

MCD²_{PRO}

Stereo Direct
Passive PC Box



Quick Start Guide

SAMSON[®]



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Samson Technologies Corp.

45 Gilpin Avenue

Hauppauge, New York 11788-8816

Phone: 1-800-3-SAMSON (1-800-372-6766)

Fax: 631-784-2201

www.samsontech.com

Introduction

A direct insertion box, or DI box, converts unbalanced high impedance signals to balanced low impedance signals. This provides the facility to run long cables without deterioration of the signal, as well as connecting audio signals to a mixer's microphone input.

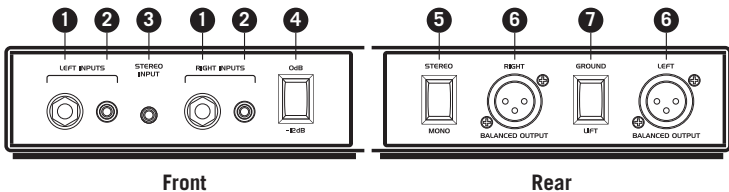
Samson's S-Max Direct Boxes combines premium sound circuitry with durable, roadworthy construction to provide high-quality signal connection solutions for live and studio applications. The Samson MCD2 Pro Professional Stereo Passive Direct Box offers a variety of DI solutions for live sound and recording applications. You can connect all kinds of audio signals like those from computers, CD/MP3 players, keyboards, and DJ equipment.

Featuring two of Samson's STLX Faraday shielded transformer, which deliver an extended, flat frequency response, ultra-low distortion, and eliminates hum and RF interference. The MCD2 Pro balanced output provide a clean signal, that is less susceptible to noise when compared to an unbalanced cable, which allows for running longer lengths of cables. Another benefit from a balanced connection is CMR (Common Mode Rejection), which provides cancellation of interference (hums and buzzes), while leaving the original signal pure.

The input jacks are wired in parallel which enables you to tap off the signal from the input and pass the signal to an amplifier or monitor without affecting the original sound. The Stereo/Mono switch mixes the two input channels together for situations where the number of audio channels is at a premium.

With proper care and maintenance, your MCD2 Pro will operate trouble-free for many years. Should your direct box ever require servicing, a Return Authorization (RA) number must be obtained before shipping your unit to Samson. Without this number, the unit will not be accepted. Please call Samson at 1-800-3SAMSON (1-800-372-6766) for an RA number prior to shipping your unit. If your direct box was purchased outside of the United States, contact your local distributor for warranty details and service information.

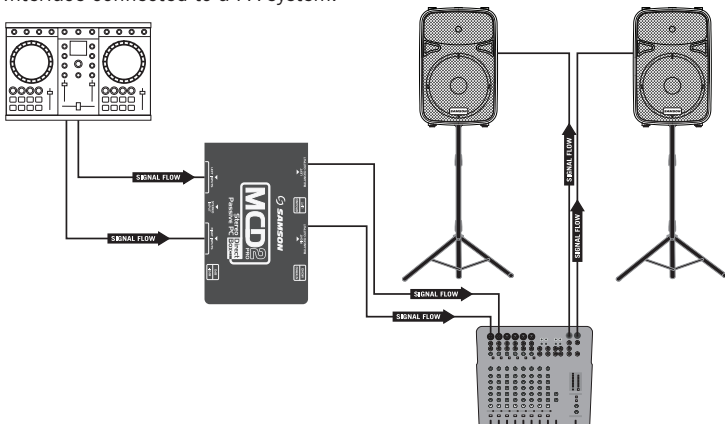
Callouts



1. **1/4" INPUT Jacks** – 1/4" hi-Z input jacks for connecting for instruments, line level, or speaker level audio.
2. **RCA Input Jacks** – Unbalanced RCA jacks for connecting line level signals. The RCA jacks are wired in parallel with the 1/4" and STEREO INPUT jacks.
3. **STEREO INPUT Jack** – 1/8" stereo input jack for connecting line level signals. The STEREO INPUT jack is wired in parallel with the 1/4" and RCA jacks.
4. **-12dB Pad switch** – When engaged, the input level is attenuated by -12dB to prevent distortion when connecting high level signals.
5. **STEREO/MONO Switch** – When the switch is in the STEREO position, each input is routed to its corresponding output. In the MONO position, the Left and Right input signals are summed together and fed to both Left and Right Output jacks.
6. **BALANCED OUTPUT Jacks** – Male XLR low-Z connectors.
7. **GROUND LIFT Switch** – When the switch is engaged, the input ground (shield) is disconnected.

