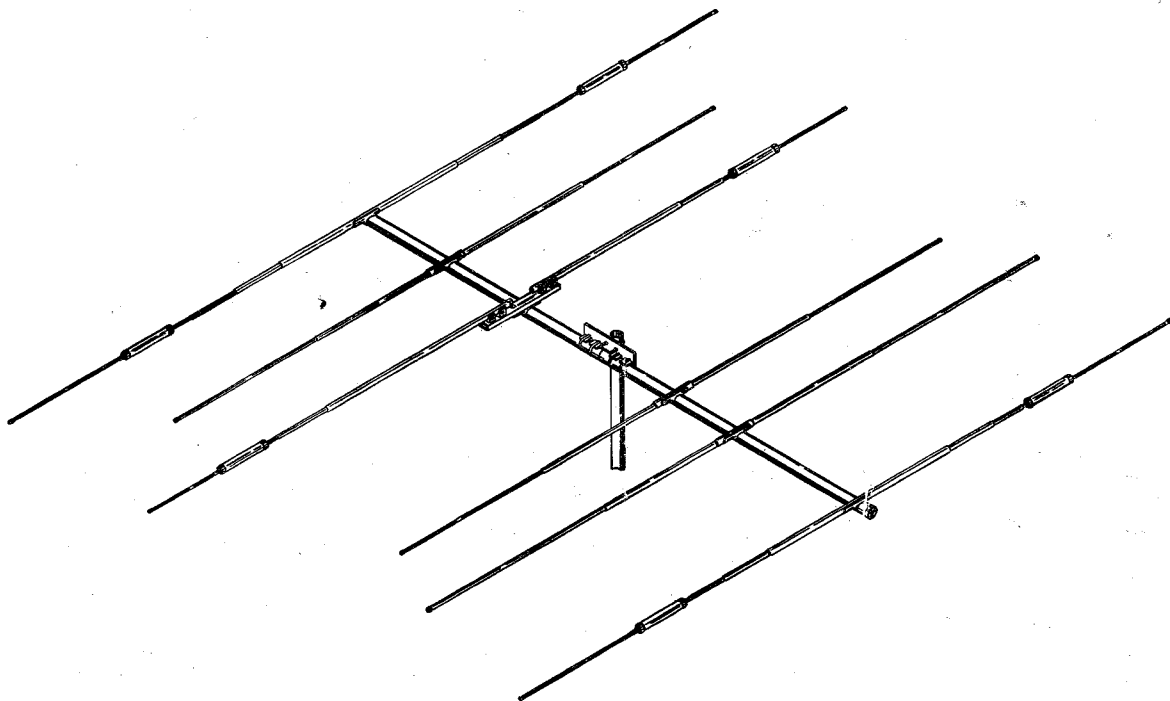


# ASSEMBLY INSTRUCTIONS FOR MOSLEY SIX ELEMENT TRI-BAND BEAM ANTENNA TRAP MASTER MODEL TA-36



*The high performance of your MOSLEY Antenna can only be achieved if the antenna is assembled in accordance with the instructions supplied. Substitution of materials or modification of design will materially lessen this performance.*

