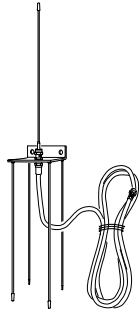


# EXA-1000

## Remote Antenna with Vertical Radials

### Installation Instructions



**Linear**

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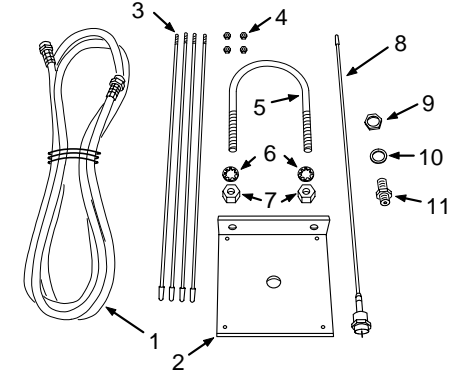
The EXA-1000 Remote Antenna is designed to enhance the radio range of Linear's receivers. This antenna can be connected to the "F" connector on many Linear receivers to improve their range when they must be located in poor signal reception locations. Usually an increase of 20-30% range can be expected. The versatile EXA-1000 can be mounted in a variety of ways. A 2-inch U-bolt is supplied for post or pipe mounting, or the U-bolt holes in the Base Plate can be used to screw the antenna to a wall or vertical wood brace or beam.

**NOTE: Generally, the higher the antenna is mounted above ground level, the better the radio range will be.**

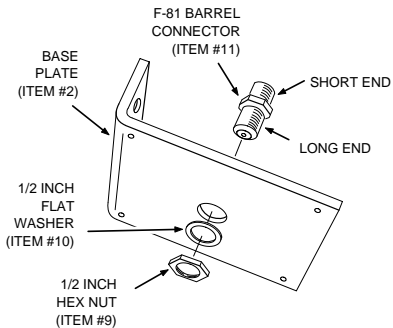
The EXA-1000 provides maximum performance when mounted and installed properly according to these instructions. Please read the entire instructions before beginning any work. The EXA-1000 is a 1/2 wave, center fed, vertical antenna composed of three parts: an Antenna assembly with an "F" connector attachment; a Base Plate assembly with radial mounting provisions; and a five-foot, 75-ohm coaxial cable. The cable connects to the antenna base on one end and the receivers "F" connector on the other. If the antenna must be mounted further than five feet from the receiver, an extension cable of up to a maximum of 25 feet may be used instead of the five foot cable supplied. Because of the cable resistance, the performance of the EXA-1000 may be degraded by using longer than a 25 foot cable.

PARTS LIST	
ITEM #	DESCRIPTION
1	5-Foot RG-59/U Co-ax Cable
2	Base Plate (3" x 3" x 1")
3	4 Radials (9-3/8" Stainless Steel)
4	2-56 Hex Nuts for Radials (4)
5	2" Diameter U-Bolt
6	1/4" Internal Star Washers for U-Bolt
7	7/16" Hex Nuts for U-Bolt
8	Antenna (9-1/4" Stainless Steel)
9	1/2" Hex Nut for Barrel Connector
10	1/2" Flat Washer for Barrel Connector
11	F-81 Barrel Connector

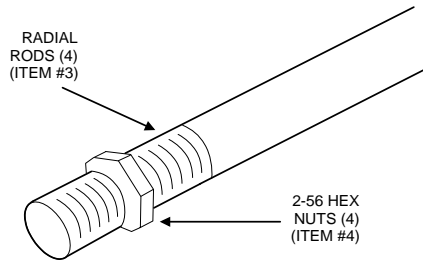
**STEP 1 Identify Parts.** Lay out and identify all the parts as shown. Check the parts list to be sure all items were included in the kit.



**STEP 2 Assemble Base.** From the top (angled side of the Base Plate (Item #2), insert the long end of the F-81 Thru-barrel Connector (Item #11) into the center hole of the plate. Secure the connector with the flat washer (Item #10) and the 1/2 inch hex nut (Item #9).

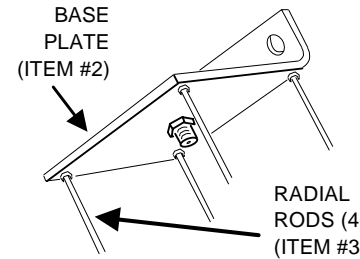


**STEP 3 Assemble Radials.** Screw each of the 2-56 hex nuts (Item #4) about half way down the threaded end of the four radial rods (Item #3).

