

## INSTRUCTION MANUAL

### ORDER NO. 579

Silver Rod 1/2-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 gauge, twelve inch bracket provides two points of antenna support. This bracket fits masts up to 1 5/8" in diameter.

#### 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  
Nominal input impedance ..... 52 ohms  
Pattern ..... omnidirectional

##### *Mechanical*

Overall height ..... 17' (5.181 m)  
Diameter of radiator ..... 1 1/4" to 7/16" (3.17 to 1.11 cm)  
Mast bracket accepts ..... 1 1/4" to 1 5/8" (3.17 to 4.12 cm)  
Net weight ..... 5.1 lbs. (2.31 kg)  
Wind survival ..... 80 mph (128.74 kmph)

#### 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' x 3/8" 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.