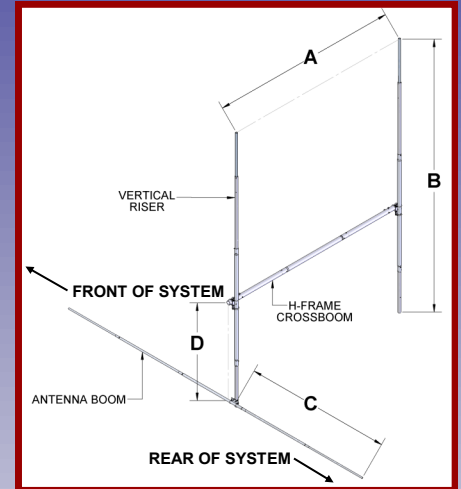
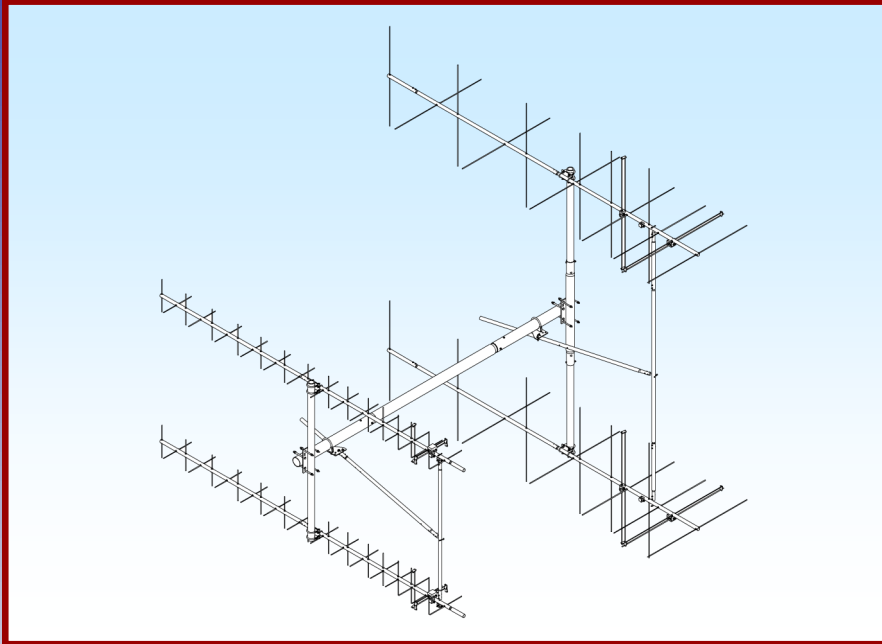




M2 Antenna Systems, Inc.

Model No: FGHTB436-2M-2X2



SPECIFICATIONS:

Model	HFTB436-2M-2X2	Weight	44 LBS
Band.....	70M	A Dim	112"
Antenna.....	436CP30/2MCP14	B Dim	100"
T-Brace	INCLUDED	C Dim	90"
Cross Boom Dia	3.0"	D Dim	27.5"
Wind Load w/o Ant.....	3.96 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.

