



WARNING NOTICE DANGER !!!



CAUTION:

TAKE CARE TO AVOID ANY CONTACT WITH
OVERHEAD POWERLINES WHEN RAISING,
INSTALLING, OR REPAIRING YOUR
ANTENNA, TOWER, OR ROTOR.

DEATH WILL OCCUR!



Installing and rigging towers, masts and antennas require specialized skills and experience. Information supplied by Wilson assumes that all products will be installed by personnel having these skills and have installed similar products before. No one should attempt to install towers or masts without these knowledgeable skills.

Wilson assumes no liability if faulty or dangerous installation practices are used. There are available, trained, and experienced personnel to assist in installation, maintenance, or disassembly. Contact your local installer if consultation or assistance is required.

All tower and antenna installations should be thoroughly inspected at least twice a year by qualified, experienced, and trained personnel to insure proper performance and safety standards.

ELECTRICAL WARNING

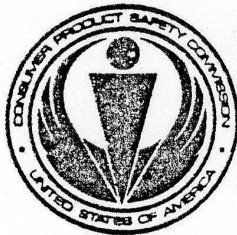
An additional warning precaution is given to be careful of surrounding high voltage power wires, and other electrical hazards during the installation of your tower, rotor, or antenna.

Do not erect an antenna, tower, or rotor during an electrical storm, rainstorm, or when lightning is a possibility.



Wilson Electronics Corp.

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FACT SHEET

U.S. CONSUMER PRODUCT SAFETY COMMISSION
WASHINGTON, D. C. 20207

NO. 88: ANTENNA ELECTROCUTIONS

The U.S. Consumer Product Safety Commission has received reports of several electrocutions that occurred when metal antennas — radios, television, and citizens' band radio — touched overhead power lines. At the time of the accident, the victim was holding the metal antenna for installation or removal, and the electric current flowed from the power line through the conductive metal to the victim.

The following example shows how such an accident can occur:

DON CLIMBED UP A METAL LADDER TO HIS ROOF CARRYING A TV ANTENNA HE WAS GOING TO INSTALL. AS HE REACHED THE TOP OF THE LADDER, A STRONG WIND BLEW THE TOP OF THE ANTENNA HE WAS HOLDING INTO THE POWER LINE LEADING INTO THE HOUSE, AND DON WAS ELECTROCUTED.

Most residential power lines carry in excess of 2000 volts AC to transformers located in residential areas. The wires that carry electricity from these transformers to houses carry 240 or 120 volts AC. Any of these quantities of electrical current are powerful enough to kill.

Many persons mistake high voltage electric power lines for relatively low voltage telephone lines, since both are strung on poles. Power lines are usually 18-25 feet above ground in residential areas. Since the power and telephone wires may be difficult to distinguish, *avoid touching ANY wires going above or into your house.*

Don't assume power lines are insulated; most high voltage wires are not insulated. In addition weathering and years of use can cause any insulation to degrade, peel or crack, and therefore not be effective protection against shock.

High voltage power lines or the lines going from the transformer into the house can shock a person who is electrically grounded (i.e., directly or indirectly in contact with the earth to which all electricity flows) if he touches the wires with a metal object. The following conditions, however, *increase* the likelihood of electrocution and should be avoided:

1. Moisture.

Wet or sweaty feet and hands, in particular, decrease the body's resistance to electric current. To provide better insulation against shock, wear rubber boots or rubber-soled shoes when working around power lines.

2. Metal.

Touching a grounded metal ladder or gutter while holding an antenna against a power line turns the body into an excellent path of electrical current. The current can flow from the power line to the antenna, through the body, through the metal ladder or gutter, and finally to ground. Metal ladders 20 to 30 feet high also can inadvertently touch overhead power lines and provide a path for the electricity to flow through the person holding the ladder. It is suggested that you use wooden or fiberglass ladders when working around electrical wires.

3. Wind.

The wind can blow the antenna into a nearby power line. Don't install or remove antennas in moderate or heavy winds.

