

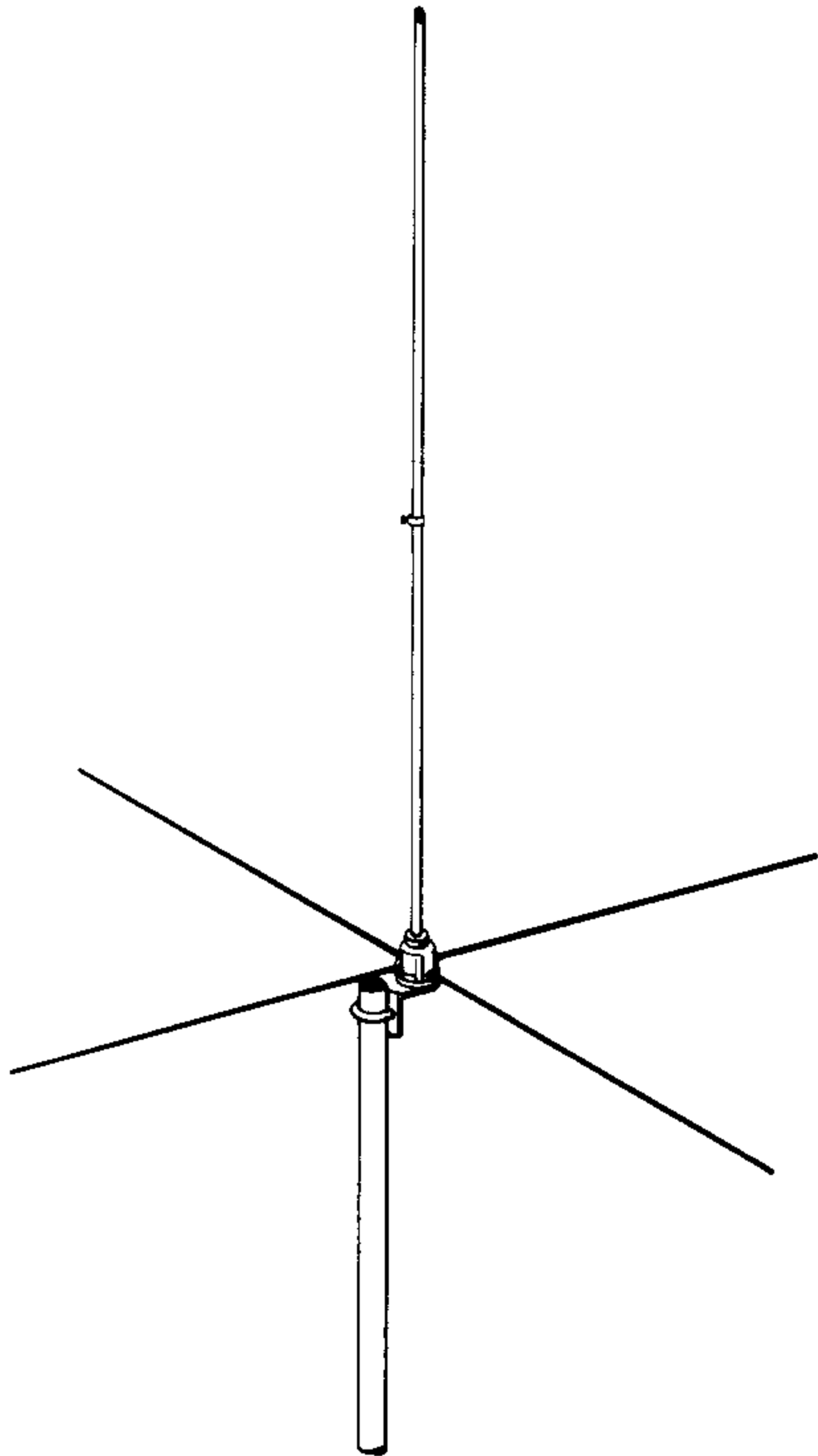
**INSTRUCTION  
 MANUAL**

**ORDER NO. 338**

**Model GPG-2A, 5/8 Wave  
 Ground Plane for 142-168 MHz**

PN 801491

A0-0338-B-001



**Parts List**

Part No.	Description	Qty
871674	GPG-2 base assembly w/lower assembly .....	1
173938	GPG-2 radials .....	4
175030	3/8" x 28 <sup>9</sup> / <sub>16</sub> " radiator upper .....	1
871675	Parts Pack .....	1
455655	3/8" caplug .....	1
543792	U-bolt, 5/16" .....	1
556945	nut, 5/16", hex, jam .....	2
556970	nut, #10, hex .....	10
567075	lockwasher, 5/16", internal .....	2
567125	lockwasher, #10, internal .....	9
165123	1/2" ID compression clamp .....	1
555362	nut, #10 square .....	2
506520	#10 x 3/8" screw, round head .....	2

**Figure 1. Overall View**

**General Description**

The Model GPG-2A is a 5/8 wave gain ground plane which covers the frequency range of 142-168 MHz. The design is optimized for maximum performance in the 2-meter Amateur band (144-148 MHz).

