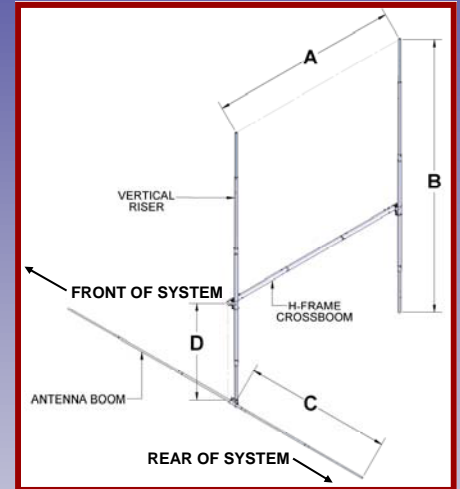
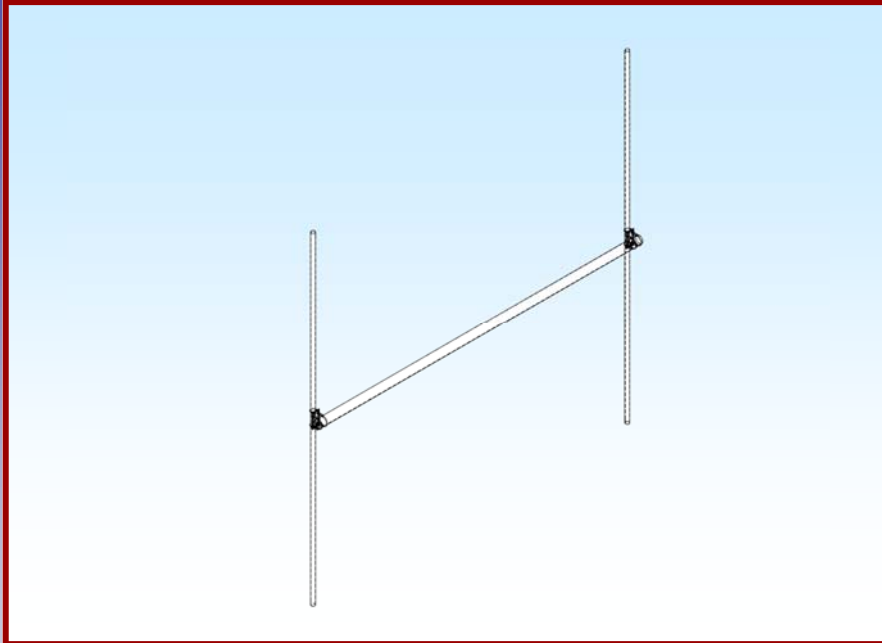




M2 Antenna Systems, Inc. Model No: FGHF2M2X2



SPECIFICATIONS:

Model	HF2M-2X2	Weight	60 LBS
Band.....	2M	A Dim	175"
Antenna.....	N/A	B Dim	180"
T-Brace	N	C Dim	N/A
Cross Boom Dia	4.0	D Dim	90"
Wind Load w/o Ant.....	6.7 SQ FT.		

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.

HF2M-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, and safety wire all turnbuckles 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 U-bolts. All other assembly hardware is stainless steel unless otherwise noted. Forged steel parts are galvanized.

2M ECONO H-FRAME ASSEMBLY

No preparation or assembly is needed for VERTICAL BOOMS or MAIN BOOM. Refer to the assembly detail for hardware call outs.

