

High Performance, Heavy Duty, Omni Base Station Antenna

Model
ASP-600
SERIES

- **Rugged** — heavy duty construction for maximum strength and long life
- **Field Proven** — thousands in service providing years of long reliable performance
- **High Performance** — end-fed half wavelength design produces low-angle, unity gain radiation pattern for maximum system range
- **Field Tunable** — available in three models to cover entire 25-50 MHz range

SPECIFICATIONS

Electrical

Power	500 watts maximum
Gain	Unity
Frequency Range	25-30 MHz (ASPA600); 30-40 MHz (ASPB600); 40-50 MHz (ASPC600)
Bandwidth	3% (nominal) of operating frequency
VSWR	Less than 1.5:1
Impedance	50 ohms nominal
Vertical Beamwidth	77 degrees
Lightning Protection	dc ground through support pipe
Termination	SO-239 (accept: PL-259)
Transformer	Space-wound, fiber glass reinforced

Mechanical

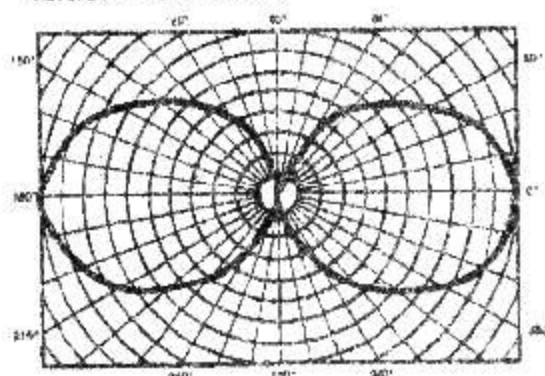
Rated Wind Velocity	ASPA600: 63 mi/h (101 km/h) at 25 MHz ASPB600: 92 mi/h (148 km/h) at 30 MHz ASPC600: 100 mi/h (161 km/h) at 40 MHz
Lateral Thrust	ASPA600: 50.8 lb (23.1 kg) at rated wind of 74 mi/h (119 km/h) at 25 MHz ASPB600: 68.96 lb (31.3 kg) at rated wind of 92 mi/h (148 km/h) at 30 MHz ASPC600: 67.0 lb (30.4 kg) at rated wind of 100 mi/h (161 km/h) at 40 MHz
Bending Moment	ASPA600: 386.3 ft-lb (53.5 kg-m) at rated wind of 74 mi/h (119 km/h) at 25 MHz ASPB600: 464.9 ft-lb (64.3 kg-m) at rated wind of 92 mi/h (148 km/h) at 30 MHz ASPC600: 356 ft-lb (49.2 kg-m) at rated wind of 100 mi/h (161 km/h) at 40 MHz
Equivalent Flat Plate Area	ASPA600: 2.25 ft ² (0.21 m ²) at 25 MHz ASPB600: 2.01 ft ² (0.19 m ²) at 30 MHz ASPC600: 1.67 ft ² (0.16 m ²) at 40 MHz
Length	236 to 296 inches (6 to 7.5 m) adjustable (ASPA600) 178 to 255 inches (4.5 to 6.5 m) adjustable (ASPB600) 139 to 186 inches (3.5 to 4.7 m) adjustable (ASPC600)
Weight	16 lb (7.3 kg)
Mounting	1 1/4 inch (31.8 mm) extra strong pipe to comply with RS-329, threaded 1 1/4 inch (31.8 mm) NPT (not furnished)*

Shipping Information

Weight	20 lb (9 kg)
Dimensions	3 1/2 x 5 1/4 x 79 inches (8.4 x 12.9 x 200.7 cm)

*See Catalog sections for mounting brackets, coaxial cable, connectors and other materials required for complete installation.

