

# Wildlife Materials International, Inc.

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## INSTRUCTIONS FOR THE FOLDING, 5-ELEMENT YAGI ANTENNA (MODEL F\_\_-5FB)

This folding, 5-element Yagi antenna consists of a boom of fixed length and five folding elements. The two halves of each element are attached to the boom with a single stainless steel, 8-32 screw. The screw is threaded into the boom with a KEP nut (combined lock washer and hex nut) on the back side of the boom. This screw can be tightened or loosened as desired in order to adjust the folding tension of the two halves of the element. *CAUTION: This screw should not be tightened for too much folding tension! Too much folding tension may cause the elements to be bent or broken when the antenna is being folded or unfolded.* Once the screw is adjusted and the KEP nut tightened, further adjustment should not be necessary. However, the tightness of the KEP nut should be checked once in a while.

### UNFOLDING INSTRUCTIONS:

1. Place or hold the antenna in a position so that the extended part of the boom is toward you, and rotate the boom so that the wing nuts are on top.
2. Loosen the wing nuts to the top of their travel.
3. Swing the #3 director element halves (numbered 1 and 2 in Figure 1) outward in the order #1 and #2, so that each element half is perpendicular to the boom. Tighten the wing nut to hold the element halves in the unfolded position.
4. Repeat step 3 for the #2 director element halves (numbered 3 and 4 in Figure 1), then for the #1 director element halves (numbered 5 and 6), then for the driven element halves (numbered 7 and 8), and finally for the reflector element halves (numbered 9 and 10). Note the reversed order of the reflector element halves compared to those of the driven and directors in Figure 1.
5. Attach one end of a length of RG58C/U coaxial cable to the antenna by mating the male BNC connector on one end of the cable to the female BNC connector on the driven element of the antenna. Attach the other end of the cable to a receiver. The antenna is now ready to use.

### FOLDING INSTRUCTIONS:

In general, to fold the antenna, just reverse the unfolding procedure described above, folding the element halves in the reverse order: 10,9,8,7,6,5,4,3,2, and 1.

1. Remove the coaxial cable from the antenna.
2. Loosen the wing nut on the reflector element, then fold the #10 half-element forward, making sure it goes *under* the extended #7 half-element. Then fold the #9 half-element forward, making sure it goes under the extended #8 half-element.
3. Loosen the wing nut on the driven element, and fold the #8 half-element rearward, back along the boom. Then fold the #7 half-element in a like manner back along the boom.
4. Loosen the wing nut on the #1 director element, and fold the #6 half-element rearward, raising the

end of the half-element slightly so that it passes over the coaxial connector and gamma match. Then fold the #5 element rearward back along the boom.

5. Loosen the wing nut on the #2 director element, and fold the #4 half-element rearward to pass over the rear end of the #6 element. Then fold the #3 element rearward along the boom.
6. Loosen the wing nut on the #3 director element, and fold the #2 element rearward to pass over the rear end of the #4 element. Then fold the #1 element rearward along the boom.
7. Run the wing nuts to the bottom of their travel.

### TUNING:

The gamma match is set at the factory for approximately 52  $\Omega$  center band operation and riveted in place. The tuning should require no further attention except for reasonable care in handling the antenna.

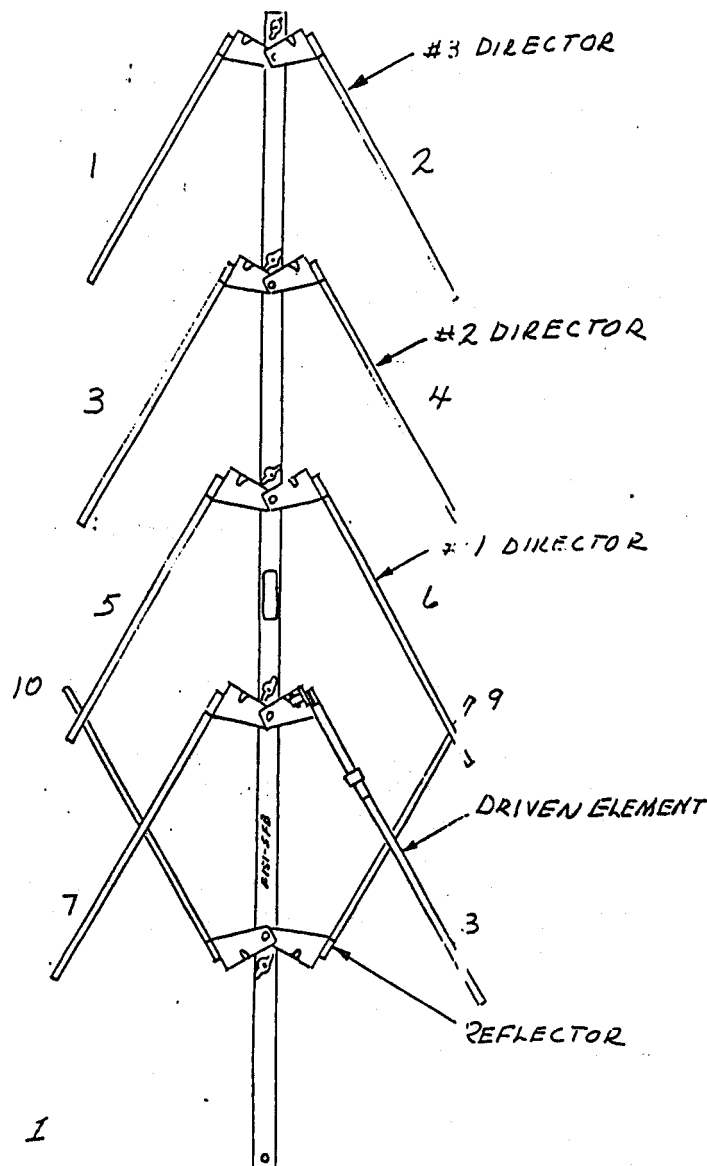


FIGURE 1