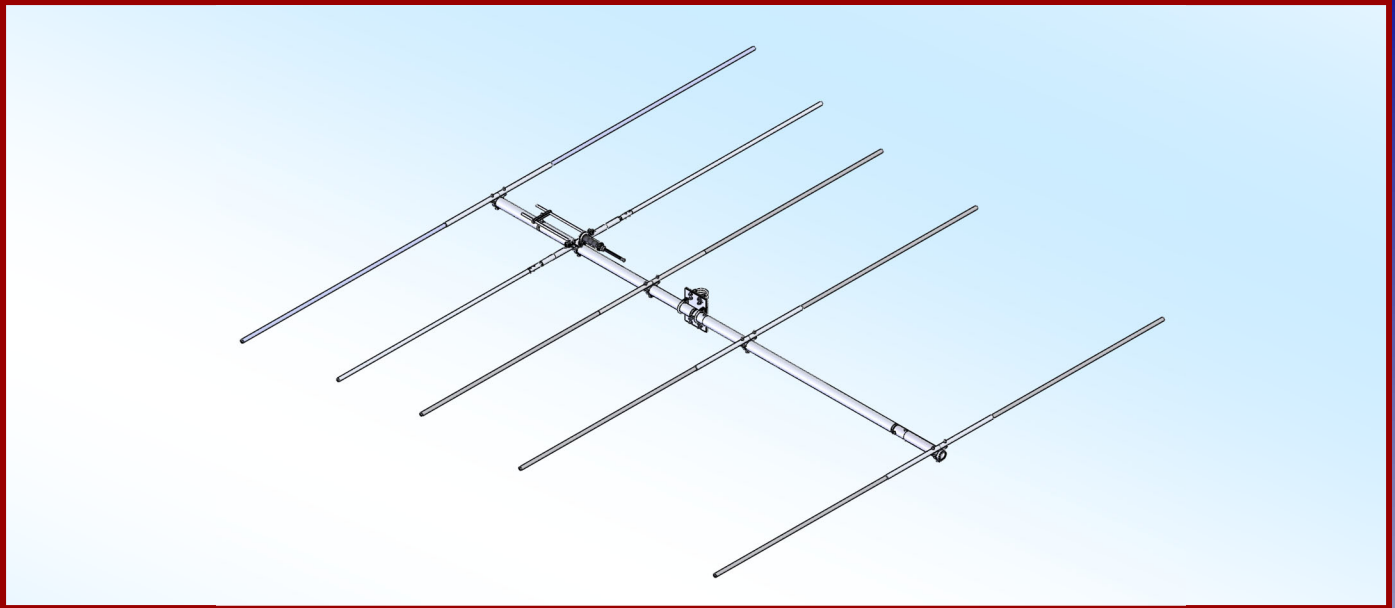




M2 Antenna Systems, Inc. Model No: 36-5



SPECIFICATIONS:

Model	36-5	Boom Length / Dia.....	16' 9" / 2"
Frequency Range.....	35.5 to 36.4 MHz	Maximum Element Length.....	192" / 7/8"-3/4"
*Gain	10.29 dBi	Turning Radius:	Call
Front to back	23 dB Typical	Stacking Distance.....	Call
Feed type	"T" Match	Mast Size.....	2" Nom.
Feed Impedance	50 Ohms Unbalanced	Wind area / Survival	3.0 Sq. Ft. / 100 MPH
Maximum VSWR.....	1.5:1 Max	Weight / Ship Wt.....	45 Lbs. / 50 Lbs.
Input Connector.....	"N" Female		
Power Handling.....	1.5 kW		

