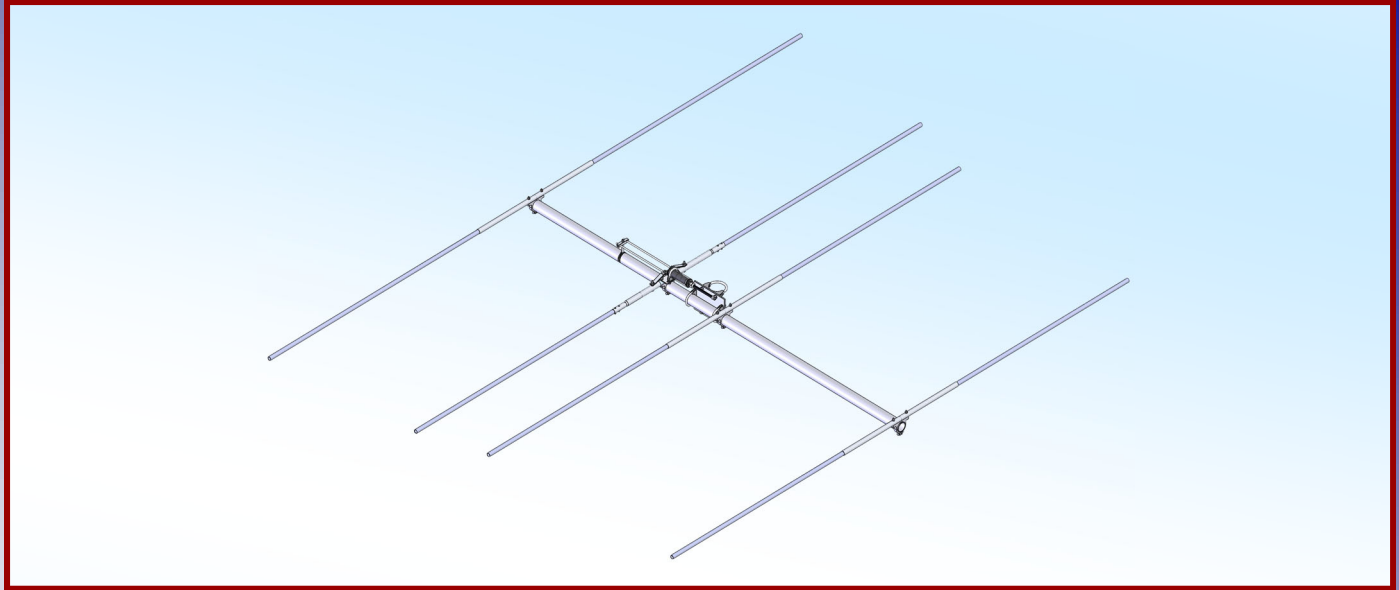




M2 Antenna Systems, Inc. Model No: 35.7-4



SPECIFICATIONS:

Model	35.7-4	Power Handling	1.5 kW
Frequency Range	35.4 to 36 MHz	Boom Length / Dia	20' / 2"
Gain	10.89 dBi	Element Length / Dia	188" / 7/8"-1/2"
Front to back	22 dB Typical	Turning Radius:	Call
Feed type	"T" Match	Stacking Distance	Call
Feed Impedance	50 Ohms Unbalanced	Mast Size	2" to 3" Nom.
Maximum VSWR	1.5:1 Typical	Wind area / Survival	3.8 Sq. Ft. / 100 MPH
Input Connector	"N" Connector	Weight / Ship Wt.	40 Lbs. / 45 Lbs.

***Subtract 2.14 from dBi for dBd / FS = Free Space**

FEATURES:

The 35.7-4 has been computer optimized from the ground up for gain and pattern covering 35.4-36 MHz. Originally designed for Meteor Scatter and monitoring systems. The custom 1:1 Fairite balun and low loss hairpin match help maintain high efficiency. Element ring clamps and other important components are CNC machined for maximum strength and electrical integrity. All antenna hardware is stainless steel and the U-bolts for mounting are Zinc plated.

M2 antenna Systems, Inc., has well over 35 designs for Meteor Scatter applications covering from 39 MHz to 50 MHz. If you have a specific requirement, please contact us for more details.