EMERGENCY AID FOR SHOCK

It is advisable to work with another person when installing or removing antennas. If your partner does receive a shock, don't touch him since his body could conduct the electricity to you; instead, try to pry or pull him away from the source of electricity with a length of dry wood, rope, a blanket, or another *non-metallic* object.

If breathing has stopped, use mouth-to-mouth resuscitation until the doctor or ambulance arrives and relieves you. If the heart has stopped, closed-chest cardiac massage must be done simultaneously. The ambulance should be informed when called that an electric shock has occurred; it can bring proper equipment such as an intensive care or cardiac care mobile unit equipped with a heart defibrillator and carrying trained personnel.

For more information about electrical safety around the home, see the Commission's fact sheet No. 62 *Electrical Products*.

To report a product hazard or a product-related injury, write to the U.S. Consumer Product Safety Commission, Washington, D.C. 20207. In the continental United States, call the toll-free hotline 800-638-2666. Maryland residents only, call 800-492-2937.

January 1976

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ASSEMBLY INSTRUCTIONS

10, 15, 20 and
40 Meters

WV-1
Vertical Trap Antenna



Wilson Electronics Corp.

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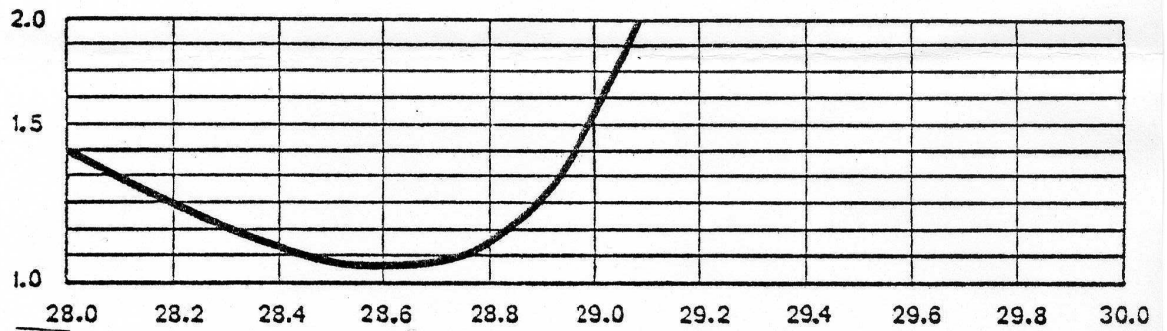
WV-1

10, 15, 20, 40 METER VERTICAL TRAP ANTENNA

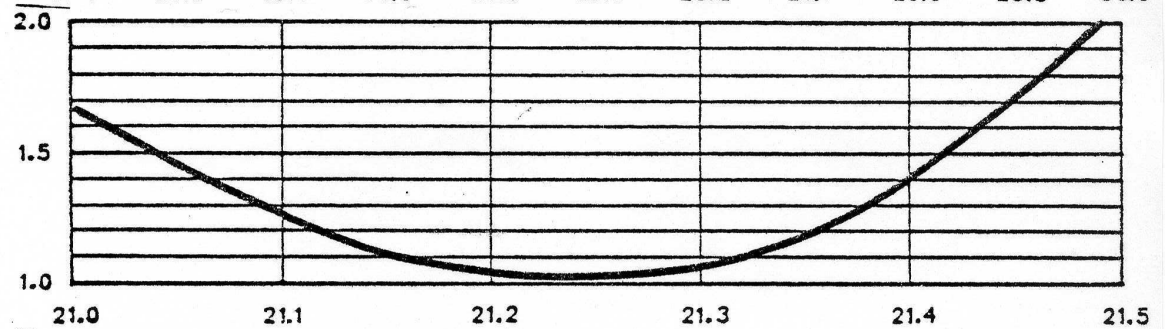
| | | | |
|---------------------|------------|------------------------|--------------|
| Band MHz | 7-14-21-28 | Mast Diameter | 2" |
| Maximum Power Input | 2 kw PEP | Surface Area | 1.24 Sq. Ft. |
| VSWR (at resonance) | 1.1:1 | Wind Loading at 78 MPH | 32 Lbs. |
| Impedance | 50 ohms | Assembled Weight | 10 Lbs. |
| Overall Height | 19' 8" | Shipping Weight | 14 Lbs. |