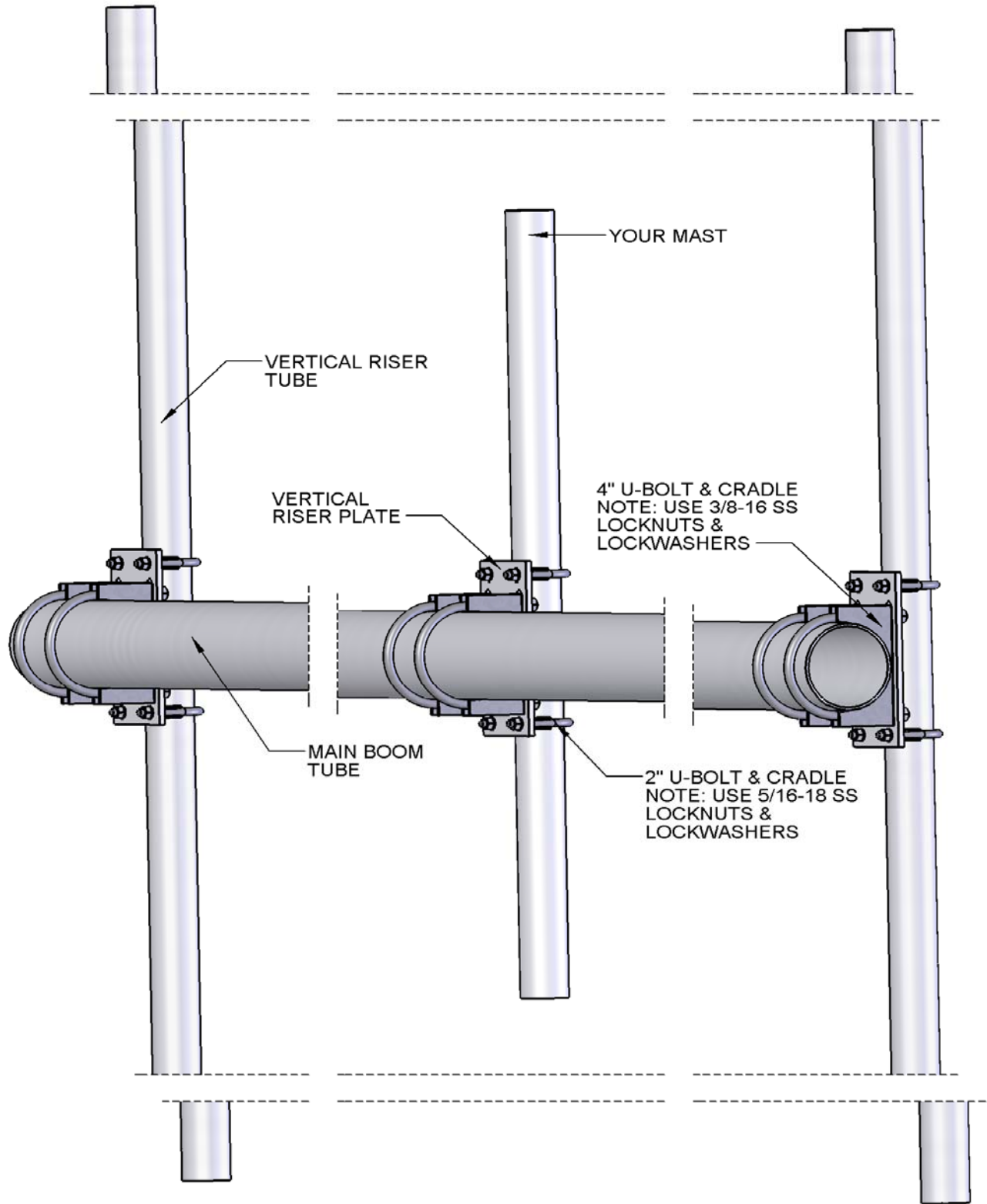
MOUNTING VERTICAL BOOM

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. Align the vertical booms with the overhead riser in the middle of the main boom. 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 assembled and in place on the main boom.

PHASE LINE STANDARDS

1. As a standard, all phase lines produced by M2 are phase matched as a set and are even or odd 1/2 wave multiples at a specific frequency.
2. Lengths are determined by the individual antenna, and the recommended spacing for that antenna. An accepted practice for shortening of phase lines for decrease line loss can be achieved by cutting corners at the point where the antenna attaches to the vertical riser boom and where the vertical riser boom attaches to the main cross boom. How aggressive the corner is cut is up to the individual user or M2.
3. Routing of phase lines on linear arrays is normally run down the booms of the antennas and down the vertical risers to the main cross boom to the power dividers. When exiting the phase line from the boom you should always exit the phase line perpendicular to the elements.
4. Routing of phase line on circular or cross polarized arrays is normally routed off the rear of the booms, sometimes not supported on smaller arrays. As a standard routing of the rear of the booms require phase line supports or **"T" Brace kits**. Contact M2 for options on H-Frames, "T" Brace kits, And Phase kits.

HF2M-2X2 ASSEMBLY DETAIL



HF2M-2X2 PARTS & HARDWARE

<u>DESCRIPTION</u>	<u>QTY</u>
MAIN TUBE (OPTION #1)	
MAIN BOOM TUBE, 4" X 0.125" X 180"	1
VERTICAL RISER TUBE, 2" X 0.125" X 180"	2
VERTICAL RISE PLATE 1/4" X 4" X 8"	3
HARDWARE	
2" U-BOLT AND CRADLE	6
4" U-BOLT AND CRADLE	6
LOCKNUT, 5/16-18 SS	12
LOCKWASHER, 5/16-18 SS	12
LOCKNUT, 3/8-16 SS	12
LOCKWASHER, 3/8-16 SS	12
WELDED MAIN TUBE (OPTION #2)	
MAIN BOOM TUBE, 4" X 0.125" X 60"3

M² ANTENNA SYSTEMS, INC.

4402 N. SELLAND AVE.

FRESNO, CA 93722

(559) 432-8873 FAX: 432-3059

www.m2inc.com Email: sales@m2inc.com