Vertical Field Pattern



Internal matching transformer

BASE

JEFF

**1/2 WAVE LOW-BAND
VERTICALLY POLARIZED
OMNI-DIRECTIONAL
ANTENNA**

ASPC 600

25-30 MHz

30-40 MHz

40-50 MHz

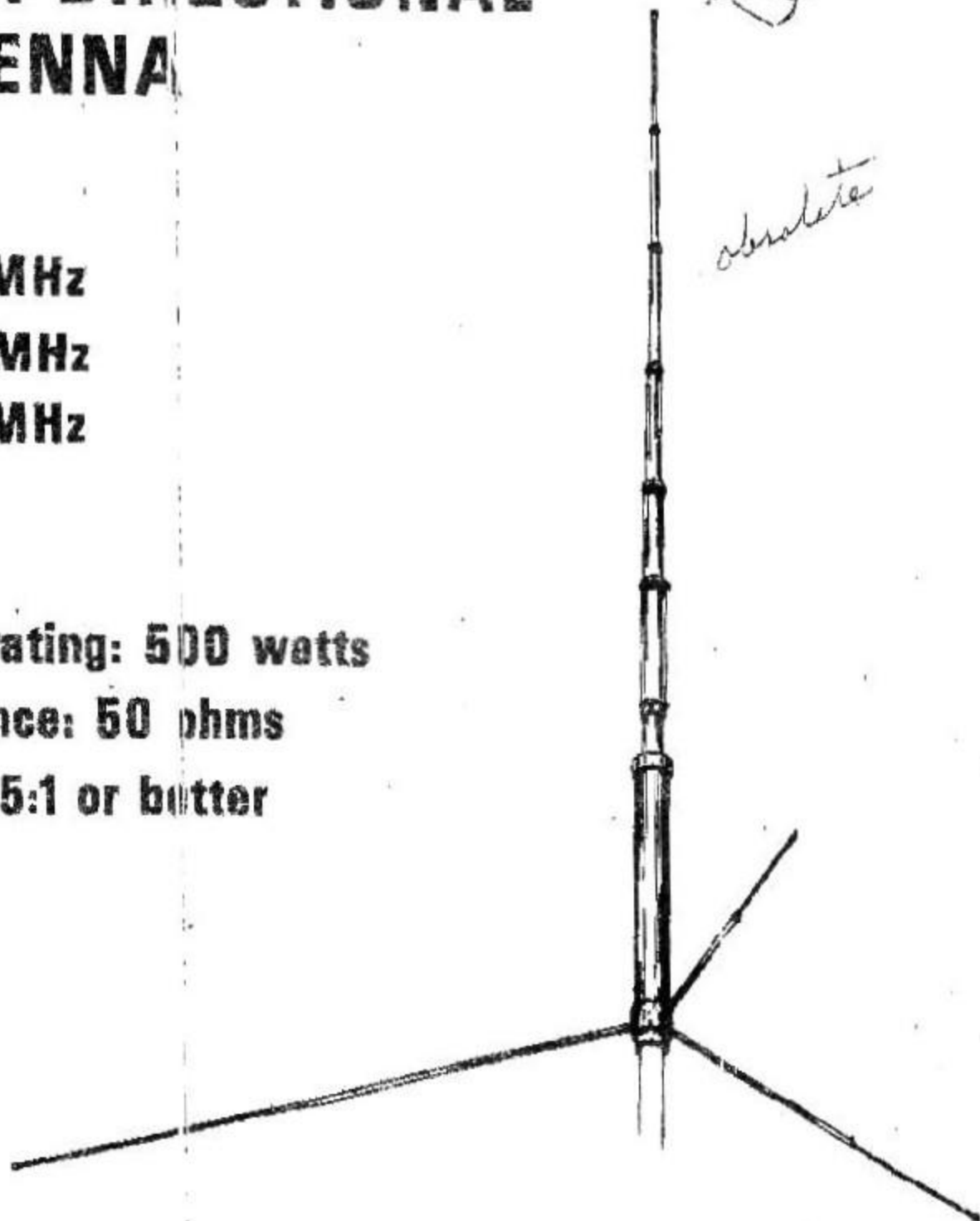
power rating: 500 watts

impedance: 50 ohms

VSWR: 1.5:1 or better

Decibel

absolute



ASSEMBLY INSTRUCTIONS

1. Assemble radiator onto hub and tube assembly as shown in Fig. 1.

NOTE: The overall length of the radiator and the number of tubes it contains varies with each frequency range. Consult chart below for correct radiator, hub and radial assemblies.

