

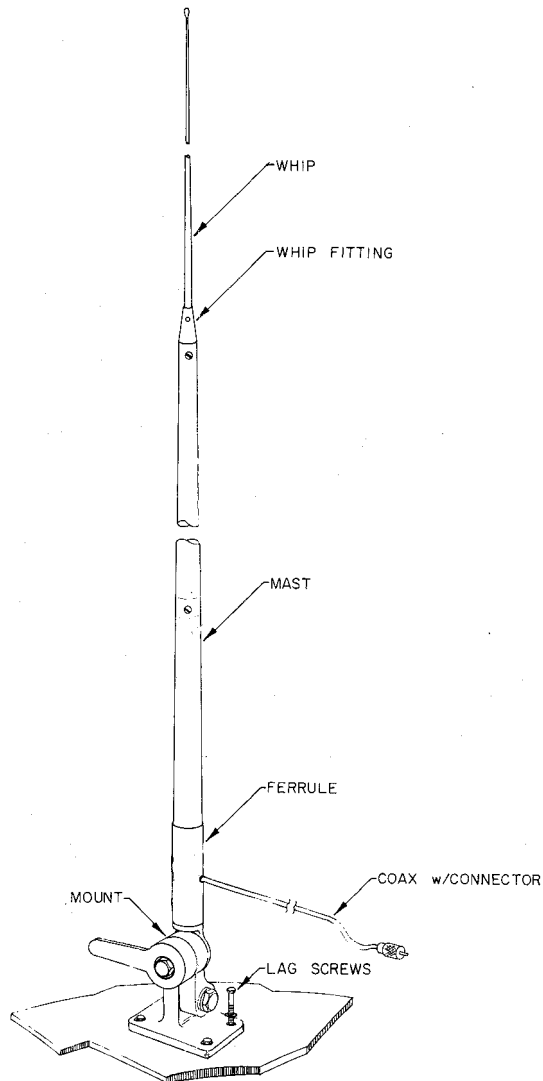
**INSTRUCTION
MANUAL**

ORDER NO. 488

Fiberglass base station antenna

PN 801175

AO-0488-C-001



**General
Description**

This versatile fiberglass antenna and mount offer a variety of new base station antenna features.

The mount — The mounting angle is completely adjustable to your specific needs. Mount your antenna on any surface at any angle. No ground plane radials are required.

The antenna— The fiberglass mast is topped with a stainless steel whip. This loaded $\frac{1}{2}$ -wave antenna is factory pretuned for best performance. The tuning unit in the base is completely sealed for protection against weather.

The 488 antenna comes complete with everything you'll need for installation: mounting base, 50 feet of coax, a solderless connector, and mounting hardware.

Specifications

Overall length122.5 inches (311.15 cm)
Input impedance50 ohms
Frequency range27 MHz (entire Citizens Band)
ConnectorAMP solderless connector

Installation Instructions

Determine where to install your antenna, keeping in mind that it should be within the 50 foot coax length from your transceiver. Mount it as high as possible away from TV antennas and other similar obstructions.

Be sure that the mounting area is strong enough to support the mount and the antenna. Backing plates may be used for reinforcement.

Use the mounting base as a template to mark where the installation holes will be drilled. Use the mounting hardware provided to install the mount.

NOTE: Be sure the flat washers are placed *between* the bolts and the top surface of the mount.

CAUTION

When tightening the hardware in any material such as Lexan, it is difficult to feel how tight the bolt is. For installation of the mount, the maximum recommended torque for the mount hardware is .46 kg/m (40 in./lbs.). If a torque wrench is not available, watch the screws heads as they are being tightened. The mounting hardware should not cause more than a slight indent on the base material. Over-tightening the mounting hardware may cause failure of the mount and will void your warranty.

Installation of the Antenna

Insert the stainless steel whip in the whip fitting on the top of the fiberglass mast. Use the No. 8 allen wrench to tighten the set screw securely.

Screw the mast onto the mount until it is flush against the base of the mount.

