

# FINAL ASSEMBLY OF THE SPIDERBEAM 5-BAND YAGI

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## The following is important before beginning to string wires:

1. Be ABSOLUTELY SURE that the 4 aluminum tubes that support the fiberglass tubes are resting (touching) the Standpipe. If you can see air between these tubes and the mast, then the 2 aluminum plates will bend. If you cannot see air, it is difficult for them to bend the square plates.
2. When you mount the 4 PVDF horizontal guy lines on the tips of the 3rd segment of each spreader, make sure that the 4 arms are absolutely straight. This takes a bit of fiddling with the knots but it is easy enough to do. Unless they are absolutely straight at this point, it will look like a snake when the other 2 segments are mounted and the wires are strung.
3. Now mount the final fiberglass pole segments and the TOP and BOTTOM GUY Ropes. Adjust the tension of the top ropes such that the tips of the segments are slightly pointing upwards. There are rubber caps on the outside ends but not on the ends near the pole. If the far ends are pointing down, even just a little, water can collect inside the tubes. By bending the ends upwards, water will run back out of the tubes near the mast. The bottom guys ropes must be snug, but do not need to be tight. Their only purpose is to limit the amount of upward movement of the arms in strong wind gusts.

## Now we can string the wires:

4. Work ALTERNATELY between directors and reflectors, beginning inside (closest to the mast) and working your way outwards. Parasitic elements will be mounted first, then driven elements.
5. Begin with the **PARASITIC** elements closest to the pole, hang one director and one reflector and then check that the 4 arms are straight. **EXCEPTION:** In the first step we will hang 10-REF + 12-REF together (because they are close together) + 10-DIR-1. So with the first step, we actually hang 3 elements. Adjust element tension if necessary.
6. Next, add the next reflector and next director moving outwards. (15-REF and 15-DIR) Check that the arms are straight, and adjust if necessary.
7. Proceed with [17-REF + 10-DIR-2] and finally [20-REF + 20-DIR].
8. Now mount the driven elements (last). By mounting them last, you can easily remove them for adjusting resonance without having to remove all parasitic elements first. Mount 15m last. Begin with [12-DE + 20-DE], then [10-DE + 17-DE] and finally mount the two 15m half-elements.

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## HERE IS A SUMMARY OF THE MOUNTING ORDER:

- 10-REF + 12-REF + 10-DIR-1
- 15-REF + 15-DIR
- 17-REF + 10-DIR-2
- 20-REF + 20-DIR
- 12-DE + 20-DE
- 10-DE + 17-DE
- 15-DE

If you always assemble the beam in this order, it will not be necessary to re-adjust knots each time you assemble it at a new location.