FREQUENCY	RADIATOR	HUB & TUBE ASSEMBLY	RADIAL 3 Req'd.
25-30 MHz	19B1713-1	19C1714-1	19B1710-1
30-40 MHz	19B1713-2	19C1714-2	19B1710-2
40-50 MHz	19B1713-3	19C1714-3	19B1710-2

2. Adjust radiator (collapse largest tubes first), to length shown on proper chart. Use chart corresponding to frequency range stamped on the hub only.

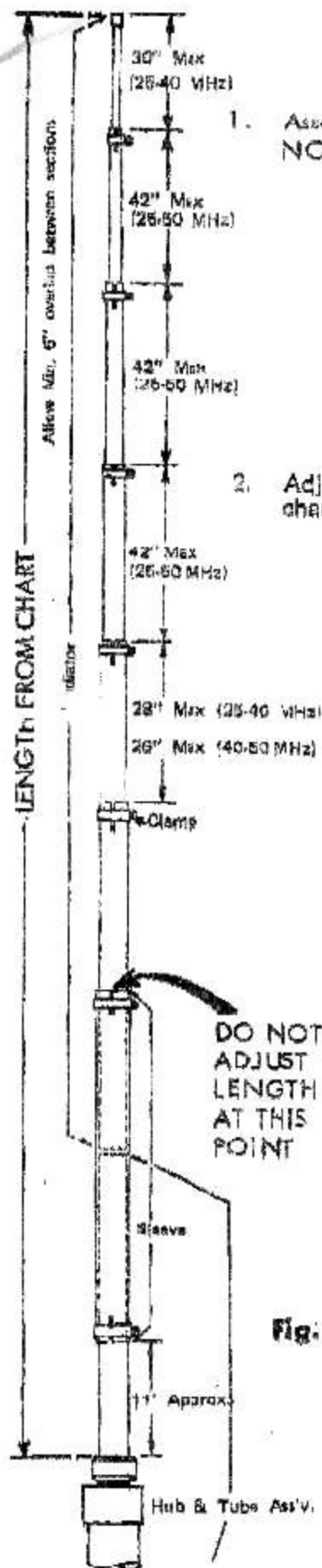
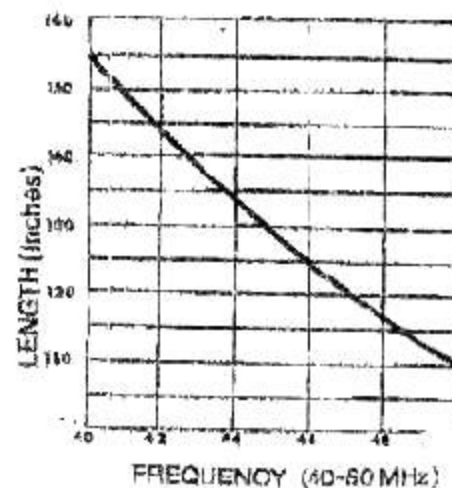
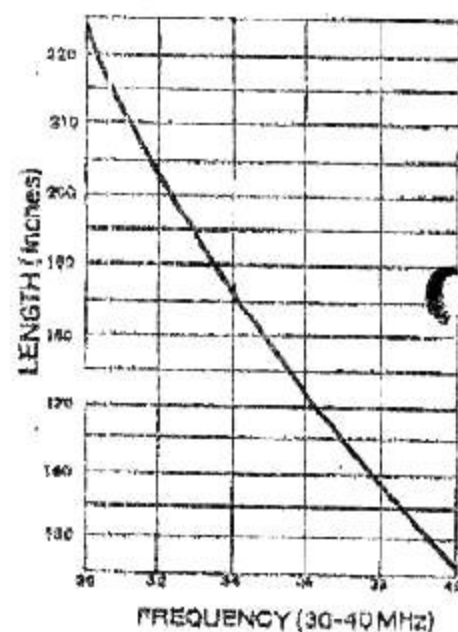
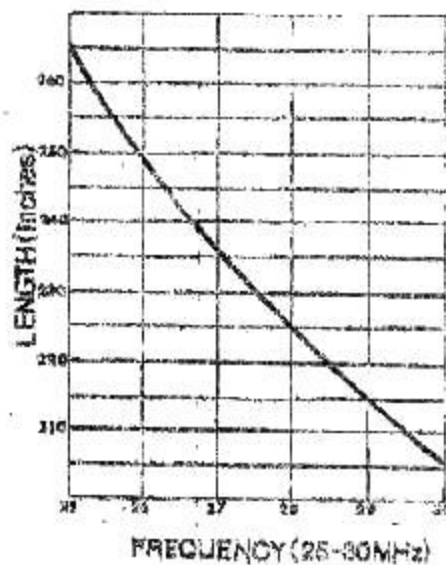
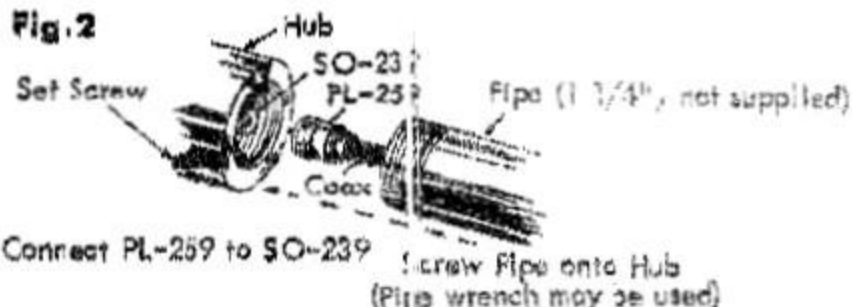


