

MODEL SY42XR SCREEN REFLECTOR YAGI ANTENNA INSTALLATION INSTRUCTIONS

DESCRIPTION

SY42XR models are designed to provide high-gain and front-to-back ratios for point-to-point service. Two multi element Yagi's, a reflector screen and a combining harness comprise the SY42XR antennas. Both the antennas and the combining harness are equipped with 50 ohm, threaded "N" type connectors.

This antenna may be mounted directly onto a tubular mast of up to 4½ inches diameter with the supplied hardware. If the antenna is being mounted on a tower, TACO tower mounting kit SY-M* is required.

INSTALLATION

Antenna Assembly and Mounting:

1. Carefully unpack the antenna screens, feeds and mounting hardware, then study the Figures showing the respective locations of the components on the final assembly in order to become familiar with the placement of each item.
2. Assemble the two half-screens as shown in Figure 1, Figure 2 and Figure 3 and wrench-tighten the 12 securing hex screws and bolts.
3. Assemble the two central mast clamps onto the upper and lower screen frame as shown in Figure 1 and Figure 8.
4. Assemble the feed onto the screen assembly as shown in Figure 1, Figure 4 and Figure 5; wrench-tighten the feed-securing hex-nuts and bolts.
5. Assemble the braces to the screen assembly and feed as shown in Figure 1, Figure 6 and Figure 7; wrench-tighten the securing hex screws and nuts, adjust braces until tight then lock into place by wrench-tightening the hex nuts.
6. Assemble the stacking harness (see stacking configurations) and attach to antenna by hand-tightening the "N" type connectors.
7. Carefully lift the antenna assembly into its desired position on the mast or tower. DO NOT allow the antenna to swing freely and damage the feed.
8. Assemble the central mast clamps to the mast as shown in Figure 1 and Figure 8, tightening the clamps sufficiently to bear the weight of the antenna.
9. Assemble the tower-leg clamp as shown in Figure 9, locate the clamp vertically so that it is aligned with one of the center frame members of the screen, then tighten the clamp sufficiently to hold it in place.

10. Loosely assemble the azimuth-brace clamp-plates onto a center frame member of the screen so that the azimuth brace bolt hole is roughly in line with the tower leg clamp. (See Figure 9 and Figure 10)
11. Insert the azimuth brace through the tower leg clamp as shown in Figure 9 and Figure 10 so that the single hole is vertical and towards the screen, then align the hole with that of the azimuth clamp plates; insert the securing hex-bolt and nut.
12. Connect the input ends of the supplied SY Harness to each antenna and connect a down-lead cable to the Harness output connector.
13. **Ensure all connections are adequately weatherproofed.**
14. Align the antenna in the desired direction, sliding the azimuth brace in the tower leg clamp and rotating the tower leg clamp as required. (See Figure 10)
15. Fine-align the antenna for maximum received signal strength.
16. Wrench-tighten all securing hex-bolts and nuts beginning with the central mast, then the tower leg clamps, and finally, the azimuth clamp plates.