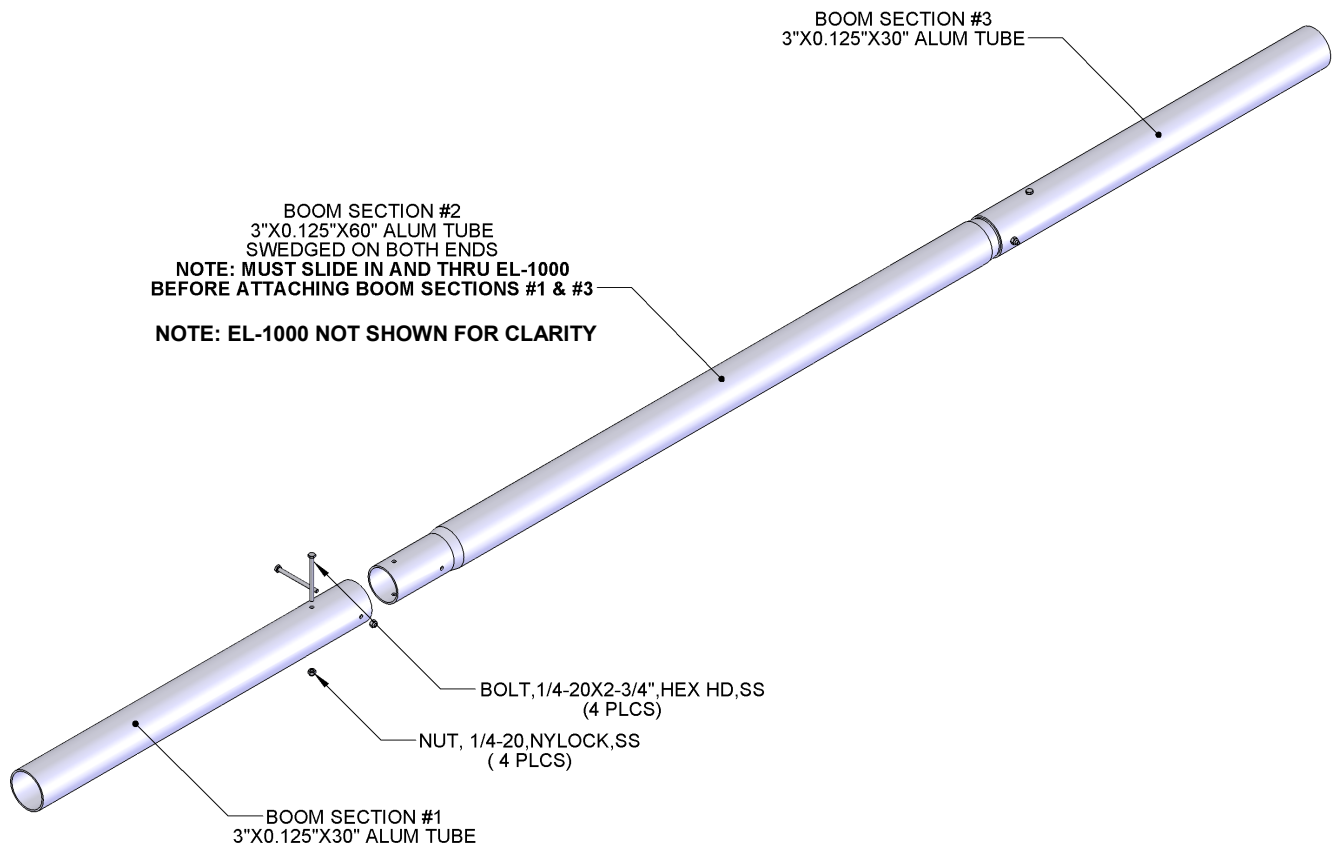
In many cases the support structure, has to meet special customer requirements like size, weight, wind speed or area, and weather issues. Our standard H frames are a composite of these features that should satisfy most customer needs. We enjoy discussing your needs and offering our opinion regarding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

CROSSBOOM ASSEMBLY DETAIL

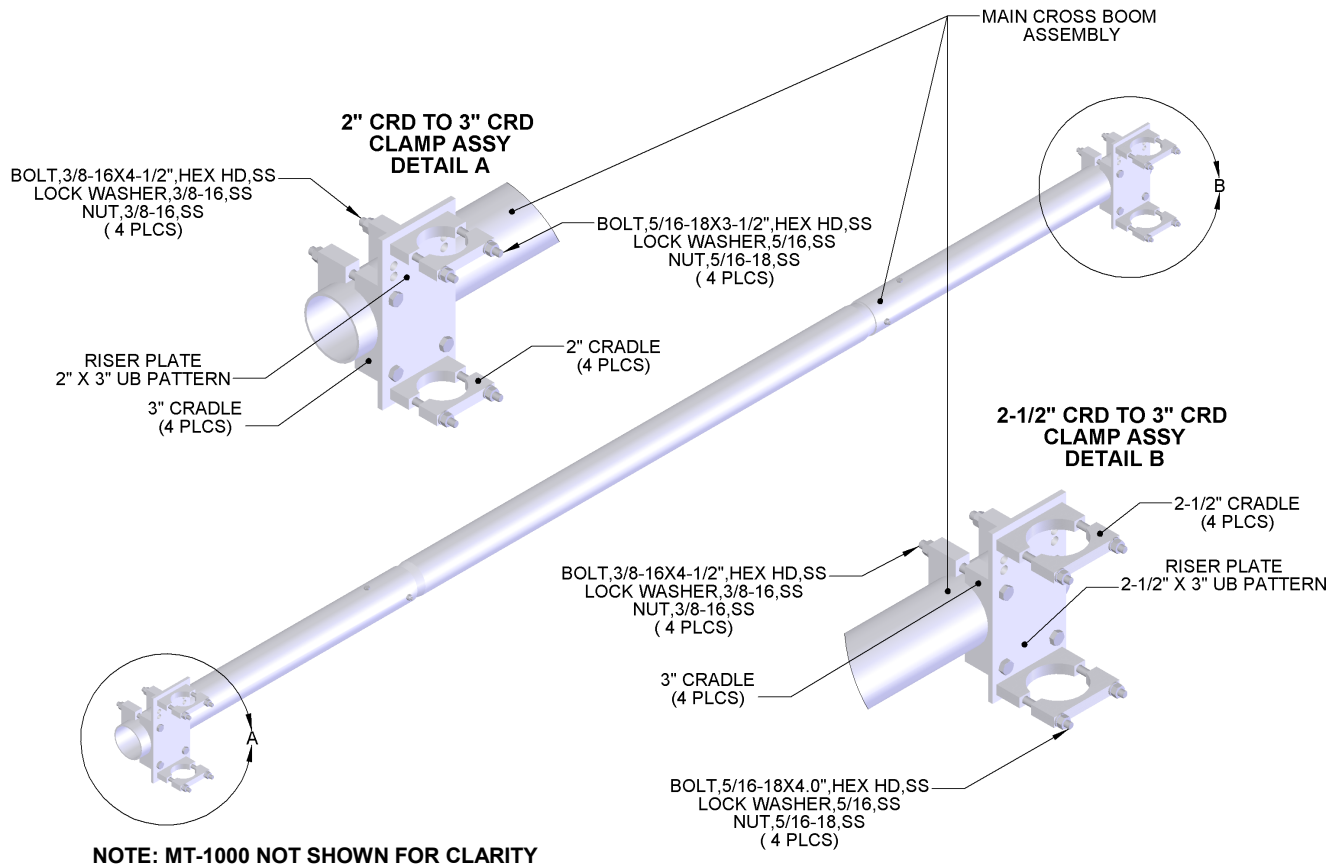
All installations are unique in some way, which means it's OK to preassemble certain hardware, or rearrange the assembly process to meet specific site requirements. A quick review of the assembly notes and drawings should help firm up the appropriate strategy. Please remember to double-check all hardware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