Fig. 1



3. Thread cable through pipe. (Use heavy wall 1 1/4" pipe with standard pipe thread. Pipe and cable are not supplied with the antenna.) Cable must have PL-259 connector on the antenna end. Use 50 ohm cable such as RG-8/U or "hardline" with short flexible "pig-tail" at the antenna end for long runs.
4. Connect cable to antenna and secure pipe onto hub as shown in Fig. 2. Silicone grease may be used on all threaded portions of the antenna to retard corrosion and ease disassembly.

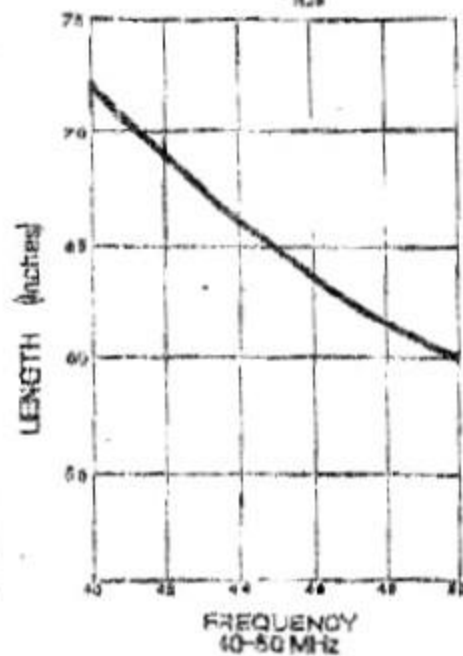
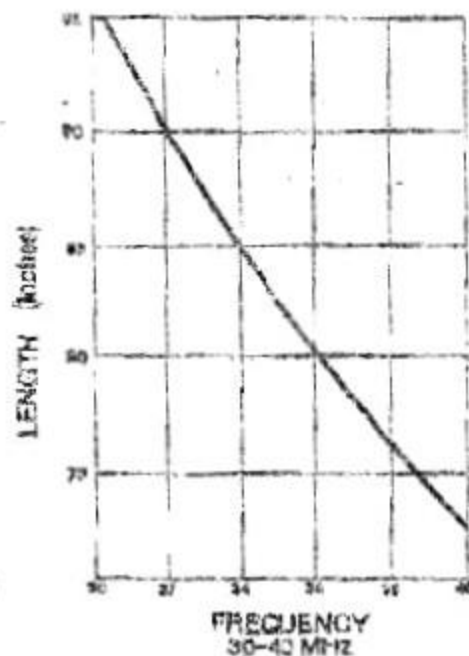
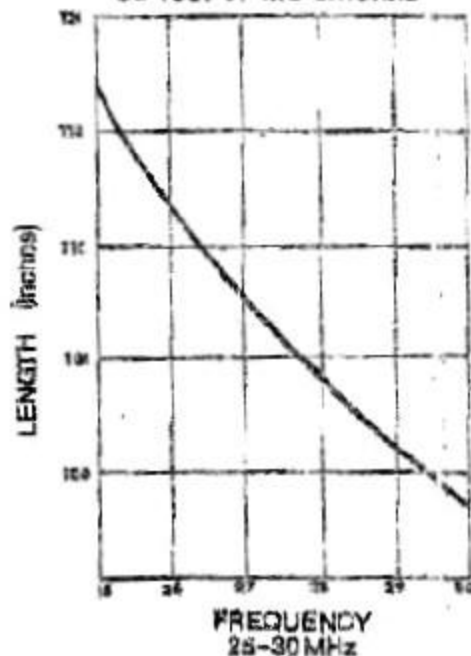
Fig.2



Tighten Set Screw to secure the pipe. Avoid damage to pipe threads—do not overtighten.