The GPG-2A, when tuned for a specific frequency within 142-168 MHz, will have a VSWR resonance of less than 1.4:1. Typical VSWR at resonance within the 2-meter Amateur band is less than 1.2:1. The 2:1 VSWR bandwidth is greater than 4 MHz.

This antenna is designed to be fed with any standard 52 ohm coaxial cable, but for runs over 50 feet, RG-8/u is recommended because of its lower losses and higher power handling capability.

**Assembly**

- ( ) Unpack the antenna and check the parts against the parts list and drawings.
- ( ) Remove the two screws that are placed through the base insulator assembly to hold it to the bracket and install the four radials as shown in Figures 1 and 2.
- ( ) Insert the 3/8" x 28<sup>9</sup>/<sub>16</sub>" radiator into the top of the lower radiator.

( ) Assemble the  $\frac{1}{2}$ " compression clamp and slide it into position on the  $\frac{7}{16}$ " tube. See Figures 2 and 3.

( ) Adjust the total length of the radiator to the dimension shown in Figure 4 for the frequency you wish to use. Tighten the compression clamp securely.

( ) Place the  $\frac{3}{8}$ " caplug on the top of the  $\frac{3}{8}$ " radiator.

( ) Make sure the radials are positioned as shown in Figure 1 and tighten securely.

( ) Attach the antenna to a  $1\frac{5}{8}$ " mast (not supplied) using the U-bolt supplied.

**NOTE:** If the input terminals are checked with an ohmmeter, they will show a direct short. THIS IS NORMAL! The matching device in the antenna base puts the entire structure at DC ground but presents 52 ohm impedance to rf energy.

( ) For proper lightning protection and to insure noise-free operation, the antenna supporting structure must be grounded.

