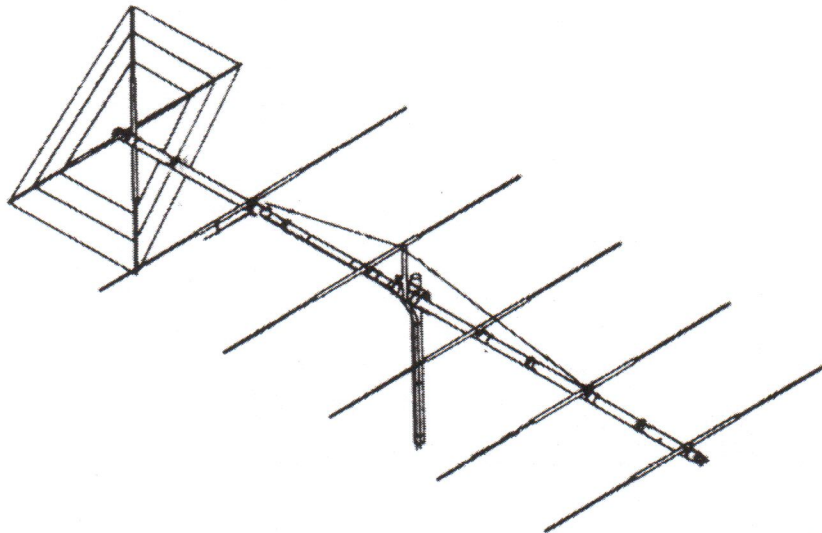


# ASSEMBLY INSTRUCTIONS



## FLATSIDER 6

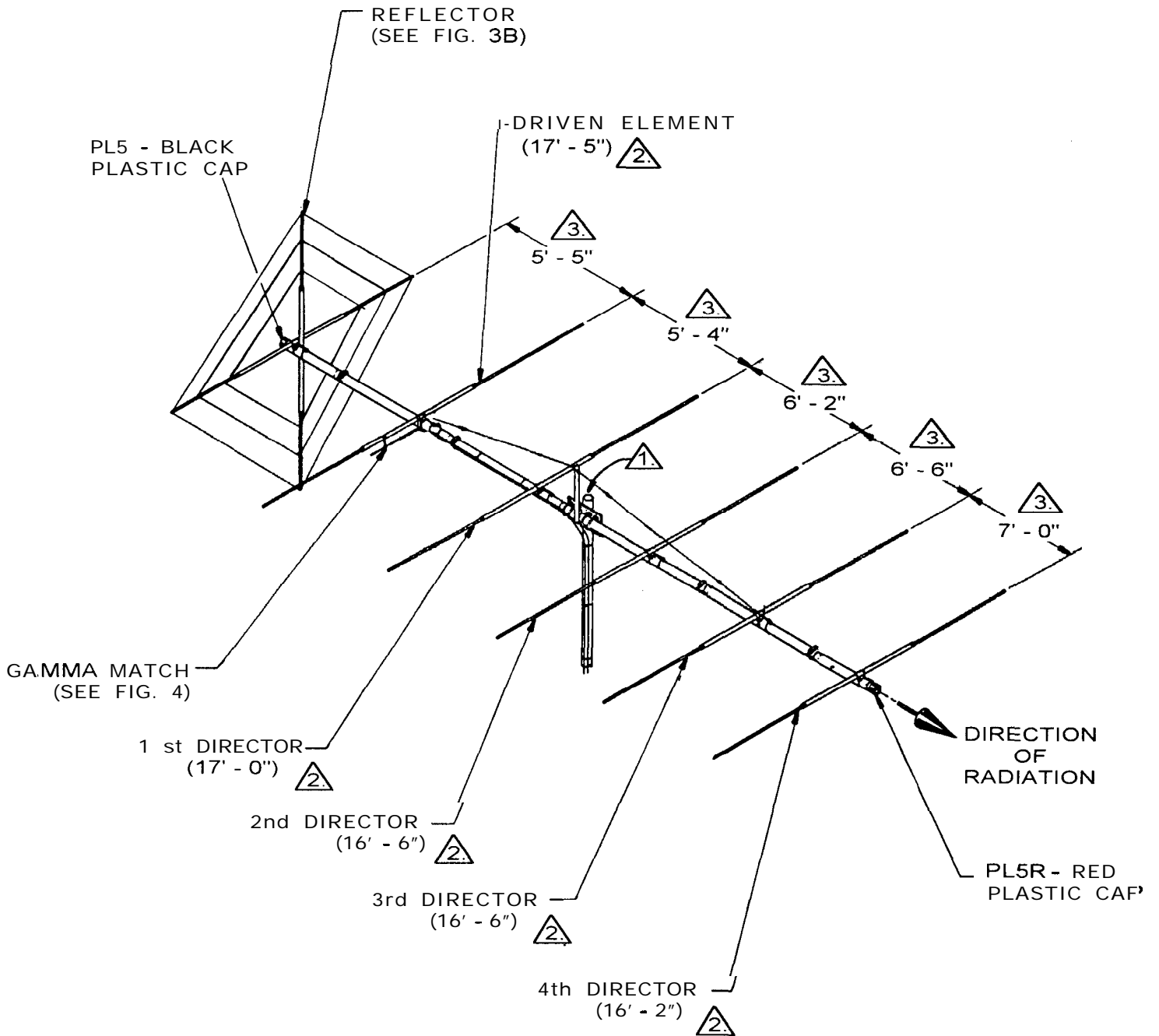
**6 ELEMENT MONOBANDER  
10/11 METER BEAM**



