



**INSTRUCTION MANUAL**

**LOG PERIODIC**

**ANTENNA**

**MODEL LPA-60**

**1 GHz - 18 GHz**

# INSTRUCTION MANUAL

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**LOG PERIODIC**

**ANTENNA**

**1 GHz - 18 GHz**

**ELECTRO-METRICS**

**MODEL LPA-60**

**SERIAL NO: N/A**

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# **WARRANTY**

**This Model LPA-60 Log Periodic Antenna is warranted for a period of 12 months (USA only) from date of shipment against defective materials and workmanship. This warranty is limited to the repair of or replacement of defective parts and is void if unauthorized repair or modification is attempted. Repairs for damage due to misuse or abnormal operating conditions will be performed at the factory and will be billed at our commercial hourly rates. Our estimate will be provided before the work is started.**

## DESCRIPTION AND USE ELECTRO-METRICS MODEL LPA-60 LOG PERIODIC ANTENNA

### 1.0 Description

The LPA-60 Log Periodic Antenna is a linearly polarized broadband antenna designed to operate from 1 to 18 GHz. The antenna is capable of operating as either a transmitting or receiving antenna. The linearly polarized design permits separate measurement of horizontal and vertical electric field components over its operating frequency range.

The LPA-60 Antenna consists of a PC board with the antenna elements etched on each side and inserted into a ABS plastic base. The output connector is a Type "N" (female) fastened to the base. A triangular ABS plastic cover, permanently fastened to the base, is used to protect the PC board from damage and the environment.

The LPA-60 Antenna attaches to the Electro-Metrics Model TRI-3022 Tripod using an angled mounting bracket. One side of the bracket is fastened to the antenna base using 8-32 screws. The other side is mounted to the tripod using a 1/4-20 threaded insert. The LPA-60 can be orientated in either a vertical or horizontal position with respect to a horizontal plane. The antenna is portable and suitable for use in applications where space is limited; e.g. shielded rooms.

The antenna is calibrated at 1 meter with the calibration data included in the manual as gain and antenna factors vs frequency. The LPA-60 can be used as either a receiving or transmitting antenna and is capable of handling up to a maximum power level of 5 W.

**NOTE:** When performing measurements using the LPA-60 always include the level of attenuation within the measurement system plus coaxial cable losses, in addition to the actual antenna factors, for determining the signal level being measured.

## 2.0 Specifications

### 2.1 Electrical

Frequency Range:	1 to 18 GHz.
Impedance:	50 $\Omega$ nominal.
Average VSWR:	<3:1.
Average Beamwidth:	E Plane: 70 $\phi$ H Plane: 125 $\phi$
Maximum Continuous Power:	5 W
Connector:	Type "N" Female.

### 2.2 Mechanical

Length:	260 mm (10.25").
Width:	203 mm (8").
Depth:	32 mm (1.25").
Weight:	454 g (1 lbs).

**ELECTRO-METRICS**  
**GAIN AND ANTENNA FACTORS**  
**MODEL LPA-60**  
**LOG PERIODIC ANTENNA**  
**1 METER CALIBRATION**  
**PAGE 3A**