



COUNTRYMAN
TYPE 85 STEREO

Thanks for choosing the Countryman Type 85S Stereo Direct Box. We're confident you'll find it the smoothest sounding stereo direct box available.

Each channel of the Type 85S DI uses the same circuit as the classic Type 85 FET Direct Box. Using only the highest quality, hand-selected discrete components woven into a Class A FET design, the Type 85S provides the ultimate way to connect guitar pickups, contact microphones, or electric instruments to a recording or mixing console. By using the Type 85S, you can be assured that the sound from your instrument will remain unchanged and the mixing console will receive the best possible signal.

This booklet describes how to use the Type 85S to get the best performance in a variety of different applications.

Contents

Input Connector Options	3
Padding Options	4
Powering the Type 85S	5
Ground Lift	6
Typical Applications	
<i>Keyboards</i>	7
<i>Multimedia Devices</i>	8
Key Specifications	9
Declarations	10



Input Connector Options

The Type 85S provides three 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 Ω 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 Ω since they are almost always driven by low impedance sources.



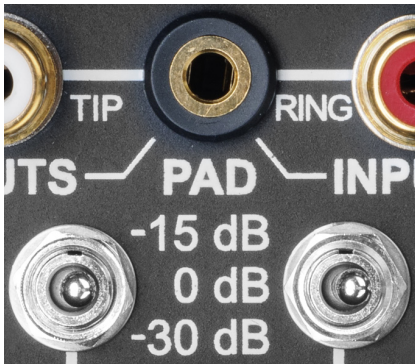
Padding Options

The Type 85S 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 85S input. *Remember that, as with any DI box, the Type 85S 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 85S

The Type 85S 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 85S 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 85S continuously monitors phantom and battery power levels, and seamlessly transitions between them when necessary to achieve peak performance.



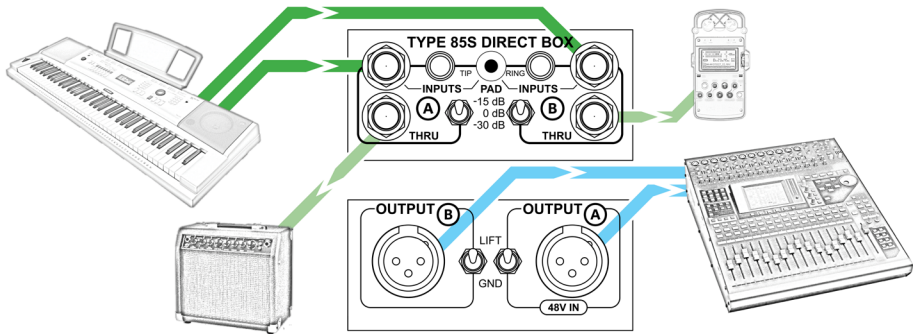
Ground Lift

The ground lift switch isolates your input ground from your XLR output pin 1. The Type 85S 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.



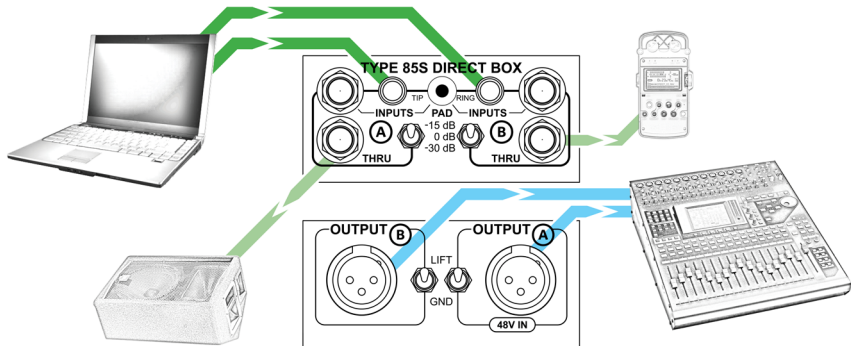
Typical Applications—Keyboards

For keyboards, try the 0dB or -15dB pad settings of the Type 85S, 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 85S 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:

20Hz to 20kHz (+/- 1 dB)

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

0.63 μ Vrms (-122 dBu)

Distortion (1Vpp, Typical Load):

THD: < 0.018% (1kHz)

IMD: < 0.08% (10kHz/60Hz, 4:1)

Transformer Isolation Voltage:

>500VAC, ground to either XLR pin 1

Input Protection:

220V RMS and 20,000 V static discharges

Output Polarity

Pin 2 Positive

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 Ω (0dB pad, 1/4" input), 20k Ω (0dB pad, RCA or 1/8" inputs), 10k Ω (-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



Countryman Associates, Inc. 195 Constitution Drive, Menlo Park, CA 94025

Phone: (800) 669-1422 or (650) 364-9988 Fax: (650) 364-2794

Email: sales@countryman.com Web: www.countryman.com

Notes