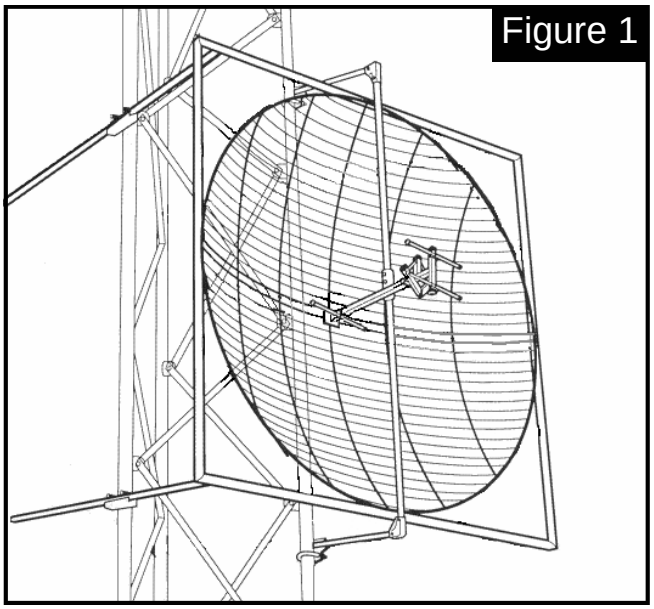


Model : PB-61 Instruction Sheet

The PB-61 Parabeam UHF parabolic screen reflector antenna is designed for single use and offers very high gain with extremely low windloading. It is supplied with the necessary installation hardware. Output terminal is a 75-ohm threaded “F” type fitting.

Mechanical Specifications

MODEL	REFLECTOR		DIMENSIONS(IN.)			WEIGHT	
	SIZE(FT)	QTY	WIDTH	HEIGHT	DEPTH*	NET	SHIPPING
PB-61	6.0	1	75.25	75.25	9.00	80	119

*Depth for reflector only

Overview

PB-61 screen reflectors are shipped in one section and the feed assembly must be assembled prior to mounting the antenna to the tower leg. The entire antenna assembly is then raised into position, oriented and secured to the mast or tower leg as shown in Figure 1 and overview drawing on page 4.

Materials and tools required

1. An appropriate 75-ohm downlead equipped with a 75-ohm female “F” type connector and a weatherboot.
2. Weatherproofing compound.
3. A ratchet wrench with 7/16 and 9/16 inch sockets.
4. A 7/16 open-end wrench.

Outrigger Assembly

Locate the outrigger frame, mount plates and hardware package #2. This should consist of a minimum of:

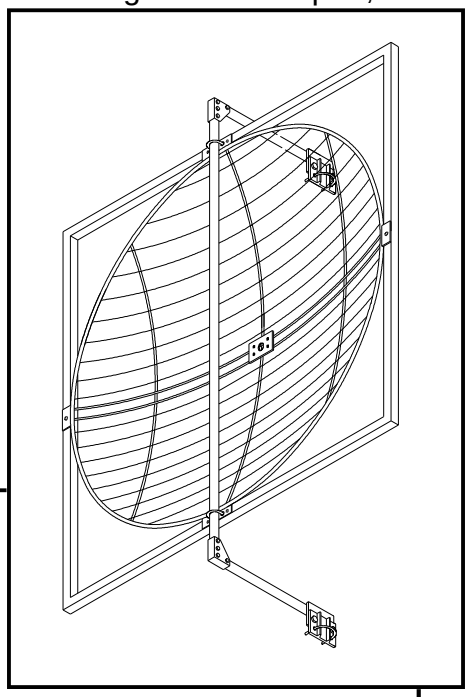
For use in Figure 3 A:

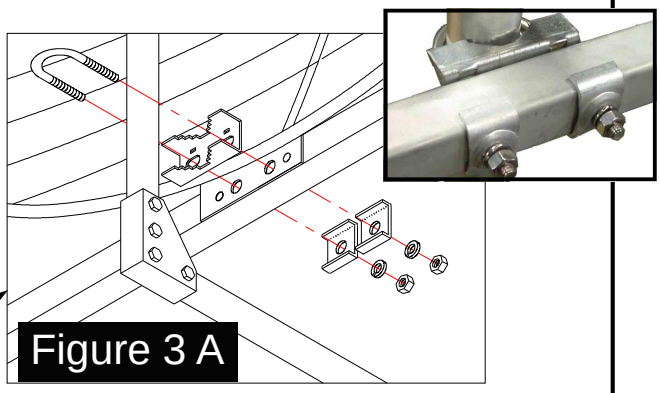
- 2 - U-bolts, 5/16 Inch
- 4 - Nuts, 5/16 Hex
- 4 - Lockwashers, 5/16” Split
- 4 - Reinforcing Channel
- 2 - Mast Clamps

