

**MODEL LBO-510
OSCILLOSCOPE
OPERATING INSTRUCTIONS**

1. DESCRIPTION

1.1 General

LBO-510 is a compact general purpose 130mm (5") oscilloscope with wideband (DC to 4MHz) and high sensitivity (20mVp-p/cm) characteristics. It is designed for maximum usefulness in service shops, technical schools and laboratories. It features FET's in input circuits, DC-coupled amplifiers, phases (up to 140°) line frequency sweep and vertical calibration voltage. Return trace blanking is provided for clear waveform display.

1.2 Specifications

Vertical Axis

Deflection Sensitivity	20mVp-p/cm or better.
Bandwidth, -3dB	DC: DC to 4MHz. AC: 2Hz to 4MHz.
Input Impedance	1MΩ: less than 40pF in shunt.
Input Control	X1, X10, X100, and fine adjuster.
Calibration Voltage	0.1Vp-p at line frequency.
Maximum Input Voltage	600V (p-p + DCV).

Horizontal Axis

Deflection Sensitivity	300mVp-p/cm or better.
Bandwidth, -3dB	DC to 250kHz
Input Impedance	100kΩ: less than 40pF in shunt.
Maximum Input Voltage	100V (p-p + DCV).

Sweep Circuit

Frequency	10Hz to 100kHz in four steps with fine adjuster.
Synchronization	Internal - & +: external; line. Sensitivity: Internal, 1.5cm vertical amplitude. External, over 1Vp-p.

CRT Section

Accelerating Voltage	Approx. 1500V.
Display Area	8 X 10cm, effective.
Z-Axis Modulation	Over 20Vp-p from external source.
Power Supply	100, 115 or 230V as specified, 50/60Hz; approx. 15VA.
Size and Weight	250 (H) X 180 (W) X 415 (D) mm; 7kg. 10" X 7" X 16½"; approx. 15 lbs.