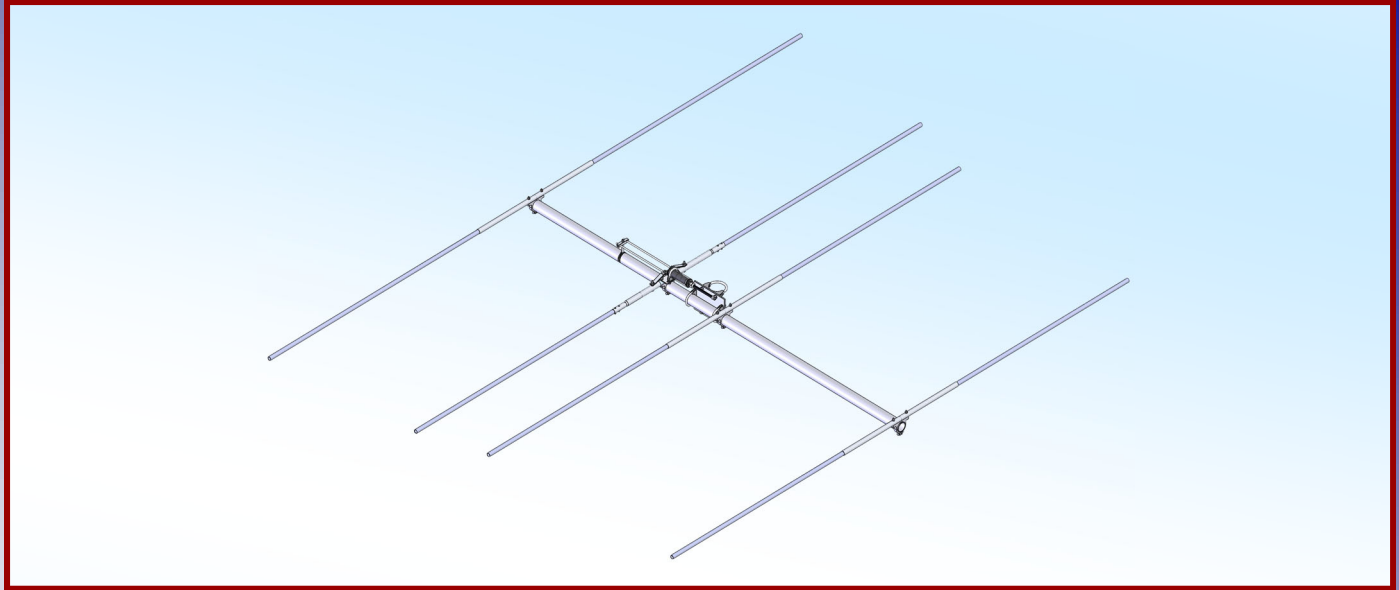




M2 Antenna Systems, Inc. Model No: 37.7-4



SPECIFICATIONS:

Model	37.7-4	Power Handling	1.5 kW
Frequency Range	36.6 to 38.8 MHz	Boom Length / Dia	12' / 2"
Gain	9.34 dBi	Element Length / Dia	162" / 7/8"-1/2"
Front to back	12 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	3.4 Sq. Ft. / 100 MPH
Input Connector	"N" Connector	Weight / Ship Wt.	35 Lbs. / 40 Lbs.

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

FEATURES:

The 37.7-4 has been computer optimized from the ground up for gain and pattern covering 36.6-38.8 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.

