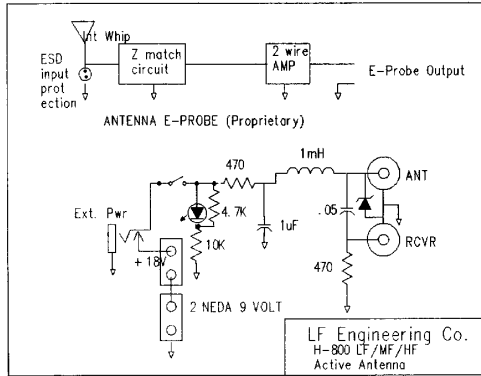


H-800 SKYMATCH Active Antenna



Product Warranty

LF Engineering Co. warrants that, at the time of shipment the products manufactured by LF Engineering Co. are free from defects in material and workmanship. LF Engineering Co. obligation under this warranty is limited to replacement or repair of such products within 1 year from the date of shipment.

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H-800 SKYMATCH Active Antenna

The H-800 is a compact broadband coverage active antenna that effectively covers the longwave through shortwave bands (10 kHz through 50 MHz).

The sealed antenna probe consists of impedance matching electronics and amplifier which transform its internal short length wire antenna into a 100 foot "long wire" equivalent. The H-800 has very high E field sensitivity with the advantage of good BC intermodulation rejection. The H-800 is compact and totally sealed (no whip) providing the advantage of reduced EMI interference.

The antenna is omni directional allowing for various installation configurations and for use as a portable antenna. The H-800 probe is waterproof and UV resistant.



Features

- 10 kHz to 50 MHz broadband coverage (no tuner required)
- 50 ft of RG174/U with RCA connector included.
- The antenna probe is fully sealed and does not use a whip antenna.
- Extended ESD and RF protection.
- Mounting clamp included.
- Low power consumption, 10 ma typical.
- Dual source power design: Two internal 9 volt batteries or external 120 vac / 12 vdc supply (included)

H-800 Specifications

Antenna Probe Size	26 inches long, 1 inch dia. PVC
Coupler Size	4.19"L x 2.74"W x 1.57"H
Operating Frequency	10 kHz to 50 MHz \pm 3 dB
E Field Sensitivity	-24 dB
IP3	23 dBm
Output Impedance	50 - 100 ohms
Operating Temperature	-25°F to +120°F
Weatherproofing	Antenna probe tested to 2 atmospheres (-66 ft)
DC Power:	12 - 18 Volt, 10 ma, NEDA (2) or equivalent battery
AC Power: (included)	120 VAC / 12 VAC power pack with 2.5 mm plug

Introduction:

The H-800 Active Antenna covers the full LF/HF/VHF spectrum from 10 kHz through 50 MHz. A proprietary low noise amplifier (2 wire feed) insures ample gain throughout the operating spectrum. The output impedance of the H-800 is 50 to 100 ohms, and is designed to match most receivers in use today. For increased reception, a 10 ft length of wire may be helically attached to the antenna. The Receiver Coupler requires two 9 volt batteries (18v) for operation. An external 120 vac / 12 vdc power supply is included for continuous operation.

Battery Installation:



Remove the 4 Philip head screws from the four corners of the front panel. Lift the panel/circuit board from the cabinet and install two 9 volt batteries onto the two battery clips. Reassemble panel into cabinet. The battery life with normal intermittent operation is more than 1 year.



AC Power Supply:



The 120 vac / 12 vdc power supply plugs into the 2.5 mm jack located on the front panel. The ac power supply may be used even with a battery internally connected. The 2.5 mm plug disables the internal battery when inserted into the panel jack.

Installation:

1. Mount the antenna E probe in the clear 8 ft to 20 ft high in the clear, preferably roof height. Use the stainless clamp supplied for attachment to a vertical support pole.
 - a. A support pole may be any vertical structure made from wood, metal or PVC that is between 1 and 2 inches in diameter. You may use an external roof structure such as the top of a TV mast or roof vent pipe. Note: The use of a vent pipe or any other large diameter mounting surfaces may require a larger mounting clamp.
 - b. The support pipe should not be attached any higher than the neoprene grip as shown in the illustration.
2. Connect the coupler output (RCVR) to the antenna input terminals of your short-wave receiver with input impedance between 50 and 100 ohms.

3. Connect the antenna cable to the coupler (ANT) input. Longer lengths of cable may be added.
 - a. Coax length may be extended 150 ft for a total of 200 ft max. length. Note: Some attenuation will occur above 30 MHz (3 to 6 dB).
4. Turn the coupler on and your receiver on. The coupler LED will light and your system is now ready for use.

How to Get the Most Out Of Your H-800 Active Antenna:

1. Keep your antenna in the clear and above metal objects (8 ft minimum height) and use a good ground on your receiver.
2. When mounting onto a metal pole, mounting area should not exceed the neoprene grip.
3. Use a cable strain relief (clamp, strap, tape) around the mounting pipe and cable to reduce cable fatigue at the antenna.
4. Mount your antenna away from man made EMI such TV sets, light dimmers and other noise generators.
5. If increased sensitivity is desired, a coupling of helically wound wire (10 ft max.) may be attached to the H-800 antenna and extended to an insulated support. It should be observed that some BC intermod may occur in some areas using this scheme.

