



**PRODELIN™**

**A TriPoint Global Company**

**4096-280**

**REVISION E**

**January 10, 2002**

**ASSEMBLY MANUAL**

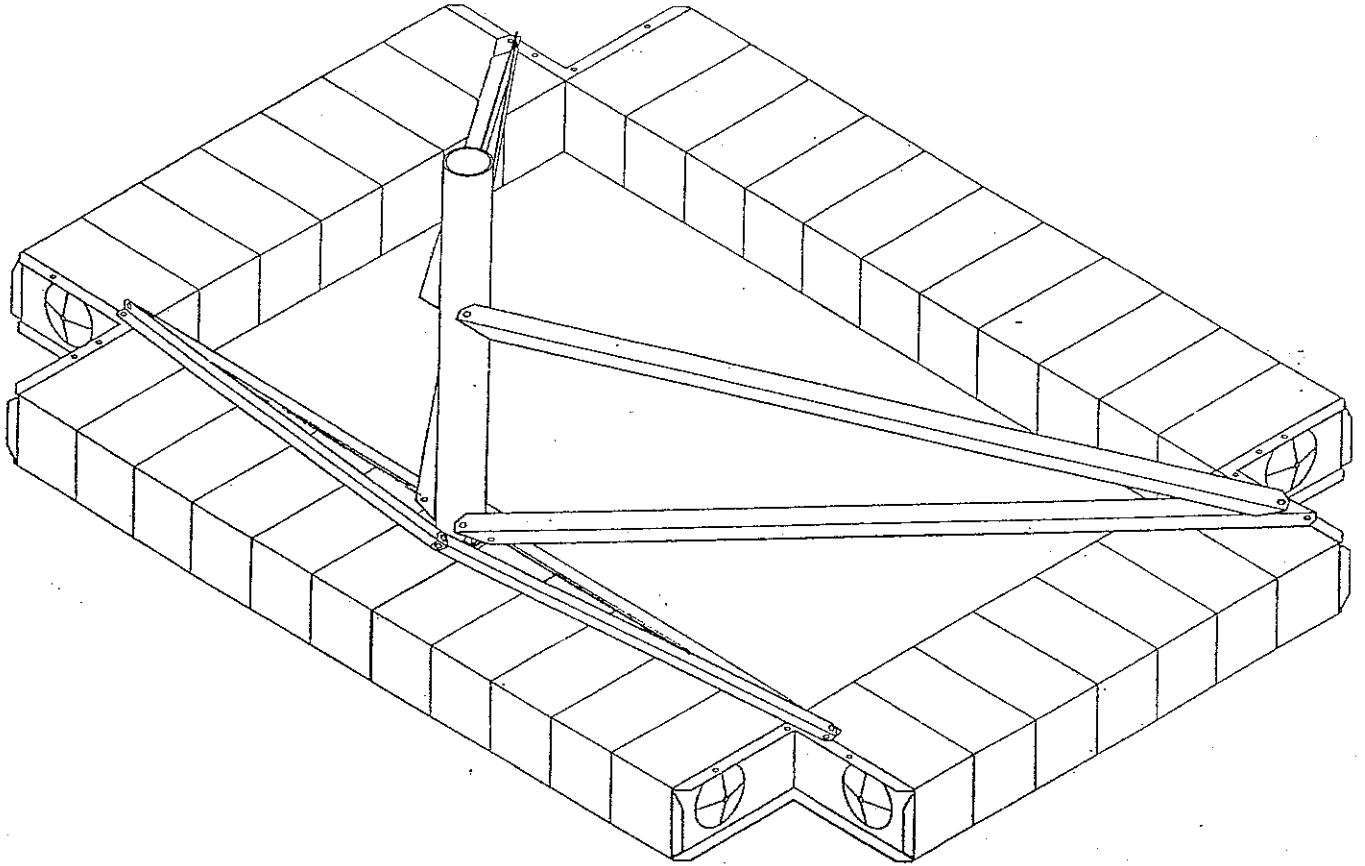
# **SRM-36 MOUNT**

**US PATENT #4,922,264**

**PRODELIN CORPORATION  
1500 Prodelin Drive  
Newton NC 28658**

# SRM-36 MOUNT

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E	Revised Address	1/10/02	<i>RAF</i>
D	ADDED REVISION PAGE AND REUSED TO INDICATE FACTORY PRE-ASSEMBLY	06/29/94	R. Frye
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## **SECTION I INTRODUCTION**

### **1.0 GENERAL INFORMATION**

This manual describes the assembly and installation of the SRM-36 Mount, Patent# 4,922,264.

