

## MODEL 44L1/L1P BROADBAND RF WATTMETER

### FEATURES

- REQUIRES NO ELEMENTS OR "SLUGS"
- NO BAND SWITCHING
- MEASURES 1 TO 500 WATTS
- 5 POWER RANGES
- 5 WATT FULL SCALE RANGE
- COVERS 2 - 200 MHz
- MEASURES FORWARD AND REFLECTED POWER
- -40 dB RF SAMPLING PORT
- SHOCK-MOUNTED METER
- LOW TEMPERATURE OPERATION
- QUICK-CHANGE CONNECTORS
- LIGHT WEIGHT: 3 LBS

The Telewave.io Model 44L1P RF Wattmeter is a compact, versatile instrument used for direct measurement of forward and reflected RF power in a coaxial transmission line under any load conditions. Wideband capability and dynamic range allows operation without elements, inserts, or band switching.

The 20 microamp taut-band meter movement is shock mounted in a rugged, diecast housing, making this instrument ideal for mobile radio installation in aircraft or vehicles, as well as base stations.

Model 44L1P includes an RF sampling port, with an output 40 dB below the total transmission line level, for frequency measurement, signal injection, or spectral analysis.



**MODEL 44L1P**



**BACK**



**CARRY CASE (OPTIONAL)**

## MODEL 44L1P

This wideband instrument covers 2 to 200 MHz with a power range of 1 to 500 watts. The meter movement can be turned off for protection when not in use. A leather carrying strap is provided for easy portability. The use of a taut-band meter movement allows operation in cold temperatures.

The RF sample port on Model 44L1P samples a low level of RF power as it passes through the instrument. This bi-directional port is accessed via a BNC connector located on the side of the meter. It allows injection of a signal into the device under test, or can be used for spectrum analysis and frequency measurements without affecting operation of the meter.

The Model 44L1P utilizes a set of precision directional detectors which sample forward and reverse CW power flow in a specially engineered section of transmission line. The sampled current is scaled

to drive the 20  $\mu$ A taut band meter. Forward and reflected power can be directly measured by rotating the FWD- REV switch. VSWR (Voltage Standing Wave Ratio) is easily determined by comparing these measurements and using the convenient chart on the back of the instrument.

Five power scales are provided. The 500 watt scale will test most high powered transmitters, while the 5 watt scale makes it simple to tune low powered portables. The excellent stability of this unit and the ability to switch it from one power range to another to check the calibration eliminates the need for a secondary standard to verify calibration.

SPECIFICATIONS		
Frequency range		2-200 MHz
Full scale power ranges		5, 15, 50, 150 and 500 watts
Impedance, primary line		50 ohms nominal
VSWR (max)		1.1:1
Accuracy (at 80% of full scale)		+/- 7% with N connectors only
RF sampling port (44L1P)		-40 dB +/- 2 dB below total power (forward + reverse)
Connectors (input/output) (Quick-Change standard)		N Female standard UHF, DIN, TNC, BNC optional
Sample port		BNC Female
Dimensions (HWD)	in.	6.625 x 4 x 3.25
	mm	168.3 x 101.6 x 82.6
Weight lbs (kg)		3 (1.36)