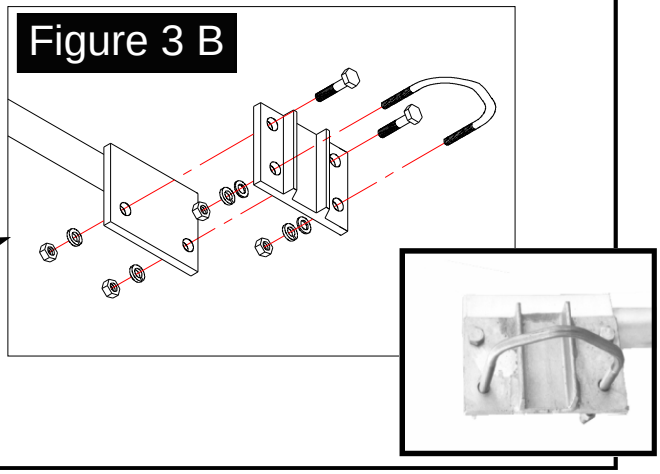
For use in Figure 3 B:

- 4 - Bolts, 1/2” - 13 x1-1/2” Hex Head
- 4 - Nut, 1/2”-13 GR. 2 HEX
- 4 - Lockwashers, 1/2” split
- 4 - Nuts, 3/8 - 16 Hex
- 4 - Lockwashers, 3/8” Split
- 4 - Washers, 3/8” Flat

From the outrigger frame, remove 2 - 1/4-20 x 2 1/4” hex head bolts, one from each corner. Swing the frame open, reinsert bolts and tighten. Mount outrigger frame to the PB-61 screen frame using the supplied U-bolts, mast clamps and reinforcing clips as shown in Figure 3 A and overview drawing on page 4. Assemble the mount plate to the frame as show in Figure 3 B and overview drawing on page 4.







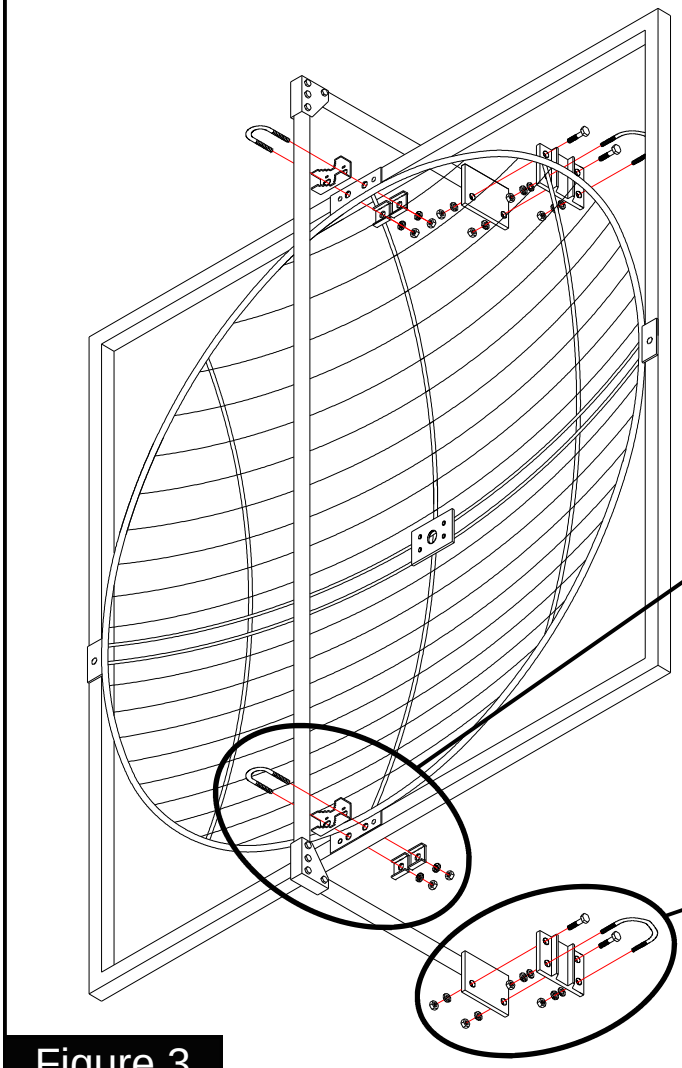


Figure 3

Feed Assembly

Locate driver and hardware package #3. This should consist of a minimum of:

