

# Signature Series

Maximum Resilience Broadcast Audio



## Signature U2B4

2 off stereo unbalanced to balanced converters



U2B4 Front



U2B4 Rear

## FEATURES

**2 x unbalanced stereo inputs to balanced stereo outputs**

**Can be used as 4x mono unbalanced to balanced converters**

**Gain controls to adjust domestic to professional levels**

**Wide range mains input & external DC backup**

The Signature U2B4 is a broadcast specification twin stereo unbalanced to balanced analogue audio interface that is equally suitable for professional & home studio use.

Its primary job is to interface domestic type audio outputs (unbalanced) to the balanced audio inputs on broadcast and professional audio equipment.

As well as providing a balanced interface the U2B4 also provides variable gain/ loss to allow the lower level audio outputs produced by domestic equipment to be raised to meet the higher level broadcast and pro audio standard.

The two stereo audio inputs (which can work as quad monos) are on gold plated RCA phono connectors.

These inputs are electronically isolated with RF filters to prevent extraneous signals, and fed via multi-turn preset gain controls on the rear panel to two pairs of electronically balanced and isolated outputs on Neutrik XLRs.

The rear panel gain controls are multi-turn presets to allow accurate gain setting and are also recessed to prevent accidental movement.

Power is provided by an internal switch mode power supply, with a wide input range. There is also an input for external 12V DC power. The 12V DC input can be connected to the optional Signature PS1 external DC Master Power Station, for situations where a redundant power supply is desirable.

A bright front panel LED indicates that the unit is operational.



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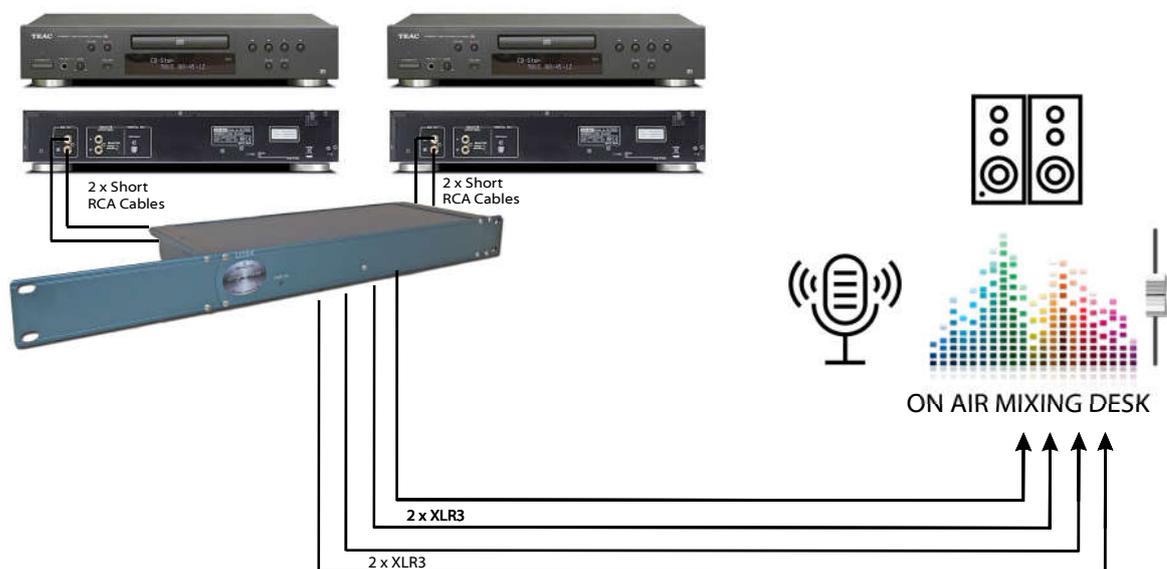
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### EXAMPLE APPLICATION

## CD PLAYERS TO BROADCAST DESK

Interface two domestic CD players to a Broadcast desk



Many radio stations and studios incorporate mid level domestic audio equipment such as CD players as they provide reasonable value for money in comparison to professional versions. The output of such devices need to be correctly interfaced with a professional or broadcast audio desk. In this example the U2B4 will be located near the two CD players as it is prudent to keep the unbalanced audio cables as short as practicable.