Two containers of zinc paste (Penetrox, Noalox, or equiv.) has been provided to enhance and maintain the quality of all electrical junctions on this H-Frame. Apply a thin coat wherever two pieces of aluminum come in contact or any other electrical connections are made. It is also useful on screw and bolt threads as an ANTI SEIZE compound.

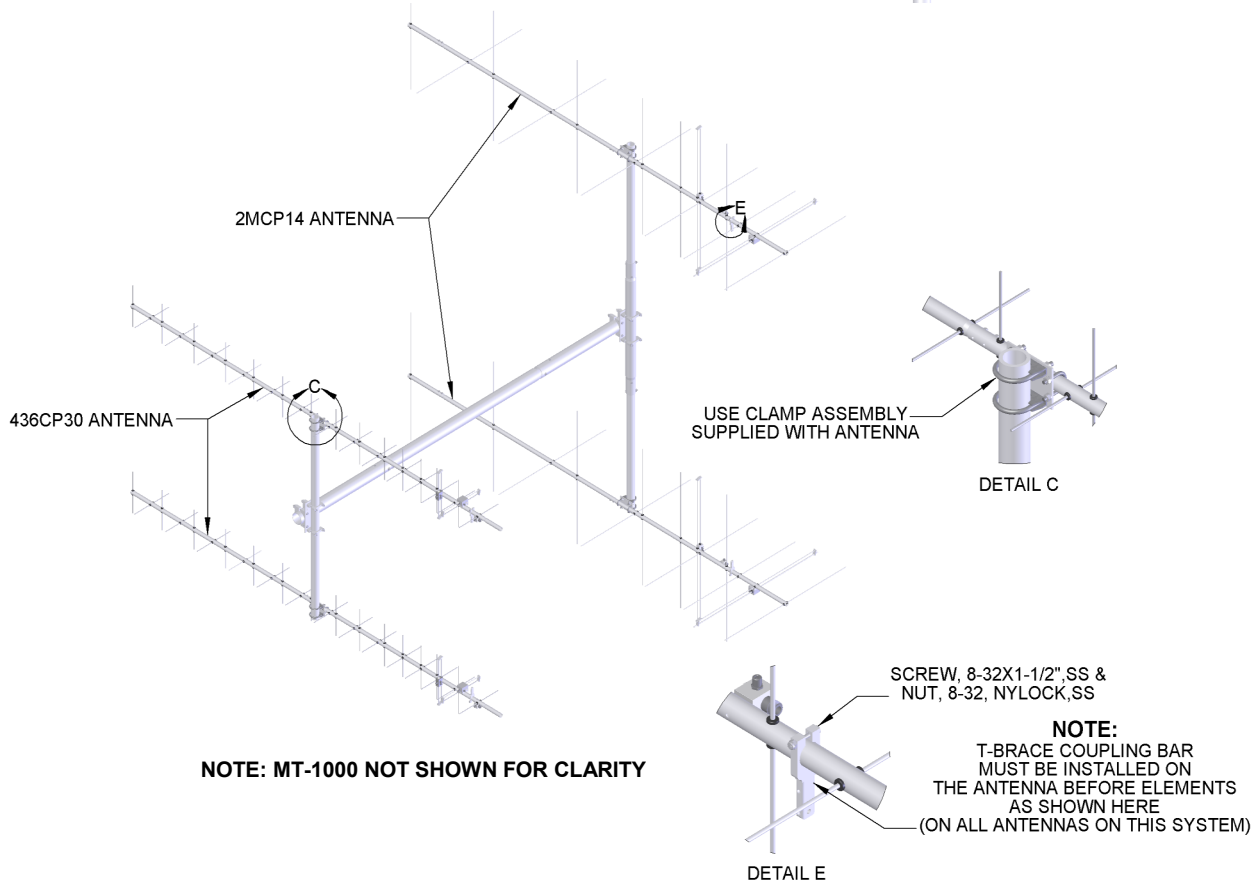
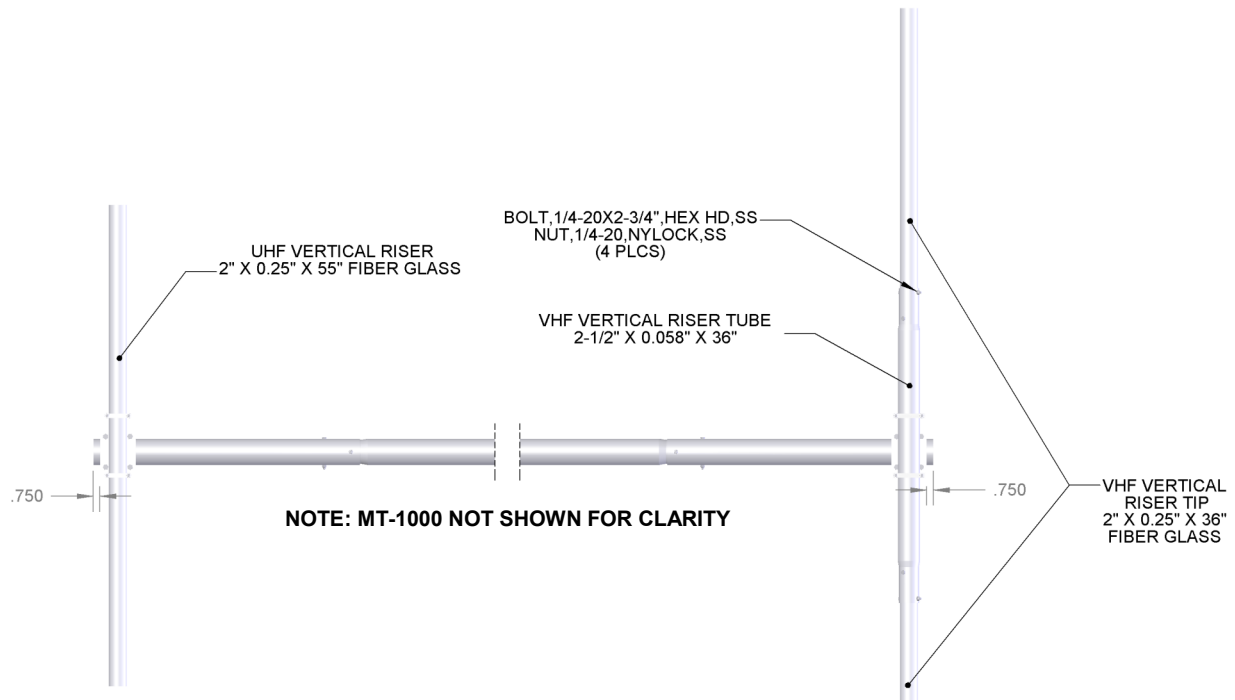