AO 0338 B 002

A0-0338-A-003

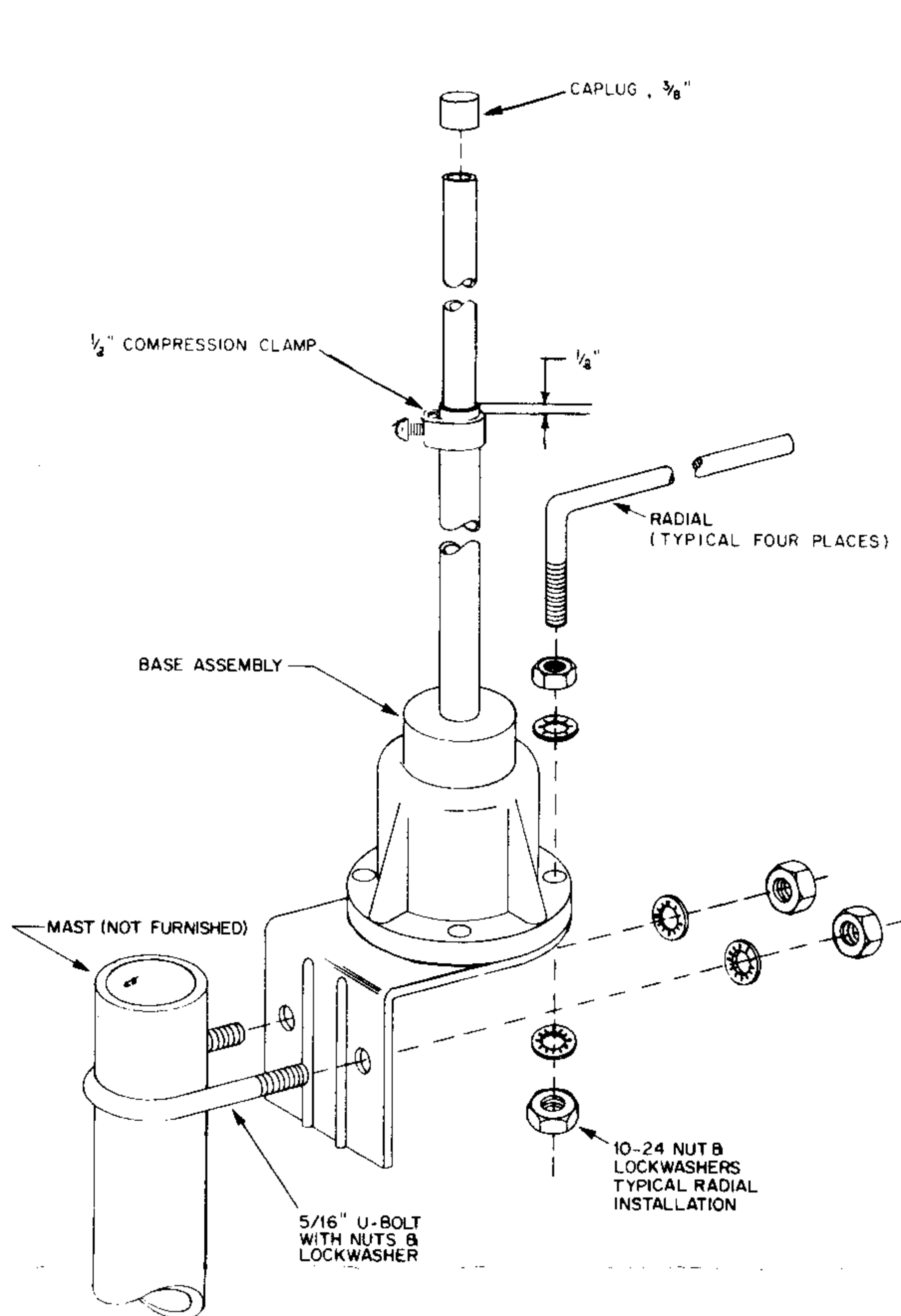


Figure 2. Assembly Detail

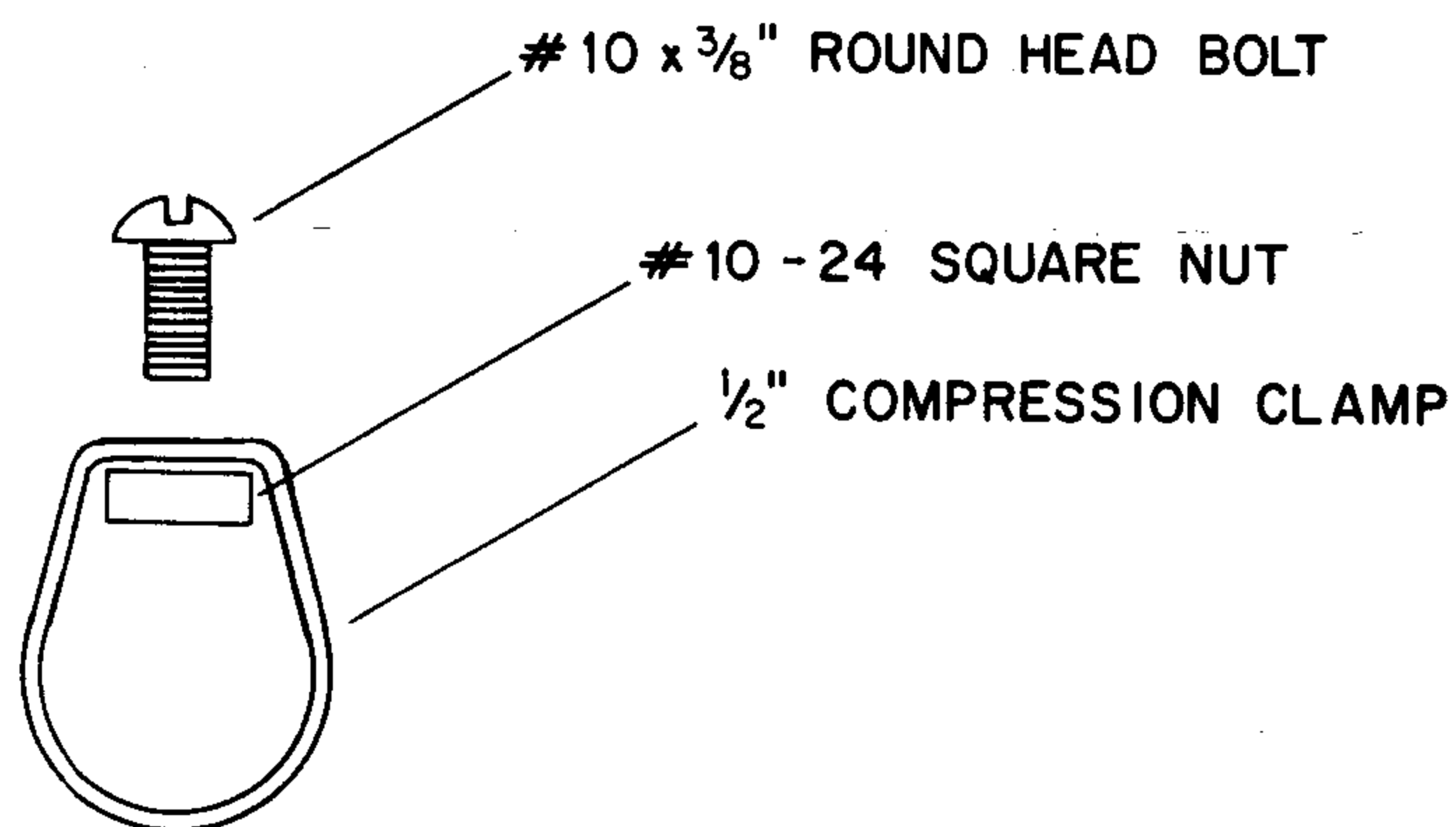


Figure 3

