



SITCO ANTENNAS

**ASSEMBLY INSTRUCTION
FOR
HIGH BAND QUAD ARRAY
CENTER MOUNT**

10330 N.E. Marx St,
P.O. Box 20456,
Portland, OR 97220

Ph: (503) 253-2000
Fax: (503) 253-2009
E-mail: sitco@simplicitytool.com
Website: <http://www.simplicitytool.com>

Rev. 02-A



SITCO ANTENNAS

1.1. BILL OF MATERIAL:

a. Two cartons, each containing:

DESCRIPTION	QTY
Antennas	2
<u>Hardware packs No 4-0-1, 4-0-2</u> each containing:	<u>2</u>
a. Single clamp	2
b. Bolt 1/4-20 x 2-3/4	2
c. Bolt 1/4-20 x 1-3/4	1
d. Screw 10-24 x 1-1/4	1
e. Keep nut 10-24	1
f. Nut 1/4-20	3
g. Flat washer 1/4	6
h. Lock washer 1/4	3
Braces	2
<u>Cable harness:</u> (will be in one of the four cartons)	<u>1</u>
Assembly instruction (will be in one of four cartons)	1

b. One carton containing:

DESCRIPTION	QTY
Set quad frame members	1
Set of spacing rods	1
<u>Hardware packs</u> Two packs No. 2-0-1 & 2-0-2 each containing:	<u>2</u>
a. Single clamps	4
Two packs No. 2-3-1 & 2-3-2 each containing:	
a. Frame bolt 5/16-18 x 4-1/2"	4
b. Hex nuts 5/16"	4
c. Flat washer 5/16"	8
d. Lock washer 5/16"	4
e. Machine screw #8-32 x 1/4"	4
f. Sheet metal screw #8 x 3/8"	2

- Total quantity of cartons is three.



SITCO ANTENNAS

1.2. QUAD FRAME ASSEMBLY:

- a. A frame consists of four vertical members and two horizontal members. Assemble horizontal and vertical members per Figure 1. Be sure to only finger tighten the bolts holding the frame together until the antenna booms have been tightened to avoid hole alignment problems.
- b. List of frame assembly hardware:

ITEM	DESCRIPTION	QTY
2-1	Vertical frame member	4
2-2	Horizontal frame member	2
2-3	Single clamps	8
2-4	Frame bolt 5/16"-18x4-1/2"	4
2-5	Hex nuts 5/16"	4
2-6	Flat washer 5/16"	8
2-7	Lock washer 5/16"	4

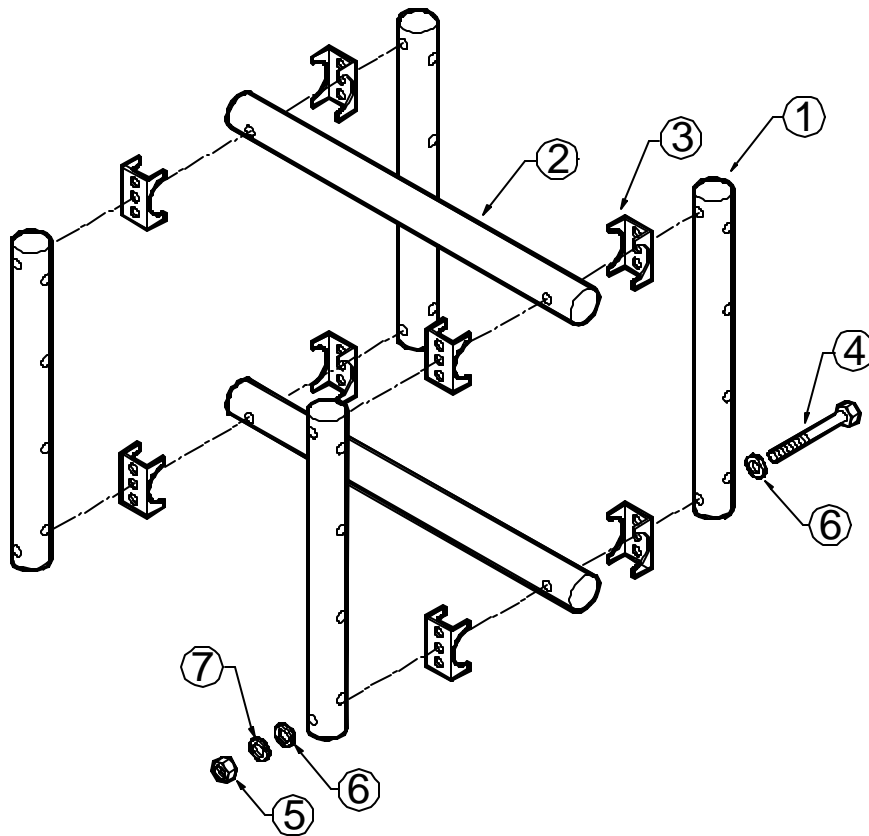


Figure 1



SITCO ANTENNAS

1.3. ANTENNA MOUNTING AND BRACING

- a. Four antennas mount to the quad frame through mounting holes shown in Figure 2. All four antenna booms should be mounted to the outside of the frame.