Ratchet Adjustment

Move the handle on the mount until it is in an upright position. This releases the "teeth" on the ratchet foldover of the mount. Align the mount so that it stands in an upright position, then return the handle to a down position and tighten it securely.

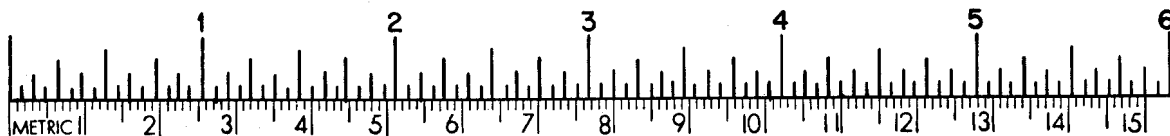
Converting English Measurements to Metric

Use this scale to identify lengths of bolts, diameters of tubes, etc. The English inch (") and foot (') can be converted to centimeters in this way.

1 inch (1") = 2.54 cm
1 inch (1') = 30.48 cm

Example:

$42" \times 2.54 = 106.7 \text{ cm}$



Routing the Coax

Run the coaxial cable to your transceiver. Be careful not to let the coax rest in a place where it can be damaged.

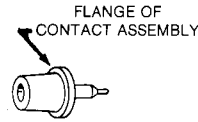
Attach the connector to the coax as instructed.



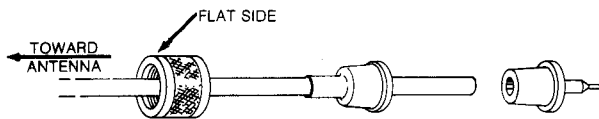
COLLAR



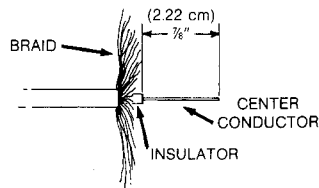
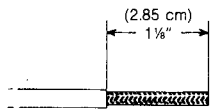
SHELL



CONTACT ASSEMBLY

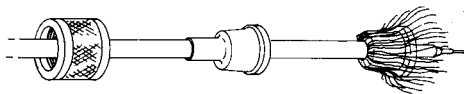


1. Slip the collar and shell over the cable. Be sure the flat edged side of the collar is toward the antenna.

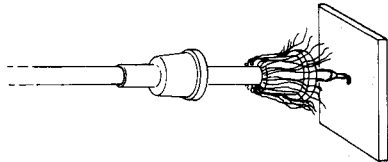


2. Remove the outer jacket of the cable. NOTE: Do not nick or cut the strands of the coax braid.

3. Flair the braid and remove the white plastic sleeve beneath it to within 1/8" of the flaired braid. Do not nick the center conductor.

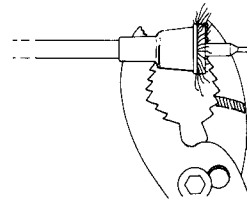


4. Insert the center conductor of the coax cable into the contact assembly. Bend the protruding end of the conductor over the end of the contact. Mold the braid uniformly over the contact assembly.

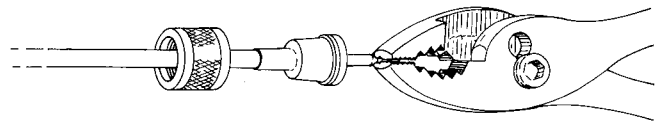


5. Butt the end of the contact against a firm surface and push the shell over the braid.

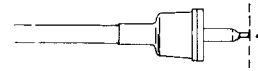
6. Use pliers to press the contact assembly into the shell as shown. Apply pressure around the circumference of the assembly. The flange of the center conductor should butt against the shell.



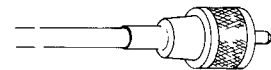
7. Trim off any excess braid.