For use in Figure 4 A:

* 4 - Bolt, 1/4 - 20 x 3/4" Hex Head
* 4 - Nut, 1/4 - 20 Hex
* 4 - Lockwasher, 1/4" Split
* 4 - Washer, 1/4 Flat

For use in Figure 4 B:

* 1 - U-Bolt, 5/16 x 2" I.D.
* 2 - Nut, 5/16 Hex
* 2 - Lockwasher, 5/16" Split
* 2 - Reinforcing Channel
* 1 - Mast Clamp

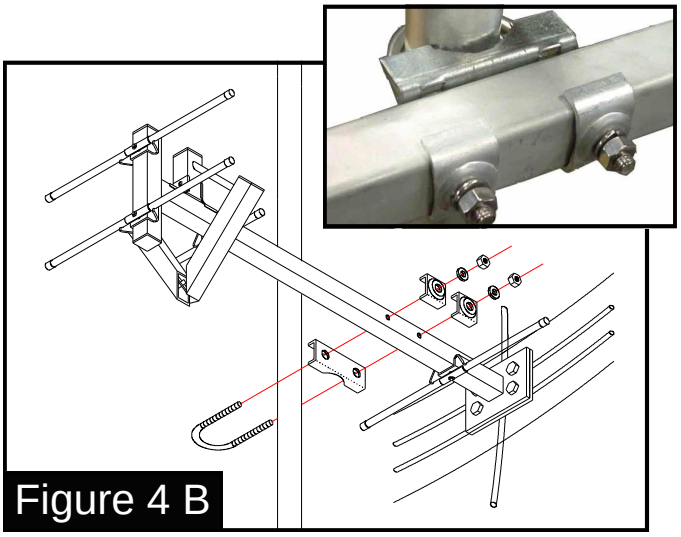


Figure 4 B

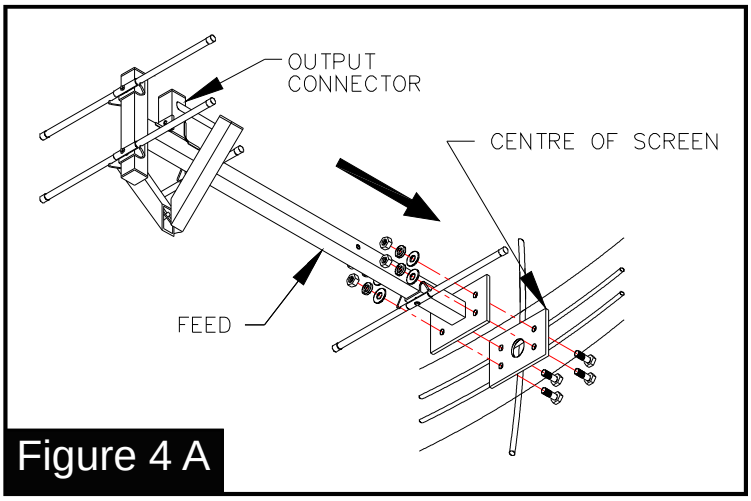


Figure 4 A

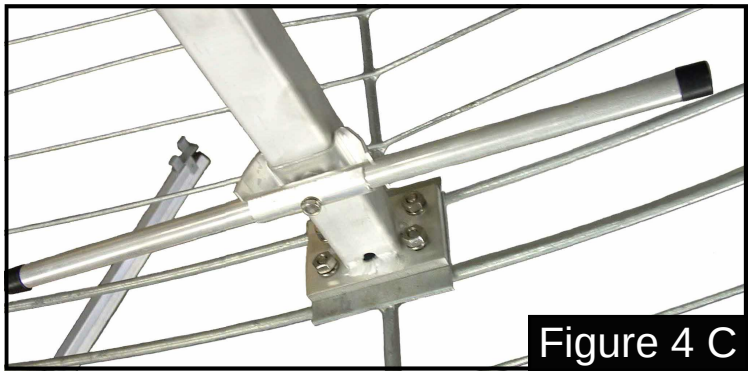


Figure 4 C

Figure 4

Attach the feed to the center of the screen using the 1/4 - 20 x 3/4" bolts, flat washers, lockwashers and nuts as shown in Figure 4 A. Proceed by attaching the feed tube to upright vertical member of the outrigger frame using the 5/16" U-Bolt, lockwashers, nuts, reinforcing channel and mast clamp as shown in Figure 4 B and overview drawing on page 4. Note that the output connector must be installed in the "up" position and that the feed must be aligned straight out from the screen, perpendicular to the frame. Connect the down-lead fitting to the antenna output terminal. Hand tighten, then wrench tighten the fitting not more than 1/6 of a turn. Apply a liberal coating of weatherproofing compound to the connection and slide on the weatherboot.