VERTICAL RISER PLATE DETAIL



VERTICAL RISER & ANTENNA MOUNTING

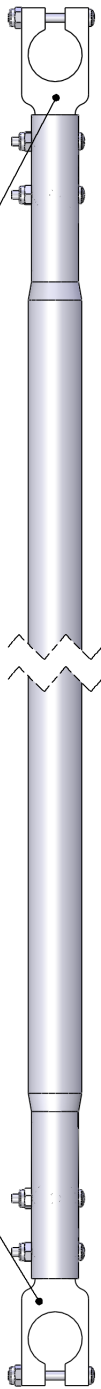
Attach the VERTICAL BOOM assemblies to each end of the MAIN BOOM, noting the correct spacing for the antennas in the array. Make sure that each vertical boom is aligned with the other so when all antennas are mounted, the left side of the array will point at the same point as the the right side. Some tweaking of alignment and balancing will probably be necessary once the whole array is assembled and in place on the main boom.



UHF VERTICAL T-BRACE ASSEMBLY

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	UHF VERTICAL T BRACE	1" X 0.058" X 48-3/4" SBE (ALUM TUBE)	1
2	M2AMC0300	T-BRACE COUPLING ARM	2
3	HSC00830700	SCRW,8-32X1.250,PHL PAN HD,SS	4
4	HSC00830800	SCRW,8-32X1.50,PH PHL,SS	2
5	HNT00830150	NUT,8-32,NYLCK,SS	6