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NOTES:  
 ▲ FOR DETAILS OF BOOM & GUY ASSEMBLY AND MAST MOUNTING, SEE FIG. 2.  
 ▲ FOR DETAILS OF ELEMENT ASSEMBLY AND MOUNTING, SEE FIG. 3.

GENERAL ASSEMBLY FIGURE 1

# MACO FLATSIDER 6

## ASSEMBLY INSTRUCTIONS

### FIGURE 1 GENERAL INSTRUCTIONS

This drawing depicts an overall view of what the antenna should look like upon completion of assembly. Refer to Figures 2 thru 4 for specific assembly details. All hardware should be coated with a silicon rubber sealant or similar compound to insure that wind vibration does not cause it to work loose.

Upon completion of assembly, install the red plastic cap (PL5R) on the director end of the antenna, and the black cap (PL5) on the reflector end. This will allow you to determine at a glance the direction of transmit and receive.

### FIGURE 2 BOOM & GUY ASSEMBLY

To assemble the boom, first mark the center of the boom coupler (T53) and slide the unslotted ends of the center boom sections (T52P) over the each end of the coupler so that they butt in the center. Next attach the boom-to-mast plate (P01P) and the vertical guy support (V03P) at the boom center using 2" U-bolts, saddles and hardware as shown. (Refer to Detail 2A.)

Now, slide the **swaged** ends of the intermediate boom sections (T3 1P) into the slotted ends of the center boom sections. Secure with 2" U-bolts, saddle and hardware as shown. (Refer to Detail 2B.) Next, slide the **swaged** ends of the boom sections and secure in the same manner. (Refer to Detail 2B.)

The first step in assembling the guy cable is to cut four lengths of 2 feet each off the roll of cable. Take two 2 foot lengths and attach one end of each to an egg insulator (EG1) and the other end to an **eyebolt** (N18) so that the distance between the **eyebolt** and the insulator is 1 foot. Attach both **eyebolts** to the vertical guy support with 5/16" **hexnuts** as shown in detail 2C. Run the outside hex nuts only a couple of turns onto the ends of the **eyebolts** and leave the inside nuts loose so that you can take the slack out of the cable later. Now take two 2 foot lengths and attach an egg insulator to one end of each in the same manner. (At this point, it is necessary to go on to element assembly and mounting, before completing the guy cable assembly.)

Take both 2 foot cable lengths with the egg insulators attached and fasten one to the boom and the driven element and the other at the 3rd director. Wrap as shown in Detail 2D so that the distance between the boom and insulator is 1 ft.

Now take the remaining cable and allowing approximately 9" at each end for wrapping, stretch it between the insulators one end of the boom and cut it off. Leaving as little slack as possible, wrap each end of the cable around the insulators as shown in details 2C and 2D.