TYPICAL S.W.R. CURVE

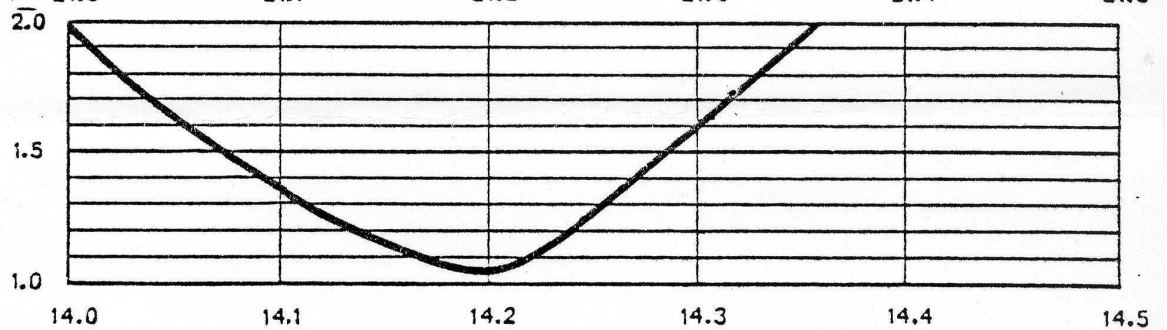
10
METER



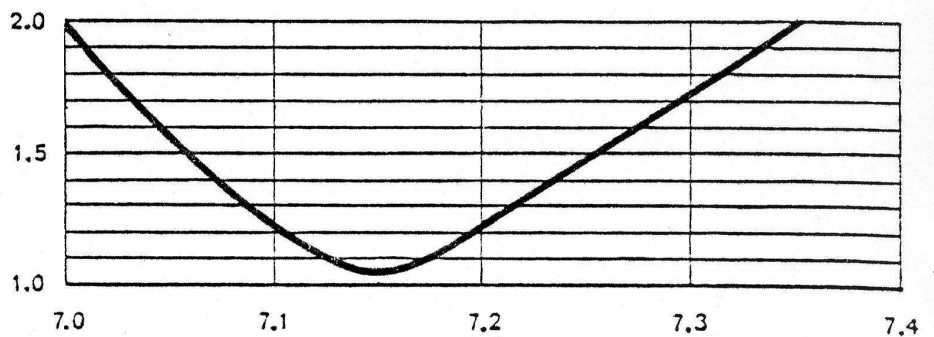
15
METER



20
METER



40
METER



PARTS LIST

WV-1 VERTICAL

| <u>PART</u> | <u>QTY.</u> | <u>O.D.</u> | <u>SIZE</u> | <u>LENGTH</u> | <u>DESCRIPTION</u> | <u>CHECK LIST</u> |
|-------------|-------------|-------------|-------------|---------------|--|-------------------|
| T74P | 1 | 1 1/2" | .047" | 72" | Alum. Tubing Swaged And Slotted One End to Accept 1 1/8" O.D. Tubing, Two Holes At Other End | _____ |
| T75P | 1 | 1 1/8" | .047" | 36" | Alum. Tubing Swaged And Slotted One End To Accept 3/4" O.D. Tubing | _____ |
| T76P | 1 | 7/8" | .047" | 28" | Alum. Tubing Slotted Both Ends | _____ |
| T77P | 1 | 7/8" | .047" | 48" | Alum. Tubing Swaged And Slotted One End To Accept 5/8" O.D. Tubing, Slotted Other End | _____ |
| T78P | 1 | 5/8" | .047" | 36" | Alum. Tubing | _____ |
| BA2P | 1 | | | | Base Assembly | _____ |
| TA4P | 1 | | | | 21 & 28 MHz Trap Assembly | _____ |
| TA5P | 1 | | | | 14 MHz Trap Assembly | _____ |

