



## 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.

Mounting plate with top and bottom aluminum hubs.

Six high strength support cords for fiberglass arms.

Six ice/wind cords.

Three forward mounting spreader cords (intermediate cords).

Five ferrite Chokes

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. Please note that each section

of spreader arms slides into a larger section, and paint thickness may make the arm insertion difficult, so go lightly 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 base plate on your mast or support and tighten the hex screws as shown in the picture below. Then insert the large diameter fiberglass spreader arm into the U-Bolts, tightening both clamps firmly and evenly, (Take note that the end has an aluminum tube inserted to prevent crushing the tube with U bolts ). Wire guides should be out near the ends of the rods. Make a point of having the wire guides facing up at 90 degrees.



Inset large diameter fiberglass rod into u-bolts and tighten both sides of clamps evenly.  
**Do not over tighten.**



Keep all rod ends equal distance from radius of hub - approximately  $\frac{1}{4}$ "

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 as shown, Fig.3

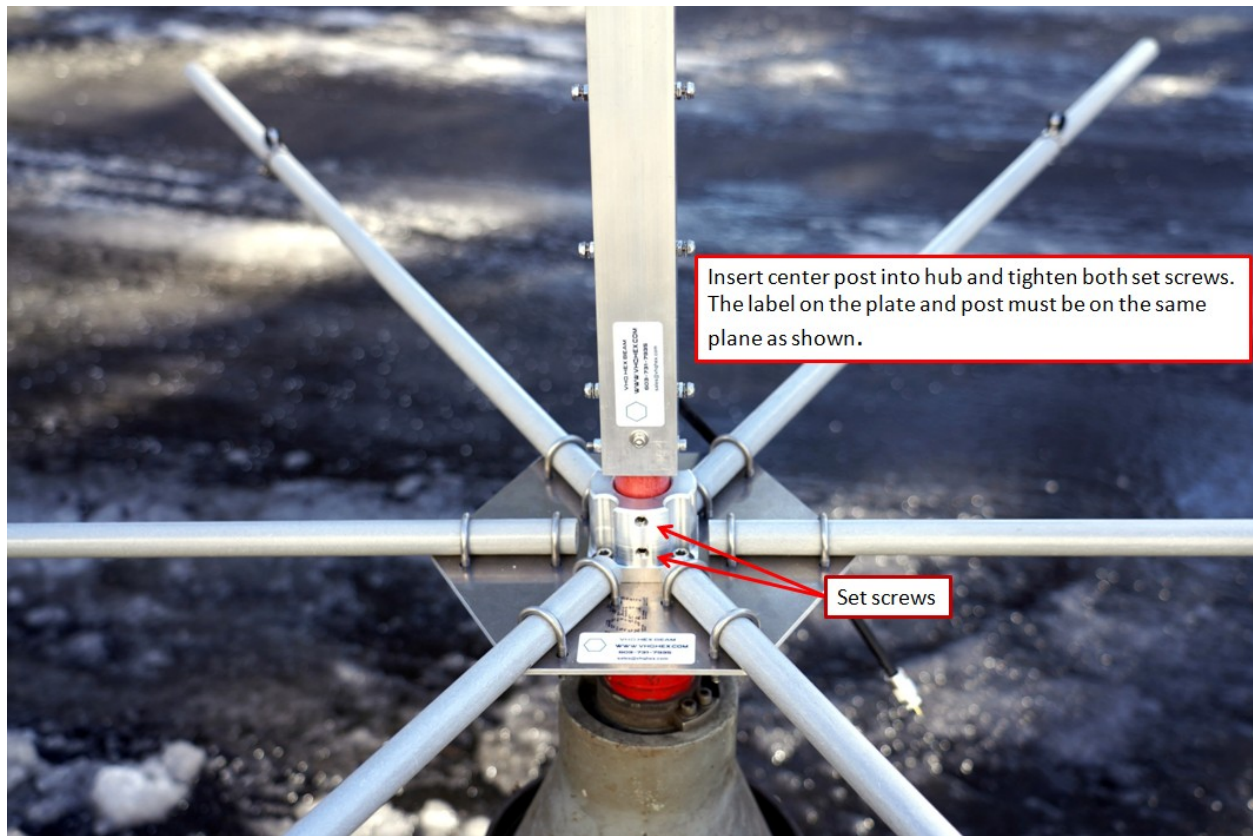


Fig.3

Place the medium fiberglass rods into the open ends of the larger diameter rods. Repeat this for the smaller

diameter rods as show in fig.4 Again, all Wire Supports on All arms need to be pointing up.