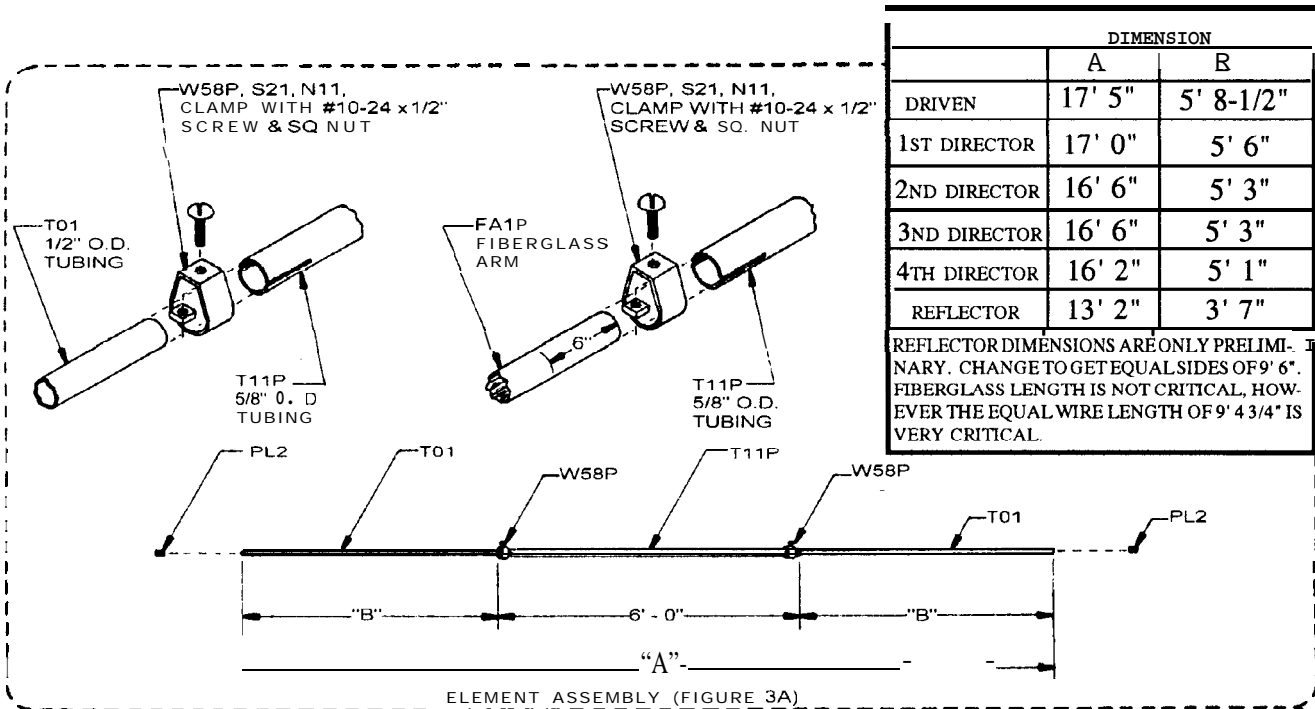
Do the same thing for the cable on the other end of the boom. Take the rest of the slack out of the cables by tightening the outside hex nuts on the eyebolts. Lock them in place by tightening the inside hex nuts. This antenna is designed for mounting on a 2" O.D. heavy duty mast. Mount using 2" U-bolts, saddles and hardware as shown in Detail 2E.

### FIGURE 3 ELEMENT ASSEMBLY

Prior to assembling elements slide a boom-to-element mount (BE2P) onto each of the (6) element center sections (TI1P). Assemble each element as shown using the clamps and hardware specified. Refer to the element table to determine dimensions for each element. Install a black plastic cap (PL2) onto both ends of each element. Assemble the reflector elements in the same manner, sliding the fiberglass arms approximately 6 inches into the ends of the center sections (TI1P). Snug the clamps but don't tighten at this time because the arms will have to be adjusted after installing the reflector wire.

