

COUNTRYMAN  
TYPE 10 STEREO



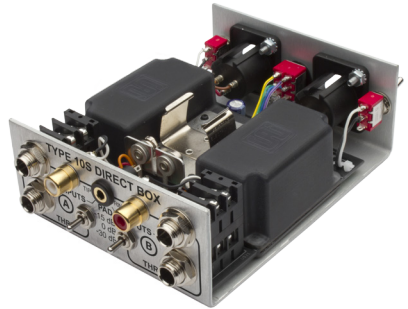
Thanks for choosing the Countryman Type 10S Stereo Direct Box. We're confident you'll find it the most accurate and rugged two-channel direct box available.

The Type 10S DI uses an innovative circuit design to deliver unparalleled performance: total harmonic distortion (THD) less than 0.001%, 122 dB of dynamic range, flat and extended bandwidth from 10 Hz to 50 kHz (+/- 1 dB), less than 2 degrees of deviation from linear phase for the entire audio range, and imperceptibly low inter-channel cross-talk. And all of this performance comes in a rugged, nearly indestructible housing, built to last for years on the road.

This booklet describes how to use the Type 10S to get the best performance in a variety of different applications.

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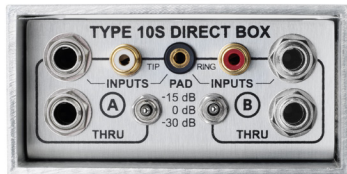
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## Input Connector Options

The Type 10S includes several different connector options on the input to accommodate a wide variety of applications. Here are some things you should know about the various connectors:

- If phantom power is available, all of the connectors can be used. For battery operation, only the 1/4" jacks are available, since the battery turns on only when you connect a mono 1/4" plug to Channel A.
- The 1/8" jack is wired such that the tip routes to Channel A, and the ring to Channel B.
- The 1/4" inputs have an input impedance of 10M $\Omega$  since they are often used with piezo pickups, or other high impedance sources. The RCA and 1/8" inputs have an input impedance of 20k $\Omega$  since they are almost always driven by low impedance sources.



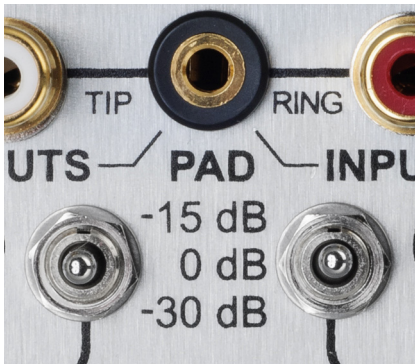
## Padding Options

The Type 10S offers three pad levels (0dB, -15dB, and -30dB) on each channel.

**0dB Pad Level:** Use for most sources (levels less than 5Vpp, or 7dBu), such as passive acoustic or bass guitars, piezo pick-ups, and many keyboards.

**-15dB Pad Level:** Use for very hot sources (levels between 5Vpp and 28Vpp, or 22dBu), such as some keyboards and active instruments.

**-30dB Pad Level:** Use when you want to capture the sound of your amp in the mix, and are plugging the amp output into the Type 10S input. *Remember that, as with any DI box, the Type 10S will not provide the required load to the output of a tube amplifier. Always connect a speaker or dummy load to the tube amp output to prevent damaging the amp.*



## Powering the Type 10S

The Type 10S is an “active” direct box, which means it requires power to operate. To power the box, you can either provide phantom power—which is available on almost any modern mixing console—or use the internal 9V battery. When used with a fresh alkaline 9V battery, the Type 10S will run for 130 hours.

You only need to provide phantom to Channel A to power both channels of the device. And the battery is only engaged when you plug a mono 1/4” cable into the Channel A 1/4” input jack.

Your Type 10S continuously monitors phantom and battery power levels, and seamlessly transitions between them when necessary to achieve peak performance.



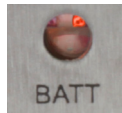
## Power Test Feature

The power test switch allows you to determine whether your box is operating on phantom power or battery, and if the battery voltage is low. This can be an invaluable tool for quickly debugging problems at a venue.

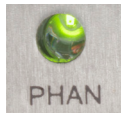
To operate this feature, press the power test switch on the XLR side of the DI box, and read the LED indicators. If the PHAN light is green, the box is operating on phantom power. If the BATT light is green, the box is operating on battery power. If the BATT light is red, the battery is low and needs to be replaced.



The box is operating on 9V battery power.



The battery is low and needs to be replaced.

