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Radial engineering LX-2 2-Channel Balanced Line Splitter User Guide

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Thank you for your purchase of the Radial LX-2™ line-level audio splitter and attenuator, a simple but powerful tool built for the studio, stage, or broadcast applications.

Before you begin using the LX-2, please take a few minutes to read this short manual to become familiar with the various features and possible uses. If afterwards you find yourself in need of more information, please visit our website. This is where we post updates and frequently asked questions from users like yourself. If you are still in need of answers, feel free to drop us a line at **info@radialeng.com** and we will do our best to respond in a timely manner.

With the LX-2 you can crank up your mic preamps without fear of overloading, and split your line-level signal to multiple destinations with ease.
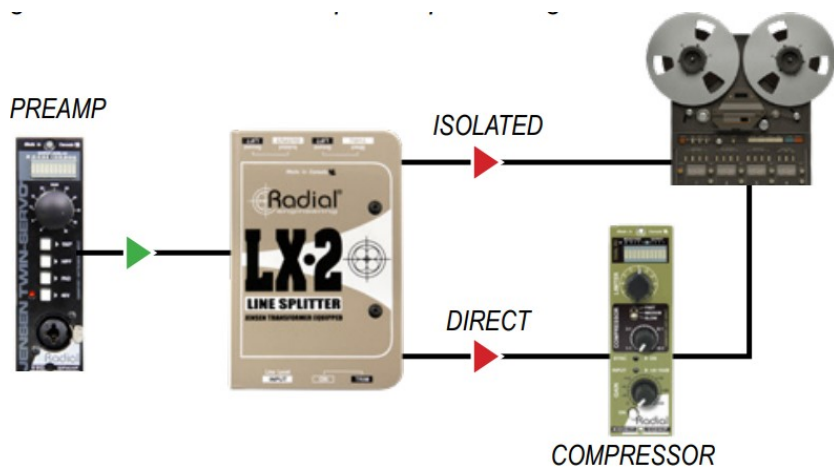
Contents

FEATURES

1. **XLR/TRS INPUT:** Combination **XLR** or ¼" input.
2. **TRIM ON:** Set & forget switch activates the trim level control. Signal passes through at unity gain when this switch is not engaged.
3. **TRIM LEVEL:** Attenuates the signal at the input of the LX-2.
4. **BOOKEND DESIGN:** Creates a protective zone around the jacks and switches.
5. **DIRECT THRU OUTPUT:** Direct output to connect to recording or monitor systems.
6. **GROUND LIFTS:** Disconnects pin-1 ground at the XLR output and thru.
7. **ISO OUTPUT:** Transformer isolated output eliminates hum & buzz caused by ground loops.
8. **NO SLIP PAD**: Provides electrical & mechanical isolation and keeps the unit from sliding around.
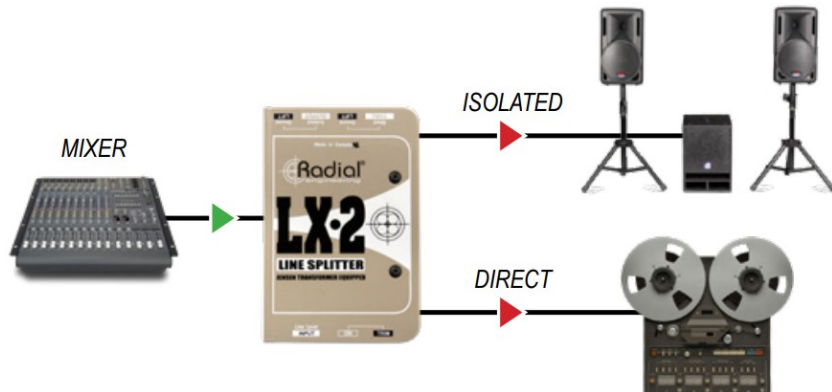
OVERVIEW

The LX-2 has a single **XLR/TRS** INPUT connector, an **ISO OUTPUT** with a ground lift switch, and a **DIRECT THRU** output with a ground lift switch. You can connect any line-level signal to the **INPUT,** and use the ISO **OUTPUT** to feed a recording device, broadcast truck, or mixing console. The **ISO OUTPUT** is equipped with a premium Jensen™ transformer, which provides exceptional signal handling and low noise, while also blocking **DC** voltage to help eliminate buzz and hum from ground loops. This output also features a ground lift switch that disconnects the ground path between the input and output to further reduce ground loop noise. The **DIRECT THRU** output can be used to feed an additional mixer or another destination, with a separate ground lift switch for noise abatement. Should you find the need to attenuate a high-output signal, a variable TRIM control can be engaged to provide an accessible level adjustment, allowing you to tame hot console outputs or preamps and prevent distortion at your input devices.

