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# INSTRUCTION MANUAL

# ORDER NO. 579

Silver Rod ½-Wave, Omnidirectional Base Antenna

PN 801112

# **General Description**

This omnidirectional base station antenna is a half-wave, base fed, vertical radiator. Specially curved radials help to broaden the bandwidth and achieve a low SWR across the band. The feedline base uses an SO-239 coax receptacle. Use 52-ohm coaxial cables such as RG-58/U (runs under 50 feet), or RG-8/AU for lower cable losses. No dissimilar metals are used in the construction. Taper swaged, seamless tubing and self-tapping sheet metal screws provide perfect electrical and mechanical connections. The heavy guage, twelve-inch bracket provides two points of antenna support. This bracket fits masts up to 1%" in diamter.

### Theory of Operation

The extended one half wavelength design uses a shunt fed transformer for a perfect 52-ohm match. The antenna is at "DC Ground" which lowers the residual noise level. The greater length offers a lower angle of radiation due to pattern compression.

### **Specifications**

	Electrical	
Gain		3.8 dB
SWR (at resonance)	less	than 1.2:1
Pattern	. ,	idirectional
	Mechanical	
Overall height	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	17′
Diameter of radiator		1 1/4" to 7/16"
Mast bracket accepts		1¼" to 1%"
Net weight		5.1 lbs.
Wind survival		80 mph
N. 444		

#### **Assembly**

Unpack the parts and check them each against the parts list. Refer to the drawings for detailed assembly instructions.

# CAUTION

Be sure to use the lower and upper U-bolt holes when installing the antenna. Attach the coax feedline to the SO-239 connector.

This completes your installation.

NOTE: Weather seal the coax fitting by covering it with neoprene or resistant compound.

#### Grounding

Proper grounding is essential for lightning protection. We recommend an  $8' \times 3''$  copper ground rod. Connect a copper wire (no smaller than #12) from the rod to the antenna supporting mast or tower. This will by-pass mast static charges direct to the earth.

#### Weatherproofing

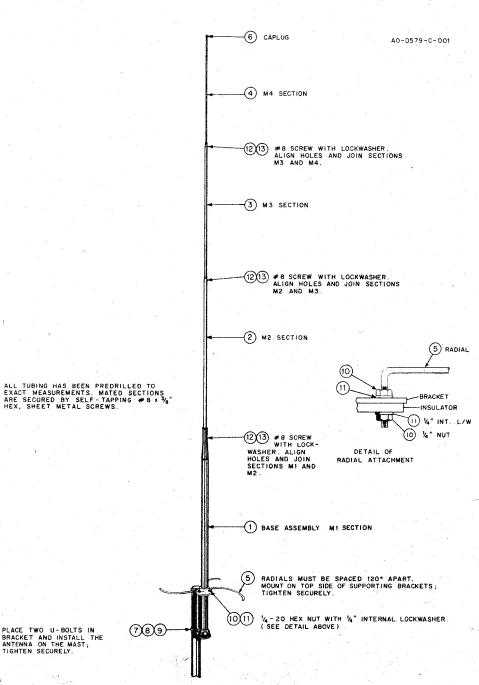
To prolong the life of this product in or around coastal areas, all hardware should be encapsulated with silicone rubber compound such as DOW-CORNING silastic rubber or GE silicone seal to prevent atmospheric deterioration.

# **WARNING:**

When installing your system, take extreme care to avoid any accidental contact with powerlines or overhead obstructions. Failure to exercise this care could result in serious or fatal injury.

#### **Parts List**

Item	Part No.	Description	Oty	Item	Part No.	Description Qty
1.	878869	base assembly, M1		7	543792	U-bolt, 5/16" x 1%" x 21/4" 2
2	173832	tubing, %" x 55"m M2	1	8	556945	nut, 5/16"-18 hex 4
3 -	173834	tubing, %" x 55", M3	1	. 9	567075	lockwasher, 5/16" int
4	173837	tubing, 7/16" x 44"	1 , 1 , 2 , 3	10	556960	nut, ¼"-20 hex
5	170310	radials		- 11	567110	lockwasher, ¼" int
	875795	Parts Pack		12	519386	screw, #8 x %" hex, type A5
6	455644	caplug, 7/16"	1	13	567135	lockwasher, #8 int 6



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