282 1/2  
18 11 1/2

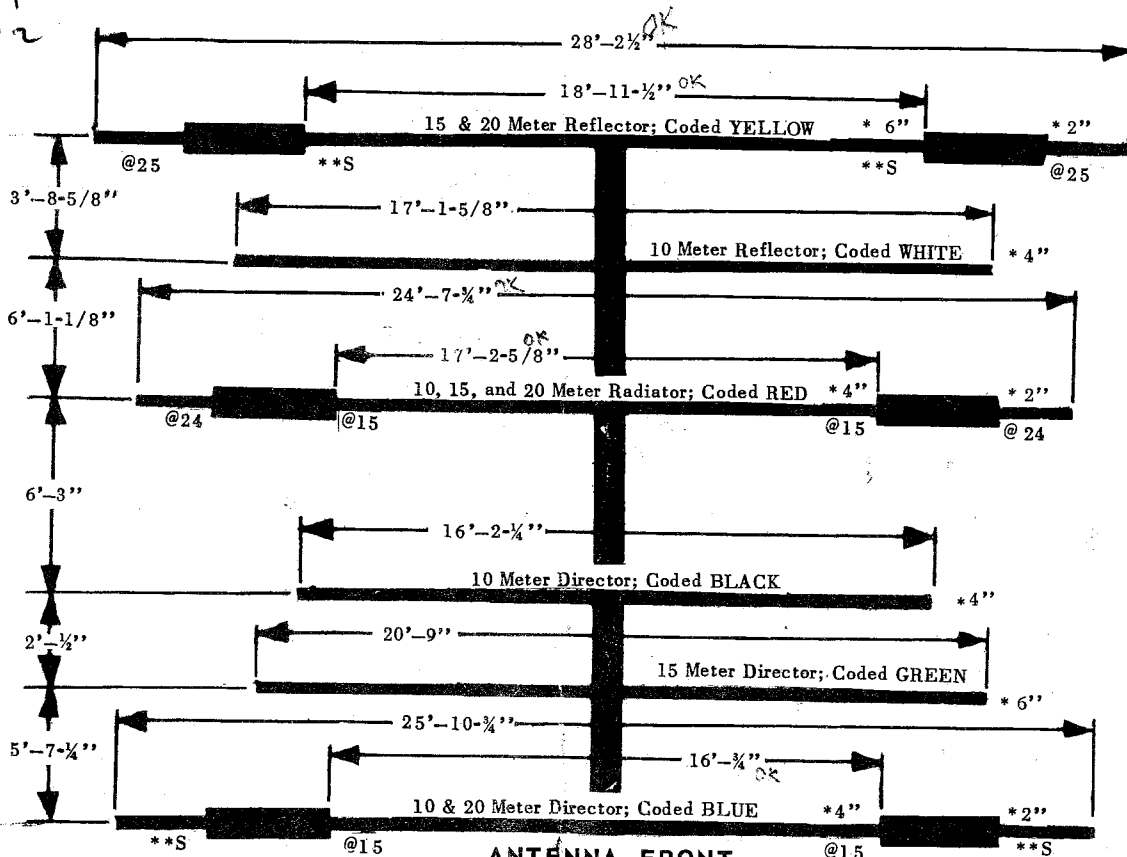
27 1 1/2  
18 11 1/2

2 19 3 1/2  
2 7

PARTS LIST

PART NO.	QUAN.	DESCRIPTION
1	1	Element Support
2	4	#4 Insulators, Plastic
3	12	#10 Lockwashers
4	8	10-32 x 1 1/4" Machine Screws
5	4	10-32 x 1 3/4" Machine Screws
6	2	1" O.D. x .058 Wall Tube-Coded RED
7	2	7/8" O.D. x .058 Wall Tube-Coded RED
8	25	#7 x 1/2" Metal Screws
9	2	Trap Assemblies-Coded RED
10	2	5/8" O.D. x .035 Wall Tube-Coded RED
11	2	Metal Caps
12	2	1" O.D. x .058 Wall-One Coded BLUE-One YELLOW
13	2	1-1/8" O.D. x .058 Wall-Factory Assembled on Part 12
14	4	7/8" O.D. x .058 Wall-Two Coded BLUE-Two YELLOW
15	4	Trap Assemblies-Two Coded YELLOW-Two BLUE
16	4	5/8" O.D. x .035 Wall-Two Coded YELLOW-Two BLUE
17	6	5/8" Caplugs
18	3	7/8" O.D. x .058 Wall-One Coded WHITE-One GREEN One BLACK- Parts 18 & 49 are factory pre-assembled.
19	3	1" O.D. x .058 Wall Tube
20	6	3/4" O.D. x .035 Wall-Two Coded WHITE-Two GREEN Two BLACK
21	6	3/4" Caplugs
22	12	5/16-18 U-Bolts
23	6	#48 Element Clamping Block
24	24	5/16" Lockwashers
25	24	5/16-18 Nuts
26	1	Boom Section-Coded YELLOW, WHITE, and RED
27	1	Boom Section-Coded BLACK, GREEN, and BLUE
28	1	1 3/4" O.D. x .058 Wall x 12" Boom Splice
29	6	#47 Clamping Blocks
30	1	1/2" x 4" x 18" Mast Plate
31	1	Ground Strap
32	1	Transformer Cable
33	2	2" Caplugs
34	12	Plastic Trap Cover-Pre-Assembled on Trap Assembly

2212



# ANTENNA FRONT

NOTE: The ARROWED dimensions above are for PHONE SETTINGS code  $\Sigma$  2.

