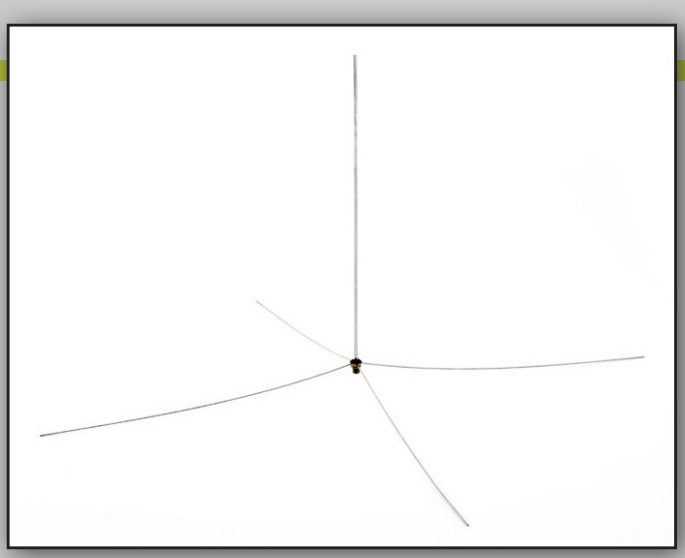
AV-5

VHF Communications Base Station

The AV-5 is an economical ground plane base station antenna. It is ideally suited for use with Unicom transceivers and is field tunable to optimize VSWR at desired frequency. Durably constructed of high quality materials for a long operational life, the antenna is designed to withstand windspeeds up to 100 mph.

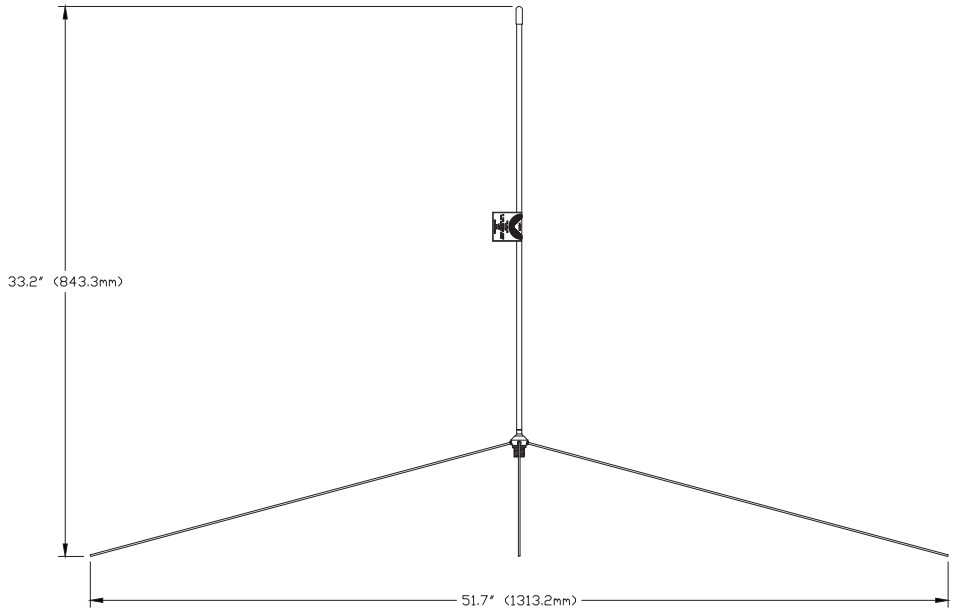


Product Specifications

Application	VHF Communications
Frequency	118-137 MHz 110-512 MHz (Field Tunable)
Impedance	50 Ohms Nominal
VSWR	1.5:1 Maximum at Resonance
Polarization	Vertical
Pattern	Omni-Directional
Connector	SO-239
RF Power Capacity	100 Watts

Mechanical Specifications

Height	34.0" Max.	863.6 mm
Weight	1.0 lb	0.45 kg



AV-5 INSTALLATION INSTRUCTIONS
VHF Communications Antenna for General Aviation

Frequency Range: 118-137 MHz
Field Tunable: 110-512 MHz

If tuning of the antenna is required, cut the radiator and/or the radial rods according to the chart on the next page.

