

## 1. INTRODUCTION

The model LBO-9D-01 and LBO-9D-02 (with DC clamp) are dual channel alignment oscilloscope with a 9-inch electromagnetic deflection CRT. It may be used in combination with a sweep generator to monitor the frequency response of TV receivers, radio receivers, filters, etc.

## 2. FEATURES

- High sensitivity of 1 mV/div for the vertical axis and calibrated ranges.
- Incorporated clamping circuit for the vertical axis to provide fixed base line for input waveform changes.

- [LBO-9D-02]
- Polarity inversion for the vertical axis.
  - Two types of markers; pulse marker and intensity modulation marker.

## 3. SPECIFICATIONS

### Vertical Axis

Sensitivity:	1 mV/div to 1V/div 4 ranges in 10 times steps; uncalibrated VARIABLE control provides deflection factors continuously variable between range settings.
Bandwidth:	DC: DC to 10 kHz (-3 dB) at 4 div    AC: 2 Hz to 10 kHz (-3 dB) at 4 div
Inpt impedance:	1 MO, approx. 50 pF
Input coupling:	AC - DC
Max. allowable inp. voltage:	200 V (DC + ACp-p)
Input terminal:	BNC connector
Polarity inversion:	Switchable
DC clamping:	Available by an ON-OFF switch.
[LBO-9D-02]	Clamping time can be set in synchronization with internal preset signal or external signal with positive or negative settings of a switch.
Operation mode:	CH-1: CH-1 only trace                      CH-2: CH-2 only trace ALT: Dual trace mode; alternate sweeping of CH-1 and CH-2 switched by 1/2 or 1/4 of horizontal input signal (triangle waveform of 25 Hz to 200 Hz) or by external switching signal.

### Horizontal Axis

Sensitivity:	100 mV/div or better
Attenuation:	Continuously variable to 0 sensitivity
Bandwidth:	DC: DC to 1 kHz (-3 dB) at 8 div    AC: 2 Hz to 1 kHz (-3 dB) at 8 div
Input impedance:	500 k $\Omega$ , approx. 50 pF
Input coupling:	AC - DC
Max. input voltage:	200 V (DC + ACp-p)
Input terminal:	BNC connector
Polarity inversion:	Switchable

### Z Axis (Intensity modulation terminal)

Sensitivity:	2 Vp-p or better
Attenuation:	Continuously variable to 0 sensitivity
Polarity switching:	Positive or negative automatic switching.
Input terminal:	BNC connector
Max. input voltage:	Less than 100 V (DC + ACp-p)

### Pulse Marker Input Terminal

Sensitivity:	10 mV/div or better
Attenuation:	Continuously variable to 0 sensitivity
Polarity switching:	Switchable
Input impedance:	100 $\Omega$
Input terminal:	BNC connector
Max. input voltage:	Less than 100 V (DC + AC p-p)