S\*\* No trap turns

@ Number of trap turns

\* Add these figures for total overall length change for setting No. 1\*

## FREQUENCY CHART

BAND	*1 CODE MARK	$\Sigma$ 2 CODE MARKS
10 METERS	28.100	28.800
15 METERS	21.050	21.300
20 METERS	14.050	14.275
* CW		$\Sigma$ PHONE

NOTE: Do not attempt to stagger settings. Both frequency adjustments must be made for optimum performance.

Use either Code 1 or Code 2 throughout.

Handwritten calculations on the left side of the page:

44' 22 5/8" / 7/8 = 66 7/8

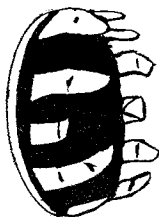
66 7/8 + 72 2/8 = 132 2/8

132 2/8 + 164 = 296 2/8

Handwritten calculations on the right side of the page:

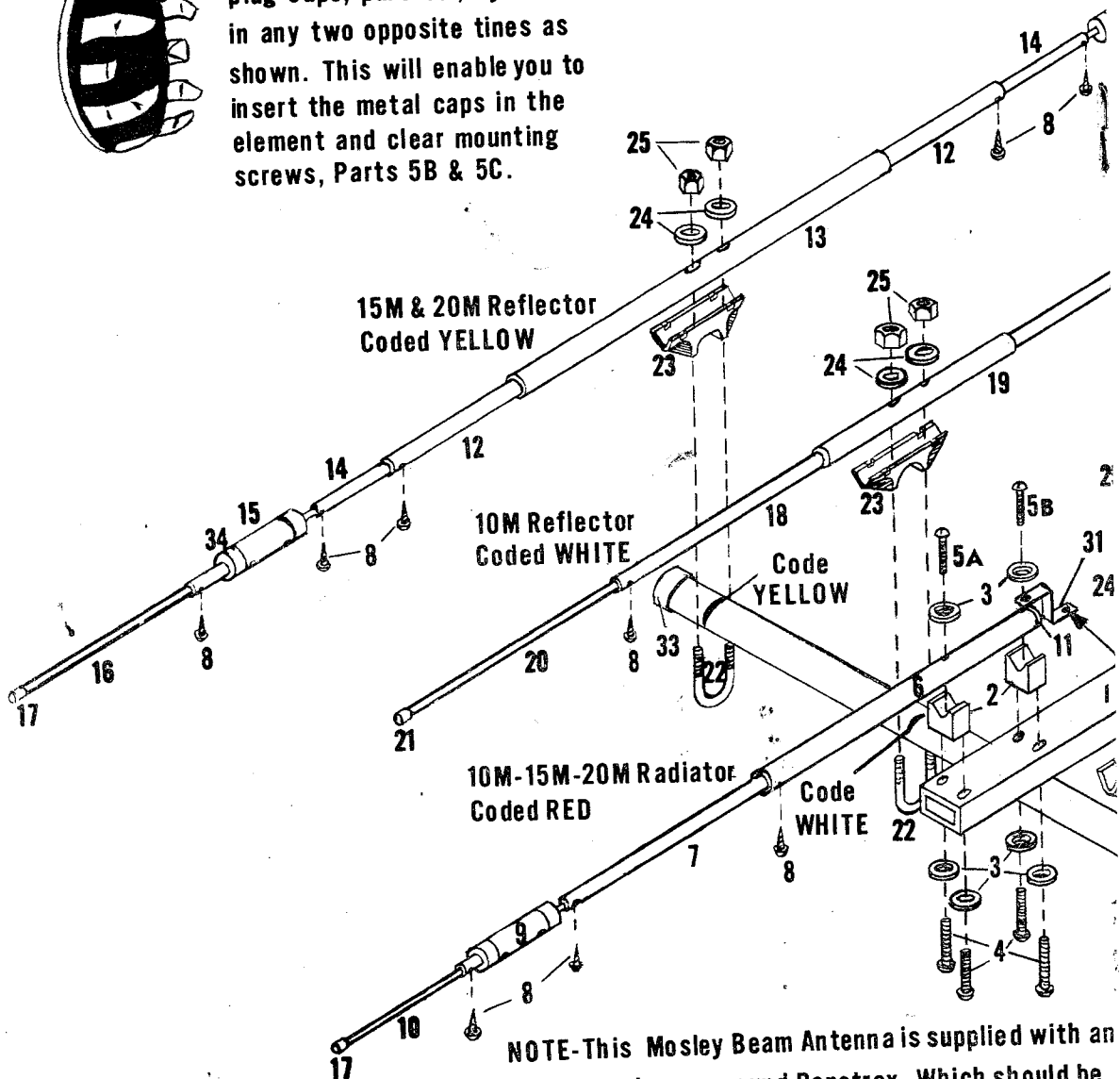
12 12 65 1/4 / 22 = 18

12 12 22 1/4 / 12 = 10 1/2



### Metal Caps

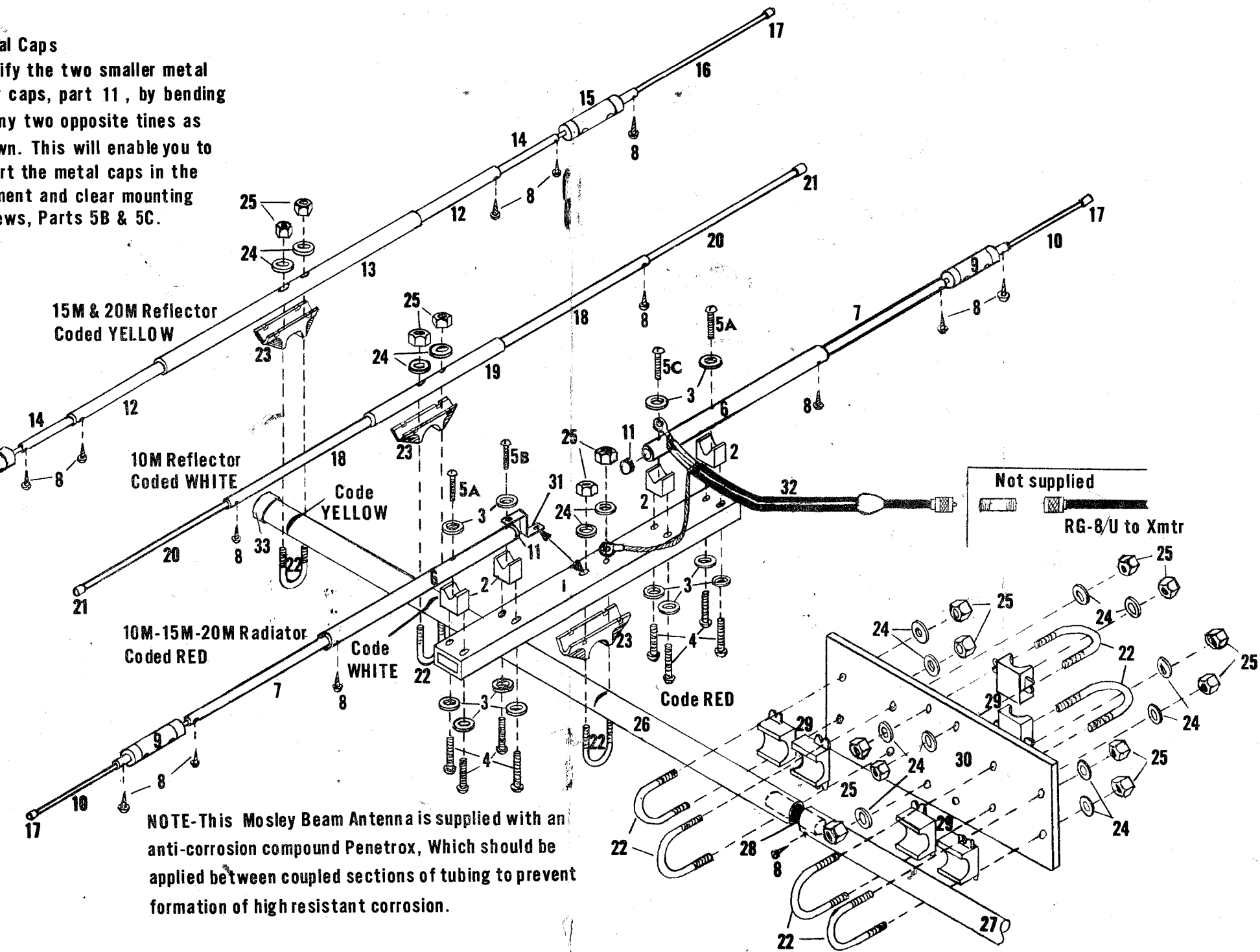
Modify the two smaller metal plug caps, part 11, by bending in any two opposite tines as shown. This will enable you to insert the metal caps in the element and clear mounting screws, Parts 5B & 5C.