If the antenna is to be used over a range of frequencies, the element lengths should be chosen for mid-range or favor the element lengths for the most used or the frequency requiring the greatest range.

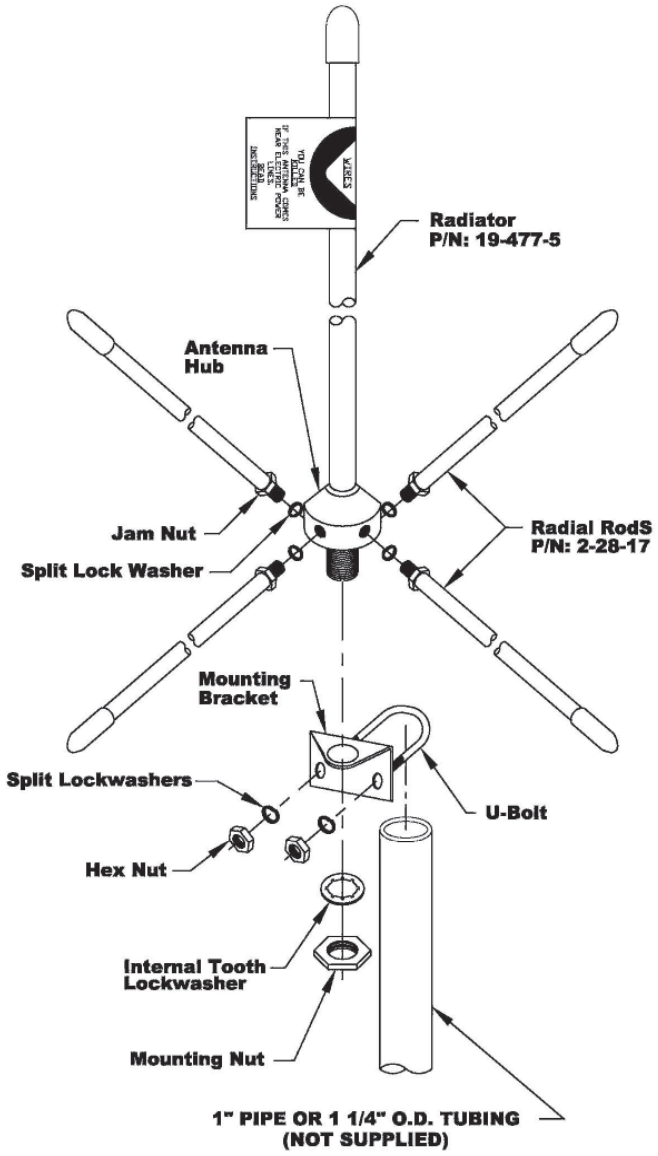
INSTALLATION INSTRUCTIONS

Antenna Assembly:

1. Loosen the mounting nut from the antenna hub.
2. Apply the synthetic lubricant provided to the threads of the (4) radial rods provided prior to assembly.
   This will protect from weather and ease future disassembly.
3. Thread the provided #4-40 jam nuts onto the (4) radial rods and slide the lock washers on.
4. Thread the (4) radial rods into the antenna hub and secure with jam nuts.
5. Place vinyl caps on the end of each (4) radial rod.

Mounting the Antenna:

1. Straddle the U-bolt provided around a 1” dia. pipe or up to a 1 1/4” O.D. tube (not supplied).
2. Slide the mounting bracket and (2) lock washers provided over the thread studs of the U-bolt and secure with the (2) 1/4-20 hex nuts provided.
3. Remove the mounting nut and internal tooth lock washer from the connector of the antenna hub.
4. Insert antenna into mounting hole in bracket. Replace the lock washer and mounting nut back onto on the connector of the antenna hub.
5. Attach “DANGER” label provided to a plainly visible part of the base or the supporting structure.
6. Secure a cable with the appropriate connectors (not supplied) to the mounting pipe with a strap or plastic tape to avoid any cable strain on connector.