These instructions are listed by sections that cover all areas of assembly and installation. Additional sections are included in the manual to provide information on maintenance.

### **1.1 UNPACKING AND INSPECTION**

The mount containers should be unpacked and inspected at the earliest date to insure that all material has been received and is in good condition. A complete packing list for each major component is supplied.

### **1.2 FREIGHT DAMAGE**

Any damage to materials while in transit should be immediately directed to the freight carrier. He will instruct you on matters regarding any freight damage claims.

### **1.3 MATERIAL - MISSING OR DAMAGED**

Any questions regarding missing or damaged materials that is not due to the freight carrier should be directed to Prodelin's Customer Service Department at:

**PRODELIN CORPORATION  
1500 Prodelin Drive  
Newton NC 28658 USA  
(828) 464-4141**

**1.4 MECHANICAL INSTALLATION TOOLS**

The following tools are suggested for the antenna installation.

- 1 ratchet
- 1 socket, - 9/16"
- 1 socket, - 3/4"
- 1 wrench, combination - 9/16"
- 1 wrench, combination - 3/4"
- 1 wrench, adjustable - 8"
- 1 rake or shovel - to remove rocks
- 1 broom - to sweep away dirt and small rocks

**1.5 BALLAST DESCRIPTION**

- Quantity : 36
- Size : 8" x 8" x 16"
- Type : 2 or 3 cell
- Weight : Approximately 30 lbs. each
- Total weight : 1080 lbs. for 36 blocks

## SECTION II MOUNT ASSEMBLY

### 2.0 SITE SELECTION

Refer to figures 2.1-1 - 2.1-7, the maps on pages 8 & 9, the parts list, and follow the instructions in the listed sequence.

STEP 1: Select proper exposure factor (B or C) for the installation site as described below.

Exposure B: Urban and suburban areas, wooded areas, or other terrain with numerous closely spaced obstructions having the size of single family dwellings or larger. Obstructions must extend 1500 feet in all directions from building.

Exposure C: Open terrain with widely scattered obstructions having heights generally less than 30 feet. Includes flat, open country and grasslands.

STEP 2: Select proper map on pages 8 and 9; Exposure B or C.

STEP 3: Locate the installation site on the map. If site is not in an acceptable location do not install this mount. Otherwise, proceed with installation.

STEP 4: Select the installation area. Check to be sure there are no obstructions in the direction of the satellite orbital arc. If site selection is in the northern hemisphere, locate South and plan to point the mount in a Southerly direction as shown in figure 2.1-1.

NOTE: It is always desirable to place a non-penetrating roof mount over a roof support column or main support beam or wall.

### 2.1 SITE PREPARATION

STEP 1: Clean the installation site area by removing all the loose roof debris.

