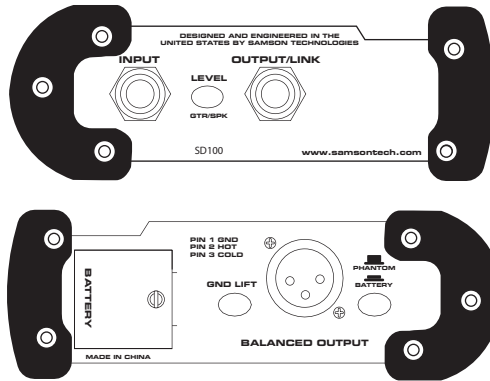


# S·direct



## Direct Insertion Box

**SAMSON**<sup>®</sup>  
A U D I O

# Table Of Contents

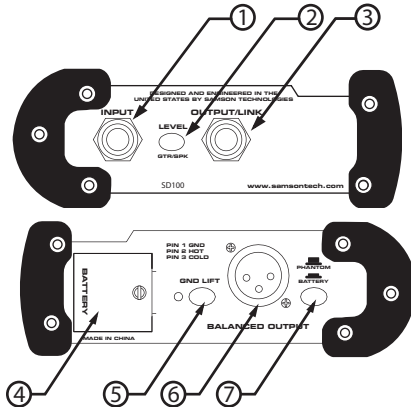
<b>Front and Rear Panel Layout</b>	3
<b>Powering S direct</b>	3
<b>Operating the S direct</b>	
Direct insertion of an instrument into a PA system	4
High power signals	5
Converting the output of unbalanced devices	6
<b>Specifications</b>	7

Copyright 2002, Samson Technologies Corp.

Printed April 2002

Samson Technologies Corp.  
575 Underhill Blvd.  
P.O. Box 9031  
Syosset, NY 11791-9031  
Phone: 1-800-3-SAMSON (1-800-372-6766)  
Fax: 516-364-3888  
[www.samsontech.com](http://www.samsontech.com)

## S direct Front and Rear Panel Layout



- 1 INPUT** - 1/4" input connector.
- 2 LEVEL** - When engaged, the level is switched from instrument GTR to amplifier speaker SPR level.
- 3 OUTPUT/LINK** - 1/4" output for passing the input signal through to a stage amplifier or monitor system.
- 4 BATTERY COMPARTMENT** - Houses
- 5 GROUND LIFT** - When engaged, the ground from the S direct chassis detaches from the XLR jack.
- 6 BALANCED OUTPUT** - Male XLR connector.
- 7 PHANTOM/BATTERY** - Switches S direct from phantom power to battery operation.

## Powering S direct

The S direct can operate on a single 9 Volt battery or standard 24-48 volt phantom power. Whenever phantom power is present on the XLR cable that is connected to the Balanced Output, the S direct will automatically switch to phantom power and disconnect the 9 Volt battery. The Phantom/Battery switch can be used to turn off the battery power when the unit is not in use.

## Operating the S direct

A direct box, or DI box, provides the facility for the direct insertion of an audio signal into a mixer or recorder. The S direct offers a variety of DI solutions for live sound and recording applications. You can connect all kinds of audio signals like guitars, keyboards, outboard signal processors and even the high-powered speaker output from an amplifier. The S direct enables you to tap off the signal from a guitar or bass guitar and pass the signal from the Link output to the on stage amplifier without affecting the original sound. This can eliminate the need for micing the guitar amplifier, which in many cases is preferable, especially with bass guitar. The S direct is also very useful for connecting unbalanced signals from sources like signal DJ and sub-mixers, effects processors and keyboards to a main PA or recording mixer. Unlike passive direct boxes, the S direct is active (has a power supply), so you can rely on an even frequency response on any audio signal you connect to regardless of its output impedance. Also, the S direct's balanced output provides a clean signal at a low level so long runs of cable are possible. Another benefit from a balanced connection is Common Mode Rejection, which provides cancellation of the bad sounds (hums and buzzes) while leaving the original signal pure.

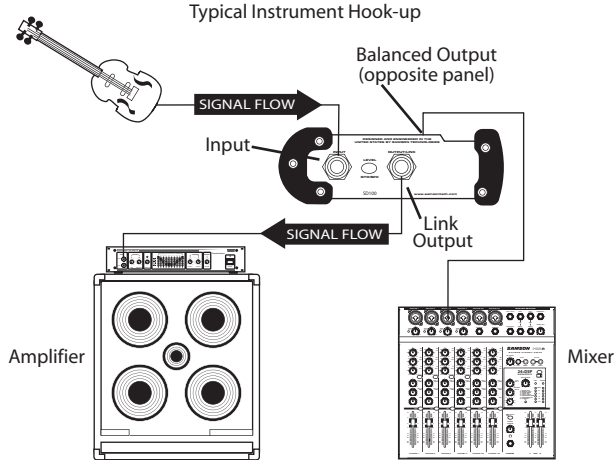
### **Direct Insertion of an Instrument into a PA System**

One of the most common applications for using a DI box is getting the signal of a bass guitar into the PA system. Simply put, the low frequencies produced by bass are difficult to mic, so use of a DI box is almost always preferable. In addition, the signal going to PA system can be tweaked by the FOH (front of house) engineer, without affecting the sound the musician dials up on stage. You can use S direct to plug a guitar directly into the PA system as well, especially acoustic guitars with pickups and when using electronic guitar processors and modelers. Follow the diagram and steps below to connect a guitar to a PA mixer.

