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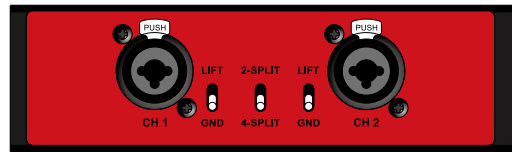
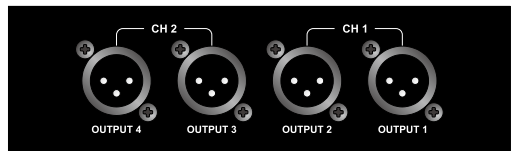
PROFESSIONAL AUDIO

USER GUIDE

Box Series

Made in Taiwan

ISO2X4



Index

- 01 Overview
- 01 Features
- 03 Audio Connection
- 05 Various System Connection
- 05 Eliminating Hum and Buzz and the Ground Lift
- 06 Specifications

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OVERVIEW

The ISO2X4 is a passive audio isolator/splitter designed to be inserted into the signal chain to block hum and buzz caused by ground loops. The ISO2X4 accepts unbalanced or balanced signals and is equally suitable for consumer electronics and professional line-level devices.

The ISO2X4 can be operated as a dual 2 outputs splitter or the 2 inputs are summed to form a mono 4 outputs splitter, and since the circuit is passive, no power is required. Whether an unbalanced or balanced signal is connected, the ISO2X4 will automatically convert the signal depending on the type of cable and connector plugged in.

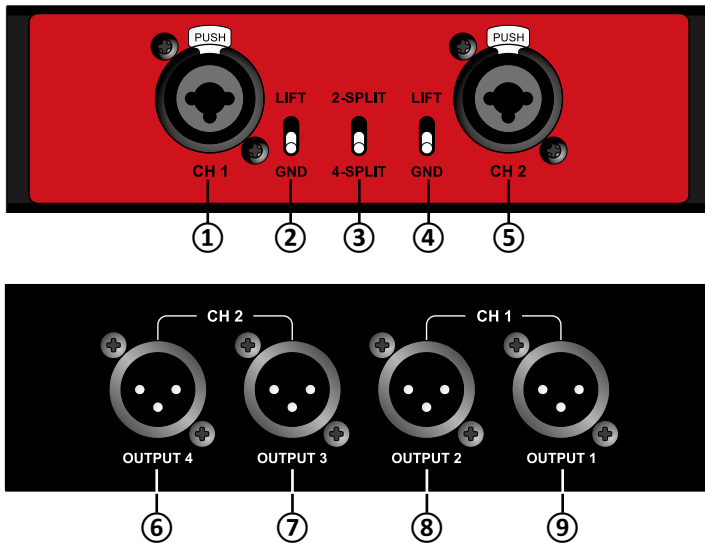
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If you still need further clarification, please send email to us and we will do our very best to reply you in short order.

FEATURES

The ISO2X4 is a simple passive device, designed to take a line-level audio signal and split it to separate destinations without introducing noise or degrading the audio quality.

On the ISO2X4 there are 2 inputs and 4 outputs, it is designed to be operated as a dual 2 outputs splitter, or mono 4 outputs splitter; in dual 2 outputs splitter mode, the input-1 audio will be split into 2 separate outputs which are the output-1&2, while the channel-2 audio input will split into separate outputs 3&4; in mono 4 outputs splitter mode, the 2 audio inputs are summed and then split into 4 separate outputs 1, 2, 3 & 4. Each isolated output pass through a premium transformer, which blocks DC voltage and prevents buzz and hum from ground loops. All of the outputs feature individual ground lift switches, which help further reduce ground loop noise.



- ① Ch-1 input, transformer balanced XLR- $\frac{1}{4}$ " TRS.
- ② Ground lift switch, the pin-1 on input-1 XLR connector will be disconnected from the pin-1 of output-1 & output-2 XLR connectors.
- ③ 2-Split / 4-Split mode selector:
2-split mode: Each input channel split into 2 separate outputs.
The input-1 audio will be split into 2 separate outputs which are the output-1&2.
The input-2 audio will be split into 2 separate outputs which are the output-3&4.
4-split mode: In mono 4 outputs splitter mode, the 2 audio inputs are summed and then split into 4 separate mono outputs 1, 2, 3 & 4
- ④ Ground lift switch, the pin-1 on input-2 XLR connector will be disconnected from the pin-1 of output-3 & output-4 XLR connectors.
- ⑤ Ch-2 input, transformer balanced XLR- $\frac{1}{4}$ " TRS.
- ⑥ Output-4, transformer balanced XLR output.
- ⑦ Output-3, transformer balanced XLR output.
- ⑧ Output-2, transformer balanced XLR output.
- ⑨ Output-1, transformer balanced XLR output.

AUDIO CONNECTION

Notes for direct input and parallel connection of instruments:

Before making connections, ensure that your sound system is turned off and all volume controls are turned down, this prevents the appearance of the transients voltage signal could damage to system sensitive components such as high frequency speakers, when any music instruments is plugged in or power turning on.