HARDWARE BAG

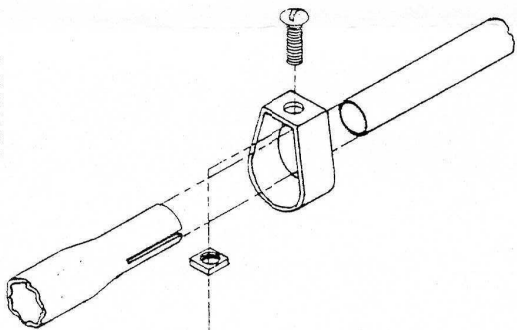
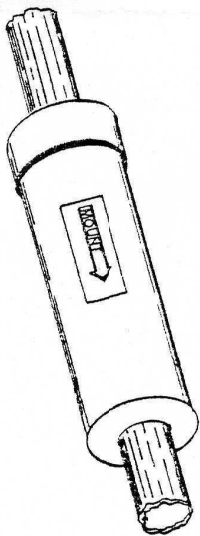
| | | | | | | |
|------|---|--|--------|------|----------------------|-------|
| UO1 | 2 | | 2" | | Plated U-Bolts | _____ |
| SO1 | 2 | | 2" | | Plated Saddles | _____ |
| NO1 | 4 | | 5/16" | | Hex Nuts | _____ |
| NO2 | 4 | | 5/16" | | Lockwashers | _____ |
| S27 | 6 | | 12-24 | 1/2" | Machine Screws | _____ |
| N13 | 6 | | 12-24 | | Square Nuts | _____ |
