# INSTRUCTION MANUAL for

# Model WVG-Mk2



### GENERAL DESCRIPTION:

The Model WVG-Mk 2 is a trapless vertical which is manually tuned to any band, 10 thru 80 meters, by a simple adjustment of the feed point on the base inductor. It is designed to be fed with 52 ohm coax and is amazingly efficient for DX or local contracts.

The antenna is self-supporting and can survive winds in excess of 50 MPH. It is highly portable and knocks down to an overall length of 5 feet.

#### FEEDLINE:

Use 52 ohm coaxial cable (RG-8/U preferably) and attach to the antenna as shown in figures #2, #5 and #7. Once the coax has been attached be sure to seal it from moisture using Krylon, Neoprene or some similar substance.

#### ASSEMBI V

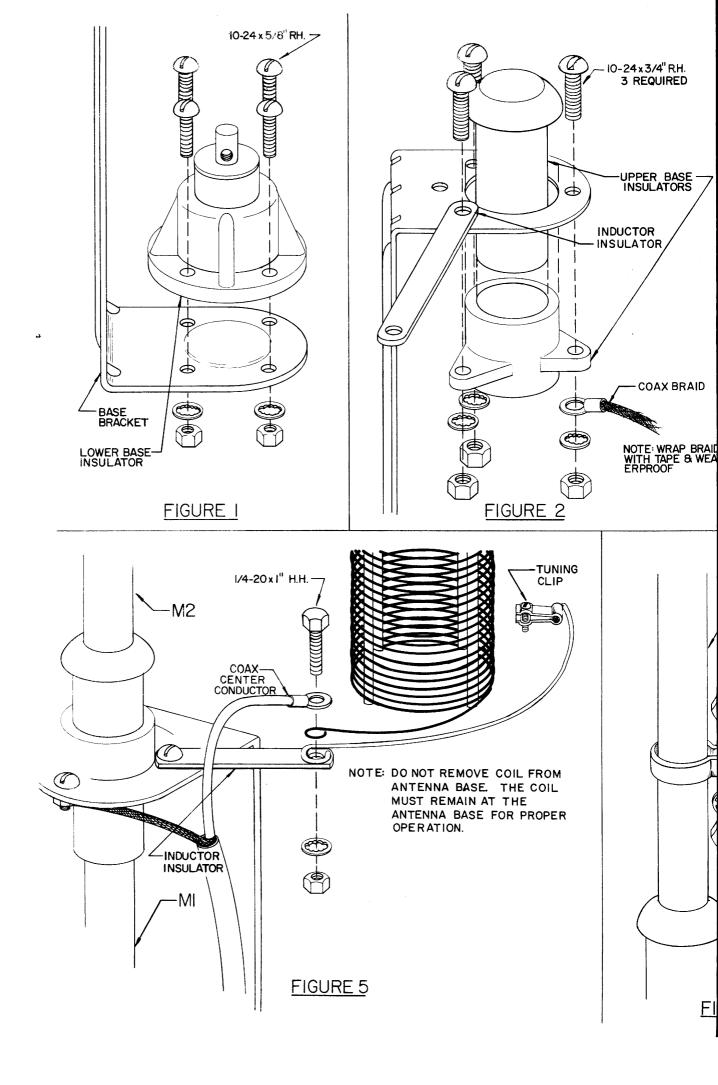
- ( ) Select the base bracket and the lower base insulator and install as shown in figure #1.
- () Select the two upper base insulators and the base inductor insulator strap and install as shown in figure #2.

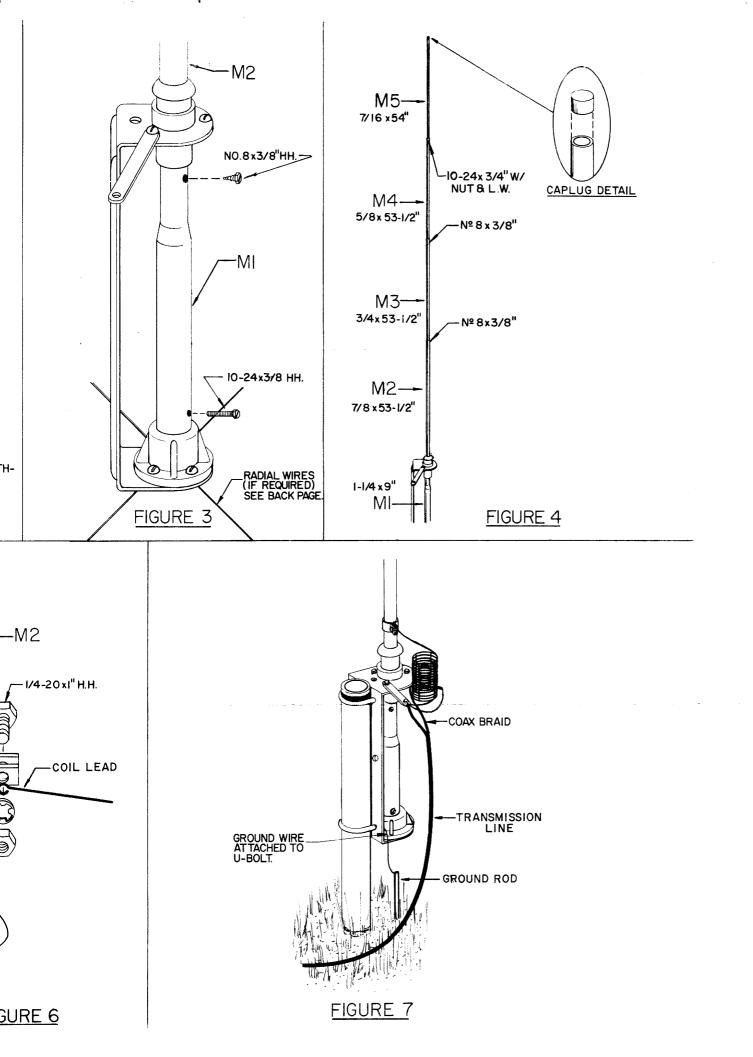
NOTE - Coax braid must also be installed as shown.

