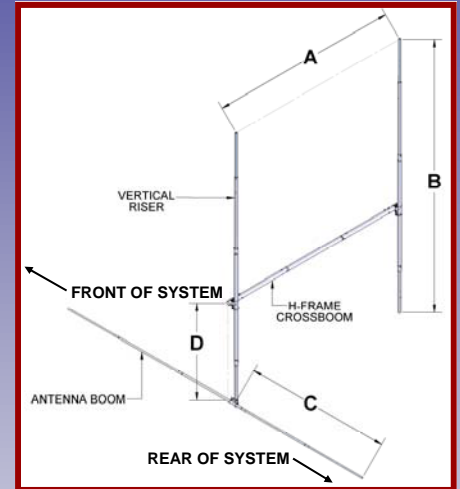
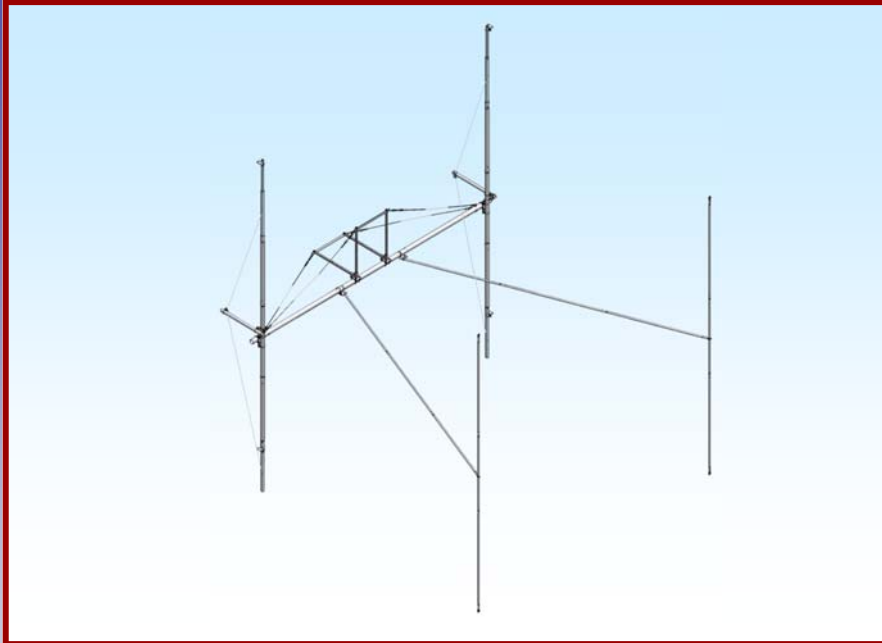




# M2 Antenna Systems, Inc.

## Model No: FGHFTB436CP422X2



### SPECIFICATIONS:

Model ..... HFTB436CP42 2X2  
 Band..... 70M  
 Antenna..... 436CP42 2X2  
 T-Brace ..... Y  
 Cross Boom Dia ..... 2.0"  
 Wind Load w/o Ant..... 3.05 SQ FT.

Weight..... 23 LBS  
 A Dim ..... 68"  
 B Dim ..... 72"  
 C Dim ..... 93"  
 D Dim ..... 36"

### FEATURES:

M2 has been a leader in high performance antennas since it started back in 1984. In addition to specialized antenna designs, we also developed a diverse line of multiple antenna support structures (loosely referred to as H frames) to maintain that high level of performance. Just like the antenna, the support structure becomes nearly as complex and varied. All antennas have a defined near field size and shape and in order to achieve maximum "array performance", the support structure must accommodate the careful coupling of these near fields.

In many cases the support structure, has to meet special customer requirements like size, weight, wind speed or area, and weather issues. Our standard H frames then are a composite of these features that should satisfy most customer needs. We enjoy discussing your needs and offering our opinion regarding what best can meet your situation.