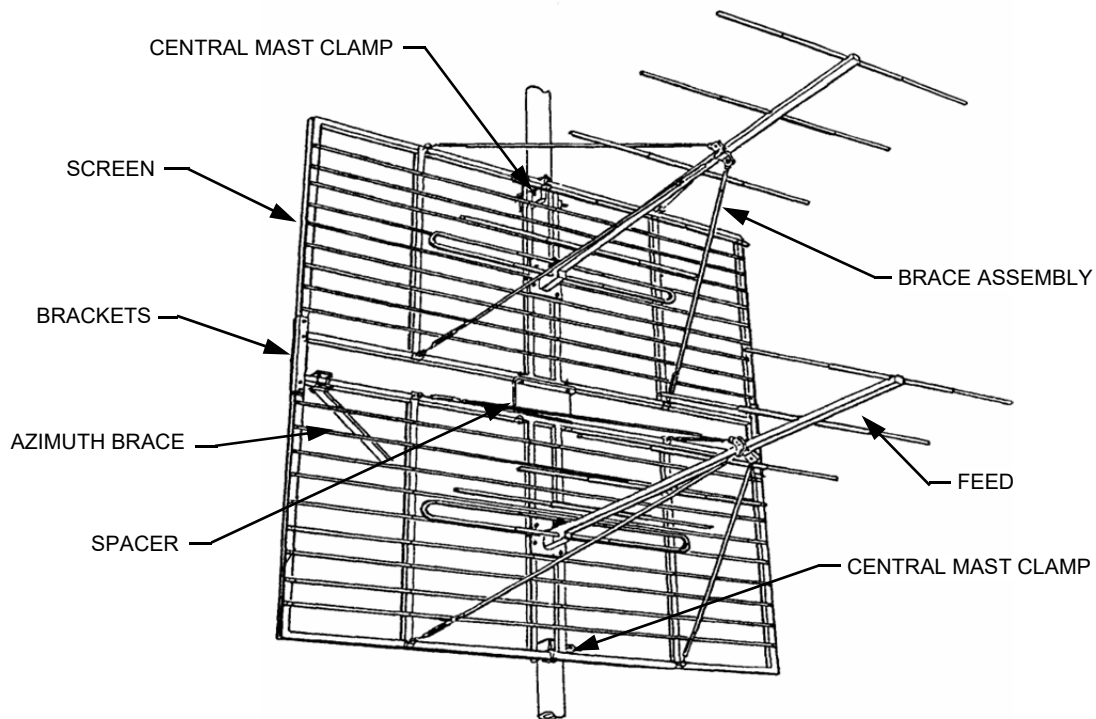


FIGURE 1 SY42XR-129 ANTENNA ASSEMBLY

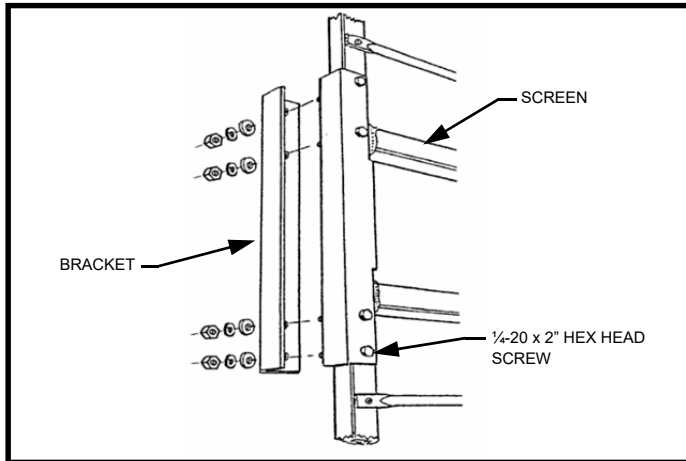


FIGURE 2 SCREEN ASSEMBLY BRACKET DETAIL

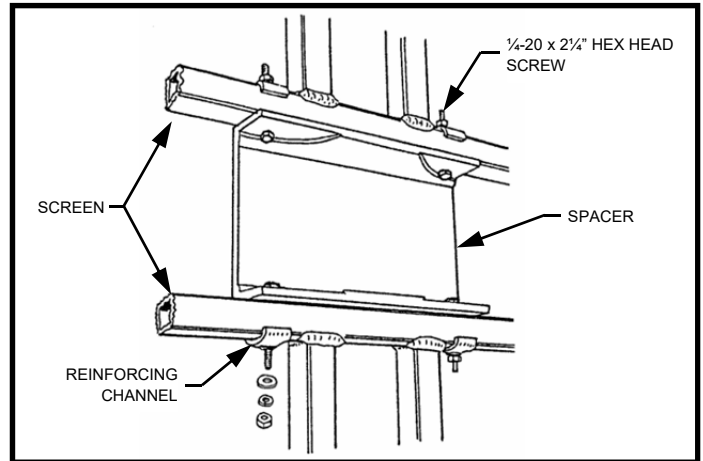


FIGURE 3 SCREEN ASSEMBLY SPACER DETAIL

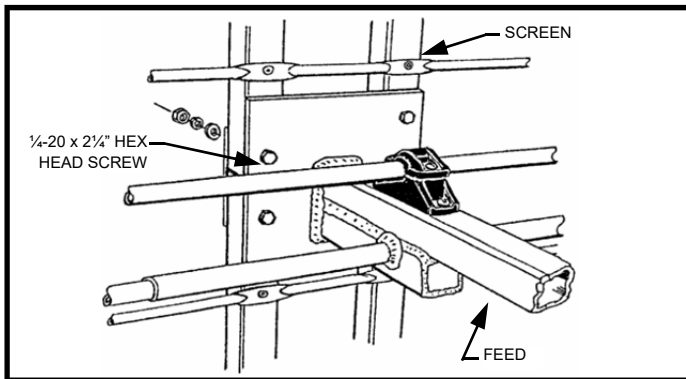


FIGURE 4 FEED ASSEMBLY DETAIL (FRONT VIEW)