| PL3 | 1 | | 5/8" | | Plastic Cap - Black | _____ |
| W14P | 1 | | 1 1/4" | | Extruded Alum. Clamp | _____ |
| W78P | 4 | | 7/8" | | Extruded Alum. Camp | _____ |
| W34P | 1 | | 3/4" | | Extruded Alum. Camp | _____ |
| S21 | 2 | | 10-24 | 1/2" | Machine Screws | _____ |
| N12 | 2 | | No. 10 | | Lockwashers | _____ |

RADIAL KIT RK-1 IS AVAILABLE AS AN OPTION.

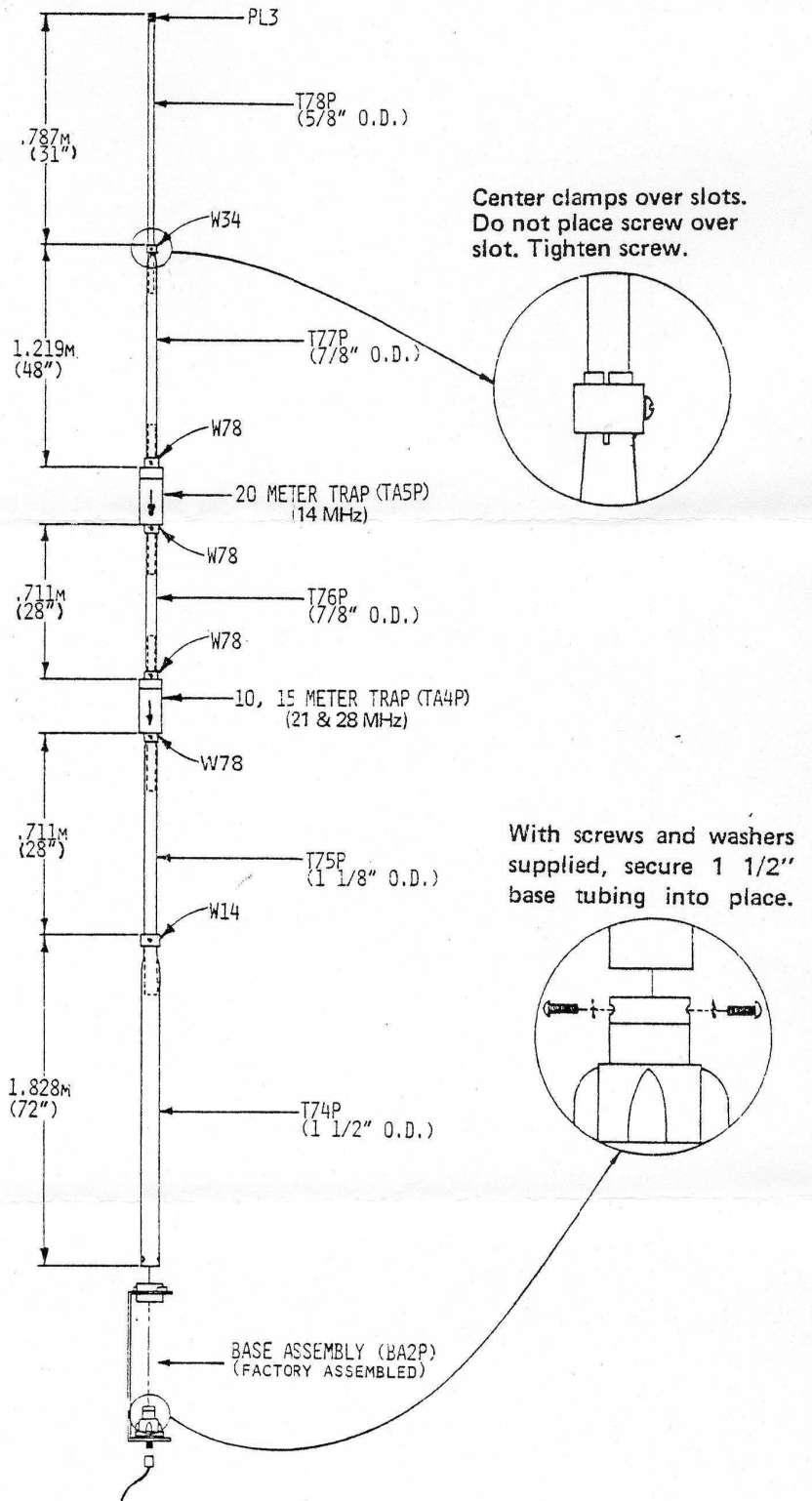
When ordering replacement parts, always give part no. and description.