The U2B4 is performing both balance conversion and adding gain to lift the low domestic output levels of the CD players to a suitable level for the professional mixing desk. The outputs being balanced are more suitable for longer cable runs and therefore the CD player/ U2B4 equipment set can be placed much further away from the mixer than the CD player alone could ever be.



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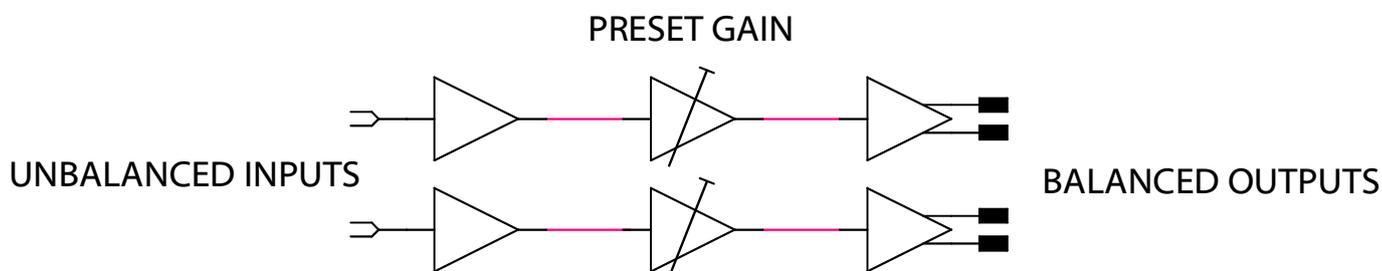
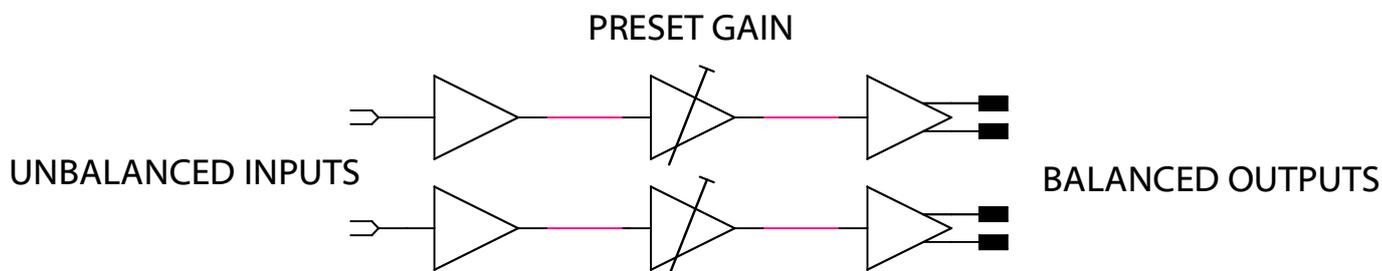
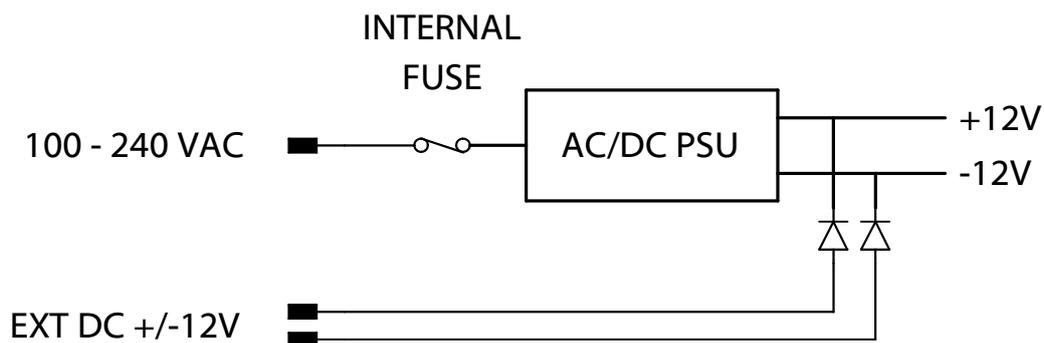
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### AUDIO BLOCK DIAGRAM