8. Squeeze the end of the contact firmly to crimp the center conductor.



9. Cut off any excess center conductor that extends beyond the end of the contact.

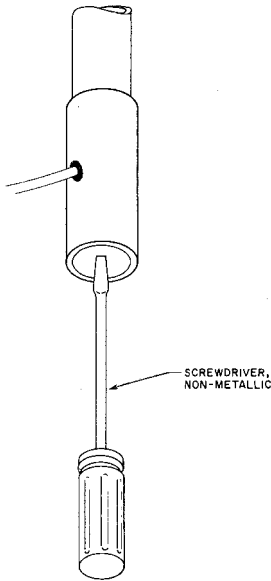


10. Tighten the collar firmly to the mating jack.

NOTE — Check periodically to be sure the collar is tightened on the jack.

Screw the coax connector onto the antenna jack of your transceiver.

Special Tuning Instructions



NOTE: This antenna is factory pretuned for optimum performance. Further tuning of the antenna is possible, but this procedure should only be done by a person who is experienced with antennas and wave frequencies.

- () Remove the antenna from the base mount.
- () Use only a NON METALLIC screwdriver to adjust the tuning capacitor which is located 6" to 8" from the bottom end of the antenna.
- () Grasping the base ferrule with one hand, hold the antenna at arm's length, with the antenna as nearly vertical as possible.
- () Adjust the tuning capacitor for the minimum VSWR reading on the bridge. The resonance dip to the minimum VSWR is very sharp, so adjust the capacitor slowly.
- () Replace the antenna on the mounting base.

Parts List

Part No.	Description	Qty
280087	ferrule	1
280126	whip fitting	1
511577	6 x 5/16" pan head	1
515852	8 x 1/2" pan head	1
690090	50 ft. coax	1
870759	coil assembly.....	1
878880	fiberglass whip assembly	1
878904	parts pack	1
536275	1/4" x 2 hex head lag screw.....	4
567120	1/4" flatwasher	4
650062	Amp field installed connector.....	1
531579	8-32 x 1/8" cupset screw	1
351787	#8 allen wrench	1
878922	whip assembly 425.....	1
878935	ratchet mount assembly	1

Weatherproofing

Most roofing compounds or caulks can be used to seal the mount. If silicone sealant is used, use ONLY G.E. or Dow Corning.

90-DAY LIMITED WARRANTY

Hy-Gain Electronics Corporation warrants each new product manufactured to be free from defects in material and workmanship and agrees to remedy any such defect or to furnish a new part in exchange for any part of any unit which under normal installation, use, and service, discloses such defect within the ninety-day term of this warranty, dated from the date of purchase by the original owner. This warranty applies only to the original purchaser.

This warranty does not extend to any of our products which have been subjected to misuse, neglect, accident, incorrect wiring not our own, improper installation, or to use in violation of instructions furnished by us. Nor does it extend to units which have been repaired or altered outside of our factory, nor to accessories used therewith not of our own manufacture.

Upon receipt of equipment, the purchaser is responsible for checking the contents for damage. Any shipping damage should be referred to the carrier.

Hy-Gain Electronics Corporation reserves the right to make any changes deemed necessary or desirable without advance notice or incurring any obligation to make like changes in units previously manufactured or sold.

This warranty does not cover transportation costs that may be incurred. Hy-Gain Electronics Corporation's sole liability is the remedy of any defect for the ninety-day period of this warranty. Hy-Gain Electronics Corporation is not responsible for

personal injury or property damage resulting from improper or careless installation, or usage not intended by the manufacturer.

No person is authorized to assume for us any other liability in connection with the sale of our products.

All warranties are void and terminated one year after the last unit of its type and design has been manufactured by us.

All claims of defect or shortage should be addressed to:

Hy Gain Warranty Service
Hy-Gain Electronics Corporation
4900 Superior Ave.
Lincoln, Nebraska 68504

You must furnish model number, date, place, and proof of purchase, such as a copy of the sales receipt to establish warranty. Your letter should include all pertinent details along with part or item numbers involved. Do not return anything until requested to do so. No warranty card is furnished; you must supply the above information.

Any returned items must have prior authorization. Unexpected returns are greatly delayed in handling. These delays can be avoided by writing in advance and furnishing the necessary information.