

# BUC 102

Two Channel Audio BUC - Balanced and Unbalanced Converter



## FEATURES

- **Inputs:** Captive screw connectors
- **Outputs:** Captive screw connectors
- **Provides signal matching between unbalanced and balanced audio equipment** — The BUC 102 enables correct interfacing of consumer and professional equipment with proper gain offsets.
- **Audio line driver** — Active, op amp-based circuitry provides wide frequency response, low noise, immunity to interference - EMI, and the ability to drive signals over long cables.
- **Allows transmission of balanced audio signals up to 1000' through Extron STP20 cable**
- **Gain control for each channel with a wide adjustment range from -80 dB to +20 dB** — Two front panel rotary trim pots provide level adjustment for each input.
- **Gain compensation switch for interfacing between professional A/V systems**
- **Rack-mountable 1U, one-eighth rack width metal enclosure**
- **External universal power supply included, part # 70-055-01** — Provides worldwide power compatibility.

## DESCRIPTION

The Extron **BUC 102** Balanced and Unbalanced Audio Converter provides signal matching between unbalanced and balanced audio equipment. In addition to serving as an interface between professional A/V systems and consumer products, the BUC 102 is a high-quality line driver for sending and receiving audio signals over long distances.

Inputs and outputs for the BUC 102 are on captive screw connectors. User controls include variable gain adjustments and a gain compensation switch to maintain consistency between consumer and professional audio levels. Part of the VersaTools® line of small, economical, integrator friendly products, the BUC 102 is housed in a 1U, one-eighth rack width metal enclosure.

### AUDIO INPUT

**Number / Signal type** ..... 1 set of stereo, balanced/unbalanced  
**Connectors** ..... (1) 3.5 mm captive screw connector, 5 pole  
**Impedance** ..... >20k ohms unbalanced, 40k ohms balanced, DC coupled  
**Nominal level** ..... -10 dBV (316 mVrms) or +4 dBu (1.23 Vrms)  
**Maximum level** ..... +20 dBu (7.75 Vrms), balanced or unbalanced, at 1%THD+N, 0 dB gain  
 NOTE: 0 dBu = 0.775 Vrms, 0 dBV = 1 Vrms, 0 dBV ≈ 2 dBu.

### AUDIO OUTPUT

**Number / Signal type** ..... 1 set of stereo, balanced/unbalanced  
**Connectors** ..... (1) 3.5 mm captive screw connector, 5 pole  
**Impedance** ..... 50 ohms unbalanced, 100 ohms balanced  
**Gain error** ..... ±0.5 dB channel to channel  
**Nominal level** ..... -10 dBV (316 mVrms) or +4dBu (1.23 Vrms)  
**Maximum level (Hi-Z)** ..... >+25 dBu (13.78 Vrms), balanced, at 1%THD+N with 100k ohm load  
**Maximum level (600 ohm)** ..... >+18 dBu (6.16 Vrms), balanced, at 1%THD+N  
 (The level of an unbalanced signal will be 6 dB lower.)

### GENERAL

**External power supply** ..... 100 VAC to 240 VAC, 50/60 Hz, 5 watts, external, universal; to 12 VDC, 1 A, regulated  
**Power input requirements** ..... 12 VDC, 0.2 A  
**Temperature / Humidity** ..... Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing  
 Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing  
**Rack mount** ..... Yes, with optional rack shelves (See optional accessories)  
**Enclosure type** ..... Metal  
**Enclosure dimensions** ..... 1.7" H x 2.2" W x 3.0" D (1U high, one-eighth rack wide)  
 4.3 cm H x 5.6 cm W x 7.6 cm D (Depth excludes connectors.)  
**Product / Shipping weight** ..... 0.2 lbs (0.1 kg) / 2 lbs (1 kg)  
**Vibration** ..... ISTA 1A in carton (International Safe Transit Association)  
**Listings / Compliances** ..... UL, CUL / CE, FCC Class A, VCCI, AS / NZS, ICES  
**MTBF** ..... 30,000 hours  
**Warranty** ..... 3 years parts and labor  
 NOTE: All nominal levels are at ±10%, and all specifications are tested at unity gain unless otherwise noted. Specifications are subject to change without notice.

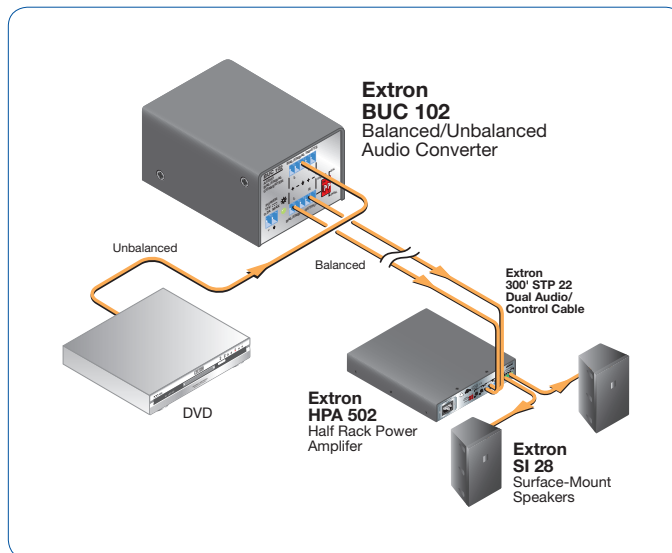
## SPECIFICATIONS

### AUDIO

**Gain** ..... Unity (0 dB) when the BUC 102 is set to the default gain adjustment and the DIP switch is set to match the output wiring.

DIP Switch Setting	Output Wiring	
	Unbalanced	Balanced
Unbalanced	0 dB	+6 dB
Balanced	-6 dB	0 dB

**Gain adjustment range** ..... Mute to +20 dB, when DIP switch is set to match the output wiring  
**Frequency response** ..... 20 Hz to 20 kHz, <±0.15 dB  
**THD + Noise** ..... 0.05% @ 1 kHz at nominal level  
**S/N** ..... >90 dB, balanced, at maximum output, unweighted  
**Stereo channel separation** ..... >80 dB @ 1 kHz, >60 dB @ 20 kHz  
**CMRR** ..... >72 dB @ 20 Hz to 20 kHz



## MODEL

**BUC 102** ..... **VERSION DESCRIPTION** Balanced-Unbalanced Audio Converter ..... **PART #** 60-651-01

## OPTIONAL ACCESSORIES

MODEL DESCRIPTION	PAGE	PART #
RSU 129 1U 9.5" Deep Universal Rack Shelf Kit	page 819	60-190-01
RSF 123 1U 3.5" Deep VersaTools® Rack Shelf Kit	page 818	60-190-20
MBU 123 VersaTools® Mini Under-Desk Mount Kit	page 815	70-212-01
PMK 100 One VersaTools®, 1/4 Rack Width Mini Projector Mounting Kit	page 813	70-217-01
MBB 100 VersaTools® Back of Rack Mounting Kit	page 817	70-367-01

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