# HFTB436CP42-2X2 ASSEMBLY MANUAL

All installations are unique in some way, which means it's OK to preassemble certain hardware, or rearrange the assembly process to meet specific site requirements. A quick review of the assembly notes and drawings should help firm up the appropriate strategy. Please remember to double-check all hardware for tightness BEFORE it becomes inaccessible.

These notes assume an assembled cross boom of adequate dimensions and U-bolts of the same size for attaching H-frame plates. Unless you ordered a COMPLETE M2 'H' FRAME. If you just ordered the vertical booms and specified a cross boom U-bolt size when ordering, some drilling or other fabrication may be necessary. Stainless locknuts or nuts and lock washers are supplied for all kit U-bolts. All other assembly hardware is stainless steel unless otherwise noted. Forged steel parts are galvanized.

REFER TO THE 'H' FRAME DRAWING AND THE 'T' BRACE KIT DRAWING FOR PLACEMENT AND HARDWARE CALLOUT.

## **VERTICAL BOOM ASSEMBLY.**

1. A 1 1/2" x 24" FIBERGLASS MAST EXTENSION is inserted into each end of the 2.0" x 32" CENTER SECTION. Build two (2) of these assemblies.
2. Mark the center of each 2.0" x 32" vertical leg with a marker pen or equivalent. Attach a 1/4" X 4 X 6" VERTICAL BOOM MOUNTING PLATE at the center of each vertical leg, using 2" u-bolts and cradles.

## **2" MAIN BOOM PREPARATION**

1. If You are using an Elevation Mechanism, Slide the 2" x 72 main cross boom into the elevation unit and center.

## **MOUNTING VERTICAL BOOM**

1. Attach the VERTICAL BOOM assemblies to each end of the MAIN BOOM, noting the correct spacing for the antennas in the array. NOTE THE ANTENNAS MOUNT ON THE OUTSIDE OF THE VERTICAL BOOMS. Also and more important, align each vertical boom with the other so when all the antennas are mounted, the left side of the array will point at the same point as the right side. Some tweaking of all alignment and balancing will probably be necessary once the whole array is assemble and in place on the main boom.