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## SPECIFICATION

### AUDIO

**Frequency Response @ Line Up**

<+/-0.1dB 40Hz to 20kHz

**Gain Range**

-15dB to +15dB on each output

**Line Up Level (with 0dB Gain)**

-12dBu on unbalanced input = 0dBu on balanced output

**Maximum Input Level**

+28dBu

**Maximum Output Level**

+24dBu

**Input Impedance**

>22k Ohm

**Output Impedance**

<50 Ohms

**Distortion**

0.04% THD @ 100Hz, 1kHz & 0.01% @ 10kHz  
Reference to +0dBu output

**Noise**

-98dB @ line up unweighted  
RMS (22Hz to 22kHz) ref +8dBu output

**Crosstalk**

<-90dBu 1kHz to 15kHz @ lineup

**Output Type**

Electronically balanced on Neutrik  
3 pin XLR plug

**Input Type**

Electronically isolated on Gold Plated  
RCA Phono socket

### ENVIRONMENTAL

**Operating Temperature**

0 to +50 °C (32° to 122°F)

**Storage Temperature**

-20 to +70 °C (-4° to 158°F)

**Relative Humidity**

0 to 95% non-condensing

### POWER

**Mains Input**

Filtered IEC, 100 to 240VAC  
47 - 63Hz

**AC Consumption**

1.7 Watts

**DC Input**

4 Pin Neutrik XLR plug +/- 12V

**Internal Mains Fuse**

20mm 1A Anti Surge

### PHYSICAL

**Size**

338 x 123 x 44mm (LxDxH) no rack ears  
482mm 19" (1RU) with rack ears

**Weight**

1.00kg

**Mechanics**

All aluminium construction, anodized and  
laser etched

**Shipping Carton**

Rugged export quality cardboard carton  
610 x 420 x 130mm LxDxH

**Shipping Weight**

2.3kg

### INCLUDED

**Mains Lead**

2 Metre Long Mains Lead  
(UK & Europe only)

**Rack Bolts**

4 off Pozi head M6

**Feet**

4 off rubber stick on feet

**Handbook**

Full A4 handbook available to download  
and linked by QR code on device

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## Signature Series Standard Features

### STANDARD FEATURES

#### 19" Rack Mount Ears



A Signature unit can rack mount in a 1U 19" rack, regardless of the size of the unit. Rack ears are included as standard with every unit.

#### Front Or Rear Mounting



A Signature unit can be rack mounted via the front panel or if it is more convenient, via the rear panel by simply swapping the rack ears over.

#### Side Wings For Flat Surface Fixing



A Signature unit has side wings with mounting holes at the top and bottom, allowing flush fixing from above **OR** underneath.

#### Neutral Colour Scheme To Complement Equipment Areas



#### Rack Screws Included



#### Modern Design



#### Internal Switch Mode AC Power Supply



A Signature unit has an internal switch mode AC power supply, allowing worldwide power connections from 100-240V via an IEC socket.

#### 12V DC Power Connection



All Signature units (except PS1) have a 4 pin XLR  $\pm 12V$  DC socket for connection to the PS1 Power Station. This can act as the primary or backup power source.

#### Quick Find Manual



A Signature unit has a QR code attached. This can be scanned to simply and quickly locate the manual and technical information.

### CONTACT

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