NOTE: T-BRACE COUPLING ARM MUST BE INSTALLED ON THE ANTENNA BEFORE ELEMENTS
SEE DRAWING ON BOTTOM OF PAGE 3



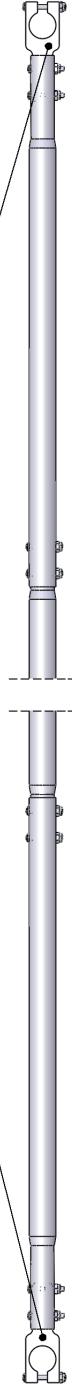
UNLESS OTHERWISE SPECIFIED:		NAME	DATE	M2 ANTENNA SYS. INC.	
DIMENSIONS ARE IN INCHES		JLS	2/29/2008	4402 N. SELLAND AVE. FRESNO CA. 93722 559-432-8873	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		JLS	2/29/2008	DESCRIPTION	
ANGULAR ± .000				UHF VERTICAL T-BRACE ASSY	
TWO PLACE DECIMAL ± .015				Q.A.	
THREE PLACE DECIMAL ± .005				COMMENTS:	
INTERPRET GEOMETRIC TOLERANCING PER:				SIZE PART UHF VERTICAL T BRACE ASSY	
MATERIAL				REV	
FINISH				A	
NEXT ASSY USED ON				SHEET 1 OF 1	
APPLICATION				1	
				2	
				3	
				4	
				5	

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VHF VERTICAL T-BRACE ASSEMBLY

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	VHF T BRACE	1" X 0.058" X 60" SBE (ALUM TUBE)	1
2	VHF T BRACE TIP	1" X 0.058" X 19-7/8" SOE (ALUM TUBE)	2
3	M2AMC0300	T-BRACE COUPLING ARM	2
4	HSC00830700	SCRW,8-32X1.250,PHL PAN HD,SS	8
5	HNT00830150	NUT,8-32,NYLCK,SS	10
6	HSC00830800	SCRW,8-32X1.50,PH PHL,SS	2

NOTE: T-BRACE COUPLING ARM MUST BE INSTALLED ON THE ANTENNA BEFORE ELEMENTS
SEE DRAWING ON BOTTOM OF PAGE 3

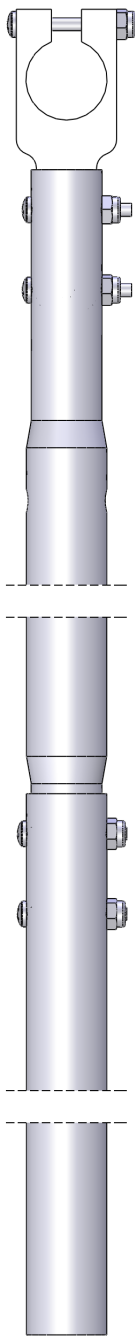


UNLESS OTHERWISE SPECIFIED:		NAME	DATE	M2 ANTENNA SYS. INC.	
DIMENSIONS ARE IN INCHES		JLS	2/28/2008	4402 N. SELLAND AVE. FRESNO CA. 93722 559-432-8873	
TOLERANCES:		JLS	2/28/2008	DESCRIPTION	
ANGULAR ± .030				VHF VERTICAL T-BRACE ASSY	
TWO PLACE DECIMAL ± .015				SIZE PART #	
THREE PLACE DECIMAL ± .005				A VHF VERTICAL T BRACE ASSY	
INTERPRET GEOMETRIC TOLERANCING PER:				REV	
MATERIAL				REV	
FINISH				REV	
NEXT ASSY USED ON				REV	
APPLICATION				REV	
DO NOT SCALE DRAWING				REV	
5		2		SHEET 1 OF 1	

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UHF HORIZONTAL T-BRACE ASSEMBLY

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	UHF HORIZONTAL T BRACE	1" X 0.058" X 50" SBE (ALUM TUBE)	1
2	UHF HORIZONTAL T BRACE TIP	1" X 0.058" X 23" (ALUM TUBE)	1
3	M2AMC0300	T-BRACE COUPLING ARM	1
4	HSC00830700	SCRW,8-32X1.250,PHL PAN HD,SS	4
5	HSC00830800	SCRW,8-32X1.50,PH PHL,SS	1
6	HNT00830150	NUT,8-32,NYLCK,SS	5

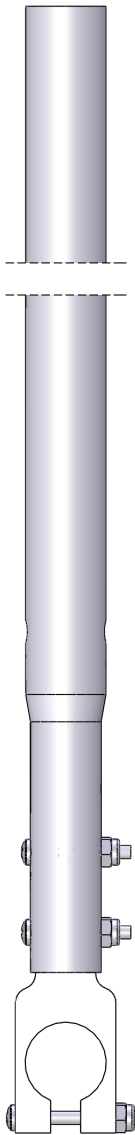


UNLESS OTHERWISE SPECIFIED:		NAME	DATE	M2 ANTENNA SYS. INC.	
DIMENSIONS ARE IN INCHES		JLS	2/29/2008	4402 N. SELLAND AVE. FRESNO CA. 93722 559-452-8873	
TOLERANCES:		CHECKED	JLS	DESCRIPTION	
FRACTIONAL ± .005		ENG APPR.		UHF HORIZONTAL T-BRACE ASSY	
ANGULAR ± .5°		MFG APPR.		E	
TWO PLACE DECIMAL ± 015		Q.A.		UHF HORIZONTAL T-BRACE ASSY	
THREE PLACE DECIMAL ± .005		COMMENTS:		SIZE PART # UHF HORIZONTAL T BRACE ASSY REV	
INTERPRET GEOMETRIC TOLERANCING PER:				A	
MATERIAL				SHEET 1 OF 1	
FINISH					
NEXT ASSY USED ON					
APPLICATION					
DO NOT SCALE DRAWING					