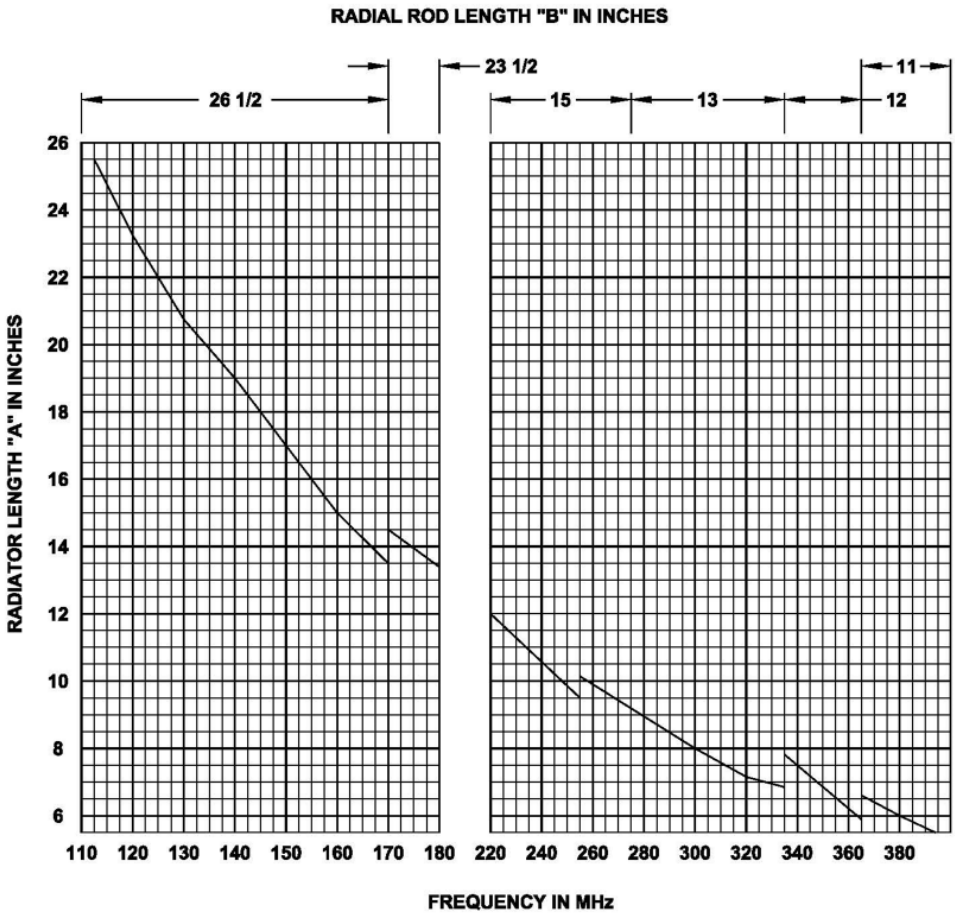
Doc. #27-2200-3
Rev.: D, Sept. 2014

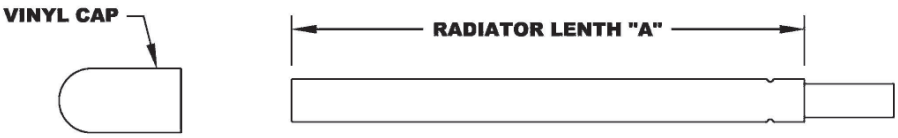
Cutting Chart for the Radiator and Radial Rods

All measurements should be made with vinyl caps removed.

The lengths on the chart are approximate. For finer tuning, an In-Line Wattmeter should be used if antenna is to be used for transmitting.

After final adjustments, replace vinyl caps onto the radiator and radial rods.







TUNING ADJUSTMENT TABLE

FREQUENCY	RADIATOR LENGTH "A"	RADIAL ROD LENGTH "B"
406-420 MHz	5 5/8"	10"
450-470 MHz	5"	8 1/2"
470-488 MHz	4 15/16"	7 3/4"
488-512 MHz	4 5/8"	7 3/4"