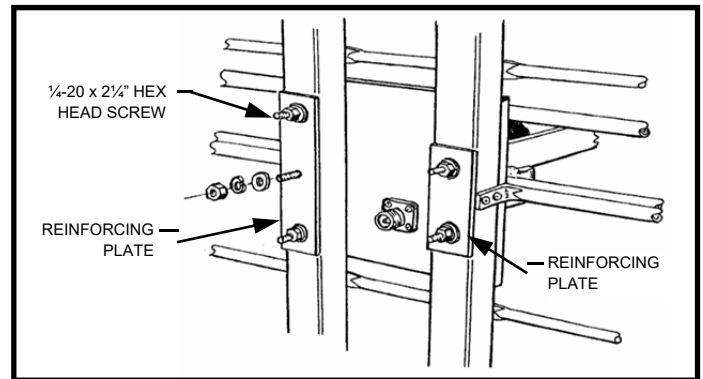


FIGURE 5 FEED ASSEMBLY DETAIL (REAR VIEW)

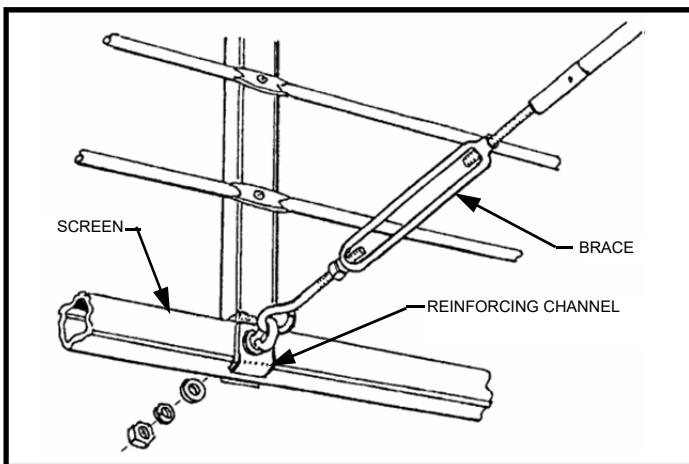


FIGURE 6 BRACE TO SCREEN ASSEMBLY DETAIL

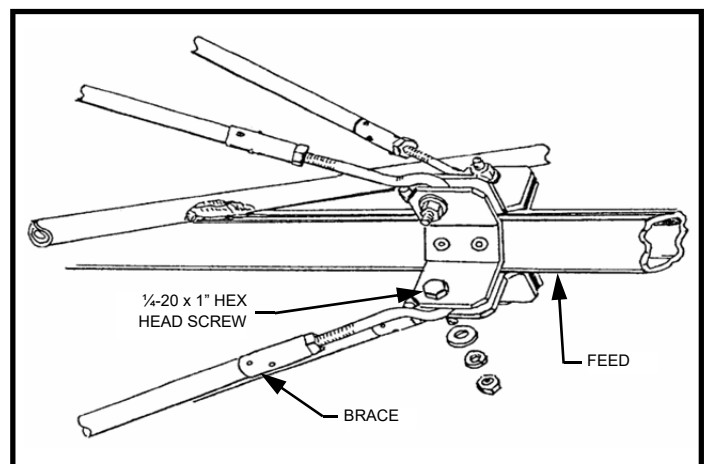


FIGURE 7 BRACE TO FEED ASSEMBLY DETAIL