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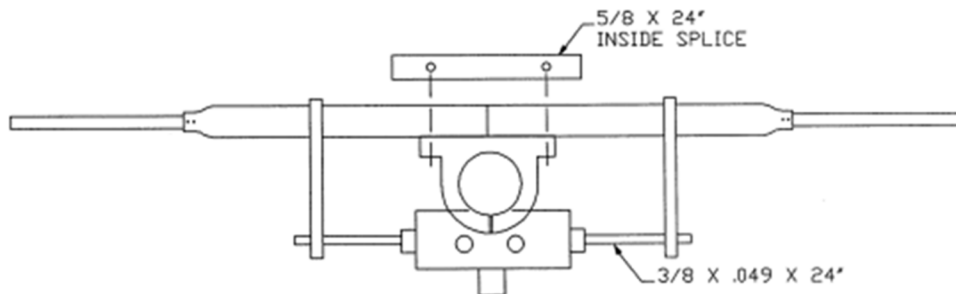
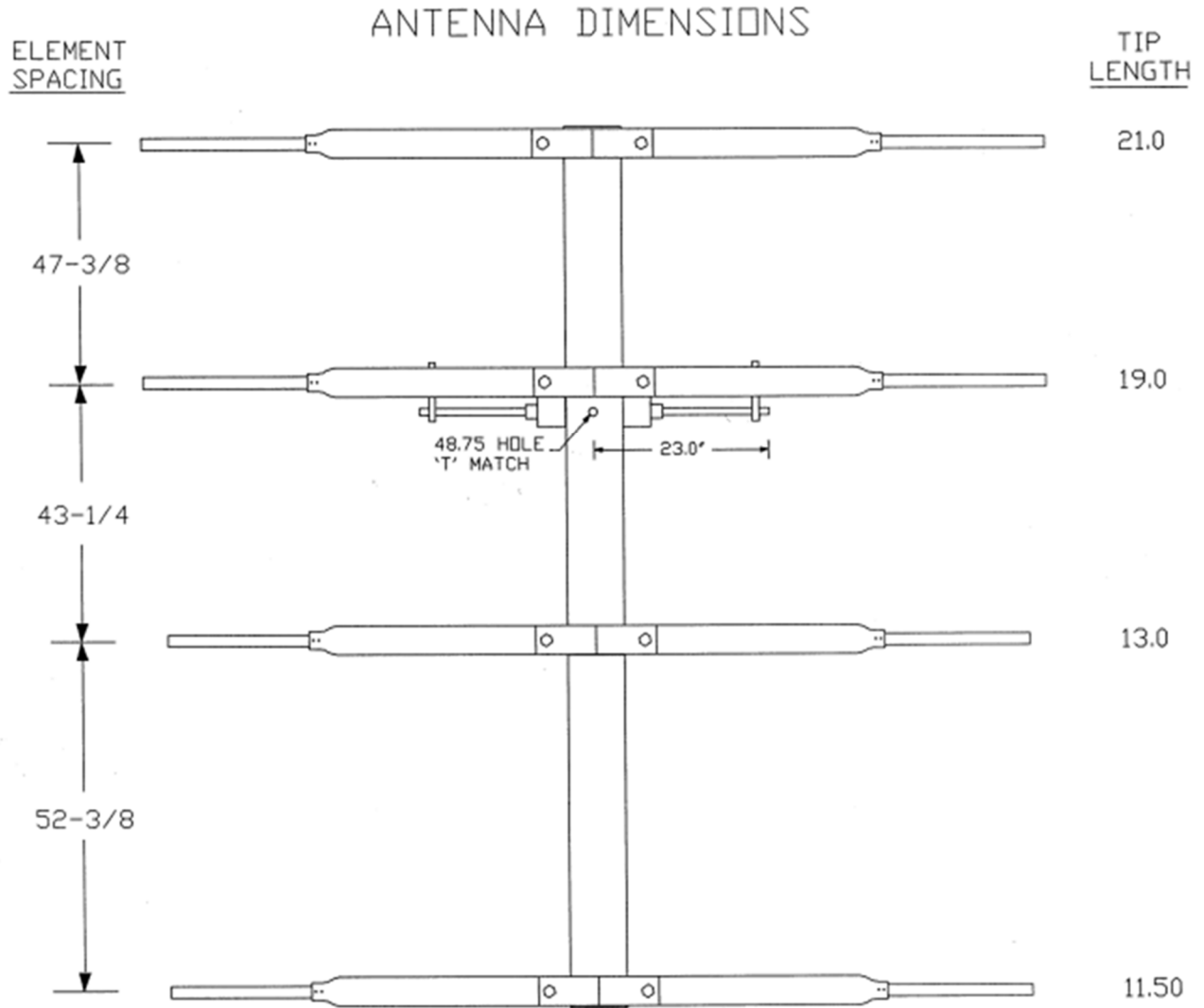
08/30/22
Rev.01