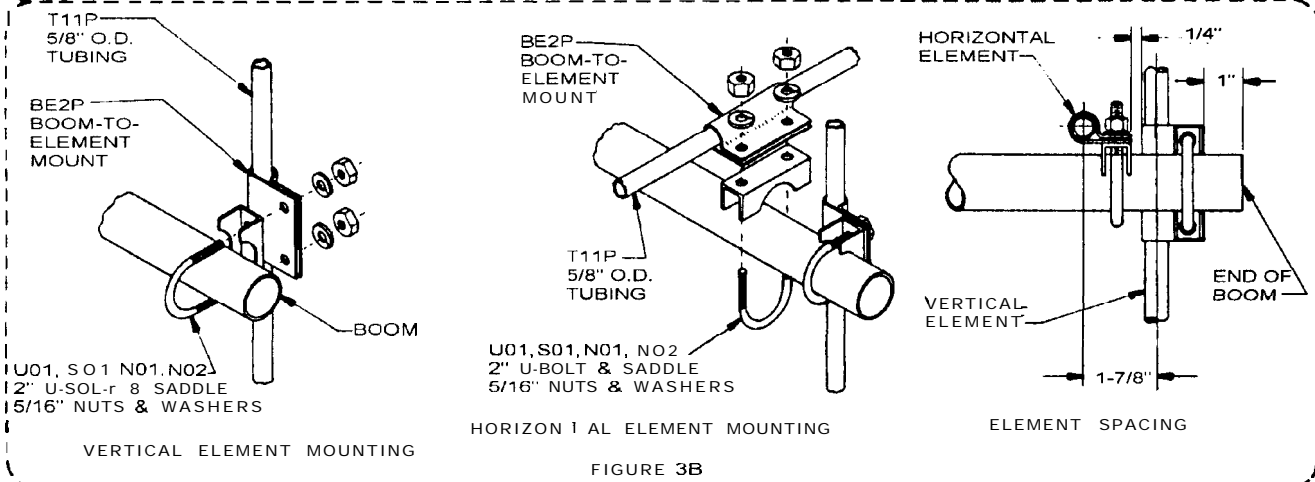




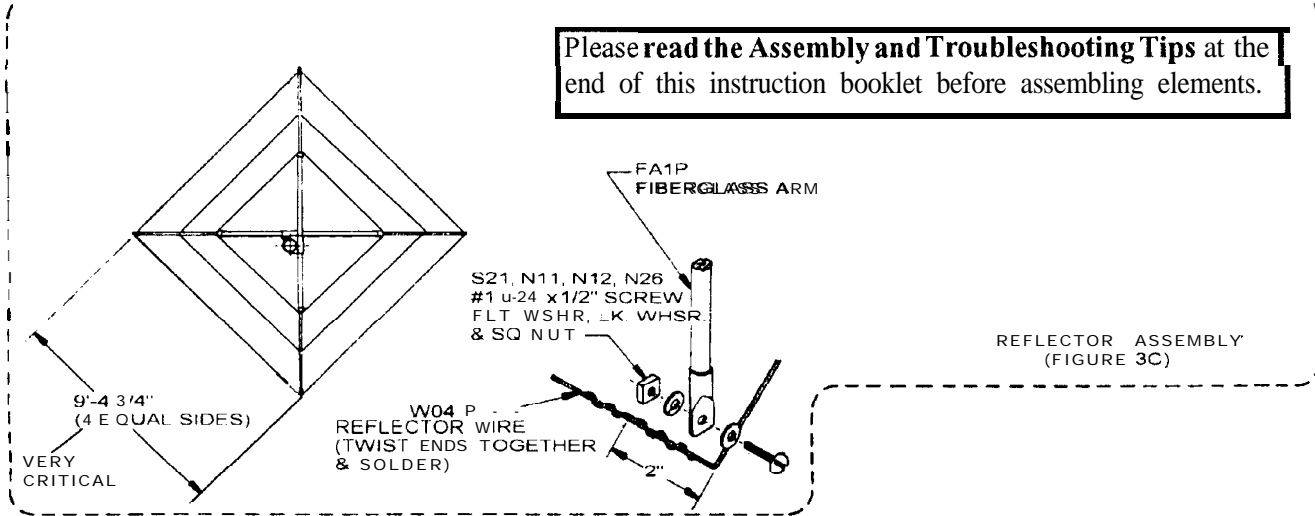


	DIMENSION	
	A	B
DRIVEN	17' 5"	5' 8-1/2"
1ST DIRECTOR	17' 0"	5' 6"
2ND DIRECTOR	16' 6"	5' 3"
3ND DIRECTOR	16' 6"	5' 3"
4TH DIRECTOR	16' 2"	5' 1"
REFLECTOR	13' 2"	3' 7"

REFLECTOR DIMENSIONS ARE ONLY PRELIMINARY. CHANGE TO GET EQUAL SIDES OF 9' 6". FIBERGLASS LENGTH IS NOT CRITICAL, HOWEVER THE EQUAL WIRE LENGTH OF 9' 4 3/4" IS VERY CRITICAL.



Please read the Assembly and Troubleshooting Tips at the end of this instruction booklet before assembling elements.

