

# Surround-Sound Monitor

**Test Equipment  
Depot**  
1-800-517-8431



LV 5836B

The LV5836B is capable of displaying a precise sound image that visually matches the human aural perception of sound directivity in surround-sound systems. Developed in collaboration with NHK, the Japanese National Broadcasting Company, the digital processor works out phase and amplitude aspects to display the sound image. Both L-Ctr-R-S (3-1) and L-Ctr-R-SL-SR (3-2) are accommodated as well as the 5.1 Dolby system. The unit accepts the latter in the form of 6-channel AES/EBU digital audio. A separate on-screen level indicator is employed for the low frequency effects (0.1) channel. In addition to the sound image,

- Unique Surround-Sound Display
- 6 Channel Bargraph Level Display
- Multi-Lissajous Patterns Show Phase/Amplitude Between Signal Pairs
- Single Lissajous Pattern with Level Bargraphs for Selected Signal Pairs
- Accepts Six Channels of AES/EBU Digital Audio
- Balanced and Single Ended Analog Inputs
- Selectable Sound Display for 3-1, 3-2 and 5.1 Systems
- Peak or Average Response
- Auto Gain Mode
- Selectable Analog and Digital Reference Levels
- Down Mixing Selects Step-Through Comparison
- XLR Polarity Select
- Spot Killer Protects CRT During Quiet Intervals

dedicated bargraph level indicators are provided. And six multi-Lissajous displays are available to show phase and polarity between pairs in the five channel group, this to spot polarity inversion in signal feeds at a glance. The unit accepts four, five or six channels of AES/EBU digital audio as well as five channels of analog audio in both balanced and unbalanced form. Peak or average response may be chosen, and an auto gain feature ensures optimum display. But fixed reference levels are menu selectable for both digital and analog inputs. A spot killer protects the CRT from extended no-signal operation.

## key specifications

### DISPLAY SECTION

Surround Formats Displayed

3-1, 3-2, 5.1 systems, selectable

Acoustic Image Display

3-1: L.C.R.S

3-2: L.C.R.SL.SR

5.1: L.C.R.SL.SR.SW

Lissajous Display

2 channel, selected

Multi-Lissajous Display

3-1: L.C, L.R, C.R, L.S, C.S, S.R

3-2: L.C, L.R, C.R, L.SL, SL.SR, SR.R

Lissajous Display Axis

Normal: X-Y indication

Matrix: sum/difference indication gain control

Auto Gain

Operation Range -12 to +8 dB

(Level and phase meters inactive)

Variable

± 6 dB via rotary select control

Display Gain

CAL'D, X0.5, X2, X10 switchable

### SPOT KILLER

ON/OFF menu selectable

### DOWN MIXING

3-1:  $L_m = L + 0.7C + 0.7S$

$R_m = R + 0.7C + 0.7S$

3-2:  $L_m = L + 0.7C + 0.7SL$

$R_m = R + 0.7C + 0.7SR$

5.1:  $L_m = L + 0.7C + 0.7SL$

$R_m = R + 0.7C + 0.7SR$

L-R: Normal stereo operation

Frequency Response

20 Hz to 20 kHz ± 1 dB

Display Accuracy

± 5%

### METER SECTION

Level Meter (Bargraph) Display

6 channel bargraph with labels for 3-1, 3-2 and 5.1 modes. On/Off menu selectable

Level Meter Response

FAST: (peak response) sound image, Lissajous only

SLOW: (average response) Lissajous

Reference Level

Analog: -20, 0, +4 dB menu selectable

Digital: -20, -18, -12 dB menu selectable

Level Meter Range

Analog: -40 to +10 dBm FAST mode

-20 to +3 dBm SLOW mode

Digital: -50 to 0 dB

Phase Meter Indication

On/Off menu selectable

Phase of channel pairs is displayed

### CHANNEL SELECTION

3-1

Selected from L•C, L•R, C•R, L•S, C•S,

S•R and down mixed Lm•Rm

3-2

Selected from L•C, L•R, C•R, L•SL,

SL•SR, SR•R, and down mixed

Lm•Rm

5.1

Selected from L•C, L•R, C•R, L•SL,

SL•SR, SR•R, & L•SW, L•R, SW•R, SL•SW,

C•SW, SW•SR and down mixed Lm•Rm

### INPUT SECTION

Analog Balanced Inputs

3-1: 4 signals L, R, C, S

3-2: 5 signals L, R, C, SL, SR

Input Connectors

5 XLR-3-32 (female)

Impedance

600 Ω/high impedance menu

switchable

Connector Wiring

1 ground, 2 hot, 3 cold

1 ground, 2 hot, 3 hot men switchable

Maximum Input Voltage

50 V dc + ac peak

Maximum Input Level

+ 15 dBm (4.5 V rms) 600 Ω

Analog Unbalanced Inputs

3-1: 4 signals L, R, C, S

3-2: 5 signals L, R, C, SL, SR

Input Connector / Impedance

RCA phono type / high

Maximum Input Voltage

50 V dc + ac peak

Digital Inputs

Formats: AES/EBU (48 kHz)

3-1: L, R, C, S 4 signals

3-2: L, R, C, SL, SR 5 signals

5.1: L, R, C, SL, SR, SW 6 signals

Input Connector

3 BNC, R.C.S: SW.SW

### REMOTE CONTROL

Functions

Sound image/Lissajous switchable

Channel switchable

Display gain switchable

Control Level

TTL

### POWER REQUIREMENTS

90 - 250 V ac, 50/60 Hz 40 W max.

### PHYSICAL

Size (W x H x D)

8<sup>1</sup>/<sub>2</sub> x 5<sup>1</sup>/<sub>4</sub> x 16<sup>3</sup>/<sub>4</sub> in.

215 x 132 x 429 mm

Weight

12.1 lbs., 5.5 kg

### AVAILABLE OPTIONS

Rackmount Adapter (LR-2400VT)