M2 Antenna Systems, Inc. 4402 N. Selland Ave. Fresno, CA 93722

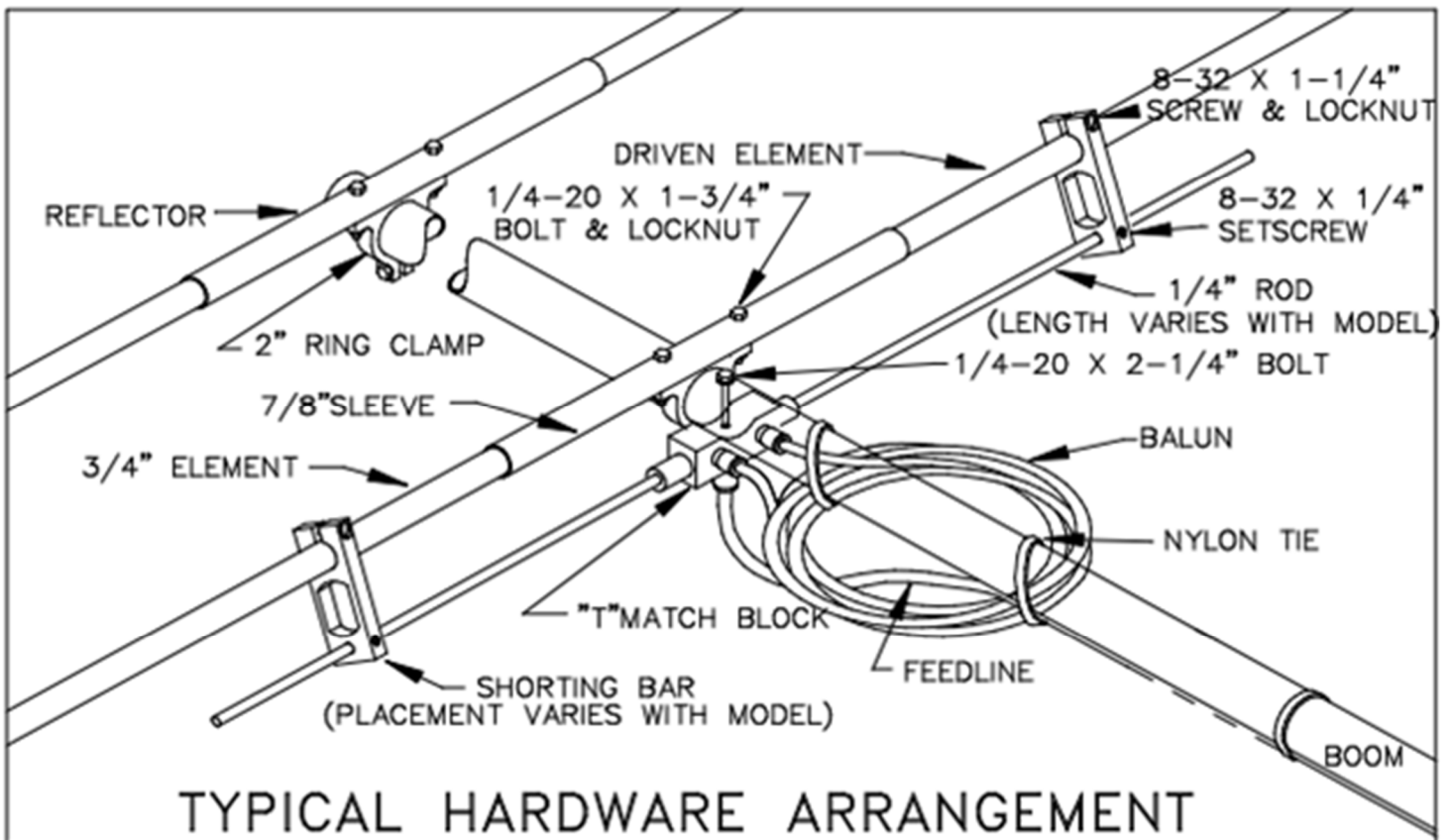
Tel: (559) 432-8873 Fax: (559) 432-3059 Web: www.m2inc.com