Assemble WV-1 as shown. Make all measurements from the top of one tube to the top of the other tube. Center all clamps over slots. Use RG58 or RG8 coax cable (customer furnished).

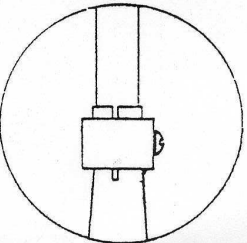
When assembling traps to antenna, make sure correct trap is being used. The arrow on the trap should point downwards.



Tighten screw enough to hold tubing in place. Do not over tighten.



Center clamps over slots. Do not place screw over slot. Tighten screw.



With screws and washers supplied, secure 1 1/2\"/>

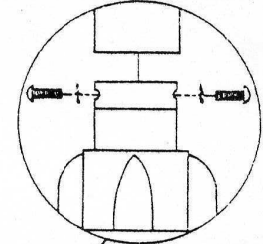


FIGURE 1
WV-1

DRAWN *J. S. Murphy*
APPROVED _____

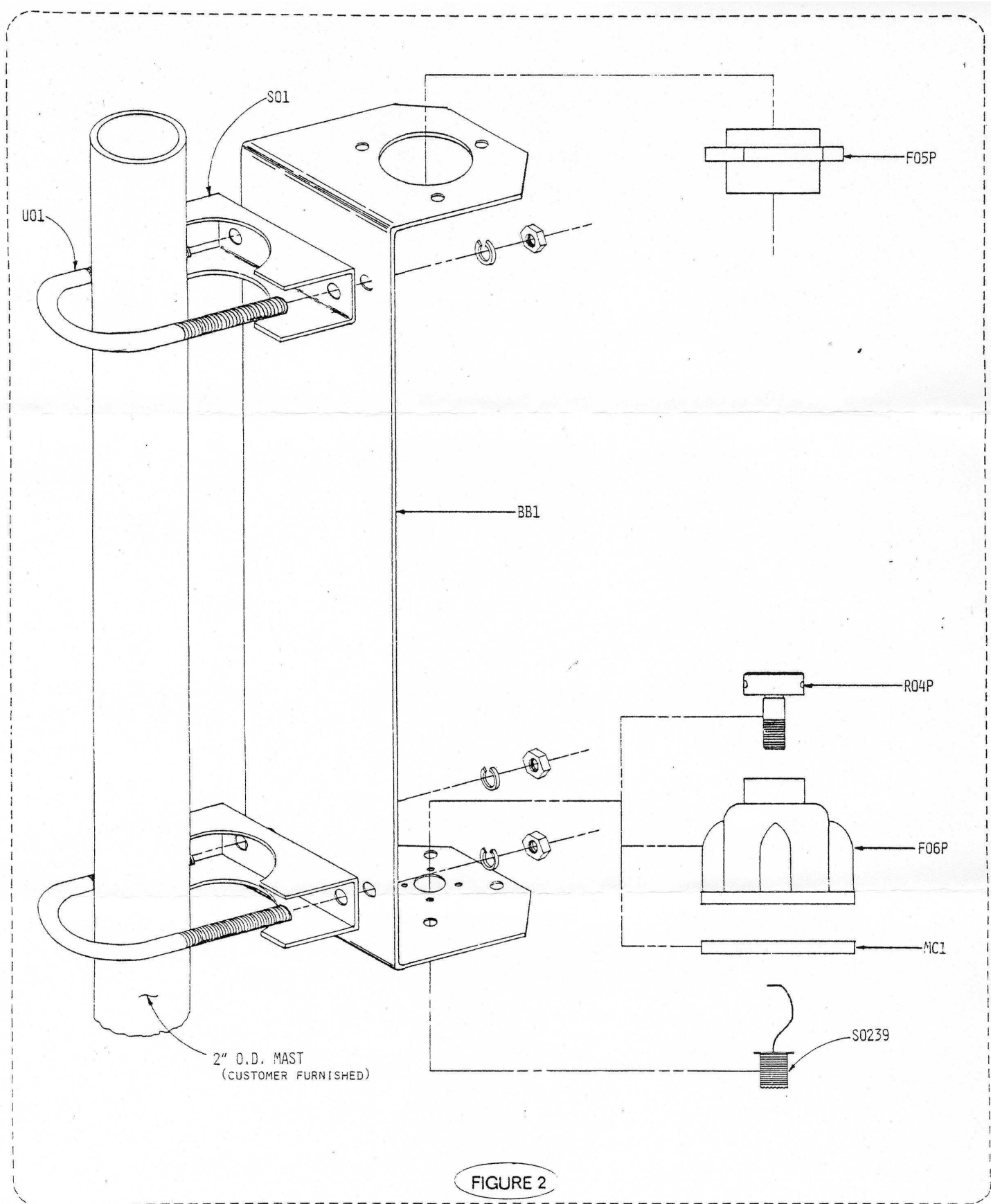
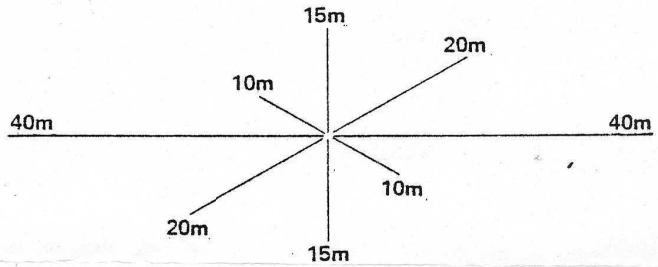