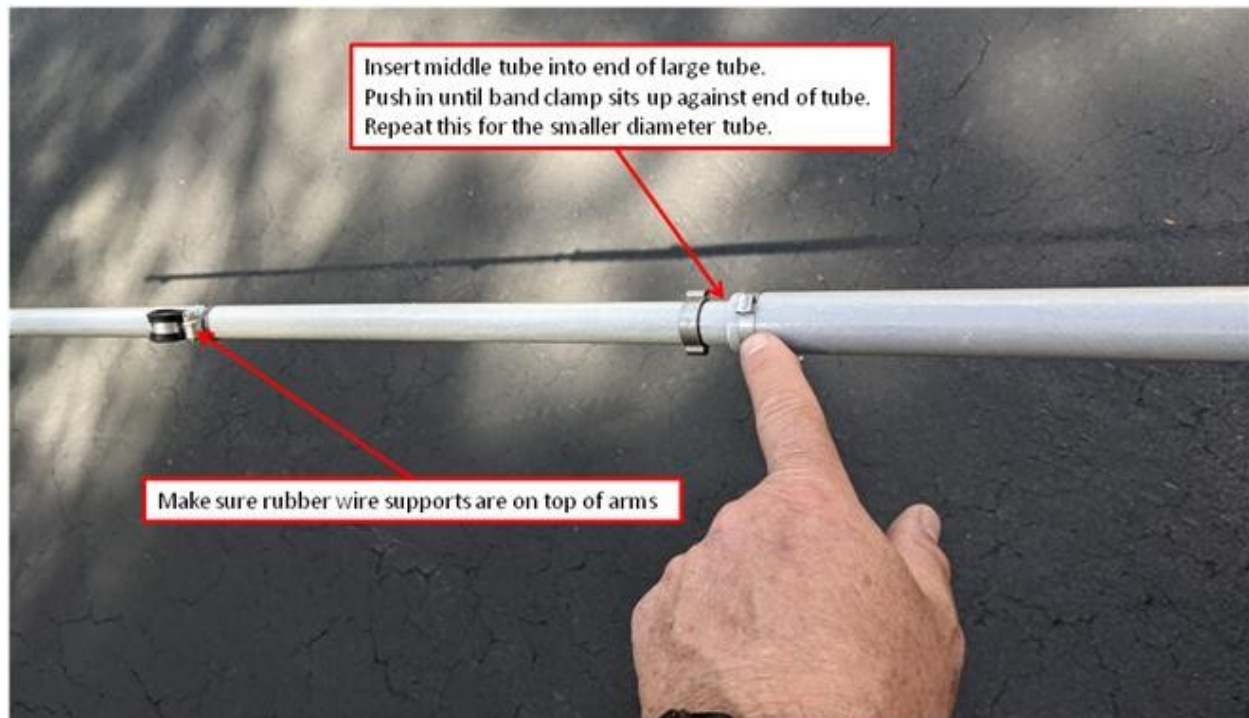


Fig.4

*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*

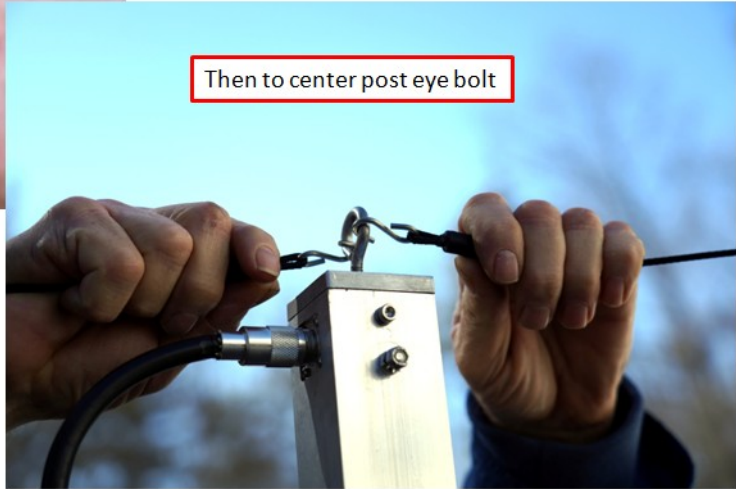
At this point, your VHQ Hexbeam is starting to take shape! With the help of another person, pull the arms together as shown in fig.5 and secure the arms to the center post with the supplied Kevlar