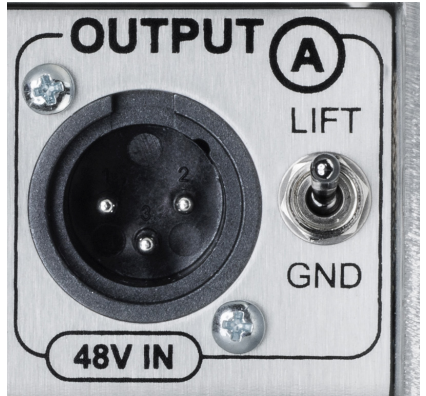


The box is operating on 48V phantom.



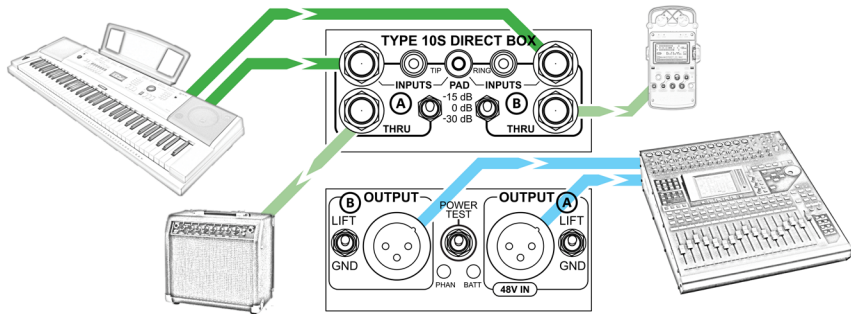
## Ground Lift

The ground lift switch isolates your input ground from your XLR output pin 1. The Type 10S allows you to lift or ground either channel independently. If you have hum or buzz in your signal, try both positions of the ground lift switches for both channels.



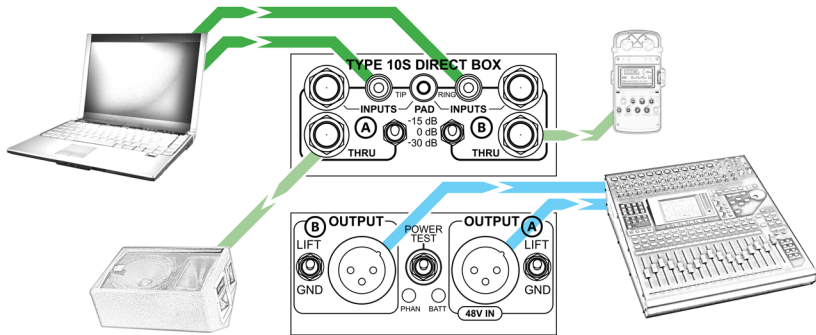
## Typical Applications—Keyboards

For keyboards, try the 0dB or -15dB pad settings of the Type 10S, and either the 1/4" or RCA jacks on the input. Use the 1/4" thru connection to output your signal to your stage monitors or amplifier, or to a digital recorder.



## Typical Applications—Multimedia Devices

When using the Type 10S with multimedia devices (such as iPods®, laptops, DVD players, etc.), try the 0dB or -15dB pad settings and use the RCA or 1/8" jacks.



## Key Specifications (See Datasheet for Full List of Specs)

### Frequency Response:

10Hz to 50kHz (+/- 1 dB)

### Noise (Shorted Input, 22Hz to 20kHz):

1.8 $\mu$ Vrms (-115 dBVrms)

### Distortion (1Vpp, Typical Load):

THD: < 0.001% at 1 kHz

< 0.005% from 30Hz to 20kHz

IMD: < 0.002% (10kHz/60Hz, 4:1)

### Deviation from Linear Phase:

+2° (30Hz), 0° (100Hz to 20kHz)

### Transformer Isolation Voltage:

>500VAC, ground to either XLR Pin 1

### Cross-Talk Rejection:

>105 dB (20Hz to 20kHz)

### Maximum Input Level (1% THD):

5Vpp (No pad), 28Vpp (-15dB pad), 158Vpp (-30dB pad)

### Input Resistance:

10M $\Omega$  (0dB pad, 1/4" input), 20k $\Omega$  (0dB pad, RCA or 1/8" inputs), 10k $\Omega$  (-15, -30dB pad)

### Dimensions:

2 x 4 x 6.25 in. (50.8 x 101.6 x 158.8 mm)

### Weight:

31.2 oz (0.88 kg)

## Declarations

We, Countryman Associates Inc., declare under our sole responsibility that the following products:

Direct Box models DT10, DT85, DT10S and DT85S

To which this declaration relates are in compliance with the essential requirements of:

2004/108/EC	EMC
EN 55103-1	
EN 55103-2	
2002/96/EC	WEEE
2003/108/EC	
2002/95/EC	RoHS

When used as specified.



## Notes

## Notes



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