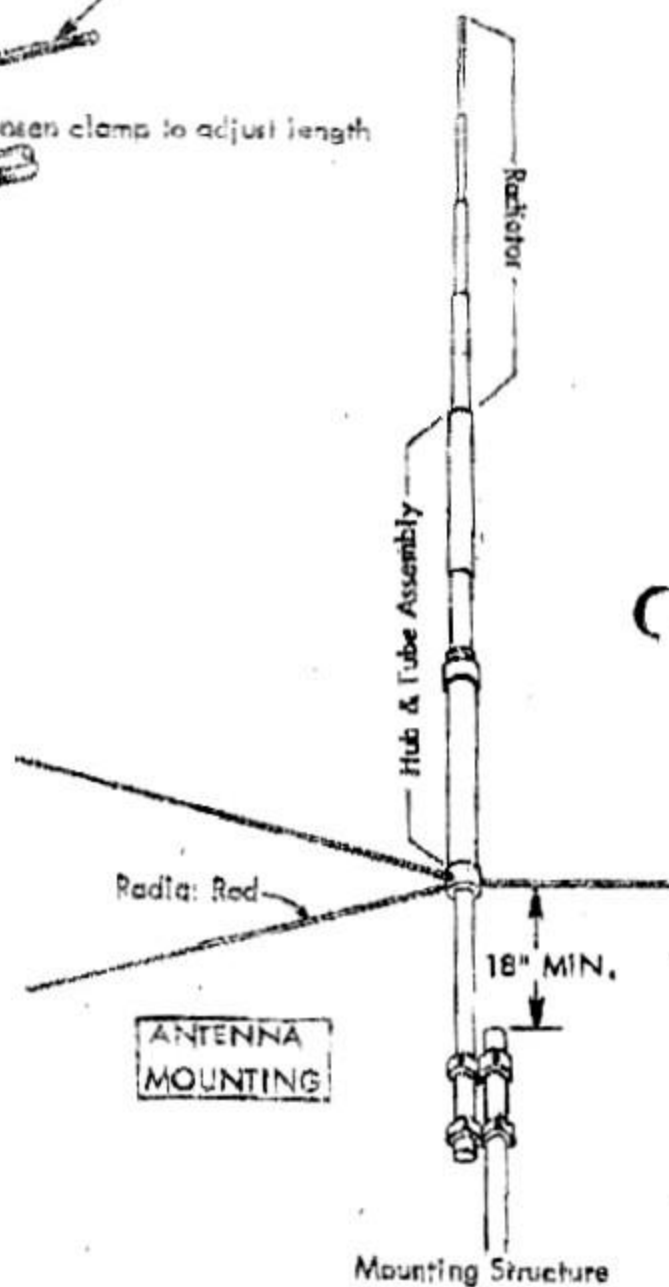