Antenna Mounting

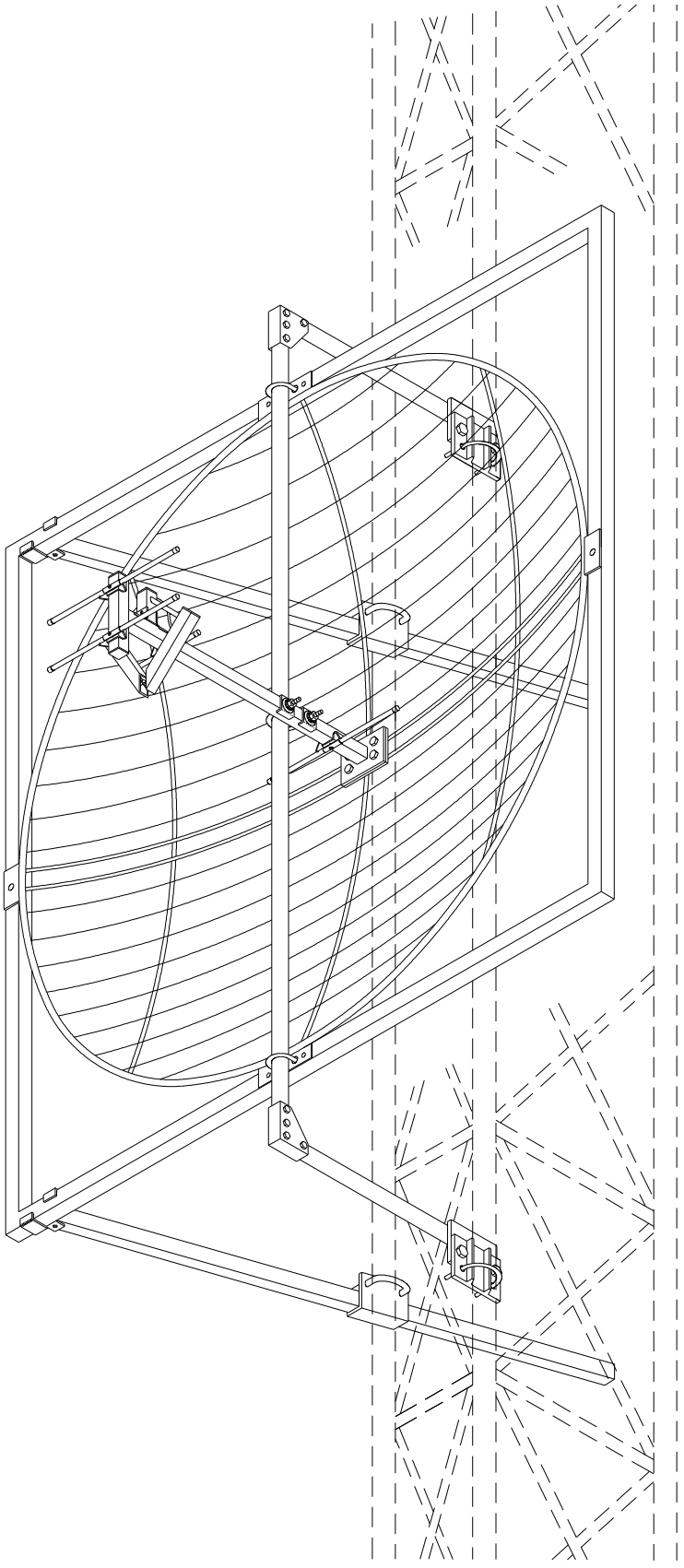
Locate hardware package #4. This should consist of a minimum of:

* 4 - Bolts, 1/4-20 x 3/4”
* 4 - Nuts, 1/4-20 x 3/4”
* 2 - U-Bolts, 3/8-16
* 4 - Washers, 3/8 Flat
* 4 - Lockwashers, 3/8 Split
* 4 - Nuts, 3/8 Hex

1) Carefully lift the antenna assembly into position on the tower or mast, roughly aligned to the direction of the desired broadcasting stations. Temporarily secure the unit with the outrigger frame mounting plates and 3/8-16 U-bolt as shown on right. Tightening them sufficiently to bear the weight of the antenna during azimuth alignment. Assembly continued on page 5.

