



**INSTRUCTION MANUAL**

**OMNI-WIDEBAND**

**ANTENNA**

**MODEL OWB-60**

**2.0 GHz – 18.0 GHz**

# INSTRUCTION MANUAL

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## **OMNI-WIDEBAND ANTENNA**

**2.0 GHz – 18.0 GHz**

**ELECTRO-METRICS**

**MODEL OWB-60**

**SERIAL NO: N/A**

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# **WARRANTY**

**This Model OWB-60 Omni-Wideband 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 OWB-60 OMNI WIDEBAND ANTENNA**

### **1.0 Description**

The Model OWB-60 Omni Wideband Antenna is a vertically-polarized broadband antenna designed to operate from 2 to 18 GHz. The antenna is capable of operating as either a transmitting or receiving antenna with a flat frequency response and omni-directional response over the stated frequency range.

The OWB-60 consists of two brass biconical elements connected point-to-point to form an hourglass shaped antenna element. The center conductor of a rigid coaxial cable is connected to the upper cone while the shield is connected to the lower cone. The cable connects to a Type "N" (female) connector fastened to a phenolic base plate. A plastic shield tube encloses the biconical elements to protect them from damage and the environment.

A 254 mm (10") support rod provides a means for mounting the antenna to the Electro-Metrics Model TRI-3022 Tripod. A threaded 1/4-20 female connector is located at the end of the rod.

The length of the support rod allows a microwave amplifier to be connected directly to the output connector. This reduces the potential signal loss compared to an amplifier connected at another point in the signal path.

The antenna is calibrated at 1 meter with the calibration data included in the manual as gain and antenna factors vs frequency. The OWB-60 is capable of handling up to a maximum power level of 5 W.

## 2.0 Specifications

### 2.1 Electrical

Frequency Range:	2 to 18 GHz.
Polarization:	Vertical.
Output Impedance:	50 $\Omega$ , nominal.
VSWR:	< 2:1.
Gain:	0 dB, typical.
Continuous Power:	5 W.
Connector:	Type "N" Female.

### 2.2 Mechanical

Diameter:	102 mm (4").
Height, Shield Tube:	76 mm (3").
Length, Support Rod:	254 mm (10").
Overall Height: (Antenna + Support Rod)	330 mm (13").
Weight:	454 g (1 lbs).

**ELECTRO-METRICS**  
**GAIN AND ANTENNA FACTORS**  
**MODEL OWB-60**  
**OMNI-DIRECTIONAL WIDEBAND ANTENNA**  
**1 METER CALIBRATION**  
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