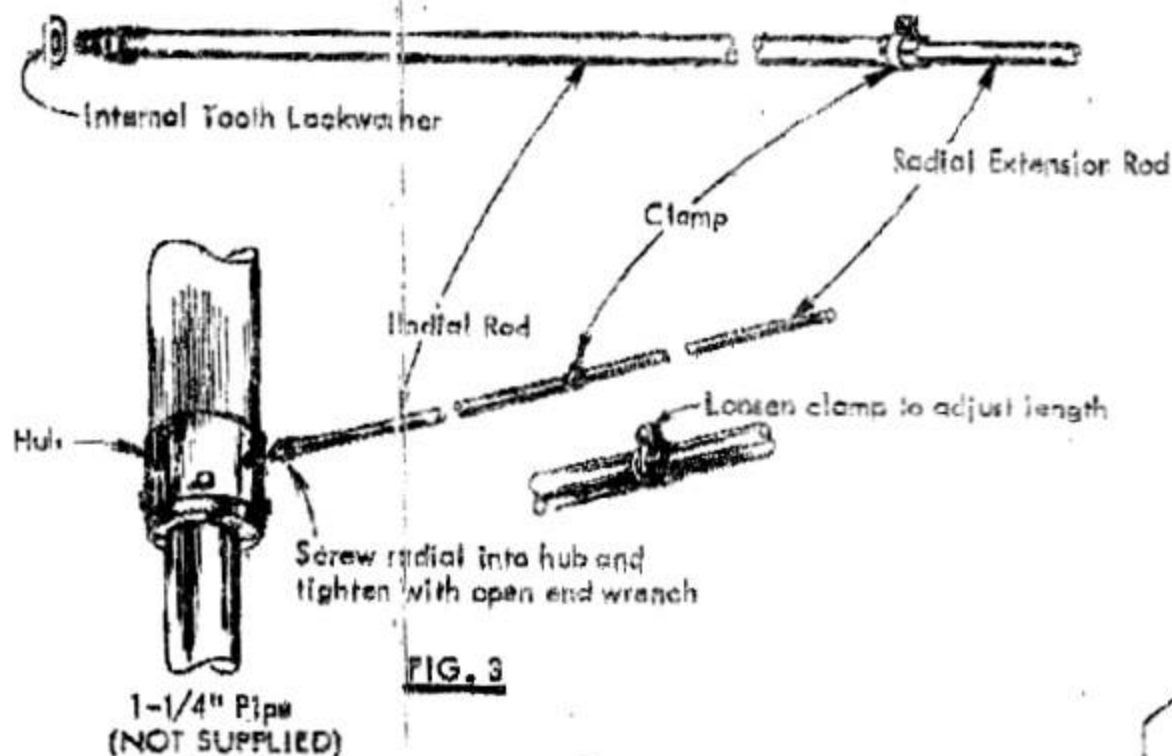


