

# HB-BL2

# Unbalanced / Balanced Bi-Directional Converter

The HB-BL2 is a Bi-Directional stereo balancing, unbalancing and level-shifting interface used to inter-connect consumer, semi-professional and professional audio equipment. In addition, the HB-BL2 is a high-quality line driver for sending and receiving audio signals over long distances.

The HB-BL2 is also a gain conversion, it can take +4dBu balanced signals and convert to -10dBV unbalanced with a gain adjustment within  $\pm 10dB$ . For the unbalanced to balanced channels there is a corresponding gain conversion from unbalanced -10dBV to balanced +4dBu with  $\pm 10dB$  adjustment range.

# **Easy Operation**

The HB-BL2 are individual attenuate switches within 3dB step for equipment input level matching quickly. Input signals have two corresponding LED's that indicate signal content.

The normal gains setting are indicated for the multi-turn trimming. For produce +4dBu balanced output signal, these setting are possible from input signals ranging from -20dBV to 0dBV. For produce -10dBV unbalanced output signal, these setting are possible from input signals ranging from -6dBu to +14dBu.

# **System Connection**

The HB-BL2 rear panel is equipped with two channels (stereo) for balanced audio signals coming in through two standard XLRF connectors, and are converted to unbalanced outputs through two RCA phono connectors. The two RCA unbalanced inputs are converted a stereo unbalanced signal to balanced outputs through two standard XLRM connectors.

The HB-BL2 can be mounted in a single rack space flight-case, and the AC power input voltage is switchable (110V~120V or 220V~240V) for different countries.



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The HB-BL2 is ideal for equipment interface in recording studio, public announcement, radio and TV broadcasting where audio system must be flexible to install, easy to operate and completely transparent in operation.

# **Features**

- Correct interfacing of consumer and professional equipment with proper gain offset.
- Independent gain adjustment ±10dB on each channel allows for precise level adjustment with provides signal boost for long runs.
- 3dB step attenuate switches for equipment input level matching.
- High quality line driver for sending and receiving audio signals over long cable with Balanced transmission for better CMRR.
- RFI Filters on all inputs and outputs. EMC-proof case significantly improves rejection of radio frequency interference.
- LED indicators show signal contented of each input feed.
- Switchable power supply (110V~120V or 220V~240V).
- IEC-AC power receptacle

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#### Front Panel include :-

- Unbalanced Input Signal Indicators (Left and Right)
- Unbalanced Input Level Adjustment (Left and Right)
- Balanced Output Attenuate Switches (Left and Right)
- Balanced Input Signal Indicators (Left and Right)
- Balanced Input Level Adjustment (Left and Right)
- Unbalanced Output Attenuate Switches (Left and Right)
- Power Indicator



## Rear Panel include :-

- IEC AC Power Input (Fuse Included)
- Main Power Switch
- 110V ~ 120V / 220V ~ 240V Voltage Switch (Change Fuse Current for
- different Voltage)

- Stereo Balanced Input (XLRF)
- Stereo Unbalanced Output (RCA phono)
- Stereo Balanced Output (XLRM)
- Stereo Unbalanced Input (RCA phono)

# **TECHNICAL SPECIFICATIONS -**

#### **Audio Specifications**

Frequency Response +0 dB 20Hz~20kHz

Input Impedance 10k ohm Balanced 10k ohm Unbalanced

Maximum Input Level +30 dBu Balanced

+16 dbu Unbalanced

Balanced Input, at 1kHz 70 dB Typically

Output Gain Adjustable Range -12 dB to +12dB

Output Impedance 20 ohm Balanced 20 ohm Unbalanced

Maximum Output Level +27 dBu

Output Noise (A-wtd, rms)

-100 dB (Referred to +4dBu In / -10dBV Out)

-98 dB (Refered to -10dBV In / +4dBu Out)

**THD + Noise** 0.01% @ 1kHz at +24dBm

## Connections

Input 2 x XLRF (Balanced)

2 x RCA phono (Unbalanced)

Output 2 x XLRM (Balanced) 2 x RCA phono (Unbalanced)

Power Requirement IEC, 110~120V or 220~240V

#### **Physical Specifications**

**Dimensions** 482 mm (W) x 44 mm (H) - 1U panel x 122 mm (D)

Nett Weight 2.5 kg

<sup>\*</sup> In an effort to continually improve equipment performance, Hirosys reserve the right to alter the product specifications from those given in this brochure. Errors and omissions excepted





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