FIGURE 2
WV-1

RK-1

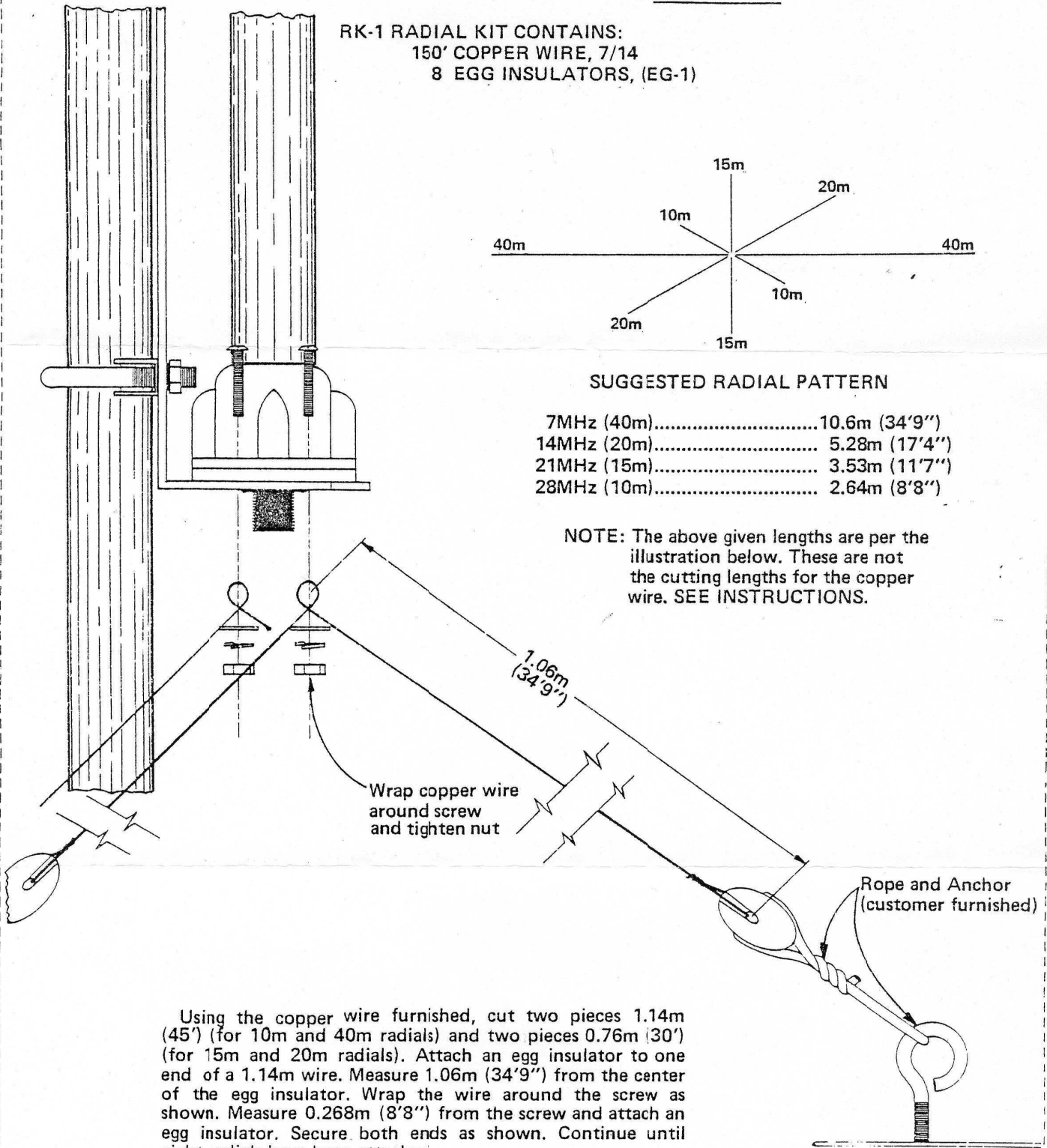
RK-1 RADIAL KIT CONTAINS:
 150' COPPER WIRE, 7/14
 8 EGG INSULATORS, (EG-1)



SUGGESTED RADIAL PATTERN

| | |
|------------------|---------------|
| 7MHz (40m)..... | 10.6m (34'9") |
| 14MHz (20m)..... | 5.28m (17'4") |
| 21MHz (15m)..... | 3.53m (11'7") |
| 28MHz (10m)..... | 2.64m (8'8") |

NOTE: The above given lengths are per the illustration below. These are not the cutting lengths for the copper wire. SEE INSTRUCTIONS.



Using the copper wire furnished, cut two pieces 1.14m (45') (for 10m and 40m radials) and two pieces 0.76m (30') (for 15m and 20m radials). Attach an egg insulator to one end of a 1.14m wire. Measure 1.06m (34'9") from the center of the egg insulator. Wrap the wire around the screw as shown. Measure 0.268m (8'8") from the screw and attach an egg insulator. Secure both ends as shown. Continue until eight radials have been attached.