***Subtract 2.14 from dBi for dBd**

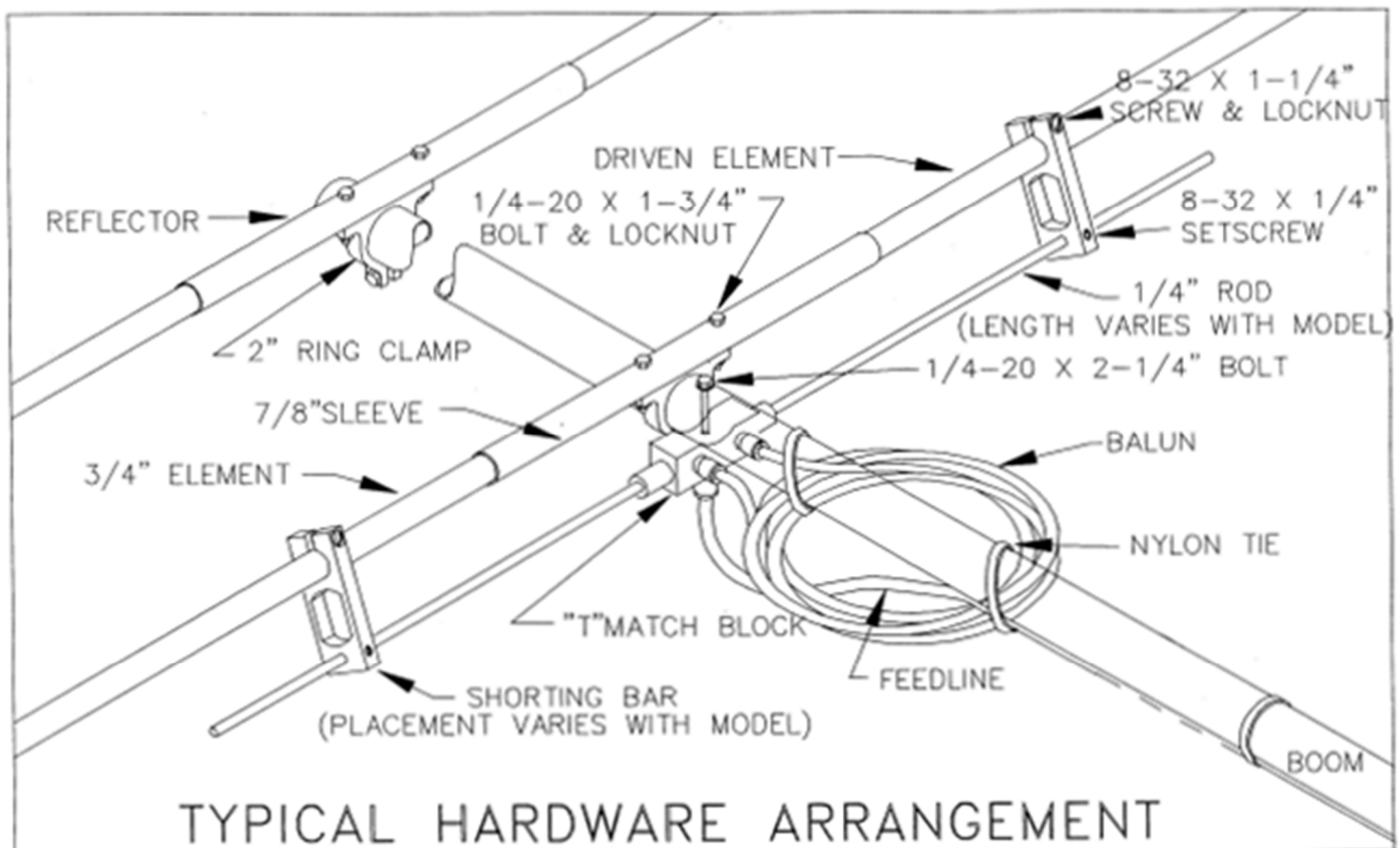
FEATURES:

The 36-5 has been computer optimized from the ground up for gain and pattern covering 35.5-36.4 MHz. The original design was for Meteor Scatter, but can be used for Monitoring systems. The custom 4:1 balun and low loss "T" 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.