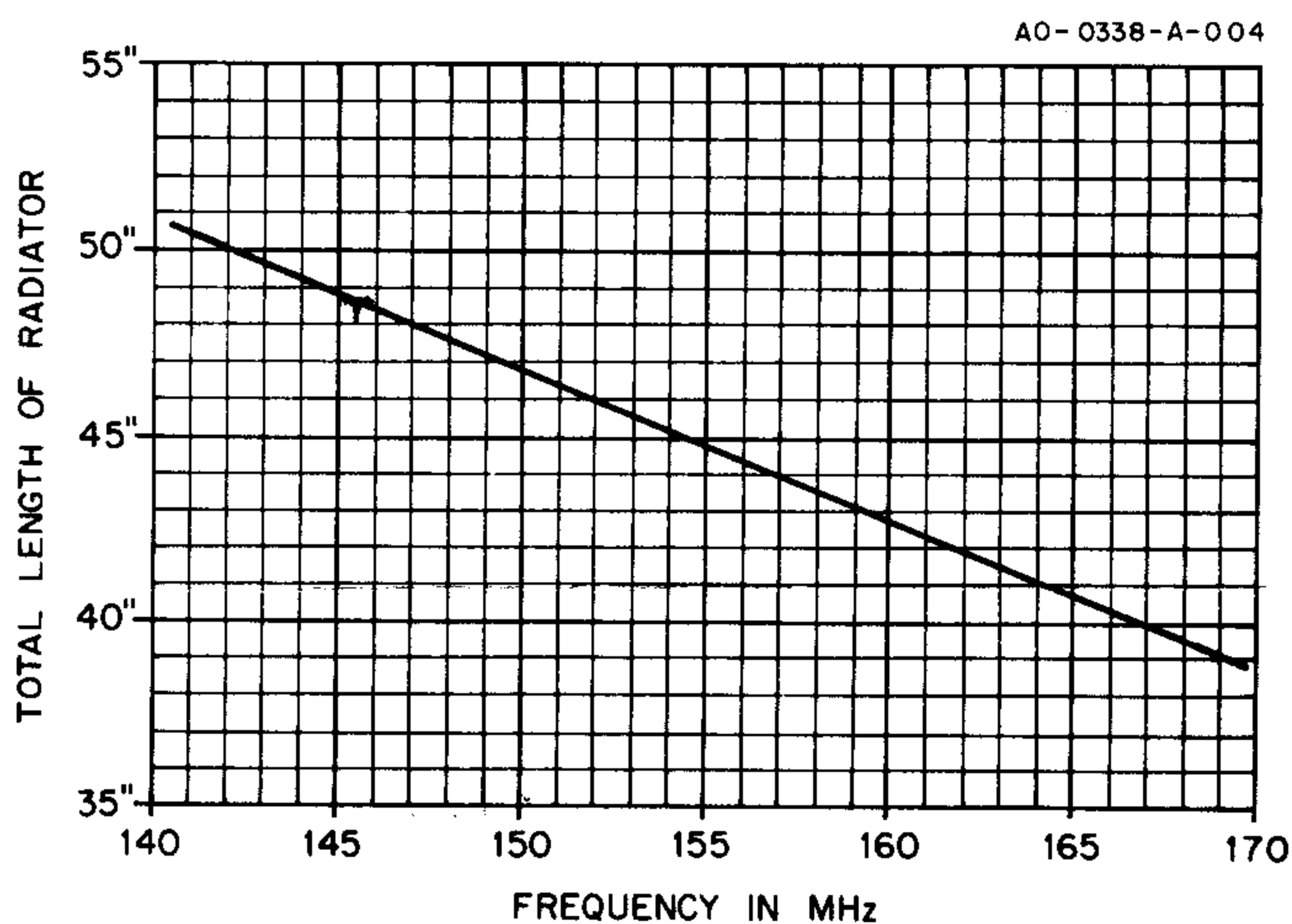


Figure 4  
Frequency Adjustment Chart

**CAUTION**

*Do not rotate the base insulator when orienting radials. Breakage of wire can occur.*