About the power supply:

The ISO2X4 is completely passive, so it doesn't require any power to operate.

About input / output:

The ISO2X4 has a combination XLR/TRS input connector, which is wired with the AES standard pin-1 ground, pin-2 hot (+), pin-3 cold (-).

Balanced or unbalanced output signal can be connected to the input of ISO2X4; the isolated outputs will always be balanced signals, this can be used in various PA system of applications, from splitting the output of a mic preamp to different compressors or effects units, to splitting the output of a console to multiple recording devices etc.

The balanced output of the ISO2X4 is line level, meaning that it should be connected to the line input of a mixing console.

Suggestions about distance cable running:

Unbalanced cables are much more susceptible to noise than their balanced counterparts, keeping unbalanced cables under 8 meters (25') in length is good practice while balanced cables can easily extend to 100 meters (300').

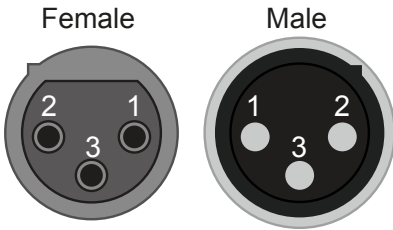


Fig-1: XLR Plugs Balanced connection:
1-Ground
2-Signal Hot (+)
3-Signal Cold (-)

XLR-TRS Combo input

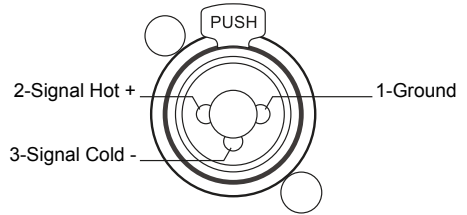


Fig-2: XLR-1/4"TRS Combo socket for direct input

For Unbalanced connection, pin-3 should be connected to Ground with pin-1.

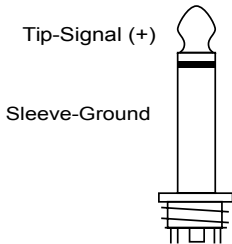


Fig-3: 1/4"TS Unbalanced connection

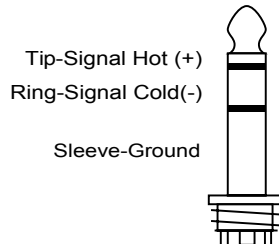


Fig-4: 1/4"TRS Balanced connection

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VARIOUS SYSTEM CONNECTION

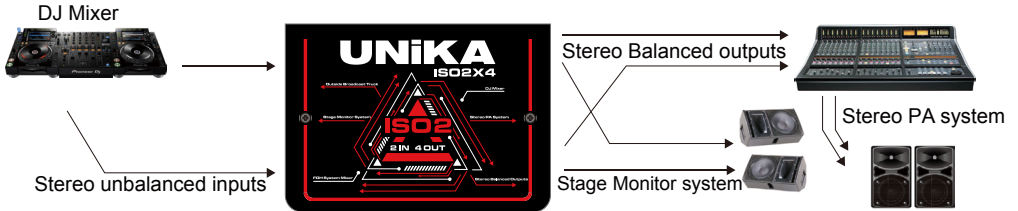


Fig-5: Stereo Unbalanced Input to 2x Stereo

Balanced Isolated outputs



Fig-6: Stereo Balanced Isolated to Distant Multi Destinations

ELIMINATING HUM AND BUZZ AND THE GROUND LOOP

The ISO2X4 is equipped with isolation transformers to eliminate hum and buzz caused by stray DC voltage and ground loops.

Computers, optical projectors and other consumer equipment can be particularly noisy, anyone that has incorporated audio with a projector knows that noise can be a serious problem, so transformers can be incredibly useful when combating system noise.

A ground lift switch on the outputs takes this one step further by lifting pin-1 on the XLRs. Computers are often the source for noise problems in audio systems, so greater care is certainly needed to keep things quiet.

SPECIFICATIONS

(Specifications are subject to change without notice.)

Audio Circuit Design	Passive, Transformer Isolated.
Frequency Response	20Hz to 20KHz, +0.5 / -0.5dB
Input level	Mic level to +28dBm max.
Input Impedance	600 Ω impedance matching
Output impedance	600 Ω impedance matching
Output	Balanced transformer isolated (XLR-M, Pin-1 Ground, Pin-2 Hot, Pin-3 Cold)
Dynamic range	>130dB
Noise floor	<-100dBu, unweighted 20Hz to 20KHz.
Total harmonic distortion	Less than 0.008% at 1KHz, 0dBu output
Ground lift	Lifts pin-1 on XLR outputs
Finish	Durable powder coat
Size	158mm (W) x 112mm (D) x 46mm (H)
Weight	1.2Kg, 2.6lbs.
Construction	14 gauge steel cabinet & chassis

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