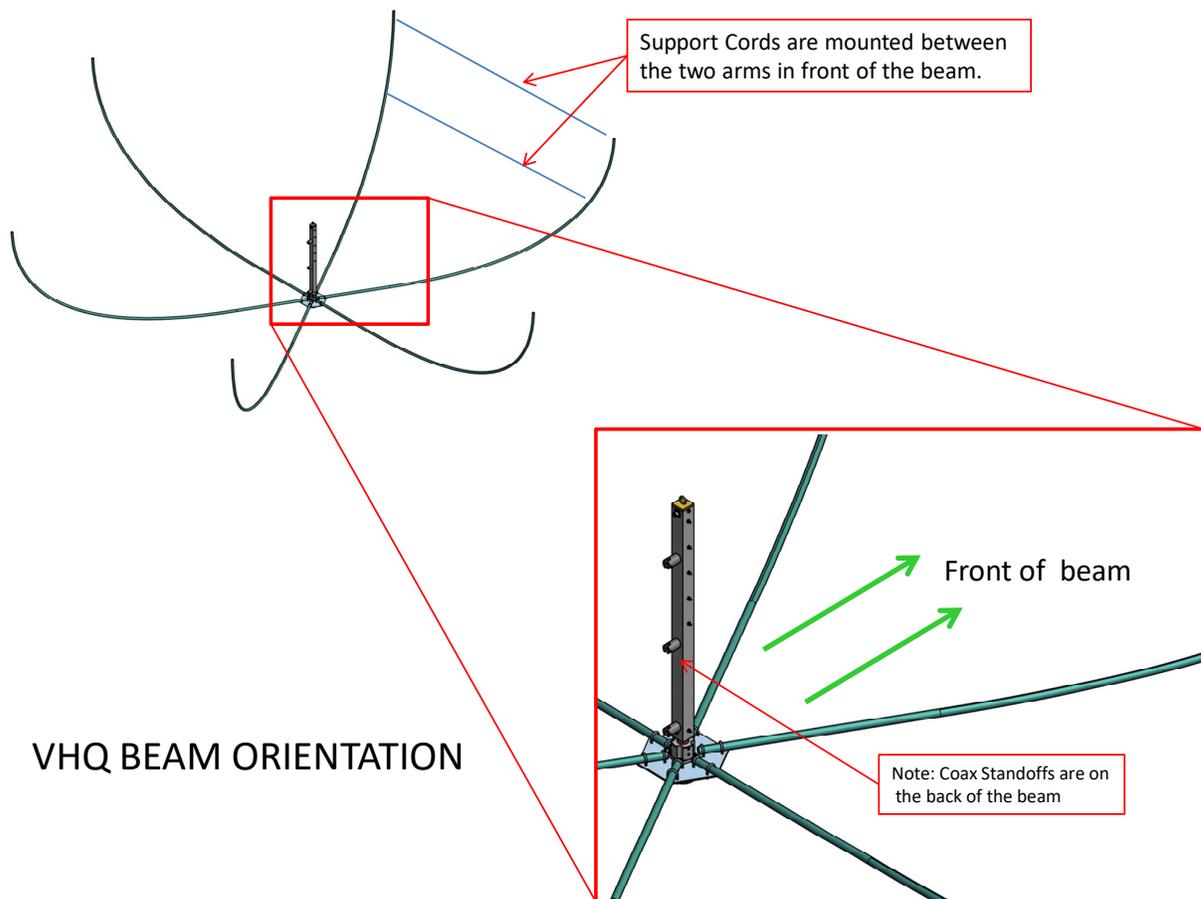


Fig.9

You are almost done, congratulations! Now place the Ice/Wind cords on the arms and connect to the center post as shown in fig. 10, Do not pull these tight! they should have just a very small sag as to not be pulling on the arms but to support them when they become weighted down with snow or ice. The VHQ Hexbeam is now ready to be mounted. Inspect the antenna and make sure all your work is secured. Due to flexing of the arms, you may have to make small adjustments to the wire supports to prevent wires from sagging.



Fig 10
Completed VHQ Hexbeam
(Ice Cords in Place)



VHQ HEX

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