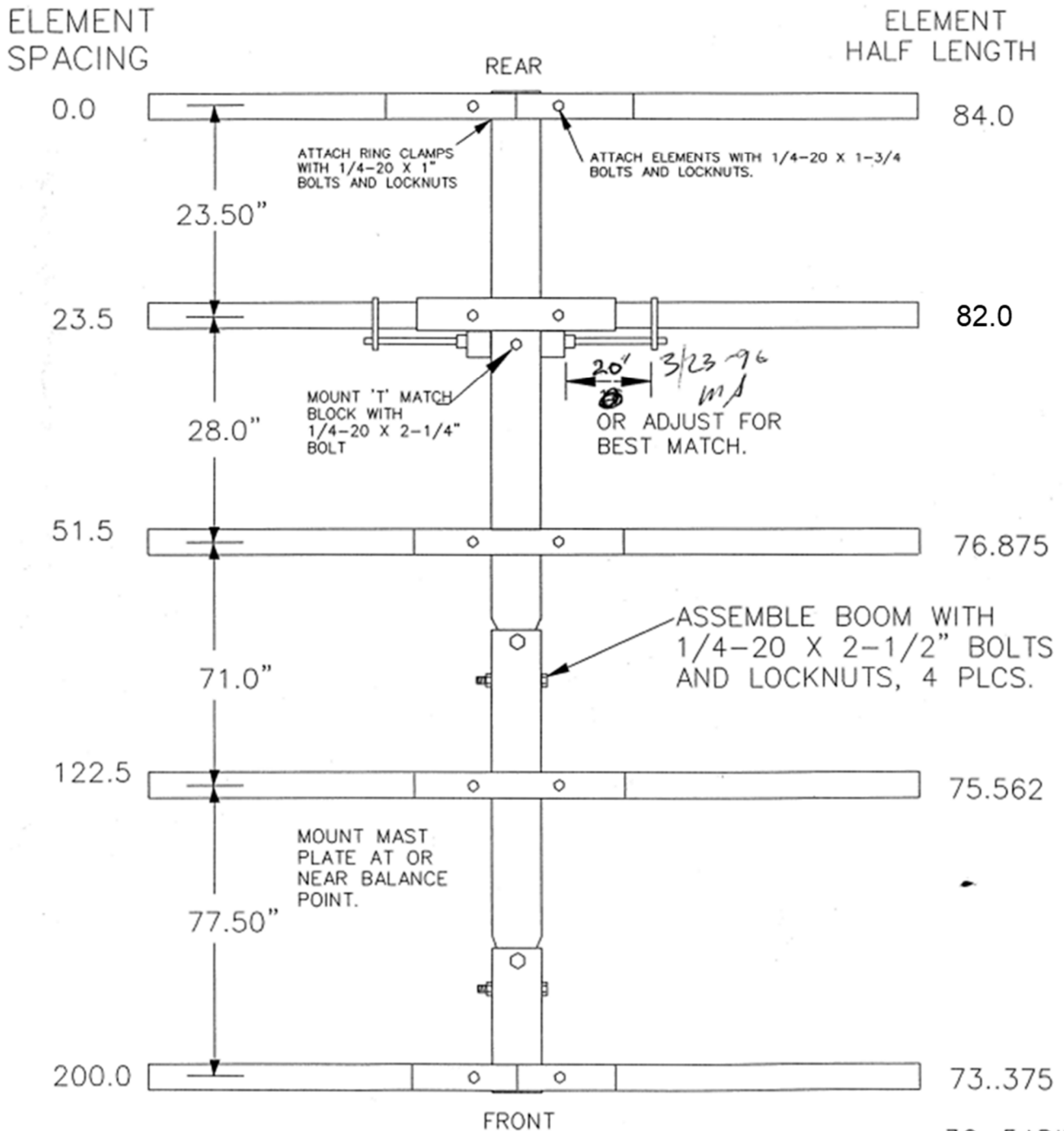
M2 Antenna Systems, Inc. has well over 30 designs for Meteor Scatter applications covering from 39 MHz to 50 MHz. If you have a specific requirement, please contact us for more details.

