“Stacker” Antenna Assembly

There are two main square booms on the Stacker antenna. The top boom is the VHF antenna boom and the bottom is the UHF antenna boom. Each boom comes in two pieces and must be assembled together to create one main boom. The two short booms at a 90 degree angle coming off of the bottom main boom are called the reflectors. The vertical bar to the right of the mast pipe is called the antenna brace.

**UHF antenna assembly**

Remove the bolt and hex nut holding the last element to the Main UHF boom.
“Stacker” Antenna Assembly

With the nut and bolt removed, insert the crimped end of the UHF extension into the boom of the Main UHF section. Make certain that the short elements of each boom are facing up as shown in the picture at right.

Slip the two booms together aligning the holes where the nut and bolt were removed. Place the short element that was removed with the nut and bolt back onto the boom and replace the nut and bolt as they originally were.

The main UHF boom should now be assembled and all short cross elements on the boom facing up.

Slowly and carefully fold out the elements on both of the reflectors making sure they snap into place properly.

At right is a reflector with all elements folded out. Both reflectors are identical. Insert a boom plug into the end of the reflector boom that only has 1 hole punched through the boom. The opposite end of the reflector boom will have two holes punched through the boom.
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Attaching the reflector to the main UHF boom.

Select either reflector. Place the end of the reflector that has two holes into the bracket at the rear of the main UHF boom. See right. The plastic brackets that hold the elements to the reflector boom face out and away from the UHF main boom. Align the hole in the bracket with the hole of the reflector boom insert the bolt. Thread a small hex nut onto the bolt and tighten.

Turn the antenna over and repeat these steps with the second reflector.

Important!

Be sure to fold out tetrapoles

Fold out tetrapoles

At right:
Fold out tetrapoles until they are at a right angle to the boom. There are two on each side. Those facing away in the picture are in proper position.

The UHF portion of the antenna should be complete and should look like the bottom boom in the picture at the top of the page.
VHF Antenna Assembly

Starting with the longer elements slowly and carefully fold out the elements on the VHF Main boom. Make sure that all elements snap securely into place.

Unfold the elements on the VHF extension boom. The clips should rotate to face the open, crimped end of the extension boom.

Remove the nut and bolt holding the element nearest to the end of the main VHF Boom.
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Make sure the elements of the extension boom are on the same side of the boom as the longest elements of the main VHF boom. Insert the crimped end of the extension boom into the main boom aligning the holes where the nut and bolt were removed.

Place the element that was removed with the nut and bolt back onto the main boom and replace the nut and bolt as they originally were and tighten.

Turn the main VHF boom upside down with the plastic element brackets facing down. Find the screw hole near the yellow label on the main VHF boom. There are three holes in the strut. The elongated hole is not used.
With the main VHF boom lying upside down; with the plastic element brackets facing down install the struts as shown at right. One strut is installed on each side of the boom.

Insert the bolt though the the hole and attach the second strut on the other side. Thread a small hex nut onto the bolt but do not tighten beyond finger tight.

Connecting the VHF and UHF antennas together.

VHF antenna lying upside down

With the VHF antenna lying upside down slide either end of antenna boom brace over the VHF boom. Line up the holes of the brace and boom. Insert the bolt and thread one small hex nut onto the bolt and tighten.
With the VHF antenna lying upside down place the UHF antenna boom into the boom brace and the reflector into the struts on the VHF antenna.

Note: when placing the UHF antenna onto the VHF antenna the nylon wire stand-offs connected to the boom of the UHF antenna should be facing down as shown at right.

Line up the hole near the front of the UHF boom with the holes of the antenna brace. Insert a bolt and thread a small hex nut onto the bolt and tighten.

Slide the reflector into position between the struts located on the VHF boom. Line up the holes and insert a bolt. Thread a small hex nut onto the bolt and finger tighten.
“Stacker” Antenna Assembly

When the reflector is attached to the main VHF boom properly it should look like the picture to the right. →

Insert the boom plugs into each end of the booms

Connecting the two antennas together.

Thread the twin lead through the nylon standoffs there are 3 in all. One of the reflectors will have an unused nylon standoff. Connect each end of the twin lead to the connection posts of each antenna using the washers and hex nuts provided.
“Stacker” Antenna Assembly

Twin lead connected to the antenna posts. Place the down lead connector onto each post. Place a washer onto the post above the twin lead connector. Next thread a small hex nut onto the post and tighten.

The routing of the twin lead wire should look like the picture on right.

The U bolt mast clamp should be assemble as indicated in the directions and as shown at right.
“Stacker” Antenna Assembly

Connect the matching transformer and down lead cable to the bottom posts of the lower UHF boom as shown in the image below.