NOTE:

Be sure all baluns are pointed downward for phase coherence in the array.

- b. Braces are attached as shown in Figure 2. Braces from the upper two bays come down to the center of the frame and braces from the lower boom come up to the center.

- c. List of antenna and brace hardware:

ITEM	DESCRIPTION	QTY
4-1	Antenna	4
4-2	Brace	4
4-3	Single clamp	4
4-4	Bolt 1/4-20 x 2-3/4	16
4-5	Bolt 1/4-20 x 1-3/4	8
4-6	Screw (10-24 x 1-1/4)	8
4-7	Kep nut 10-24	8
4-8	Nut 1/4-20	24
4-9	Flat washer 1/4	48
4-10	Lock washer 1/4	24

Step 1: Mount antennas to assembled quad frame using 1/4-20 x 2-3/4 bolts, flat washer and single clamps.

Step 2: Mount braces to frame vertical member using 1/4-20 x 1-3/4 bolts, flat washer, lock washer and nut.

Step 3: Assemble braces to antenna with 10-24 x 1-1/4 screw and kep nut.

Step 4: Install the vertical spacing rods through tubing as in Figure 2. These rods should extend app. 1/2" above the upper boom and 1/2" below the lower boom. Check to make sure that the vertical boom spacing is the same at the front, center and end of the array.

NOTE: Tighten all bolts securely. Do not over-tighten, as this will compress the clamps and distort the bolts and antenna alignment.

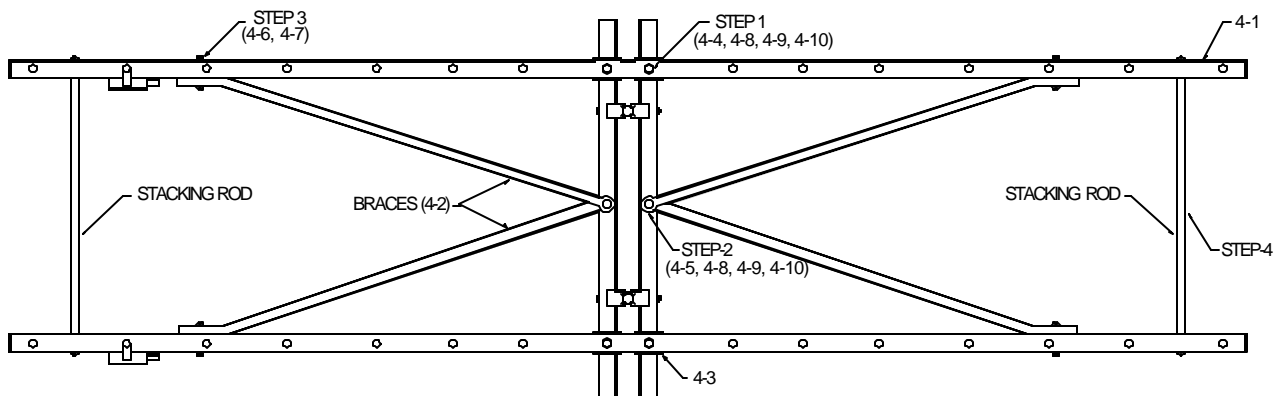


Figure 2



SITCO ANTENNAS

1.4. MAST MOUNTING

- a. Mount quad array as in Figure 4. Standard hardware is for 1-1/2" O.D. mast. Oversize hardware for 2", 2-1/2", 3-1/2" and 4-1/2" O.D. masts are available.
- b. List of mast mount hardware:

ITEM	DESCRIPTION	QTY
5-1	Single clamp	2
5-2	U-bolt	2
5-3	Hex nut 1/4"	4
5-4	Flat washer 1/4"	4
5-5	Lock washer 1/4"	4

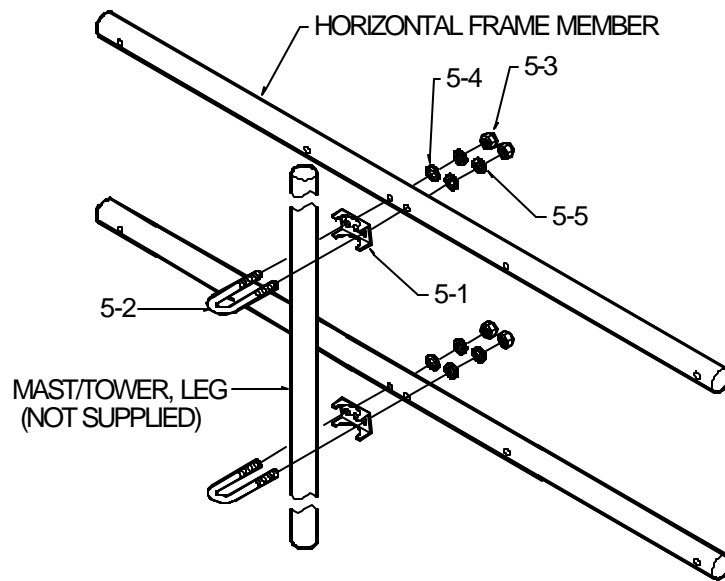


Figure 4