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# GPG-1B

## 1/4 Wave Ground Plane Antenna 144-148 MHz

# Instruction Manual

## General Description

This antenna is a 1/4-wave ground plane that operates in the 144-148 Mhz range. The antenna terminates with a SO-239 connector and is fed with a 50 ohm coaxial cable.

### warning

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

## Assembly Instructions

Remove the four (4) radials (Item 11), from the shipping container and attach two of the radials to the base bracket (Item 1) at the two open spaces (where there is no factory installed hardware). Use the #10 x 3/4" screw (Item 8), nut (Item 7), flatwasher (Item 6), internal lock-washer (Item 5), and external lockwasher (Item 4) as shown in Figure 1. Tighten hardware securely.

After these two radials are fastened securely as shown, remove the two # 10 hex nuts from the #10 bolts (factory installed). Attach a #10 external lockwasher (Item 4), a radial (Item 11), flatwasher (Item 6), internal lock washer (Item 7). Refer to Detail A. The four radials should be spaced 90 degrees apart.

NOTE: Its is important to install the hardware exactly as shown. This will prevent movement of the radials.

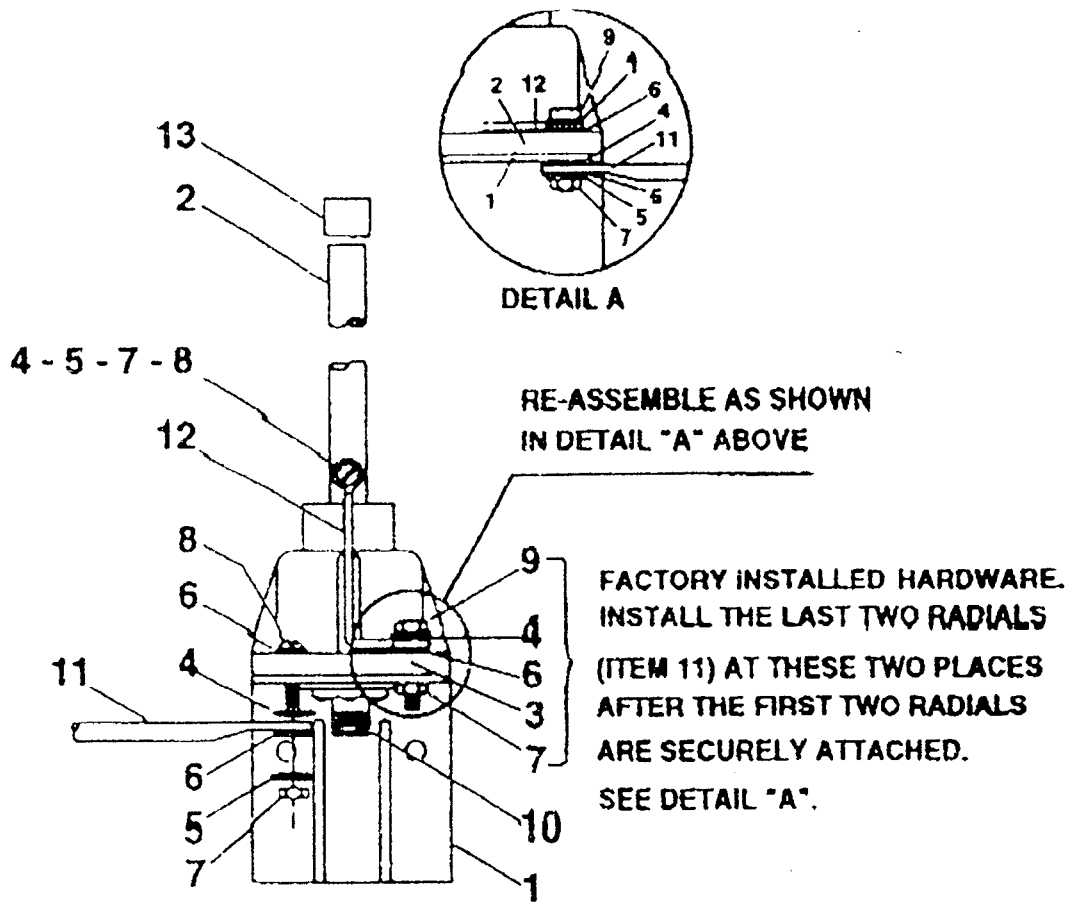
Insiall the caplug (Item 13) on the top of the radiator. Be sure it is pressed all the way on. Connect your coax from your communication equipment to the SO-239 connector on the botf: of the antenna.

## Mounting

Attach the assembled antenna to the mast using the U-bolt, lockwashers and nut provided (Item 14, 15, and 16). The antenna may also be attached to a flat vertical surface.

NOTE: The radials must be above the top of any mounting surface.

New holes may be drilled in the base bracket (Item 1) if necessary.



**Figure 1**

### PARTS LIST

Item No.	Part No.	Descriptions	QTY
1	63945	Base Bracket	1
2	173218	Radiator, 18-9/16"	1
3	861677	Insulator Assembly	1
4	not use		
5	565697	Lock washer, #10 internal, stainless steel	13
6	561165	Flatwasher, #10, stainless steel	8
7	554071	Nut, 10-24 hex, stainless steel	5
8	505751	Bolt, #10-24 x 3/4, stainless steel	5
9	not use		
10	610-2005T	Connector, SO-239	1
11	173217	Radial, 1/4" x 15-3/4"	4
12	not use		
13	455644	Caplug, 7/16", black	1
14	380866	U-bolt, 5/16-18 x 1-5/8 x 2-1/4	1
15	565748	Lockwasher, 5/16" internal	2
16	555747	Nut, 5/16-18	2

## **hy-gain**® LIMITED WARRANTY

**Hy-Gain** Warrants to the original owner of this product, if manufactured by **Hy-Gain** and purchased from an authorized dealer or directly from **Hy-Gain** to be free from defects in material and workmanship for a period of 12 months for rotator products and 24 months for antenna products from date of purchase provided the following terms of this warranty are satisfied.

1. The purchaser must retain the dated proof-of-purchase (bill of sale, canceled check, credit card or money order receipt, etc.) describing the product to establish the validity of the warranty claim and submit the original or machine reproduction of such proof of-purchase to **Hy-Gain** at the time of warranty service. **Hy-Gain** shall have the discretion to deny warranty without dated proof-of-purchase. Any evidence of alteration, erasure, or forgery shall be cause to void any and all warranty terms immediately.
2. **Hy-Gain** agrees to repair or replace at **Hy-Gain's** option without charge to the original owner any defective product under warranty, provided the product is returned postage prepaid to **Hy-Gain** with a personal check, cashiers check, or money order for \$8.00 covering postage and handling.
3. Under no circumstances is **Hy-Gain** liable for consequential damages to person or property by the use of any **Hy-Gain** products.
4. Out-of-warranty Service: **Hy-Gain** will repair any out-of-warranty product provided the unit is shipped prepaid. All repaired units will be shipped COD to the owner. Repair charges will be added to the COD fee unless other arrangements are made.
5. This warranty is given in lieu of any other warranty expressed or implied.
6. **Hy-Gain** reserves the right to make changes or improvements in design or manufacture without incurring any obligation to install such changes upon any of the products previously manufactured.
7. All **Hy-Gain** products to be serviced in-warranty or out-of-warranty should be addressed to **hy-gain, 308 Industrial Park Road, Mississippi 39759, USA** and must be accompanied by a letter describing the problem in detail along with a copy of your dated proof-of-purchase.
8. This warranty gives you specific rights, and you may also have other rights which vary from state to state.