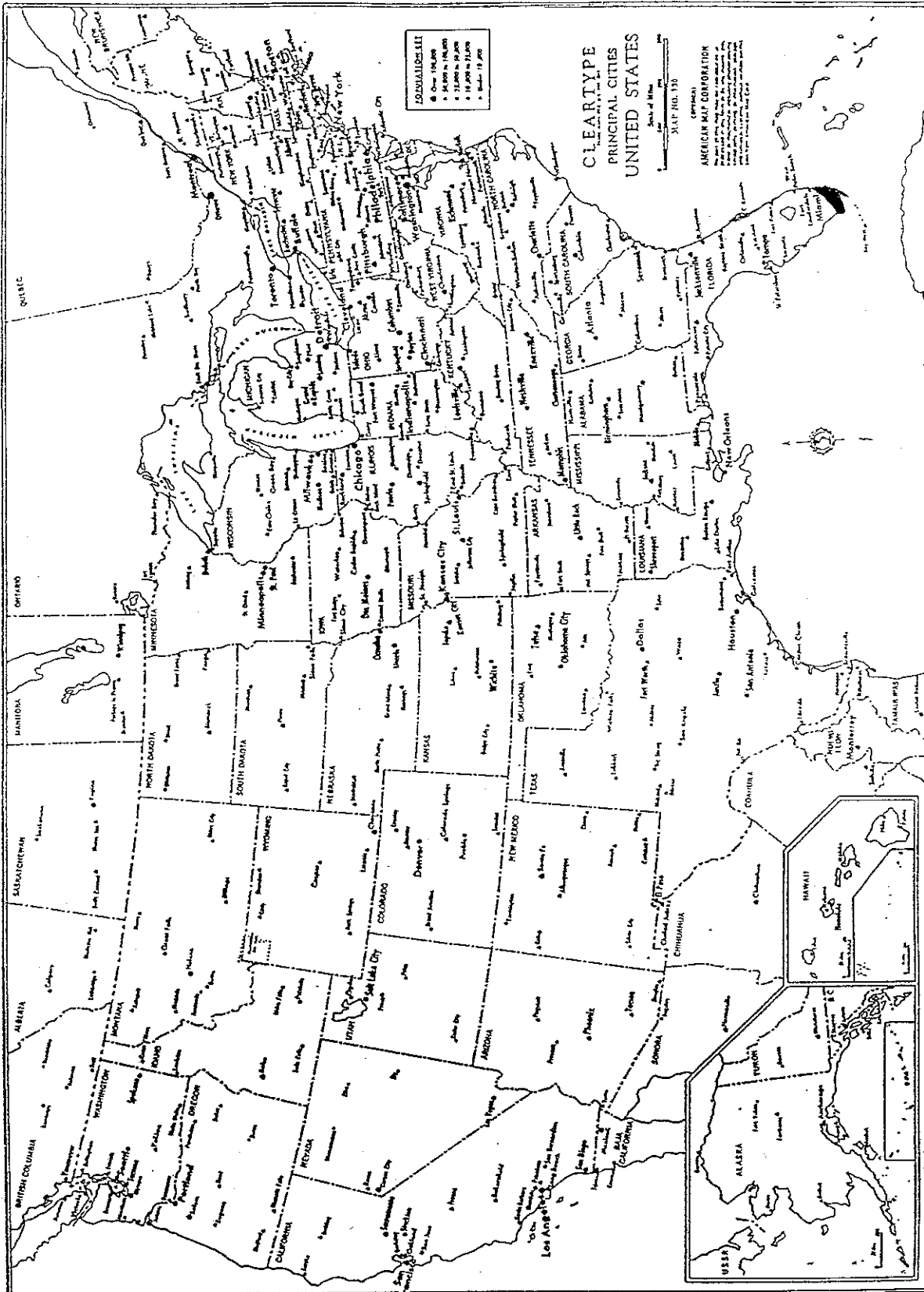
STEP 2: Lay the roof pad material (optional, items# 8,9) in the cleaned area forming a rectangular area slightly larger than the dimensions of the mount shown in figure 2.1-1.

**2.2 MOUNT ASSEMBLY**

- STEP 1:** Run a 1/2-13 hex nut (item# 16) onto one end of a 60" long threaded compression rod (item# 19) and another 1/2" nut onto a 30" long threaded compression rod (item# 18), then join them together with a 1/2-13 coupling nut (item# 17). Fully tighten each hex nut against the coupling nut as shown in figure 2.1-2. Repeat this step for one more set of rods.
- STEP 2:** Place the first 11 concrete blocks and mast support bracket on the South side of the site, as shown in figure 2.1-3, with the mast bracket sandwiched between the sixth and seventh blocks.
- STEP 3:** Insert one 90" threaded rod assembly through the blocks and mast bracket as shown.
- STEP 4:** Place a corner bracket (item# 1) on each end of the blocks, with the holes in flange pointing up, and fasten them to the thread rods using a 1/2" flatwasher and hex nut (items# 13,16) on each end as shown in figure 2.1-4. Hand tighten only.
- STEP 5:** Position concrete blocks along the sides and rear, keeping the corners square as shown.
- STEP 6:** Insert two 60" threaded compression rods (item# 19) through the two sides, and the last 90" threaded rod assembly (from step# 1 above) through the rear blocks and install the corner brackets, (item# 2), with the holes in flanges facing up, using a 1/2" flatwasher, and hex nut (items# 13,16) on each thread rod end. Hand tighten only.
- STEP 7:** Position the mast (item# 3) so that the patent decal on the mast faces front. Assemble the mast pipe to the mast bracket using one 3/8-5.00" bolt, two flatwashers, one lockwasher, and one hex nut (items# 11,12,14,15) through the side of the mast pipe as shown in figure 2.1-5.
- STEP 8:** Bolt one end of two of the front braces (item# 4) to the front of the mast pipe with another 5.00" long bolt and 3/8" hardware. Attach the other end to the corner brackets with a 1.00" long bolt, and 3/8" hardware in each end. See Figure 2.1-5.
- STEP 9:** Attach remaining two front braces to mast pipe with 5" bolt from Step #9 and to the ends of the two front braces with a 1.00" long 3/8" bolt and 3/8" hardware.