**M<sup>2</sup> ANTENNA SYSTEMS, INC.**

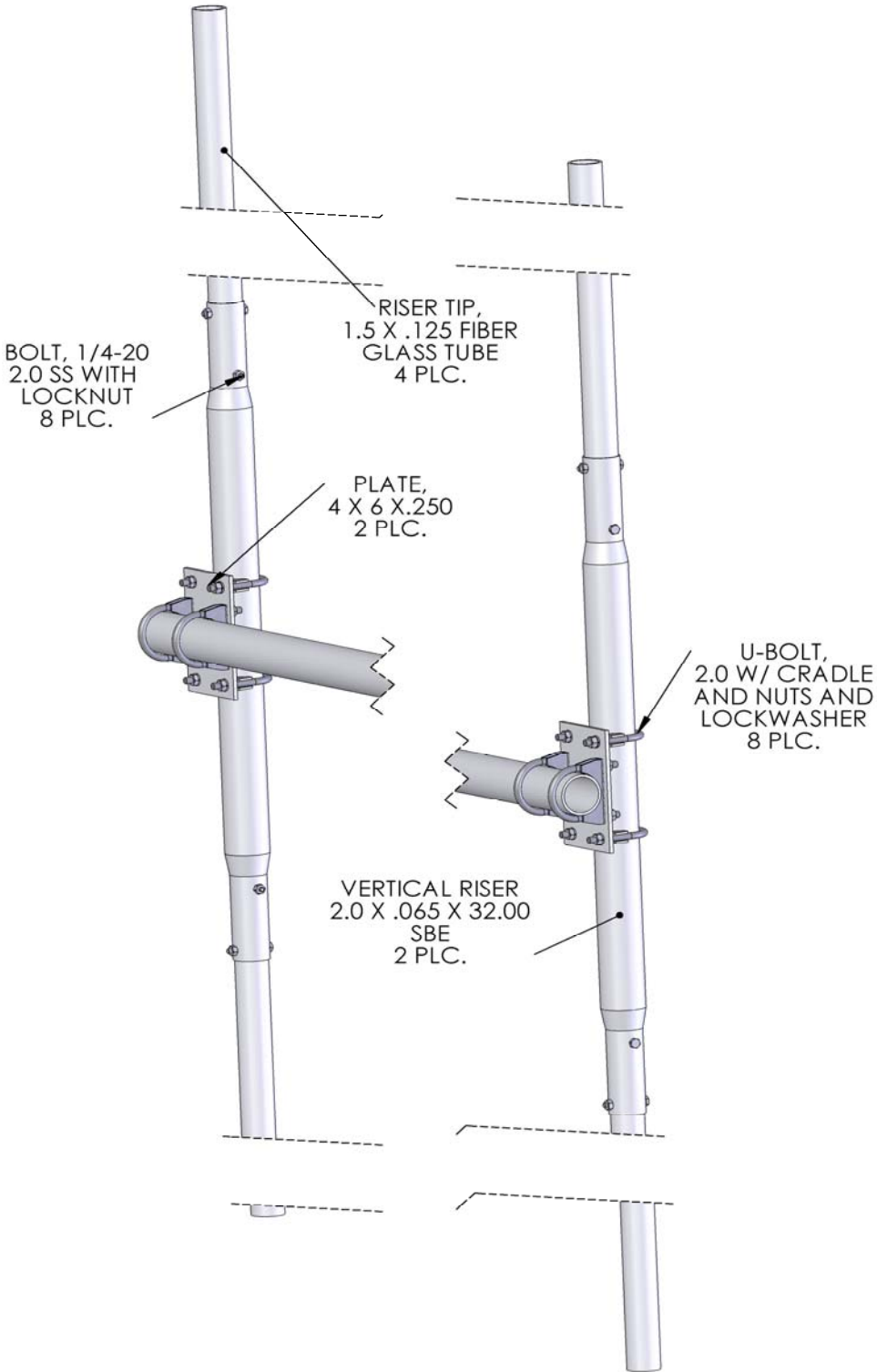
4402 N. SELLAND AVE.