**NOTE-** This Mosley Beam Antenna is supplied with an anti-corrosion compound Penetrox, Which should be applied between coupled sections of tubing to prevent formation of high resistant corrosion.

# al Caps

ify the two smaller metal  
caps, part 11, by bending  
ny two opposite times as  
wn. This will enable you to  
rt the metal caps in the  
ment and clear mounting  
ws, Parts 5B & 5C.



# ASSEMBLY

*CAUTION: Trap assemblies are color coded on one end only. This color should always be nearest the boom. Reversal of the traps will cause high VSWR and other malfunctions of the beam. READ DIRECTIONS CAREFULLY!*

Begin assembly by grouping all element and coil sections according to color code. For proper matching, use 52 ohm coax. RG-8/U is recommended.

## RADIATOR ASSEMBLY - COLOR CODED RED

Loosely install insulators (Part 2) on element support (Part 1) with lockwashers and screws (Parts-3 & 4). Place element section (Part 6) into "V" of insulators (Part 2) so that screw hole on RED coded end is facing DOWN. This is necessary to assure proper position of coil assemblies, which are provided with breather holes and should face DOWN. Insert screw (Part 5B) through lockwasher (Part 3), small hole in one end of ground strap (Part 31), element (Part 6) and into insulator (Part-2). Insert screws (Parts 5A) through lockwashers (Part 3) and element (Part 6) and into insulators (Part 2). Insert screw (Part 5C) through lockwasher (Part 3), solder lug on center conductor of transformer cable (Part 32), element (Part 6) and into insulator (Part 2). Tighten all screws on radiator support. Insert RED coded end of element section (Part 7) into corresponding end of element (Part 6). Align holes according to frequency chart and secure with screws (Part 8). Insert RED coded end of trap assembly (Part 9) into element (Part 7) and secure with screws (Part 8). Insert RED coded end of element extensions (Part 10) into trap assembly (Part 9). Align holes according to frequency chart and secure with screws (Part 8). Press caplug (Part 17) on ends of element extensions (Part 10) & metal caps (Part 11) into inside ends of radiator element (Part 6).

## 15 & 20 METER REFLECTOR ASSEMBLY-COLOR CODED YELLOW

Element sections (Part 12) are factory pre-assembled. Insert coded end of element section (Part 14), coded YELLOW into element section (Part 12), coded YELLOW. Align holes according to frequency chart and secure with screws (Part 8). Insert YELLOW coded end of trap assemblies (Part 15) into element sections (Part 14) and secure with screws (Part 8). Insert YELLOW coded element section (Part 16) into trap assembly (Part 15). Align holes according to frequency chart and secure with screws (Part 8). Press caplugs (Part 17) over ends of element extensions (Part 16).