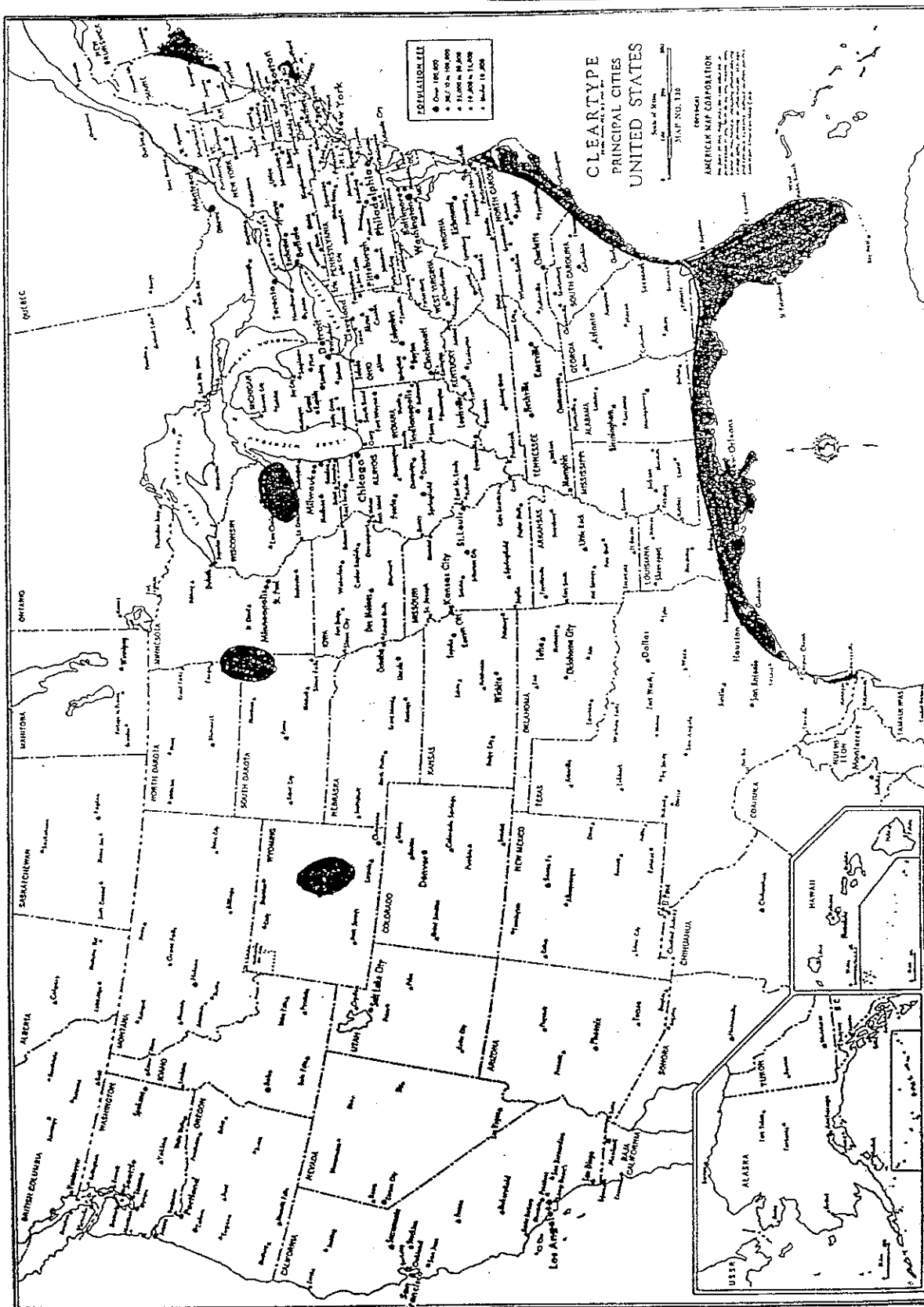


- STEP 10:** Attach both the left-hand and right-hand lower, diagonal braces (items# 6,7- having four holes each) to the mast pipe with another 5.00" long bolt and 3/8" hardware. Mount the other end of the braces to the back corner of the frame using 1.00" long bolts and 3/8" hardware. You may have to shift the frame around to line up these parts. See figure 2.1-6.
- STEP 11:** Assemble the upper diagonal braces (item# 8, having 2 holes) to the mast with the 5.00" long bolt and 3/8" hardware. Then use the 1" long bolts and 3/8" hardware to attach the braces to the lower diagonal braces as shown in figure 2.1-7.
- STEP 12:** Tighten the nuts on one end of the threaded rods while holding the nut on the other end. Tighten nuts on each thread rod 3 full turns (6 half turns) beyond snug. Note: When a nut is snug, any slack in the system (including space between the blocks) is removed.
- STEP 13:** Tighten all bolts and nuts on the remainder of the mount and install the antenna system on the mount.