- Connect the output of the guitar or bass to the S direct's INPUT.
- Connect S direct's OUTPUT/LINK to the input of the guitar or bass amplifier.
- Connect S direct's BALANCED OUTPUT to the input of main PA mixer.

## Operating the S direct

**NOTE:** To avoid annoying pops and clicks be sure to mute (or turn down the volume control) of your mixer's output while connecting the S direct, or when switching from battery to phantom power.



### Connecting to High Power Signals

The S direct provides the capability of tapping off the signals from amplifiers, such as the output of a guitar amp or power amplifier. You can even use S direct to connect to the speaker output of a consumer stereo system or boom box, for example, if you want to sample some old records or cassette tapes.

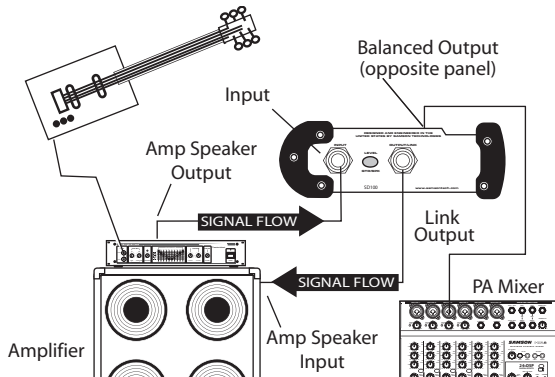
**NOTE:** Be sure that the LEVEL switch is set to the AMP position before connecting the signal from the output of any amplifier.

Follow the diagram and steps below to connect a powered output of a guitar amplifier to a PA mixer.

- Connect the output of the guitar or bass to the guitar amp input.
- Set the Level switch to the SPK position.
- Using unshielded speaker cable, connect the guitar amp's speaker output to the S direct's INPUT.
- Using another unshielded speaker cable, connect S direct's OUTPUT/LINK to the input of the guitar amplifiers speaker.
- Connect S direct's BALANCED OUTPUT to the input of main PA mixer.

## Operating the S direct

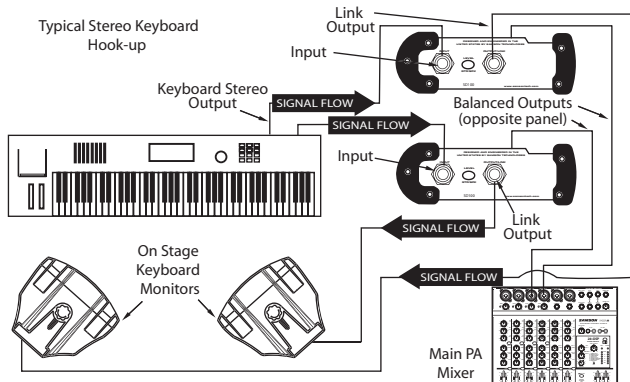
**NOTE:** This example may appear to be the same as the previous, however in this example, the S direct is tapping the sound of the instrument and amp, as opposed to just the instrument itself.



## Converting the Output of Unbalanced Devices

The S direct can be quite useful on stage or in the studio for connecting unbalanced devices, particularly keyboards. The output levels of many keyboards are low, so their signals can benefit greatly by connecting their unbalanced outputs to the S direct. By doing

so the signal can be sent cleanly for long distances while benefiting from the low noise and common mode rejection provided by S direct's balanced low-level output. The diagram following shows a typical hook-up for a stereo keyboard connected to a stereo stage monitor system and the main PA mixer.



## S direct Specifications

Frequency Response	5-35 kHz, -3 dB
Noise Level (22-22kHz, Input Shorted)	-104 dBu
THD + N (10 Hz -22 kHz)	0.013% typ. @ 1 VRMS,1 kHz.
Input Impedance (GTR)	> 1 Meg. Ohm
(SPK)	10 k Ohm
Max. Input Level (1% THD)	+8.1 dBu ( 9v. Batt.)
	+11.3 dBu (48v. Phantom)
GTR/SPK Input	1/4" Phone Jack, unbalanced
OUTPUT/LINK	1/4" Phone Jack, unbalanced
BALANCED OUTPUT	XLR Connector, balanced
Phantom Power	24-48 VDC
Battery	9 Volt
Dimensions	5.6" W x 4" D x 2" H
	142mm W x 101.6mm D x 50.8mm H
Weight	15 oz.
	.43 Kg

Samson Technologies Corp.  
575 Underhill Blvd.  
P.O. Box 9031  
Syosset, NY 11791-9031  
Phone: 1-800-3-SAMSON (1-800-372-6766)  
Fax: 516-364-3888  
[www.samsontech.com](http://www.samsontech.com)