supports, and repeat this for all arms. Make sure you pinch closed the S-Hook at the ends of the arms to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



Insert S-Hook into the end of each arm



Then to center post eye bolt



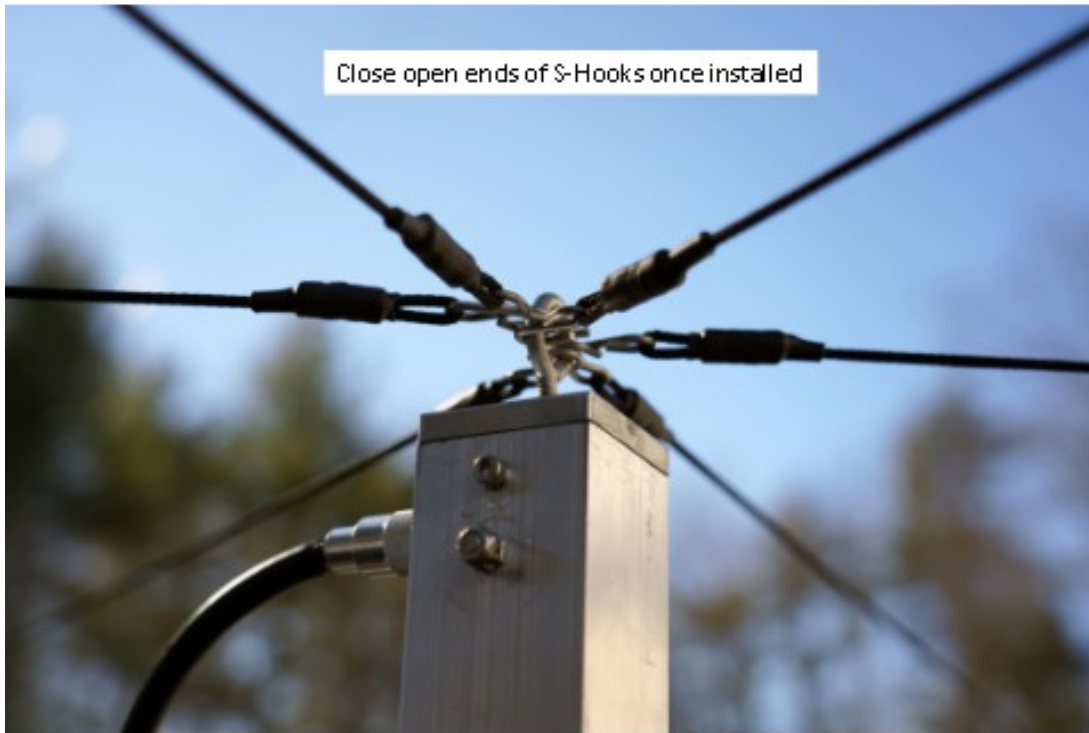


Fig. 5

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

Note.