Using the LX-2 in the studio for parallel processing

Using the LX-2 live to split a line level signal from a mixer

MAKING CONNECTIONS

Before making connections, ensure that your sound system is turned off and all volume controls are turned down. This prevents any plug-in transients from damaging speakers or other sensitive components. The LX-2 is completely passive, so it doesn't require any power to operate.

The LX-2 has a combination XLR/TRS input connector, which is wired with the AES standard pin-1 ground, pin-2 hot (+), pin-3 cold (-). You can connect balanced or unbalanced inputs to the LX-2; the isolated output will always be a balanced signal, while the direct output will be balanced or unbalanced depending on the input source.

USING THE TRIM FUNCTION

For situations where a level adjustment is required, the trim control on the LX-2 allows you to attenuate overly hot signals. This lets you drive your mic preamps hard to achieve coloration, while attenuating the level at the LX-2 to avoid clipping the inputs of your recording interface. This trim control is activated by a recessed 'set & forget' TRIM ON switch. For use on stage or in situations where attenuation is not needed, simply disengage this switch to prevent accidental or unwanted level adjustments.
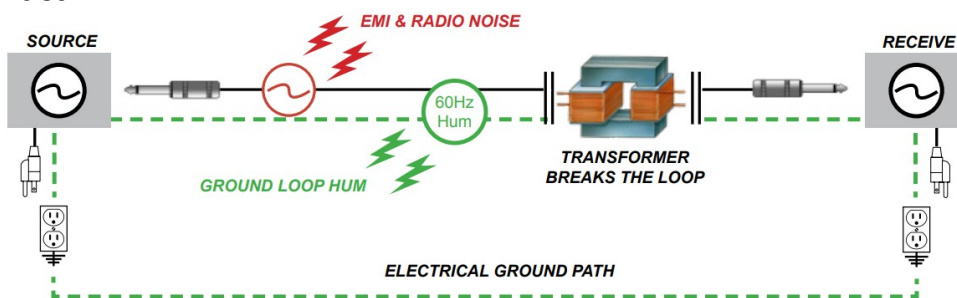
PREAMP

Engage the trim function to drive a mic preamp to saturation without distorting the inputs of your recording

interface

USING THE GROUND LIFT

When connecting two or more powered devices, you may encounter hum and buzz caused by ground loops. The isolated output on the LX-2 has a Jensen transformer in the signal path, which blocks DC voltage and breaks the ground loop. However, the direct output is connected straight through to the input of the LX-2, and you may need to engage the ground lift on this output to disconnect pin-1 on the connector and help remove buzz and hum on this output. A ground lift switch is also present on the isolated output to provide further abatement of ground loop noise.

The image above shows an audio source and a destination with a common electrical ground. As the audio also has a ground, these combine to create a ground loop. The transformer and ground lift work together to eliminate the ground loop and potential noise.

OPTIONAL RACK MOUNTING KITS

The optional J-RAK™ rack mount adapters allow four or eight LX-2s to be securely housed in a standard 19" equipment rack. The J-RAK fits any standard-sized Radial DI or splitter, allowing you to mix and match as needed. Both J RAK models are built of 14-gauge steel with a baked enamel finish.
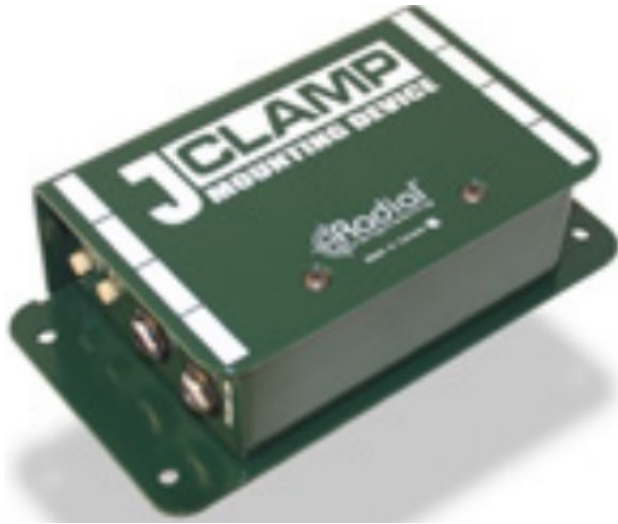
J-Rak 8

J-Rak 4

Each direct box can be front or rear mounted allowing the system designer to have the XLR's on the front of the rack or rear, depending on the application.

J-CLAMP

The optional J-CLAMP™ can mount a single LX-2 inside a road case, under a table, or on virtually any surface. Constructed from 14-gauge steel with a baked enamel finish.

FAQ

Documents / Resources

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LX-2, LX-2 2-Channel Balanced Line Splitter, 2-Channel Balanced Line Splitter, Balanced Line Splitter, Line Splitter, Splitter