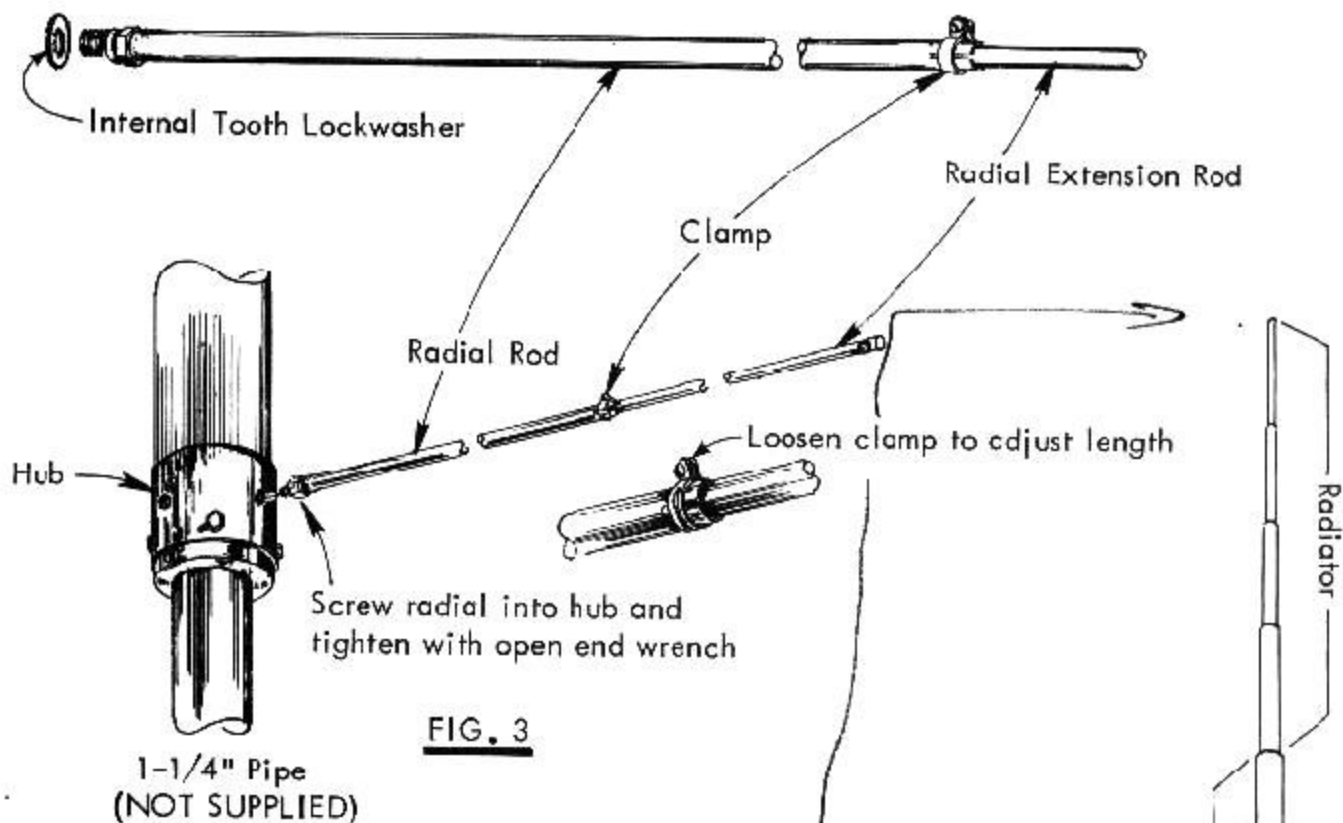
5. Following the corresponding chart below, adjust radials to required length.
- NOTE: The lengths shown on the charts are approximate. For finer tuning, an RF wattmeter may be used. Attach radials to the antenna and place it in a vertical position. Adjust radiator and/or radials slightly until best VSWR is reached. While adjusting, make sure no objects are within 50 feet of the antenna.



6. Mount the antenna and attach the radials. (See Fig. 3 on back page)
7. Route cable from antenna to set. Secure cable to eliminate strain on connectors. Re-check VSWR.

THIS IS A SHUNT-FED ANTENNA AND WILL SHOW A DC SHORT FROM GROUND TO THE RADIATOR OR COAX CENTER CONDUCTOR.





45 = 130" RADATOR TO COLLET
MHZ

45 MHZ = 65" →