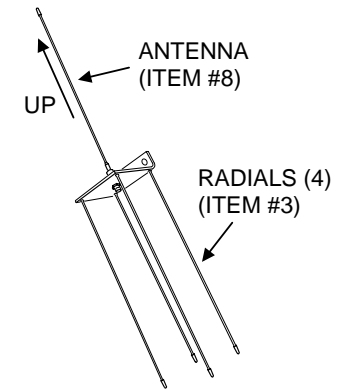


**STEP 4 Attach Radials.** Screw each of the four radial rods (Item #3) into the bottom side of the Base Plate (Item #2) until the rod end slightly protrudes above the top side of the Base Plate. Tighten the nuts to secure each radial.

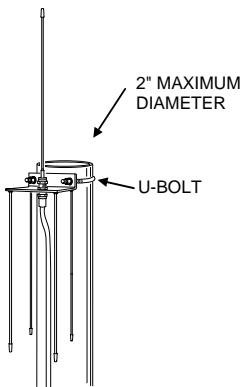
**NOTE: Over-tightening the nuts may damage the threads in the Base Plate.**



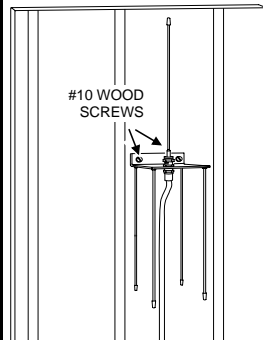
**STEP 5 Complete Antenna.** Attach the Antenna (Item #8) to the F-81 Connector (Item #11) from the top of the Base Plate.



**STEP 6 Post Mounting.** Use the post mounting technique for a round post up to two inches in diameter. For a larger post, follow the wall mounting instructions to attach the Base Plate to the post. Attach the Base Plate assembly to the designated post or pipe using the 2-inch U-bolt (Item #5) with the two lock washers (Item #6) and 7/16 hex nuts (Item #7).



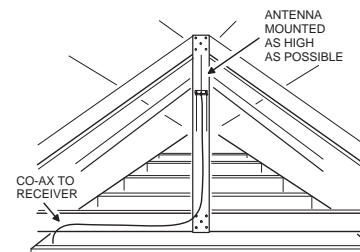
**STEP 7 Wall Mounting.** Mount the EXA-1000 on the wall high enough to achieve optimum range, leaving sufficient clearance to permit the vertical antenna to stand in free air. Attach the Base Plate to the wall using #10 wood screws (not included) through the U-bolt holes.



**Caution: Do not mount on metal plate or metal backed walls.**

**STEP 8 Attic Mounting.** Attach the Base Plate assembly to a joist, beam or some other object in the attic using #10 wood screws through the U-bolt holes. A good place to mount the antenna in an attic is on a plastic vent pipe (see "Post Mounting" for instructions). Try to keep the antenna as far away from large metal objects (duct work, furnace vents, etc) as possible.

**Caution: In attics, or under room structures, metal foil backed insulation and drywall metallic vapor barriers will degrade radio range and performance.**



### LINEAR LIMITED WARRANTY

This Linear product is warranted against defects in material and workmanship for twelve (12) months. The Warranty Expiration Date is labeled on the product. This warranty extends only to wholesale customers who buy direct from Linear or through Linear's normal distribution channels. Linear does not warrant this product to consumers. Consumers should inquire from their selling dealer as to the nature of the dealer's warranty, if any. There are no obligations or liabilities on the part of Linear Corporation for consequential damages arising out of or in connection with use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation, or reinstallation. All implied warranties, including implied warranties for merchantability and implied warranties for fitness, are valid only until Warranty Expiration Date as labeled on the product. This Linear Corporation Warranty is in lieu of all other warranties express or implied.

All products returned for warranty service require a Return Product Authorization Number (RPA#). Contact Linear Technical Services at 1-800-421-1587 for an RPA# and other important details.

Linear radio controls provide a reliable communications link and fill an important need in portable wireless signalling. However, there are some limitations which must be observed.

- \* For U.S. installations only: The radios are required to comply with FCC Rules and Regulations as Part 15 devices. As such, they have limited transmitter power and therefore limited range.
- \* A receiver cannot respond to more than one transmitted signal at a time and may be blocked by radio signals that occur on or near their operating frequencies, regardless of code settings.
- \* Changes or modifications to the device may void FCC compliance.
- \* Infrequently used radio links should be tested regularly to protect against undetected interference or fault.
- \* A general knowledge of radio and its vagaries should be gained prior to acting as a wholesale distributor or dealer, and these facts should be communicated to the ultimate users.