

## **CCDAntennas.com instructions v3.0 – updated 5/11**

Thank you for purchasing your new CCD antenna.

In the box you will find a complete CCD antenna specially cut to the band(s) you ordered. The center insulator is a 4:1 balun with lightning protection and there are two deluxe end insulators installed. Each of the sections will have 22-28 evenly spaced boards with a capacitor on each. You will also find an extra board with a capacitor already installed. This is a spare in the event one is damaged. Additional replacement boards are available on request.

*Do NOT coat these boards or the wire in any way.* Doing so will void the warranty and disable the antenna. The caps and boards can handle the elements just fine as they are. Even coating material that claims to be non-conductive very often is at RF frequencies or adds coefficients that will through off the design.

### **Mounting**

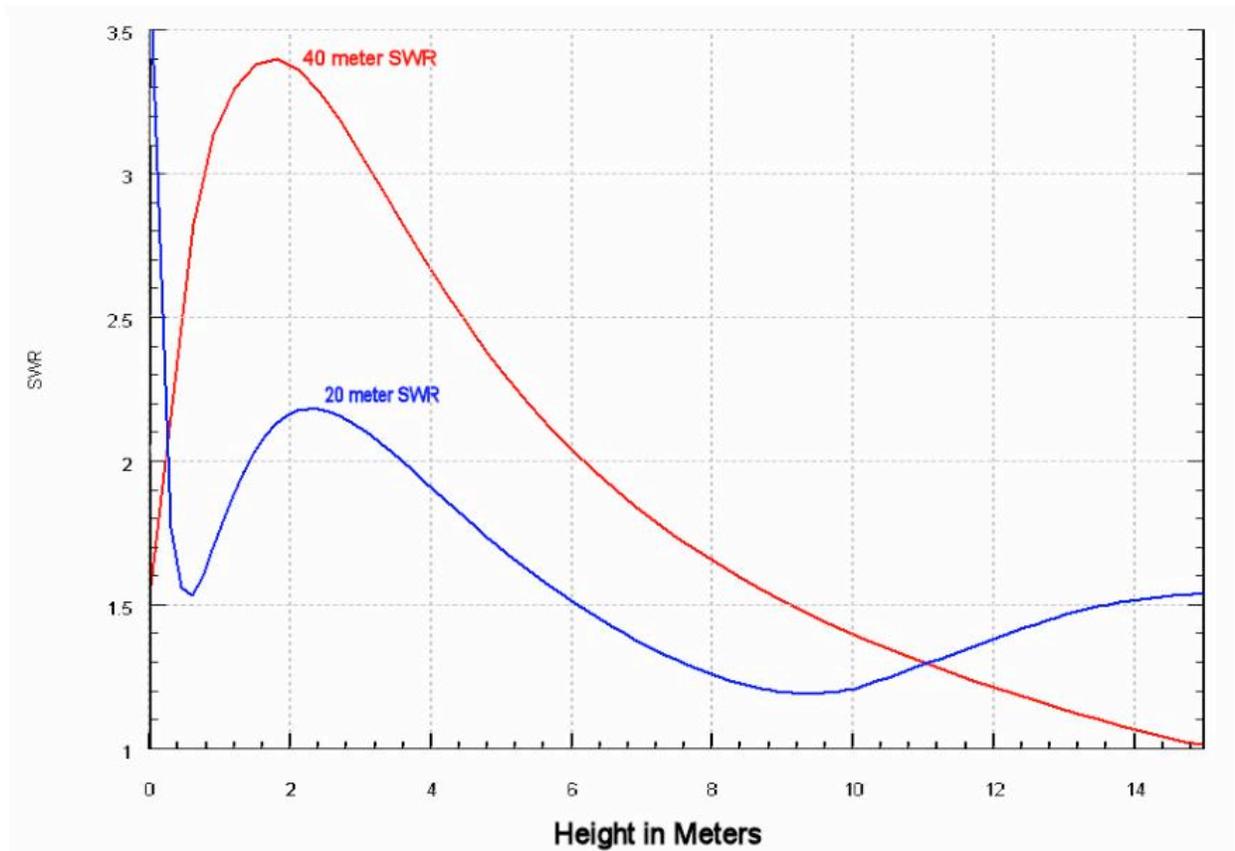
See the chart to see what the computer model tells us about height above ground and how it will affect the SWR. Like any antenna, having it as high as you can will work best. There is a range where the SWR is a bit high and, it will work with a tuner of course, but please note that all wire antennas have heights that are better than others. And ground conditions vary depending on where you happen to be standing.

These antennas mount much like a dipole. The balun has an SO-239 connector so you can attach and run coax down to the shack. That's your center point. From there the wires can be pulled out from there to form a standard dipole or inverted V configuration. Looks like a T with the coax coming down from the center. But, if you only have one high point to mount an antenna you can put the center up as high as possible, like in a tall tree or off a tower, and then run the wires down to form an inverted V. Doing this actually makes the antenna a little less directional. The larger holes in the insulators are for mounting convenience. Many people use CCD antennas under the eaves of their home because they have antenna restrictions. These holes can be used to mount the antenna in as many points as there are modules as needed. Another option is to use them to raise it up in a line of trees or along a fence line. You can use string to support it at any point.

Note that no type of antenna can run parallel to other metal objects for very long without degrading the antenna. If you plan to mount it under your eaves for example, make sure you don't have metal flashing along the edges, or a metal gutter running along the outside. This will render the antenna unusable for transmitting. Also, be aware of the height chart. If you mount it low you may need a tuner. However, it should still work far better than a basic wire antenna would in those situations.

### **What if it doesn't fit?**

If your area doesn't have room for a full size antenna for the band that you want you can mount it however it works for you. Let's say you have room for a dipole configuration but it's about 30 feet to long on one end. That that end and either run it down towards the ground or run a dog leg off in a different direction and the antenna will work fine. It's always best if you can keep turns over 90 degrees. But, with antennas, a little experimentation never hurts and more often than not you will have good results.



The above chart is for the 20/40 antenna. And note that the height is in METERS and not feet. If the antenna is mounted in an inverted V with the center up at, say, 30 feet, and the ends come down to even 8 feet it should work fine.

**WARRANTY**

Because of the nature of weathering you have 14 days to return the antenna if there is a defect. Frankly, there are just too few parts to go wrong. We will supply spare parts as needed to help you keep your CCD in top working order.

Each antenna is built by hand and is tested at several points while assembled. Every solder connection is tested electrically as well as visually. The capacitors are 5% so there may be a little variance in resonant frequency from one to the next but all should work fine. Understand that having an SWR of 2:1 is not considered a defect.

These antennas are built by hand and take about 1.5 hours to assemble. Gathering the parts, cutting and stuffing boards, and standing for hours to put these together is not fun. Hearing you using yours on the air IS fun and why we do it. 73 and Enjoy!

**Contact information:**

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