FRESNO, CA 93722

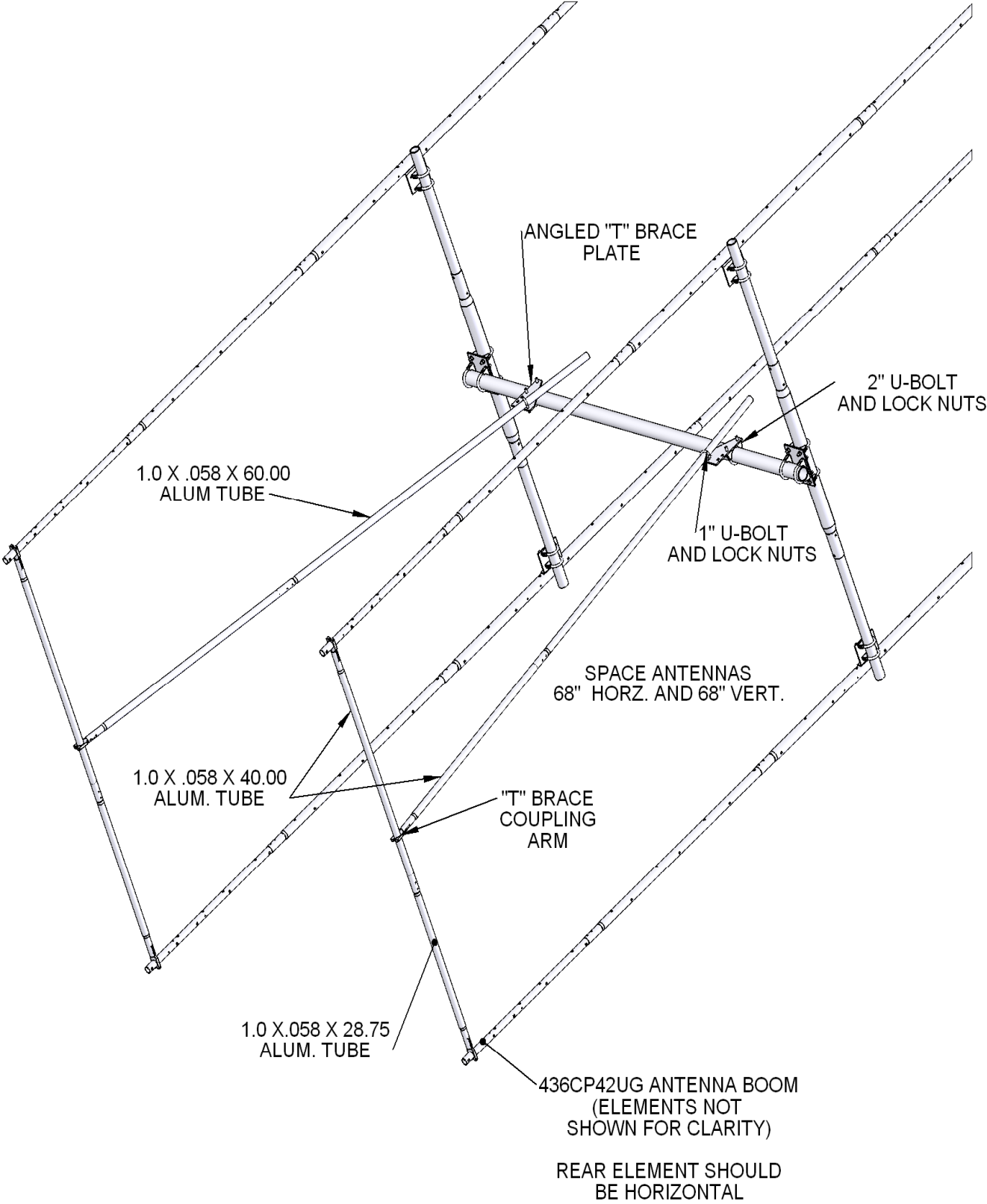
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# HFTB436CP42-2X2 ASSEMBLY MANUAL



# HFTB436CP42-2X2 ASSEMBLY MANUAL



# HFTB436CP42-2X2 PARTS & HARDWARE

DESCRIPTION QUANTITY

## 2" MAIN CROSSBOOM

CROSSBOOM TUBE 2" X .125 X 72" ..... 1

## VERTICAL BOOM COMPONENTS

BOOM, VERTICAL 2.0 X .065 X 32 SBE" ALUM TUBE .... 2

VERT BOOM RISER, 1.5 X .125 X 24" F.GLASS TUBE ... 4

PLATE, VERT. BOOM, 4 X 6 X .250" 6061-T6 (2 X 2 UB) 2

U-BOLT & CRADLE, 2" ..... 8

## HARDWARE

NUT, 5/16-18 SS ..... 16

LOCKWASHER, 5/16 SS ..... 16

BOLT, 1/4-20 X 2.0 SS ..... 8

LOCK NUT, 1/4-20 SS ..... 8

## "T" BRACE KIT

"T" BRACE TUBE, 1.0 X .058 X 28.75 SBE ..... 2

"T" BRACE TUBE, 1.0 X .058 X 40.00 SOE ..... 4

"T" BRACE TUBE, 1.0 X .058 X 60.00 SOE ..... 2

COUPLING ARM, ..... 6

ANGLE "T" BRACE PLATE ..... 2

U-BOLT 1" ..... 2

U-BOLT AND CRADLE, 2.0 ..... 2

## HARDWARE

SCREW, 8-32 X 1.25 SS ..... 14

SCREW, 8-32 X 1.50 SS ..... 6

LOCK NUT, 8-32 SS ..... 20

LOCK NUT, 1/4-20 SS ..... 4

NUT, 5/16-18 SS ..... 4

LOCKWASHER, 5/16 SS ..... 4

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