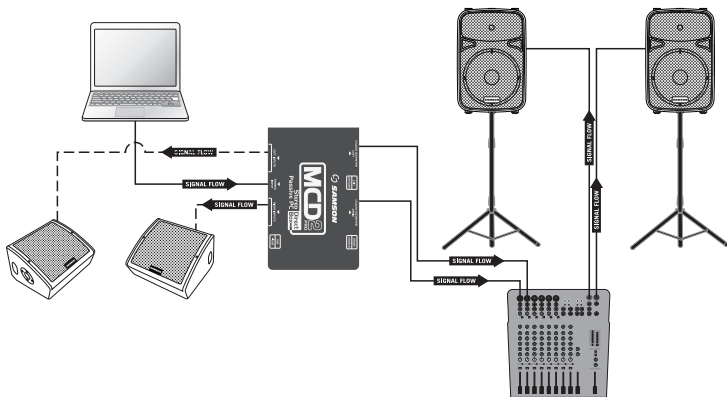
Setup

The MCD2 Pro can be quite useful on stage or in the studio for connecting unbalanced audio sources or instruments with pickups. By utilizing the MCD2 Pro, the signal can be sent cleanly for long distances while benefiting from the low noise and common mode rejection provided by the balanced low-level output. The diagram following shows a typical hook-up for a DJ Controller/Interface connected to a PA system.



- Set the volume controls of your audio system to the off position.
- Connect the stereo outputs of your DJ Controller/Interface or other audio source to the Left and Right Input jacks of the MCD2 Pro.
- Connect the Left and Right BALANCED OUTPUT jacks to a pair of microphone inputs of a mixer or other audio device.
- Pan the input channels of the mixer left and right.
- Raise the level of the audio system to the appropriate level.
- If you hear a hum or buzz set the GROUND LIFT switch to the LIFT position.
- If you hear distortion, set the pad switch to the -12dB position. You may need to adjust the input level of the mixer to make up for the attenuated signal.

Connecting a Laptop

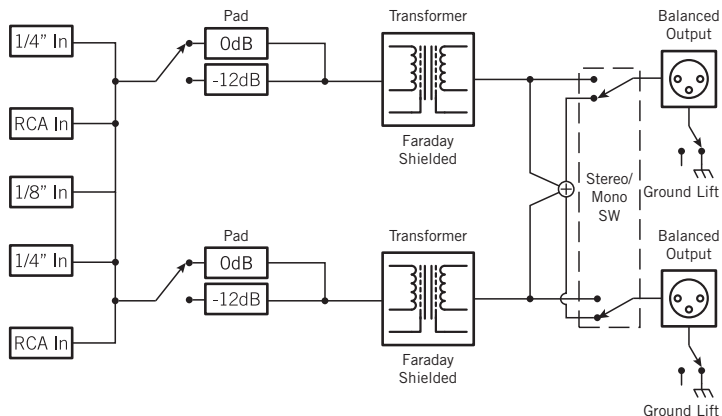


- Set the volume controls of your audio system to the off position.
- Connect the 1/8" stereo output of your laptop or other audio source to the STEREO Input jack of the MCD2 Pro.
- Connect the 1/4" parallel jacks to active monitor speakers.
- Connect the Left and Right BALANCED OUTPUT jacks to a pair of microphone inputs of a mixer or other audio device.
- Pan the input channels of the mixer left and right.
- Raise the level of the audio system to the appropriate level.
- If you hear a hum or buzz set the GROUND LIFT switch to the LIFT position.
- If you hear distortion, set the pad switch to the -12dB position. You may need to adjust the input level of the mixer to make up for the attenuated signal.

Specifications

Type	Stereo Passive Direct Box
Frequency Response	18Hz to 40kHz \pm 0.1dB
Maximum Input	+20dBu 0.35% THD
Dynamic Range	>100dB @ Balanced Output
Noise Floor	-117dB
Total harmonic distortion	<0.03% from 20Hz to 40kHz
Input impedance	400k Ω (Stereo Switch Position) >10k (Mono Switch Position)
Output Impedance	250 Ω \pm 20%
Transformers	Two STLX Faraday Shielded Transformers
Transformer Ratio	15:1
Input PAD Switch	0dB, -15dB, -30dB
Ground Lift Switch	Disconnects XLR pin-1 (Output)
Stereo/Mono Switch	Sums stereo inputs to both outputs
Connectors	1/4" Phone Jack, RCA, Stereo 1/8" unbalanced XLR balanced (Output)
Construction	14 gauge steel chassis
Dimensions	6.1" x 3.93" x 1.77" 155mm x 100mm x 45mm
Weight	2.11lb 957g

Block Diagram



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