Note: Mount is not applicable in blackened areas for exposure B

Applications Map  
ANSI Exposure B  
Prodelin 1.8M Antenna



Note: Mount is not applicable in blackened areas for exposure C

Applications Map  
ANSI Exposure C  
Prodelin 1.8M Antenna

PARTS LIST			
ITEM#	PART#	DESCRIPTION	QTY
1	0211-532	MAST SUPPORT BRACKET	1
2	0211-535	BRACKET, CORNER	4
3	0250-486	MAST PIPE	1
4	0225-479	ANGLE, FRONT BRACE	4
5	0225-477	ANGLE, LOWER DIAGONAL BRACE, L. H.	1
6	0225-478	ANGLE, LOWER DIAGONAL BRACE, R. H.	1
7	0225-480	ANGLE, UPPER DIAGONAL BRACE	2
8	5003-023	PAD, RUBBER 1/8" X 20" X 62" (OPTIONAL)	2
9	5003-024	PAD, RUBBER 1/8" X 20" X 92" (OPTIONAL)	2
10	8032-008	BOLT, 3/8-16 X 1.00"	8
11	8032-040	BOLT, 3/8-16 X 5.00"	6
12	8201-042	FLATWASHER, 3/8"	30
13	8201-043	FLATWASHER, 1/2"	8
14	8202-042	LOCKWASHER, 3/8"	14
15	8102-007	NUT, HEX, 3/8-16	14
16	8104-007	NUT, HEX, 1/2-13	20
17	8115-003	NUT, COUPLING, 1/2-13	2
18	0180-264	COMPRESSION ROD, 1/2-13 X 30"	2
19	0180-265	COMPRESSION ROD, 1/2-13 X 60"	4