37.7-4 ASSEMBLY MANUAL

TOOLS REQUIRED: Flat blade screwdriver, 11/32 spin tight or open end wrench, 7/16" and 9/16" open end wrenches or sockets.

1. Assemble the element halves by sliding the 5/8 x 24" section in a 3/4 x 60" section until the holes line up. Push a 1/4-20 x 1-1/2" bolt through both pieces and through the element to boom bracket. Add the locking nut and repeat for all four elements.
2. Match up the 1/2" diameter tip pairs and insert the longest set into an element (reflector). Align both holes and secure with two 8-32 x 1" screws and locknuts. Tighten
3. Locate the two 1/2 x 1" x 4" shorting bars and slide them onto the next element (driven element). Install the tips as before.
4. Continue installing and securing the last two tip pairs.
5. Locate the hole in the boom and slide the Driven Element on the boom up next to the hole.
6. Install the reflector right after short end of the boom and clamp tightly with the 1/4-20 x 1" bolt and locknut.
7. Slide on the 1st director to the proper spacing and tighten in place, aligning it with the reflector.
8. Add the front director and again align it and tighten in place.
9. Add the "T" match assembly to the under side of the boom. The two balun connectors should face the center. Secure with a 1/4-20 x 2-1/4" bolt.
10. Slide the shorting bars over the "T" match element tips. Add the 8-32 x 1-1/4" screws and locknuts and the 8-32 x 3/16" set screws to each. Align and tighten the shorting bars in place.
11. Add the balun cable and attach it to the boom with two cable ties. Tighten the connector gently with a 7/16" end wrench while holding the connector body with pliers or another 7/16" wrench.
12. Locate the balance point of the antenna and attach the boom to mast plate with 2 heavy duty U-bolts and stainless nuts and lockwashers. Note the U-bolts allow both horizontal and vertical polarity.
13. Add the main feedline, looping it back to the boom and then down the support mast. Weather proof the connectors as required.

37.7-4 DIMENSION SHEET



37.7-4 PARTS & HARDWARE

DESCRIPTION	QTY
BOOM SECTION, 2" X .125 X 144"	1
ELEMENT, 3/4" X .049 X 60" SOE.....	8
ELEMENT SPLICE, 5/8" X .028 X 24".....	4
ELEMENT TIPS, 1/2" X .049 X SEE DIMENSION SHEET	8
ELEMENT BRACKET	4
U-BOLT, 2" HD.....	4
BOOM TO MAST PLATE, 1/4" X 4" X 6"	1
DRIVEN ELEMENT ASSEMBLY	1
BALUN, RG-6.....	1
SHORTING BARS, 1/2" X 1" X 4"	2
NYLON TIE, 11"	4
ASSEMBLY MANUAL.....	1
IN HARDWARE BAG	
BOLT, 1/4-20 X 2-1/2" SS	1
BOLT, 1/4-20 X 1-1/2" SS	8
BOLT, 1/4-20 X 1" SS	4
NYLOCK NUT, 1/4-20 SS	12
NUT, 3/8-16 SS	8
LOCKWASHER, 3/8" SPLIT RING SS.....	8
SCREW, 8-32 X 1-1/4" SS	2
SCREW, 8-32 X 1" SS	16
SET SCREW, 8-32 X 1/4" SS	4
NYLOCK NUT, 8-32 SS	18
ALLEN WRENCH, 5/64".....	1

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