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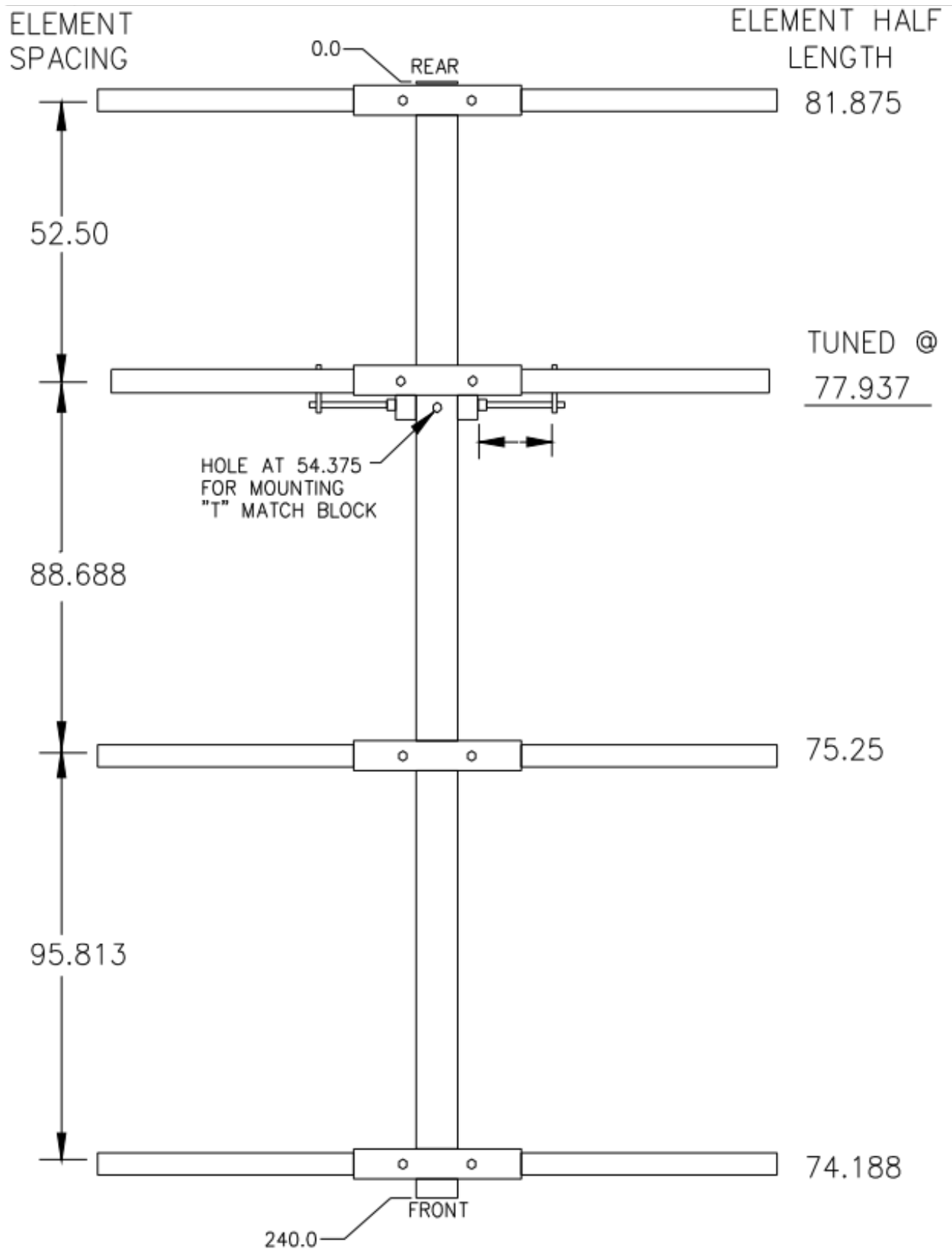
08/30/22
Rev.01