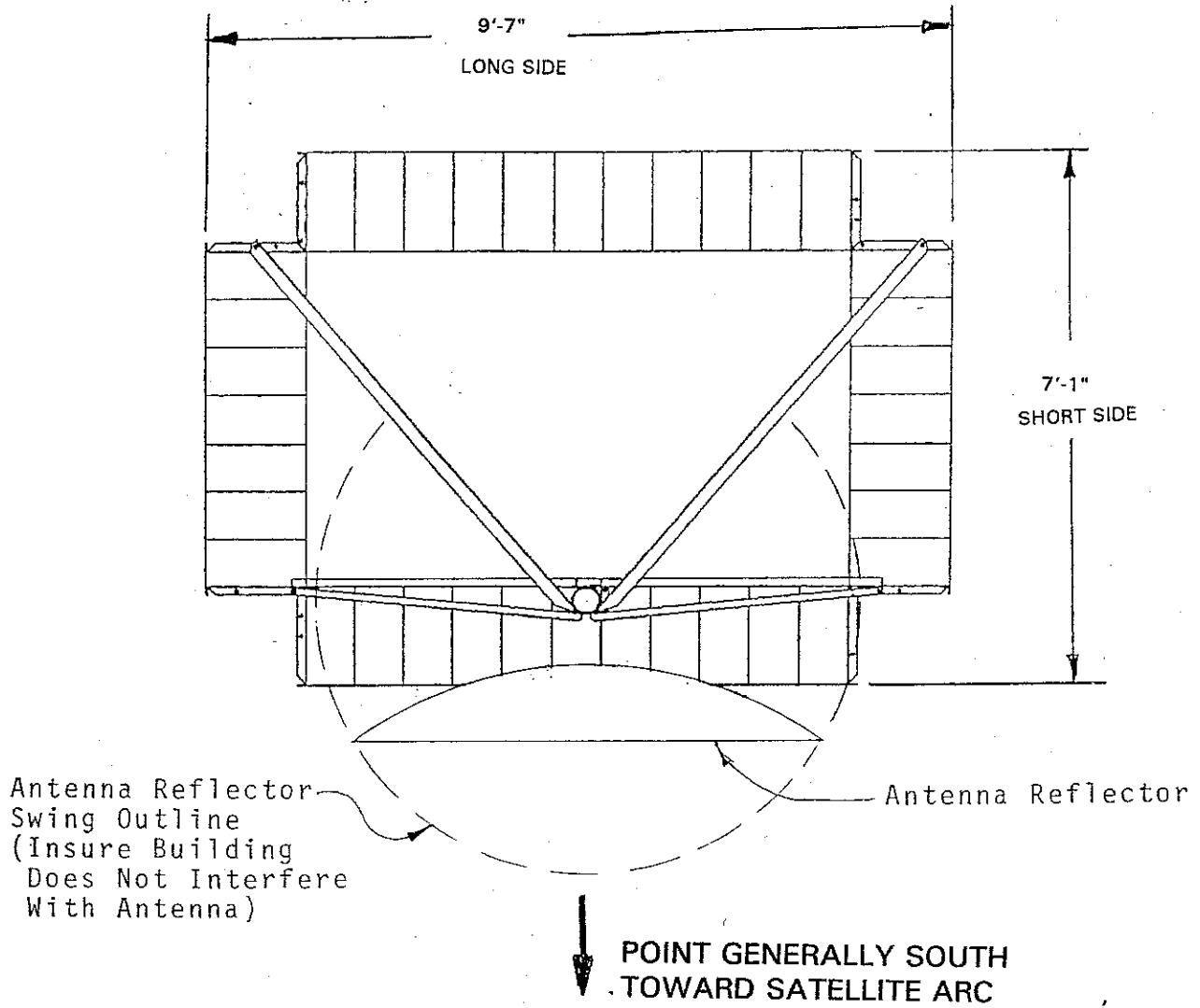


FIGURE 2.2-1

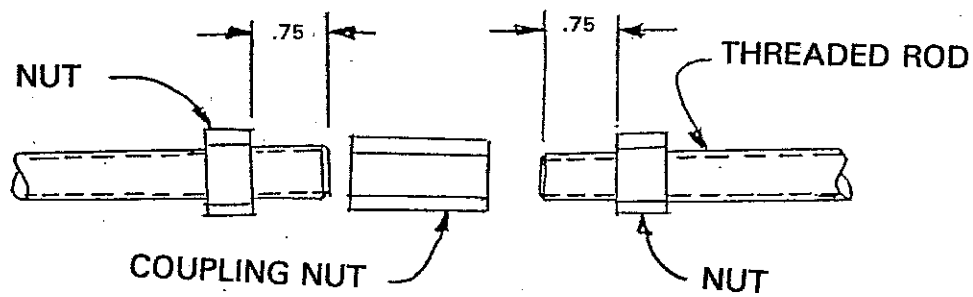


FIGURE 2.2-2

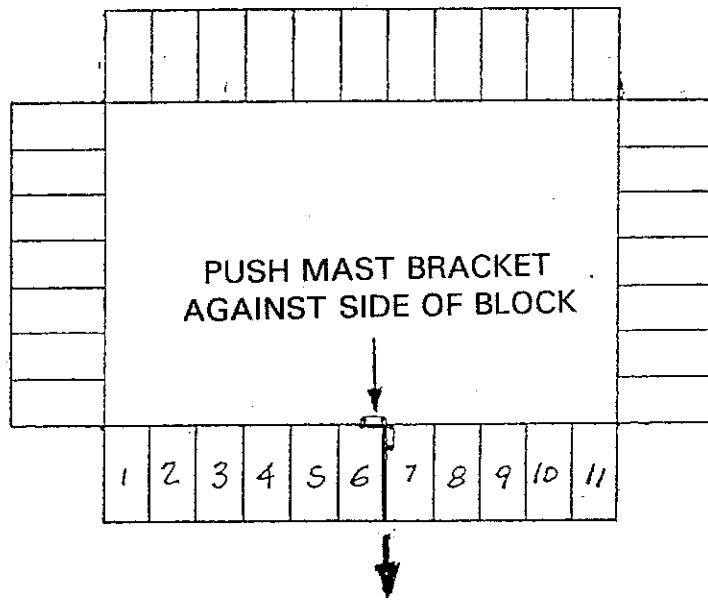


FIGURE 2.1-3

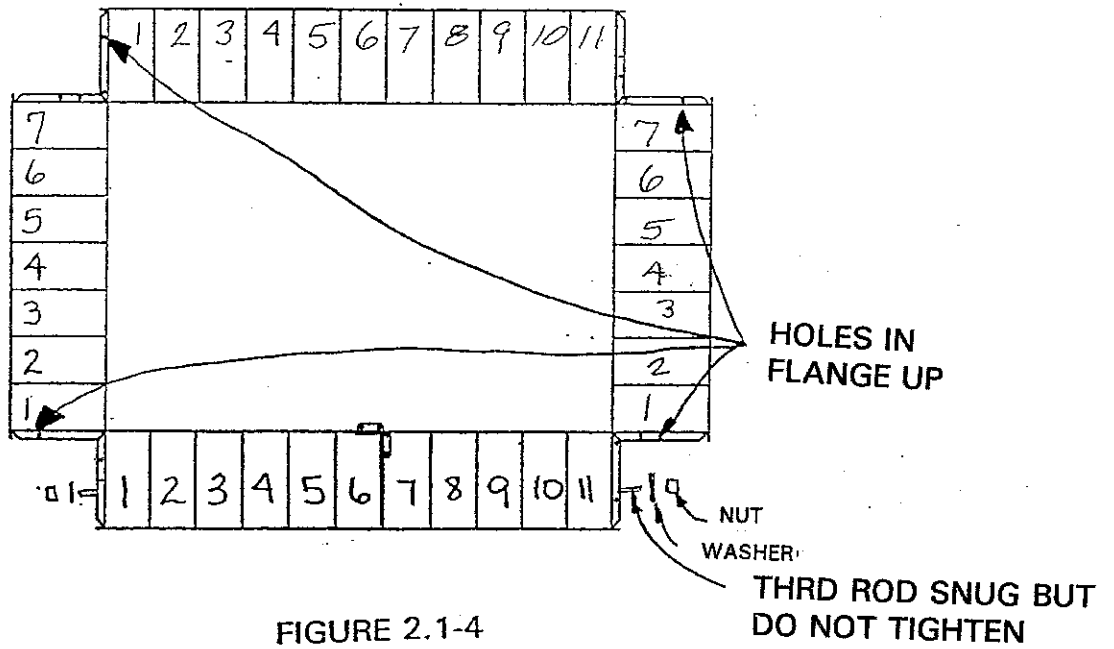


FIGURE 2.1-4

SNUG ONLY DO NOT TIGHTEN

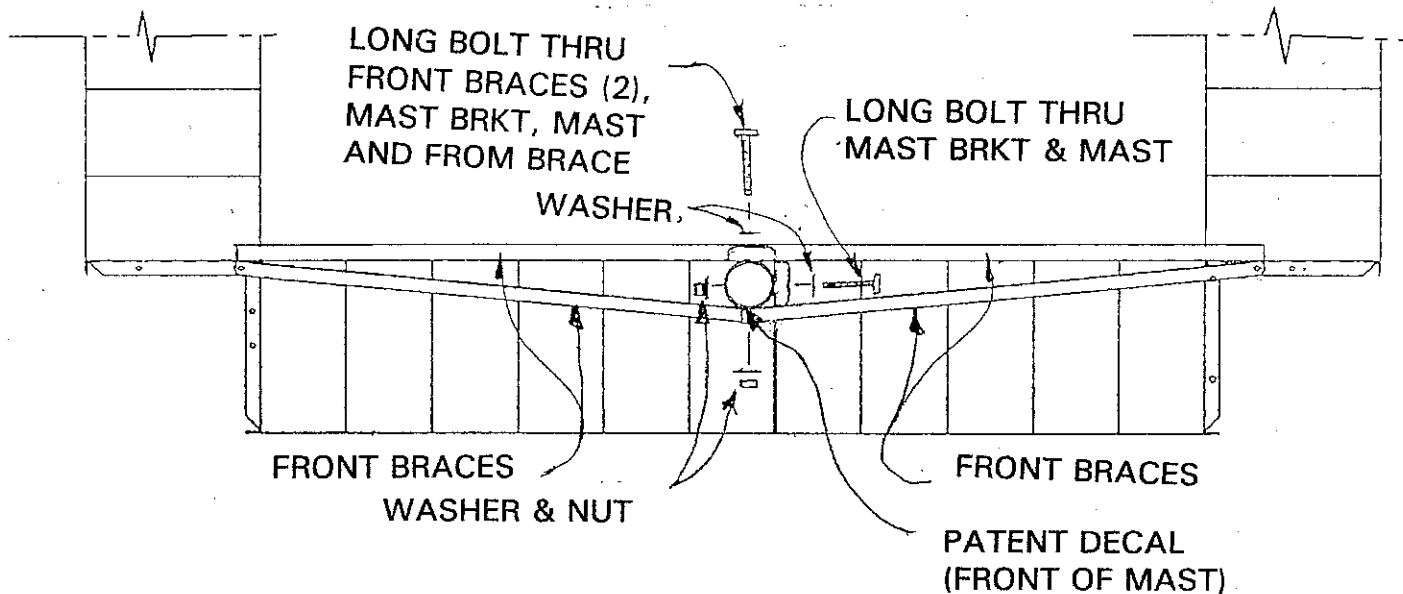


FIGURE 2.1-5

SNUG BOLTS, DO NOT TIGHTEN

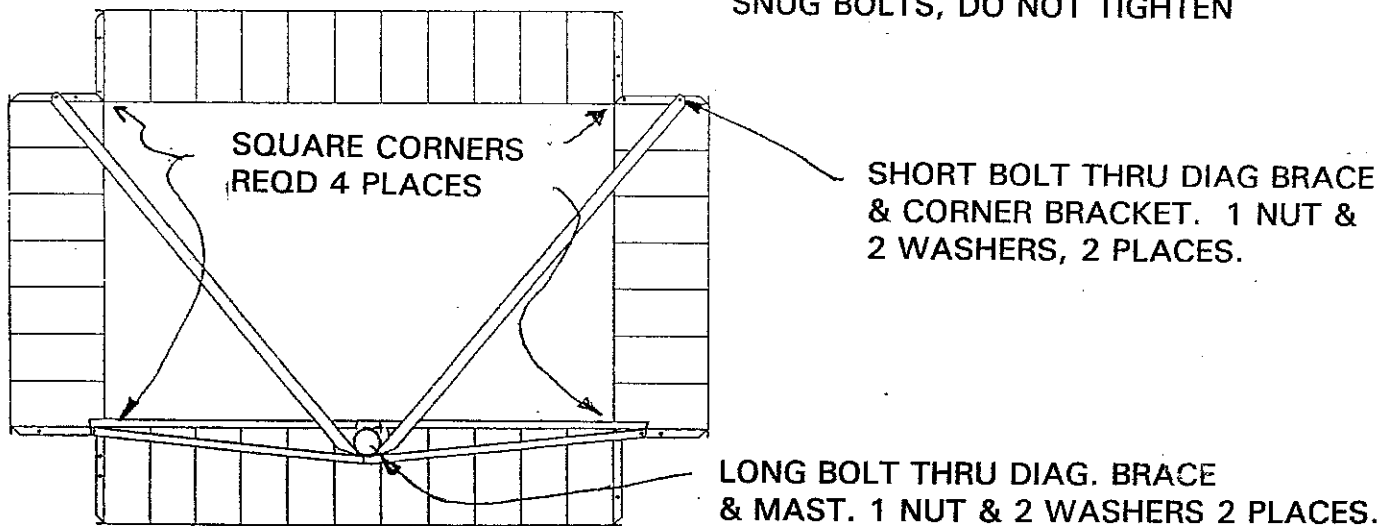


FIGURE 2.1-6

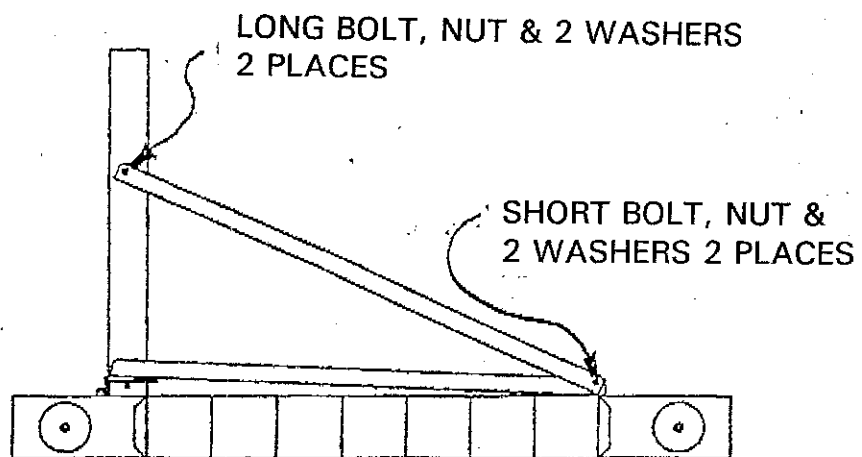


FIGURE 2.1-7



## SECTION III MAINTENANCE

### 3.0 MAINTENANCE OVERVIEW

After installation, the mount requires only periodic inspection. It is anticipated that maintenance, if required, will be minimal and easily handled by a local or in-house maintenance staff. The materials used in the construction of this mount virtually eliminate any maintenance repairs.

### 3.1 PERIODIC INSPECTION

It is suggested that a periodic inspection be performed at least every six months.

NOTE: After any severe weather conditions, inspection of the mount should be performed to determine if foreign objects have caused damage or if survival specifications have been exceeded.

This inspection should include the following:

STEP 1:     Check all bolting locations - all bolts should be tight.

STEP 2:     Check all structural members - repair or replace if damaged.

STEP 3:     Check for corrosion - on the mount.

### 3.2 MOUNT STRUCTURE

The mount structure is of steel construction and has a galvanized finish.

If inspection shows any signs of structural failure, the mount members that are damaged should be repaired or replaced.

CORROSION: Any corrosion on steel members may be repaired with a cold, zinc-rich galvanizing paint.