Caution! Take care not to damage the feed assembly or move it out of alignment with the center of the reflector.

Overview Drawing



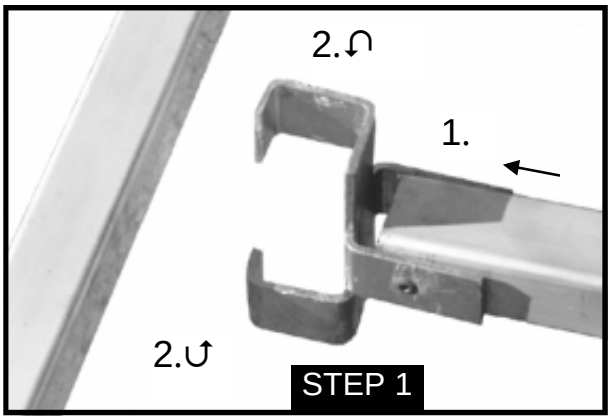
Antenna Mounting - continued

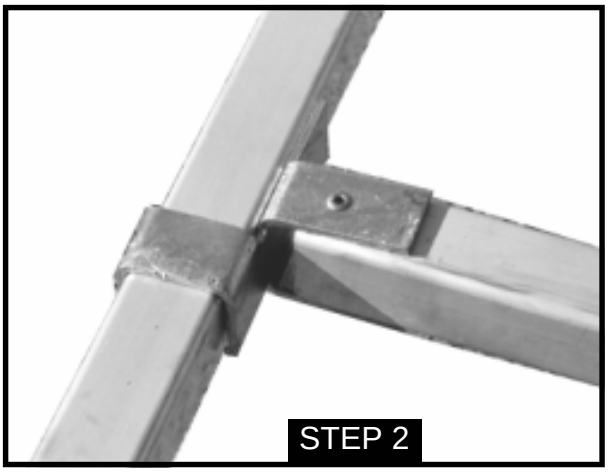
2) Assemble the twist-lock azimuth braces onto the reflector frame following steps 1,2 & 3 at right. Align open portion of end bracket with antenna frame. Slide bracket over antenna frame and turn 1/4 turn counterclockwise to lock bracket on frame.

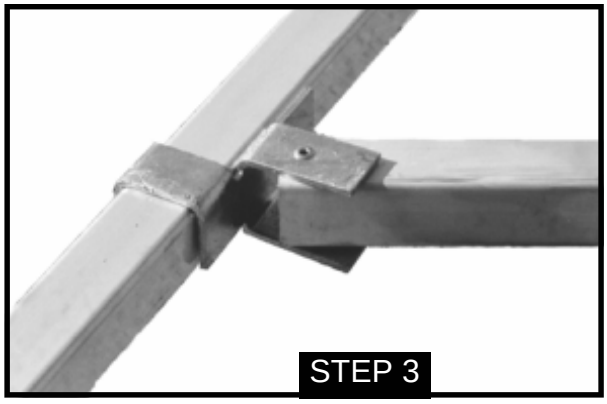
3) Locate azimuth brace mount (Figure 5). The 3/8 U-bolts supplied are adaptable to a range of appropriate tower leg sizes. Mount to tower leg as shown in overview drawing on page 4.

4) Connect the down-lead fitting to the antenna output terminal. Hand tighten, then wrench tighten the fitting not more than 1/6 of a turn. Apply a liberal coating of weatherproofing compound to the connection and slide the weatherboot on. Utilize the remaining zip ties to secure the cable to the frame and mounting brackets.

5) Rotate the entire antenna slightly, both left and right, until maximum signal strength is received. This is obtained by sliding the azimuth braces in their attachment hardware (Figure 5). Two (2) 1/4-20 x 3/4" bolts are used to lock the azimuth brace in place, and two (2) 1/4-20 nuts are used as lock nuts to lock the bolts (not shown in picture). When alignment is satisfactory, tighten **all** bolts and U-bolts **securely.**







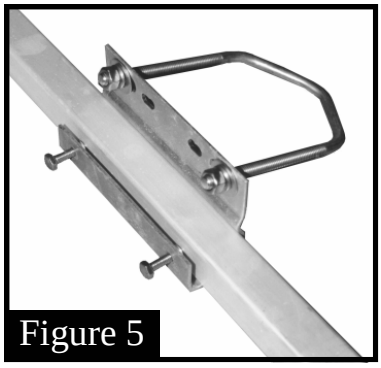


Figure 5