- () Select the M1 section of tubing (1 1/4") and slip it through the upper base insulators and down over the top of the lower base insulator. Align the hole in the base of the M1 section of tubing with the hole in the lower base insulator as shown in figure #3. Place a screw in the hole and tighten securely.
- () Select the M2 section (7/8 x 53 1/2") and slip the end with the smallest drilled hole into the M1 section. Align the holes and fasten with #8 metal screws as shown in Figure 4.
- () Select the M3 section ( $3/4 \times 53 \ 1/2$ ") and slip the unswaged end into the M2 section. Align the holes and fasten with #8 metal screws.
- () Select the M4 section ( $5/8 \times 53 \text{ 1/4''}$ ) and slip the unswaged end into the M3 section. Align the holes and fasten with #8 metal screws.
- () Select the M5 section (7/16 x 54") and slip the drilled end into the M4 section. Align the holes and fasten with a  $10-24 \times 3/4$ " screw, nut and lockwasher.
- ( ) Place a  $7/16^{\prime\prime}$  caplug on the end of the antenna.
- () Now select the base inductor coil, the tuning clip and the short length of wire. Install as shown in figure #5

NOTE - Coax center conductor must also be connected as shown in figure #5.

( ) Attach the top lead of the base inductor just above the M1 section as shown in figure #6.





#### OPERATION:

Attach the coax to your transmitter. The tuning clip is then attached to the base inductor and tightened securely. The chart below shows an approximate setting, when counting the turns count from the top of the coil. The unused turns below the clip are automatically shorted out to allow you to operate the antenna at full legal power output without overheating the base inductor with RF energy.

The chart below should be reasonably close, but due to different mounting locations, different soil conductivity and other variations in your individual installation the exact match is best determined by using an SWR bridge with your transmitter and tapping for the lowest SWR. The figures shown in the chart are for ground mounting only. Due to the variations in the length of the ground wire it is impossible to provide a chart for elevated mountings.

NOTE: COUNTALL TURNS INDICATED BELOW AS COMPLETE TURNS OF THE COIL FROM THE TOP. NONE INDICATES ATTACHMENT OF TUNING CLIP ABOVE TURNS OF COIL						
SETTING	IOMETER	15METER	20METER	40METER	80METER	
PHONE	2-1/2	NONE	NONE	8-5/8	22-1/2	
CW	3	NONE	NONE	9	25-1/2	

NOTE - Connect tuning clip right at clamp connection on M2 section when number of turns indicated in NONE.

#### GROUND MOUNTING:

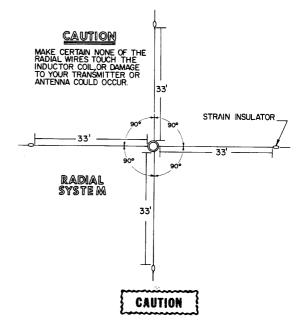
Drive a 3 foot piece of pipe (such as 1 1/4" plumbers pipe) into the ground and attach the antenna as shown in figure #7. Drive an eight foot copperclad steel ground rod into the ground. Attach the ground rod to the base using #10 wire. Remember a vertical antenna is only as good as the ground system it is working over. The better the ground system, the better your antenna will work. If difficulty is experienced try adding 2 or 3 more ground rods about the antenna base and attach each with a separate wire.

## ELEVATED MOUNTING:

The WVG-Mk 2 can be mounted alongside the house on a short mast or on top of the roof using a short mast section. WHEN MOUNTING ABOVE THE GROUND YOU MUST USE A RADIAL SYSTEM AS SHOWN.

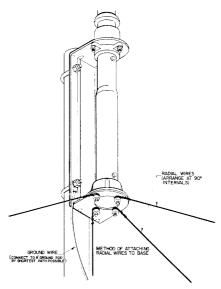
This radial system should then be grounded to an earth ground by the shortest path possible. Also, do not change the mounting point of the base inductor. Mount it only as shown inside this manual.

Form No. 914HG5/28/66



Make certain none of the radial wires touch the inductor coil or damage to your transmitter or antenna could occur

The radials can be constructed of either copper or aluminum wire. The recommended method of installing the radials is to attach them to the screws at the bottom of the base assembly. The 33 foot dimension is measured from the base assembly to the strain insulator.



PARTS LIST

Description	Qty
M1, 1 1/4"	1
M2, $7/8 \times 53 \cdot 1/2$ "	1
M3, 3/4 x 53 1/2"	1
M4, $5/8 \times 53 \ 1/4$ "	1
M5, 7/16 x 54"	1
Base Bracket	1
Base Inductor	1
Instruction Manual	1
Parts Package	1
	M1, 1 1/4" M2, 7/8 x 53 1/2" M3, 3/4 x 53 1/2" M4, 5/8 x 53 1/4" M5, 7/16 x 54" Base Bracket Base Inductor Instruction Manual