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VHF HORIZONTAL T-BRACE ASSEMBLY

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	VHF ANGLE T BRACE	1" X 0.058" X 56" SBE (ALUM TUBE)	1
2	M2AMC0300	T-BRACE COUPLING ARM	1
3	HSC00830700	SCRW,8-32X1.250,PHL PAN HD,SS	2
4	HNT00830150	NUT,8-32,NYLCK,SS	3
5	HSC00830800	SCRW,8-32X1.50,PH PHL,SS	1

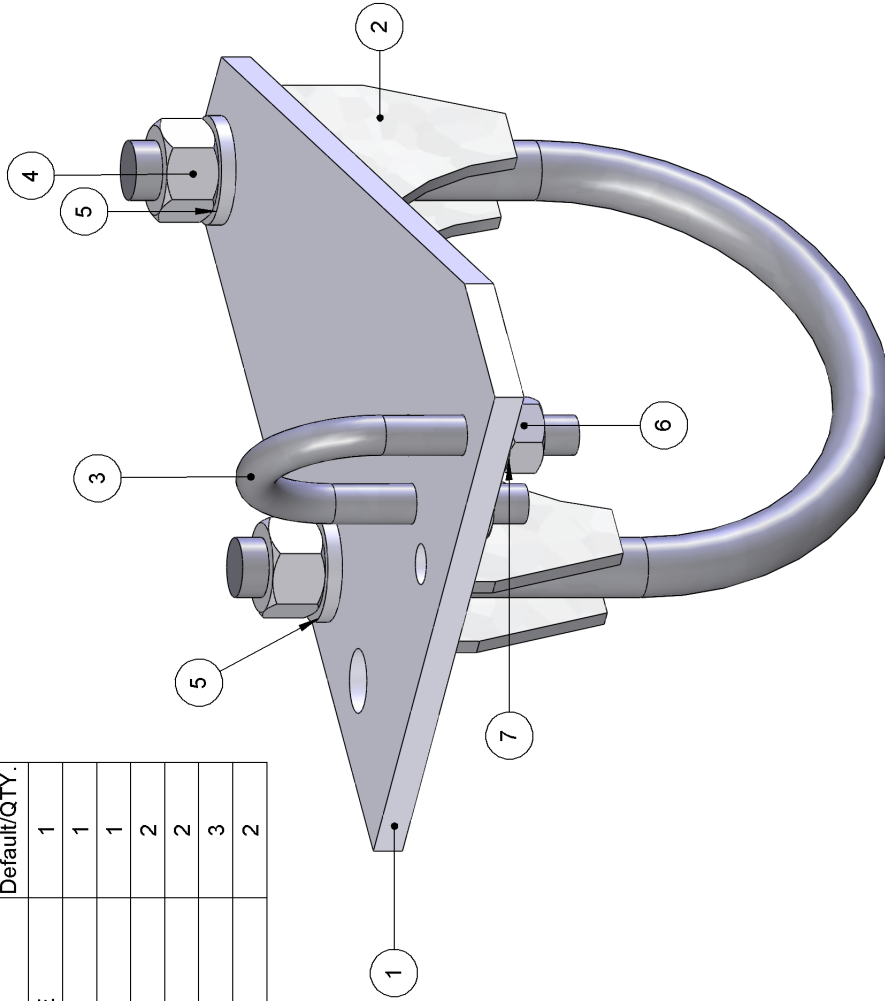


UNLESS OTHERWISE SPECIFIED:		NAME	DATE	M2 ANTENNA SYS. INC.	
DIMENSIONS ARE IN INCHES		JLS	2/29/2008	4402 N. SELLAND AVE. FRESNO CA. 93722 559-432-8873	
TOLERANCES:		JLS	2/29/2008	DESCRIPTION	
ANGULAR ± .030				VHF HORIZONTAL T-BRACE ASSY	
ANGULAR ± .5°				E	
TWO PLACE DECIMAL ± .015				REV	
THREE PLACE DECIMAL ± .005				A	
INTERPRET GEOMETRIC TOLERANCING PER:		Q.A.		SIZE	
MATERIAL		COMMENTS:		PART #	
FINISH				VHF HORIZONTAL T-BRACE ASSY	
NEXT ASSY		USED ON		REV	
APPLICATION		DO NOT SCALE DRAWING		A	
5		3		T BRACE ASSY	
4		2		SHEET 1 OF 1	
1		1			

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T-BRACE CLAMP ASSEMBLY DETAIL