When installing wire elements make sure that each band is not too tight before proceeding to the next band, If it is tight give it some slack by loosening a clamp and sliding it down otherwise it will throw off the geometry of the antenna and affect the other bands tension.

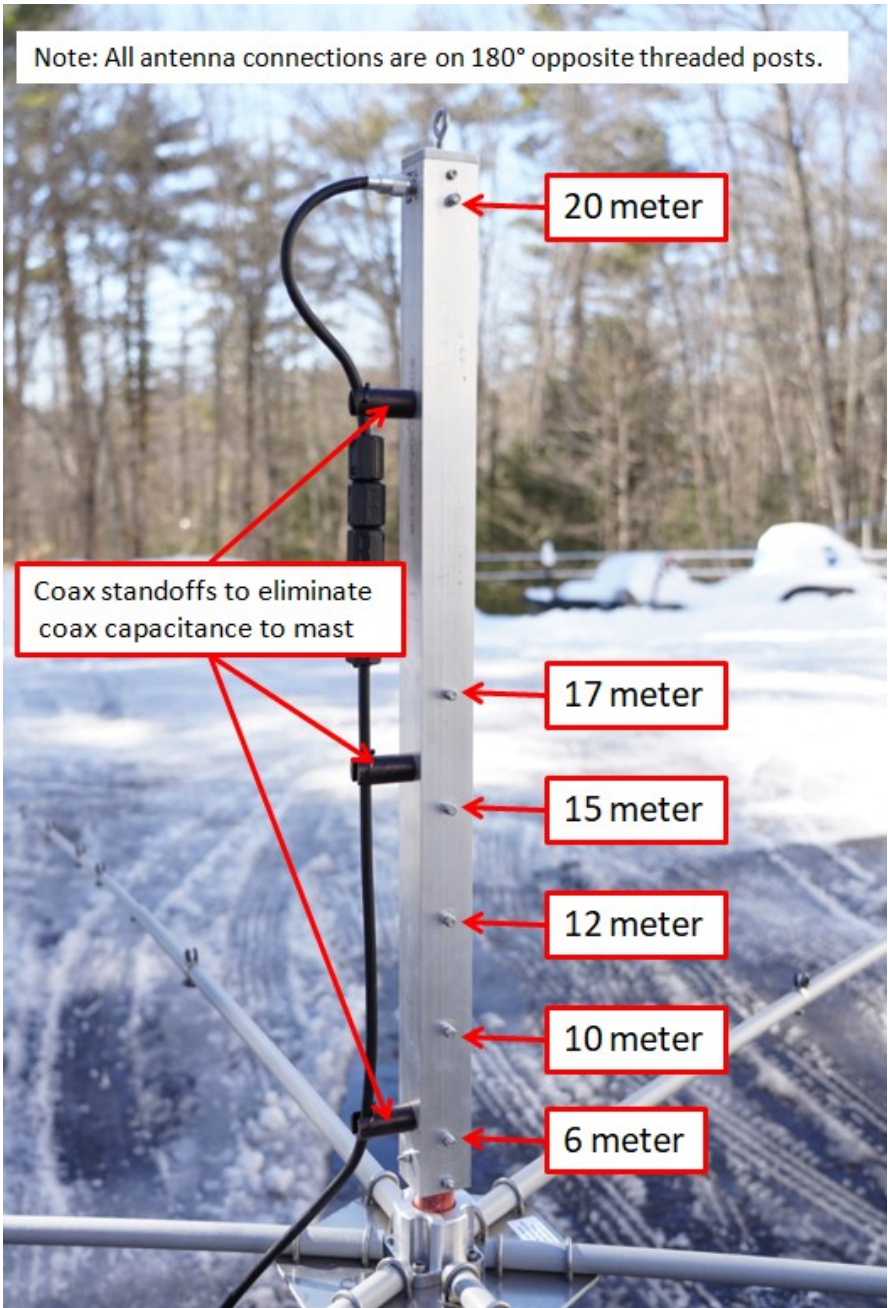
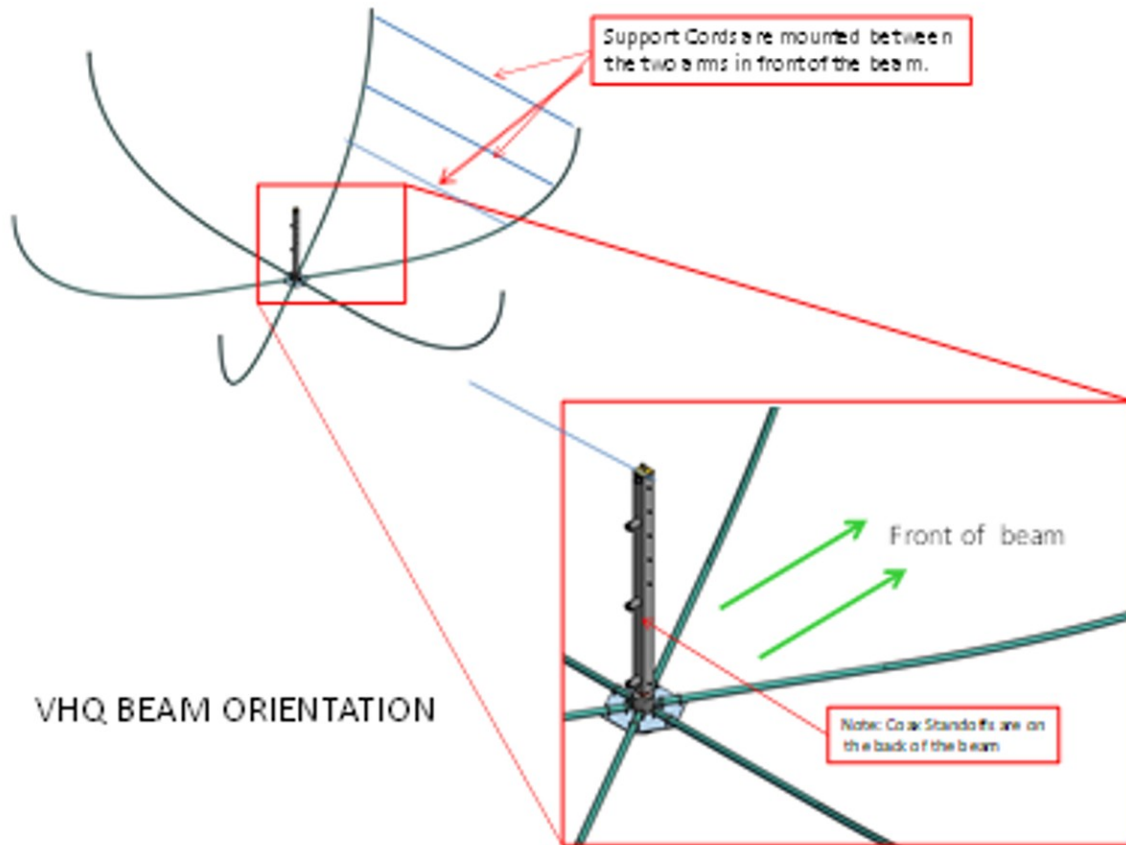


Fig. 8

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

Fig.9



You are almost done, congratulations! Now place the ice cords on the arms and connect to the center post as shown in fig. 10 Making sure that there is a slight sag in the cords, (Do not pull these tight) it will alter the shape of the beam, these will tighten and support during snow load. 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

[www.vhqhex.com](http://www.vhqhex.com)

[sales@vhqhex.com](mailto:sales@vhqhex.com)

603-731-7935