



COUNTRYMAN
TYPE 10 DI

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

The Type 10 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) and less than 2 degrees of deviation from linear phase for the entire audio range. 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 10 to get the best performance in a variety of different applications.

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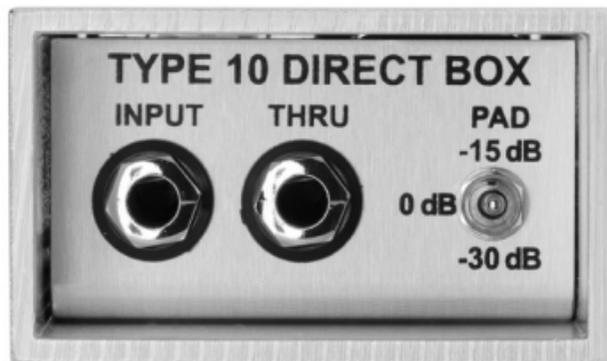
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Input

The Type 10 includes a 1/4" mono Input and a 1/4" mono Thru connection.

- The 1/4" Input is a mono jack. Stereo plugs will have the ring connection shorted to sleeve. *We strongly recommend using mono cables with the Type 10.*
- The 1/4" Input has an input impedance of 10M Ω since it is often used with piezo pickups, or other high impedance sources.
- The 1/4" Thru connection is wired directly to the Input connector: tip to tip, sleeve to sleeve.



Padding Options

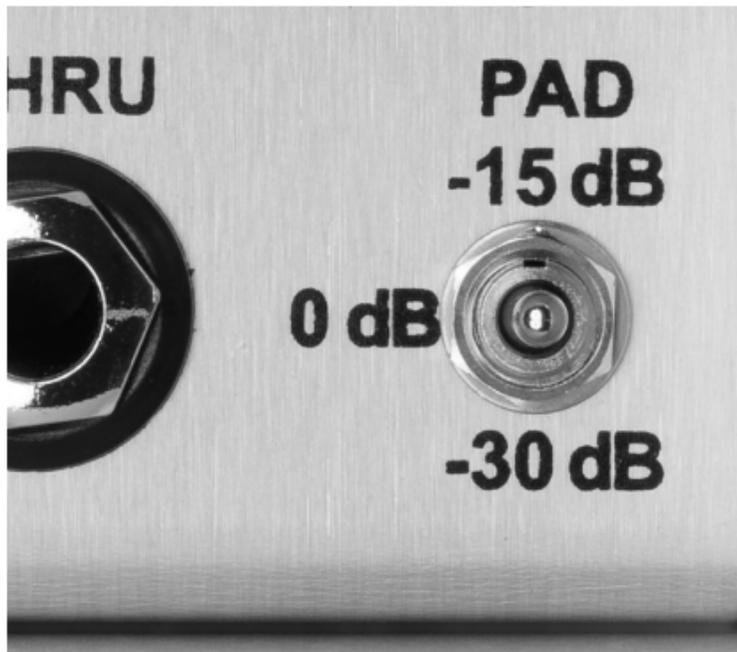
The Type 10 has three pad levels (0, -15, and -30 dB):

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

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

-30 dB Pad Level: Use when you want to capture the sound of your amp by plugging the amp output into the Type 10 input (levels between 28 Vpp and 190 Vpp, or 37 dBu)

Remember that, as with any DI box, the Type 10 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 10

The Type 10 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.

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

The battery is only engaged when you plug a mono 1/4” cable into the 1/4” input jack, and when phantom power is not available. When used with a fresh alkaline 9V battery, the Type 10 will run for 130 hours.



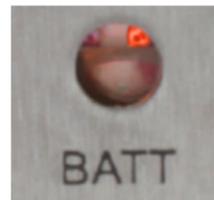
Power Test Feature

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 check 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.

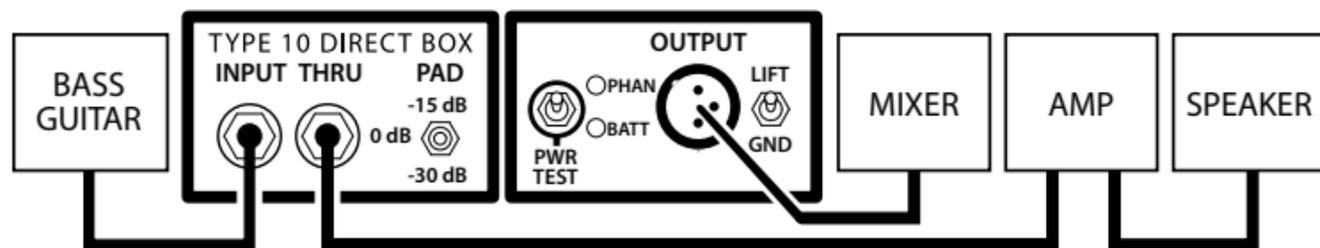
Ground Lift

The ground lift switch isolates your input ground from your XLR output pin 1. If you have hum or buzz in your signal, try both positions of the ground lift switch.

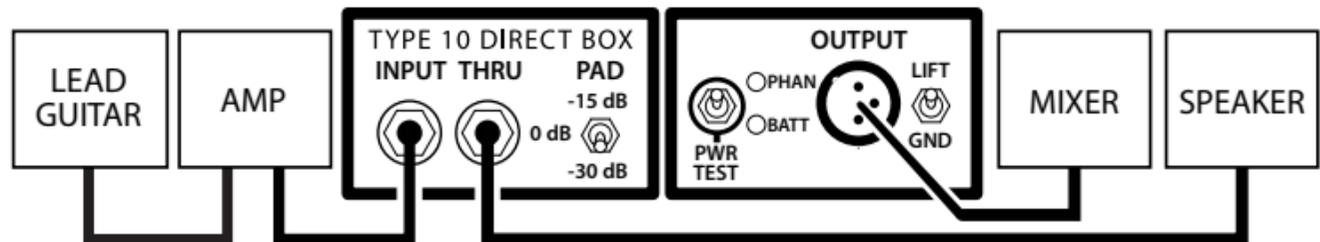


Applications—Guitar and Bass

Typical Bass Guitar (0 dB Pad)



Typical Lead Guitar (-30 dB Pad)



Key Specifications (See Datasheet for Full List of Specs)

Frequency Response:

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

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

1.8 μ Vrms (-115 dBVrms)

Distortion (1 Vpp, Typical Load):

THD: < 0.001% at 1 kHz

< 0.005% from 30 Hz to 20 kHz

IMD: < 0.005% (10 kHz / 60 Hz, 4:1)

Deviation from Linear Phase:

+2° (30Hz), 0° (100 Hz to 20 kHz)

Transformer Isolation Voltage:

>500 VAC from instrument ground to XLR Pin 1

Input Protection:

220 Vrms and 20,000 V static discharges

Maximum Input Level (1% THD):

6 Vpp (0 dB pad), 33 Vpp (-15 dB pad), 190 Vpp (-30 dB pad)

Input Resistance:

10M Ω (0dB pad), 10 k Ω (-15, -30 dB pad)

Input Capacitance:

240pF (equal to 3 ft of low-capacitance guitar cable)

Dimensions and Weight:

1.75 x 3 x 6 in. (45 x 77 x 152 mm)

20.8 oz (0.59 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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