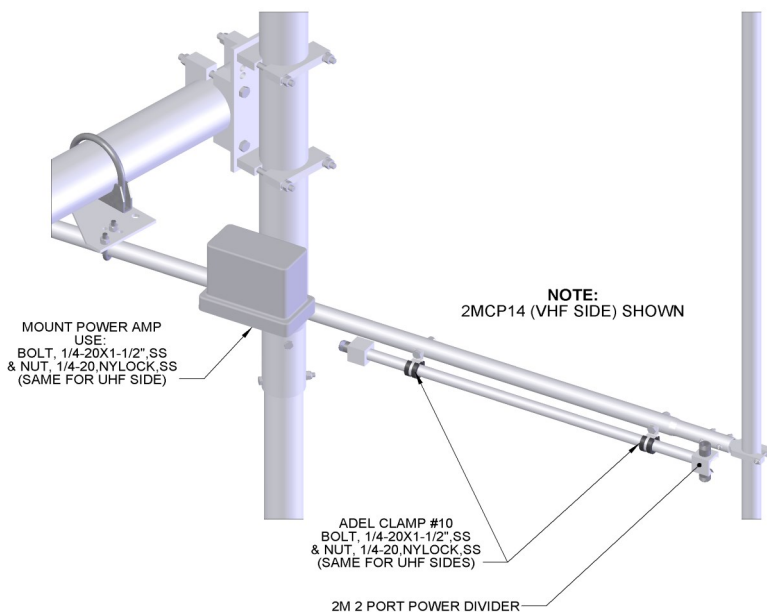
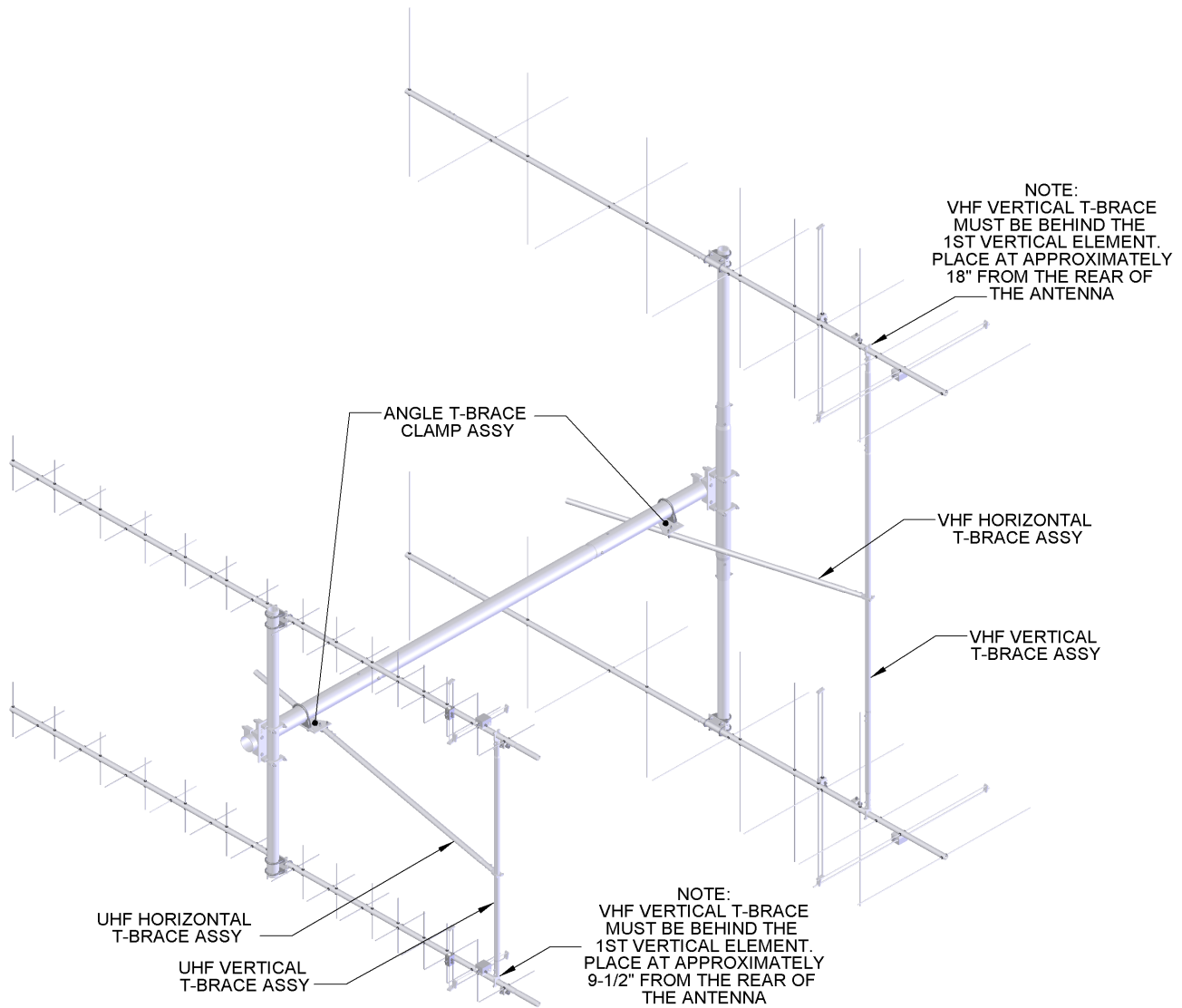
ITEM NO.	PART NUMBER	DESCRIPTION	Default/QTY.
1	M2AHF0005	ANGLED T-BRACE PLATE	1
2	3.0 UB ASSY	3" U-BOLT & CRADLE	1
3	1.0 UB	1" U-BOLT	1
4	HNT03750100	NUT, 3/8-16, SS	2
5	HWS03750150	WSHR, 3/8, SPL RNG, SS	2
6	HNT02500500	NUT, 1/4-20, HEX, SS	3
7	HWS02500150	WSHR, 1/4, SPL RNG, SS	2