35.7-4 ASSEMBLY MANUAL

1. Refer to the Dimension Sheet. Note the approximate position of each element. Slide the 2" RING CLAMPS into their approximate positions on the boom, element channels to top. If necessary, spread the ring clamp fingers with a flat blade screwdriver to ease movement on boom. Loosely add a 1/4-20 x 1" bolt and locknut to fingers of all clamps.
2. Mount the "T" MATCH ASSEMBLY BLOCK to the underside of the boom using the 1/4" hole 54-3/8" from the rear end. Secure with a single 1/4-20 x 2-1/4" bolt. Orient the two connectors towards the front. Make sure the Driven Element ring clamp is to the rear of the "T" match block. Now slide the ring clamp up against the "T" match block and tighten the 1/4-20 x 1" bolt and locknut to hold the clamp in position.
3. Select the two 3/4" ELEMENT SECTIONS by length specified on the Dimension Sheet for the driven element and slide a 4-3/8" long SHORTING BAR onto each one. Position them roughly in the middle of the tubing.
4. Slide the butt end (with hole) of each 3/4" ELEMENT SECTION halfway into a 7/8" x 30" CENTER SLEEVE and line up holes. Slide a 1/4-20 x 1-3/4" bolt through each hole and place this assembly into the Driven Element ring clamp channel. Add the 1/4" locknuts and tighten.
5. Add the 8-32 x 1-1/4" screw and locknut and the two 8-32 x 1/4" set screws to each SHORTING BAR. Slide the shorting bars down onto the 1/4" "T" MATCH rods and position them according to the Dimension Sheet. Align the rods parallel with the element sections and tighten the hardware. A 5/64 Allen wrench has been provided for the set screws.
6. Pair up the remaining 3/4" element sections and 7/8" x 30" sleeves and mount to the ring clamps as in step #4, following the Dimension Sheet for length.



35.7-4 DIMENSION SHEET



35.7-4 ASSEMBLY MANUAL

7. Now adjust the ELEMENT SPACING to match the Dimension Sheet. Since the Driven element is fixed, use it as the reference for setting the position of the Reflector, 52-1/2" to the rear. Then space all Director elements forward, using the Driven element as the reference. Dimensions given are "center to center" and can also be used "edge to edge" when working with a measuring tape. After setting spacing of each element, align it parallel with the Driven Element and tighten the 1/4-20 x 1" bolt.

8. Attach the balun coil to the pair of connectors on the "T" match block. Secure balun with the nylon ties supplied (ties should be snug, but not crushing cable). Bottom connector on block is for your 50 Ohm feedline.

9. Locate the balance point of the antenna and mount the BOOM TO MAST PLATE, 6" length horizontal. Orient for desired polarity and secure with two heavy duty 2" U-bolts, cradles, 3/8" stainless lockwashers and nuts. Two 2" U-bolts are supplied for attaching the antenna to the mast. If the feed connector will not be accessible after installation, connect a feedline section now that reaches at least to the boom to mast plate.

10. This completes the ASSEMBLY. When the antenna is installed in position on the mast, the main feedline can be attached. REMEMBER to support the feedline at the antenna boom exit point and on the mast. Allow enough slack feedline to permit full rotation of the antenna.

Carefully designed and manufactured by:

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35.7-4 PARTS & HARDWARE

DESCRIPTION	QTY
BOOM SECTION, 2" x .125 x 240" STR	1
ELEMENT SECTION, 3/4" X SEE DIMENSION SHEET.....	8
ELEMENT SLEEVE, 7/8" X .058 X 30" (FOR 2" RING CLAMP).....	4
BOOM TO MAST PLATE, .250" X 4" X 6".....	1
DRIVEN ELEMENT ASSEMBLY	1
BALUN, RG-6.....	1
RING CLAMP, 2".....	4
U-BOLT AND CRADLE, 2" HD.....	4
ASSEMBLY INSTRUCTIONS.....	1
IN HARDWARE BAG	
SHORTING BARS, 1/2" X 1" X 4.375"	2
NUT, 3/8-16 SS.....	8
LOCKWASHER, 3/8 SPLIT RING SS	8
BOLT, 1/4-20 X 2-1/4" SS	1
BOLT, 1/4-20 X 1-3/4" SS	8
BOLT, 1/4-20 X 1" SS	4
NYLOCK NUT, 1/4 SS	12
SET SCREW, 8-32 X 1/4" SS	4
SCREW, 8-32 X 1-1/4" SS	2
NYLOCK NUT, 8-32 SS	2
NYLON TIE, 11"	4
ALLEN WRENCH, 5/64"	1

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