## LEADER

## 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 $1 \mathrm{mV} /$ 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:
Bandwidth:
Inpt impedance:
Input coupling:
Max. allowable inp. voltage:
Input terminal:
Polarity inversion:
DC clamping:
[LBO-9D-02]
Operation mode:
$1 \mathrm{mV} /$ div to $1 \mathrm{~V} /$ div 4 ranges in 10 times steps; uncalibrated VARIABLE control provides deflection factors continuously variable between range settings. DC: DC to $10 \mathrm{kHz}(-3 \mathrm{~dB})$ at 4 div $\mathrm{AC}: 2 \mathrm{~Hz}$ to $10 \mathrm{kHz}(-3 \mathrm{~dB})$ at 4 div 1 MO , approx. 50 pF AC - DC
200 V (DC + ACp-p)
BNC connector
Switchable
Available by an ON-OFF switch.
Clamping time can be set in synchronization with internal preset signal or external signal with positive or negative settings of a switch.
$\mathrm{CH}-1$ : CH-1 only trace $\quad \mathrm{CH}-2: \mathrm{CH}-2$ only trace
ALT: Dual trace mode;
alternate sweeping of $\mathrm{CH}-1$ and $\mathrm{CH}-2$ 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: $\quad 100 \mathrm{mV} /$ div or better
Attenuation: Continuously variable to 0 sensitivity
Bandwidth:
Input impedance:
Input coupling:
Max. input voltage:
Input terminal:
Polarity inversion:
DC: DC to $1 \mathrm{kHz}(-3 \mathrm{~dB})$ at 8 div $\mathrm{AC}: 2 \mathrm{~Hz}$ to $1 \mathrm{kHz}(-3 \mathrm{~dB})$ at 8 div
$500 \mathrm{k} \Omega$, approx. 50 pF
AC - DC
200 V (DC + ACp-p)
BNC connector
Switchable

## Z Axis (Intensity modulation terminal)

Sensitivity:
Attenuation:
Polarity switching:
Input terminal:
Max. input voltage:

2 Vp -p or better
Continuously variable to 0 sensitivity
Positive or negative automatic switching.
BNC connector
Less than $100 \mathrm{~V}(\mathrm{DC}+\mathrm{ACp}-\mathrm{p})$

## Pulse Marker Input Terminal

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