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DIMENSIONS ARE IN INCHES		JLS	2/26/2008	4402 N. SELLAND AVE. FRESNO, CA. 93722 559-432-8873	
TOLERANCES:		DRAWN		DESCRIPTION	
FRACTIONS: 030		JLS	2/26/2008	H-FRAME PART	
DECIMALS: .015		CHECKED		T-BRACE CLAMP ASSY	
ANGULAR: .5°		ENG APPR.		SIZE PART # T BRACE	
THREE PLACE DECIMAL: ±.005		MFG APPR.		A CLAMP ASSY	
INTERPRET GEOMETRIC TOLERANCING PER:		Q.A.		REV	
MATERIAL		COMMENTS:		1	
FINISH		NEXT ASSY		USED ON	
DO NOT SCALE DRAWING		APPLICATION		SHEET 1 OF 1	

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COMPLETE SYSTEM LAYOUT



Next install Power Dividers and
Pre-Amps.

(SEE PICTURE ON THE LEFT)

Carefully manufactured by:

M2 Antenna Systems, Inc.
4402 N. Selland Ave. Fresno, CA
93722
(559) 432-8873 Fax (559) 432-3059
Web: www.m2inc.com

HFTB436CP30-2M-2X2 PARTS & HARDWARE

<u>DESCRIPTION</u>	<u>QTY</u>
3" MAIN CROSSBOOM	
CROSSBOOM TUBE 3" X .125 X 60" SBE.....	1
CROSSBOOM TUBE 3" X .125 X 30" PLAIN	2
VERTICAL BOOM RISER PLATE 1/4" X 4" (2-1/2" UB PATTERN).....	1
VERTICAL BOOM RISER PLATE 1/4" X 4" (2" UB PATTERN)	1
CRADLE HD, 3"	8
CRADLE, 2-1/2"	4
CRADLE, 2"	4
HARDWARE	
BOLT, 1/4-20 X 3-1/2" SS	4
NUT, 1/4-20, NYLOCK SS	4
BOLT, 3/8-16 X 4-1/2" SS	8
LOCKWASER, 3/8" SS.....	8
NUT, 3/8-16 SS	8
BOLT, 5/16-18 X 4" SS.....	4
BOLT, 5/16-18 X 3-1/2" SS	4
LOCKWASER, 5/16" SS.....	8
NUT, 5/16-18 SS	8
ZINC PASTE (PENETROX OR EQUIVALENT) CONTAINER.....	2
VERTICAL BOOM COMPONENTS	
VERTICAL BOOM RISER, 2-1/2" X 0.125 X 36" SBE	1
VERTICAL BOOM RISER, 2" X 0.25 X 36" FIBERGLASS	2
VERTICAL BOOM RISER, 2" X 0.25 X 55" FIBERGLASS	1
HARDWARE	
BOLT, 1/4-20 X 2-3/4" SS	4
NUT, 1/4-20, NYLOCK SS	4
T-BRACE COMPONENTS	
VERTICAL T-BRACE, 1" X .058 X 48-3/4" SBE	1
VERTICAL T-BRACE, 1" X .058 X 60" SBE.....	1
VERTICAL T-BRACE, 1" X .058 X 19-7/8" SOE	2
HORIZONTAL T-BRACE, 1" X .058 X 50" SBE	1
HORIZONTAL T-BRACE, 1" X .058 X 23"	1
HORIZONTAL T-BRACE, 1" X .058 X 56" SOE.....	1
T-COUPLING, 1" X .375 X 3.75	6
ANGLE PLATE, 4 X 6 X .188	2
U-BOLT & CRADLE, 3"	2
U-BOLT 1"	2
HARDWARE	
ADEL CLAMP #10	4
LOCKWASHER, 3/8" SS	4
NUT, 3/8-16 SS	4
BOLT, 1/4-20 X 1-1/2" SS	8
NUT, 1/4-20, NYLOCK SS	8
LOCKWASHER, 1/4" SS	4
NUT, 1/4-20 SS	4
SCREW, 8-32 X 1-1/2" SS	8
SCREW, 8-32 X 1-1/4" SS	20
NUT, 8-32, NYLOCK, SS	26

M² ANTENNA SYSTEMS, INC.

4402 N. Selland Ave.

Fresno, CA 93722

(559) 432-8873 Fax: 432-3059

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