36-5 ASSEMBLY MANUAL

1. Refer to the Dimension Sheet. Assemble the boom starting with the rear section with the hole 25.5" from the straight end. At the same time, note the approximate position of each element. Slide the 2" RING CLAMPS into their approximate positions on the boom BEFORE PUTTING IN THE BOOM COUPLING BOLTS. If necessary, spread the ring clamp fingers with a flat blade screwdriver to ease movement on the boom. Loosely add a 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 fingers of all clamps.
2. Mount the "T" MATCH ASSEMBLY BLOCK to the underside of the boom using the 1/4" hole 25.5" 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. The ring clamp may have to be loosened later for perfect alignment of shorting bars.
3. Select the two 3/4" DRIVEN ELEMENT SECTIONS and slide a 4-3/8" long SHORTING BARS 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 block. Slide the SHORTING BARS down onto the "T" Match rods and position them according to the Dimension Sheet, between the outer edge of the match block and the inner edge of the shorting bar. 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 40" sleeves and mount to the ring clamps as in step #4, following the Dimension Sheet for length.



36-5 DIMENSION SHEET



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36-5 ASSEMBLY MANUAL

7. Now adjust ELEMENT SPACING to match the Dimension Sheet. Since the Driven element is fixed by the “T” match block, use it as the reference for setting the position of the Reflector, to the rear. Then space all forward elements, again using the DRIVEN ELEMENT as the first reference. Dimensions given are both “running” and “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 with its Driven Element and tighten the 1/4-20 x 1” bolt.

8. Install the two gold 3/8-32 seal nuts to the two smaller female “F” connectors on the “T” match block with the black seal out. Next, attach the balun cable and tighten the connectors gently with a 7/16” end wrench or equivalent. Then run the seal nuts up against the face of the cable connectors first finger tight and then about 1/2 turn further with a 1/2” end wrench or equivalent. The balun may be coiled up or unrolled and looped toward the center of the boom. Secure balun with the nylon ties supplied (ties should be snug, but not crushing cable).

9. Locate the balance point of the antenna and mount the BOOM TO MAST PLATE there. Orient for desired polarity and secure with two 2” U-bolts, cradles, stainless lockwashers and nuts. Two 2” U-bolts are supplied for attaching the antenna to the mast.

This completes the ASSEMBLY.

Carefully designed and manufactured by:

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36-5 PARTS & HARDWARE

DESCRIPTION.....	QTY
BOOM SECTION, 2" X .058 X 84" SOE.....	2
BOOM SECTION, 2" X .058 X 42" STR.....	1
ELEMENT SECTION, 3/4" X .049 X SEE DIMENSION SHEET.....	10
ELEMENT SLEEVE, 7/8" X .058 X 30" (FOR 2" RING CLAMP).....	5
BOOM TO MAST PLATE, .188" X 4" X 6".....	1
DRIVEN ELEMENT ASSEMBLY.....	1
BALUN, RG-6.....	1
RING CLAMP, 2".....	5
U-BOLT AND CRADLE, 2".....	4
ASSEMBLY MANUAL.....	1
IN HARDWARE BAG	
SHORTING BARS, 1/2" X 1" X 4.375".....	2
NUT, 5/16-18 SS.....	8
LOCKWASHER, 5/16 SPLIT RING SS.....	8
BOLT, 1/4-20 X 2-1/2" SS.....	4
BOLT, 1/4-20 X 2-1/4" SS.....	1
BOLT, 1/4-20 X 1-3/4" SS.....	10
BOLT, 1/4-20 X 1" SS.....	5
NYLOCK NUT, 1/4-20 SS.....	19
SET SCREW, 8-32 X 1/4" SS.....	4
SCREW, 8-32 X 1-1/4" SS.....	2
LOCKNUT, 8-32 SS.....	2
SEAL NUTS, 3/8-32.....	2
NYLON TIE, 11".....	4
ALLEN WRENCH, 5/64".....	1

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