## 10 METER REFLECTOR-COLOR CODED WHITE

Element sections (Part 18 & 19) are factory pre-assembled. Insert coded end of element extension (Part 20) coded WHITE into element (Part 18), coded WHITE. Align holes according to frequency chart and secure with screws (Part 8). Press small caplug (Part 21) over ends of elements (Part 20).

## ASSEMBLY INSTRUCTIONS (CONT.)

### 10 METER DIRECTOR-COLOR CODED BLACK

Assemble in same manner as 10 meter reflector using BLACK elements in place of WHITE.

### 15 METER DIRECTOR-COLOR CODED GREEN

Assemble in same manner as 10 meter reflector using GREEN elements in place of WHITE.

### 10 & 20 METER DIRECTOR-COLOR CODED BLUE

Assemble in same manner as 15 and 20 meter reflector using BLUE elements in place of YELLOW

### BOOM ASSEMBLY

Boom assembly consists of three parts, 2 boom sections and a boom splice. Insert end of boom splice (Part 28) with screw hole into end of boom (Part 27) with pre-drilled hole. Secure with screw (Part 8). Insert remaining section of boom splice into RED coded end of boom section (Part 26).

### BOOM TO MAST PLATE ASSEMBLY

Center the boom (Parts 26 & 27) on the mast plate (Part 30). Place the clamping blocks (Part 29) between mast plate (Part 30) and boom. Place U-Bolts (Part 22) around boom, through ears of clamping blocks (Part 29) and into mast plate (Part 30) and secure with lockwashers and nuts (Parts 24 & 25) as shown in illustration. After all four U-Bolts and clamping blocks are assembled to boom and mast plate, tighten securely.

### REFLECTOR ASSEMBLY TO BOOM-COLOR CODED YELLOW

Place clamping block (Part 23) over YELLOW code mark on boom (Part 26). Place assembled reflector element on clamping block (Part 23) so that the breather holes in traps are facing DOWN as shown in illustration. Place U-Bolt (Part 22) around boom, through clamping block (Part 23) and element (Part 12 & 13). Secure with lockwasher and nuts (Parts 24 & 25).

### ASSEMBLY OF ALL REMAINING PARASITIC ELEMENTS TO BOOM

All parasitic elements coded WHITE, BLACK, GREEN, and BLUE are assembled to the boom in the same manner as the 15 & 20 meter reflector coded YELLOW. Make sure all screws and breather holes are facing DOWN and elements are located on the boom at their indicated position according to color code. Check to see that all elements are on the same plane.

### RADIATOR ASSEMBLY TO BOOM-COLOR CODED RED

Place clamping block (Part 23) over RED code mark on boom (Part 26). Place U-Bolt (Part 22) around boom (Part 26), through clamping block (Part 23), and radiator element support (Part 1). Place large hole of grounding strap (Part 31) over closest leg of U-Bolt and secure with lockwasher and nut (Part 24 & 25). Place large solder lug which is on the end of the shield of the transformer cable (Part 32) over the opposite leg of the U-Bolt and secure with lockwasher and nut (Part 24 & 25).

Press caplugs (Part 33) over end of boom (Parts 26 & 27). A package of MOSLEY ANTENNA COAT has been included with this antenna. After antenna has been assembled, spray or brush antenna coat over entire unit before mounting on mast.

BE SURE ANTENNA COAT DOES NOT PREVENT GOOD ELECTRICAL CONTACT BETWEEN BOOM AND MAST.

Mast clamping blocks (Part 29) are designed to accommodate 2" O.D. tubing or 1½" I.D. pipe

RF CHOKE: 5 TURNS @ 6" D.

TA36 Matching  
Transformer  
47" total length.

Includes two 3"  
pigtaills for driven  
element. Is a  
coaxial balun  
Driver is 25W

The logo consists of a black oval shape. Inside the oval, the word "MOSLEY" is written in a stylized, white, sans-serif font. The letters are bold and slightly italicized, with the "M" and "S" being particularly prominent.

key

*NOTE: To order replacement parts from instruction sheet, refer to form No. and part No.*

**M·E·I**\_\_\_\_\_

MOSLEY ELECTRONICS, INCORPORATED  
4610 North Lindbergh Boulevard  
Bridgeton, Missouri, 63044.