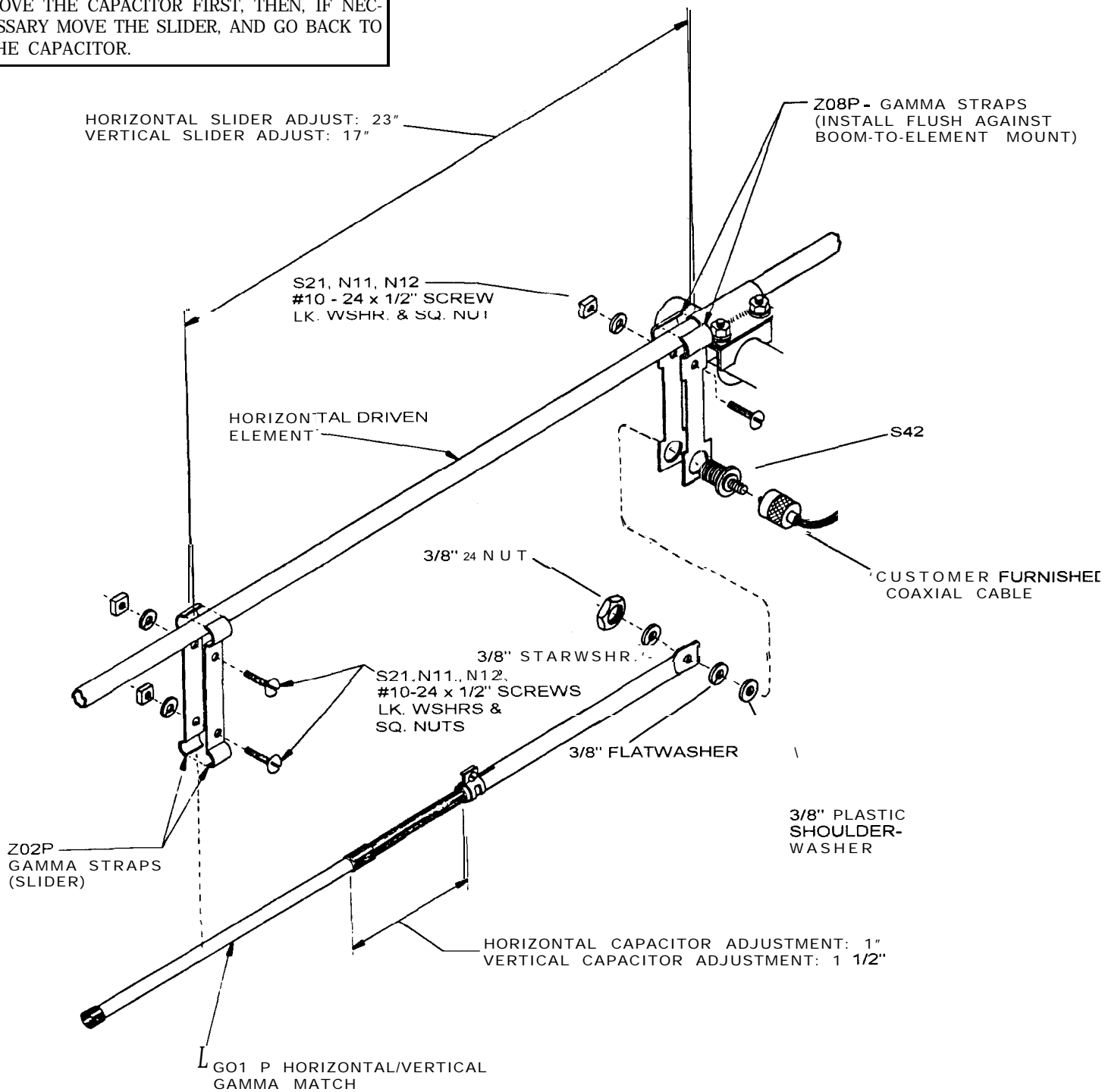


ELEMENT ASSEMBLY & MOUNTING  
FLATSIDER 6

FIGURE 3

\* NOTE: THESE DIMENSIONS ARE APPROXIMATE. REFER TO THE INSTRUCTIONS ON ADJUSTING THE S.W.R. TO DETERMINE EXACT SETTINGS. THERE ARE 2 SEPARATE GAMMA ADJUSTMENTS, 1. CAPACITOR ADJUSTMENT, 2. SLIDER POSITION.

**DO NOT MOVE BOTH AT THE SAME TIME.** MOVE THE CAPACITOR FIRST, THEN, IF NECESSARY MOVE THE SLIDER, AND GO BACK TO THE CAPACITOR.



GAMMA MATCH MOUNTING

FIGURE 4