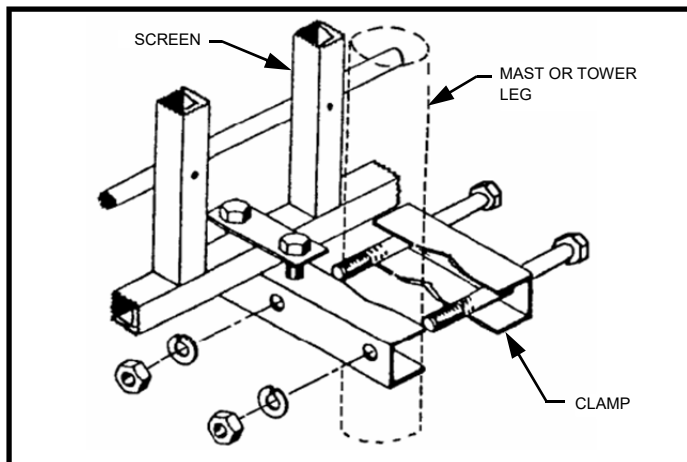


FIGURE 8 CENTRAL MAST CLAMP DETAIL

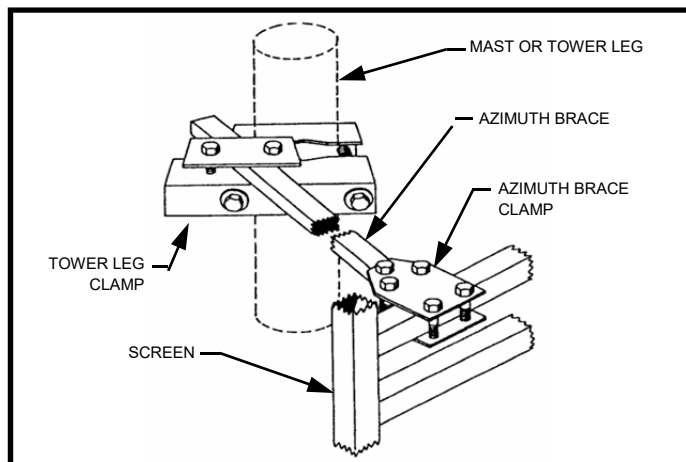


FIGURE 9 AZIMUTH BRACE ASSEMBLY DETAIL

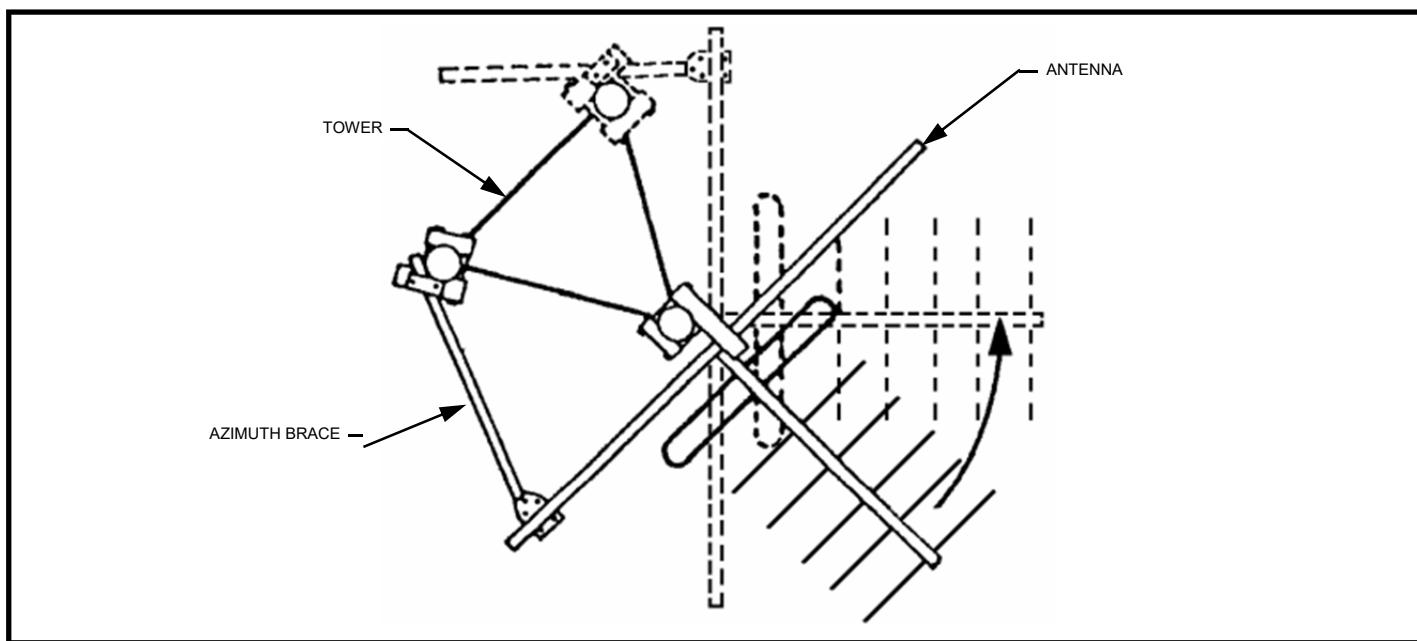


FIGURE 10 TOP VIEW OF ANTENNA AND AZIMUTH BRACE ASSEMBLY