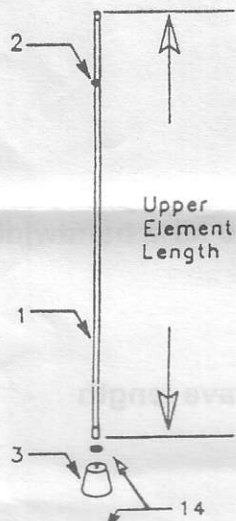


# TRAM<sup>®</sup> Model 1400 VHF

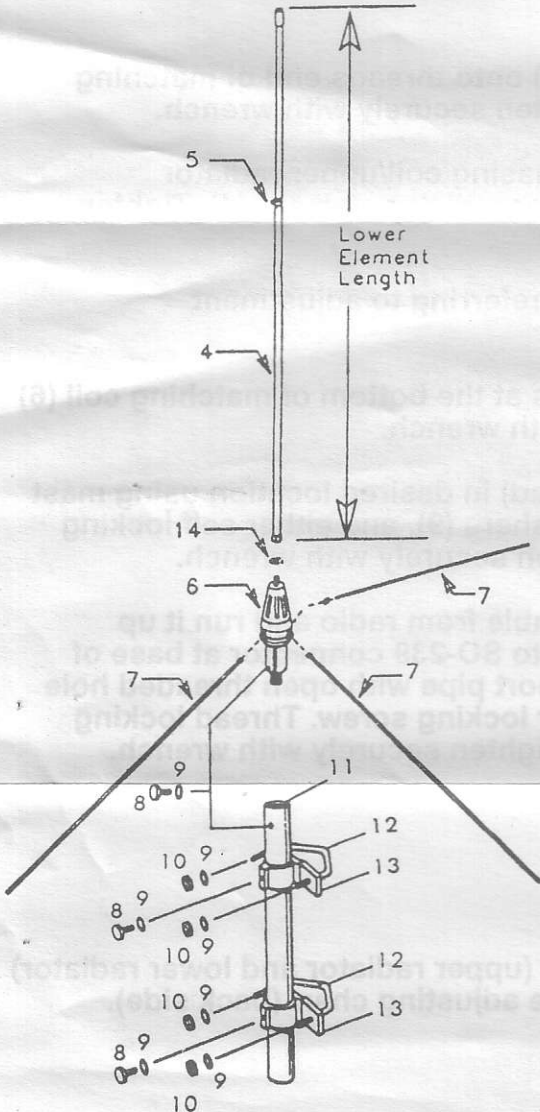


## PARTS LIST

REF#	DESCRIPTION	QTY
1	Upper radiator element	1
2	Upper section clamp	1
3	Phasing coil	1
4	Lower radiator element	1
5	Lower section clamp	1
6	Matching Coil	1
7	Radial element w/ lock nut	3
8	Locking screw	3
9	Lock washer	7
10	Nut	4
11	Support pipe	1
12	V-bolt	2
13	Bracket	2
14	3/8" spring washer	3

## ADJUSTING CHART

FREQUENCY MHz	UPPER ELEMENT LENGTH		LOWER ELEMENT LENGTH	
	INCH	MM	INCH	MM
135-139	55 1/8	1400	61 3/8	1560
140-144	53 3/4	1365	58 7/16	1485
144-148	52 3/8	1330	55 7/8	1420
149-153	51 3/8	1305	53 1/8	1350
154-158	50 9/16	1285	50 13/16	1290
158-162	49 1/2	1257	48 13/16	1240
162-166	48	1220	46 7/8	1190
166-170	47 1/16	1195	44 1/2	1130
170-174	45 1/4	1150	42 1/2	1080



Edmond, OK 73083 USA



Model 1400 VHF

## ALUMINUM OMNI BASE STATION ANTENNA

### Specifications:

GAIN	6 dBd
VSWR	Less than 1.5:1 over a 10 MHz bandwidth at any frequency setting
FREQUENCY	135 - 174 MHz
POLARIZATION	Vertical
IMPEDANCE	50 Ohm
CONFIGURATION	Grounded 5/8 over 5/8 wave length
POWER CAPACITY	200 Watts
CONNECTOR	UHF Female (SO-239)

### Assembly:

1. Refer to drawing (back side). Install spring washer (14) onto threads end of matching coil (6) and screw into lower radiator element (4). Tighten securely with wrench.
2. Install spring washer (14) onto threads at bottom of phasing coil/upper radiator element assembly (1 and 3) and screw into top of lower radiator element (4). Tighten securely with wrench.
3. Adjust length of elements for desired frequency band referring to adjustment instructions below and cutting chart (back side).
4. Screw the three radial elements (7) into threaded holes at the bottom of matching coil (6) and finger tighten. Securely by tightening lock nuts with wrench.
5. Secure support pipe (11) to mounting pole (not included) in desired location using mast brackets (13), v-bolts (12), locking screws (8), lock washers (9), and either self locking nuts or nuts (10) and lock washers (9) supplied. Tighten securely with wrench.
6. Install PL-259 connector (not included) onto coaxial cable from radio and run it up through support pipe (11) and screw PL-259 tightly onto SO-239 connector at base of matching coil (6). Lower assembled antenna into support pipe with open threaded hole turned so that it will align with hole in support pipe for locking screw. Thread locking screw (8) with lock washer (9) installed into hole and tighten securely with wrench.

### Adjustment:

Loosen the screw of clamp (2 and 5) on each element (upper radiator and lower radiator) and slide the radiator to length frequency shown in the adjusting chart (back side). Tighten the clamp securely.

Tram-Browning, Inc.  
PO Box 5056  
Edmond, OK 73083 USA