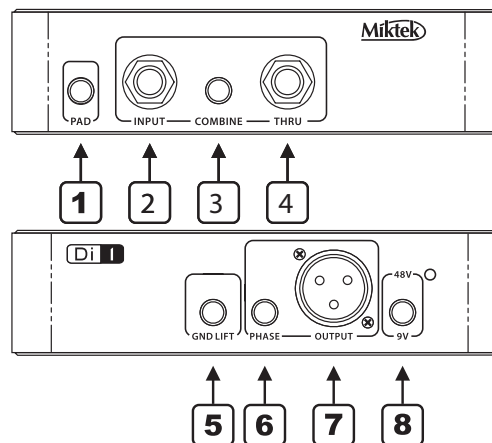


## FRONT AND REAR PANEL LAYOUT



Congratulations on your purchase of the Miktek Audio Tool Box Series signal processor! The audio industry is filled with a lot of 'good' audio gear. At Miktek we believe 'good' is not good enough! We manufacture our products to go beyond average quality and performance. Thank you for trusting our vision and choosing Miktek for your important audio application.

In this manual you will find descriptions of the DI1, the active direct box's features, step-by-step set-up, and operating instructions along with detailed specifications. In addition, we've also included some simple application examples to explain the features and functions of the DI1. For the experienced audio engineer these applications may seem basic, however at Miktek, we wish to support and encourage new engineers to use our products and appreciate audio quality! No explanation is too basic! We know you are serious about your audio equipment, and at Miktek, we are serious about providing superior products and service to our customers. We appreciate your patronage and hope you enjoy using your Audio Tool Box line as much as we enjoy making them available to you.

Sincerely,  
Michael Ketchell  
Managing Director

## INTRODUCTION

The Miktek DI1 provides direct insertion of an audio signal into a mixer or recorder. It offers a variety of DI solutions for live sound and recording applications. A variety of audio signals can be connected to your DI1, e.g. guitars, bass guitars, drum machines, keyboards, outboard signal processors, high powered speaker outputs from an amplifier, etc.

## FEATURES

- ¼" INPUT for the instrument's audio signal
- ¼" THRU for linking the audio signal to an amplifier/recorder
- Balanced XLR OUTPUT to send audio signal to main mixer
- PAD switch for attenuating the input signal
- COMBINE switch for summing/combining the INPUT and THRU signals passively
- GROUND LIFT button to detach the XLR ground from the DI1 chassis
- Battery compartment at the bottom of the DI1
- Battery/Phantom switch for swapping between battery or phantom power operation

1. PAD: Input signal attenuator.
2. INPUT: ¼" unbalanced input connector.
3. COMBINE: INPUT and THRU signals are passively summed (combined).
4. THRU: ¼" output for passing the input signal through to a stage amplifier or monitor system.
5. GND LIFT: press the switch and the ground from the DI1 chassis detaches from the XLR jack.
6. PHASE: Balanced output phase reverse switch to select normal or inverted phase.
7. OUTPUT: Male balanced XLR connector.
8. BATTERY/PHANTOM SWITCH: Switch from battery to phantom powered.

## SETTING UP YOUR DI1

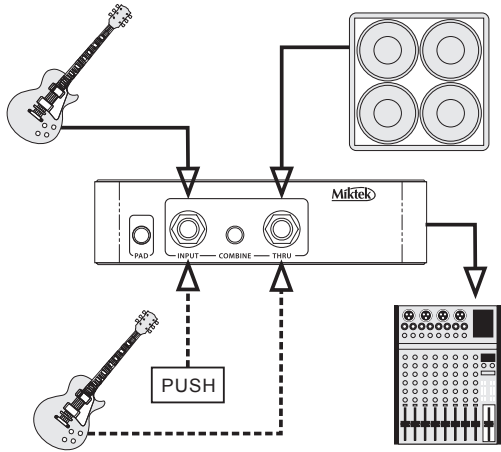
The DI1 can be powered either by a single 9 volt battery or standard 48 volt phantom power. Whenever phantom power is present on the XLR cable (connected to the OUTPUT), the DI1 will automatically disconnect the 9 volt battery and switch to phantom power.

The DI1 enables you to take the signal from a guitar or bass guitar and pass the signal from the THRU output to an amplifier without affecting the original sound. This can eliminate the need for miking the guitar amplifier, especially with bass guitar. Because the DI1 is an active direct box with a power supply, you can rely on an even frequency response on any audio signal you connect to regardless of its output impedance. The OUTPUT connection cancels hums/buzzes while leaving the original signal clean and pure. Besides that the DI1 is also useful for connecting unbalanced signals such as DJ mixers, effects processors, and keyboards to a main PA or recording mixer.

## DIRECT APPLICATION OF AN INSTRUMENT INTO A PA SYSTEM

A common practice for using a direct box is to get a bass guitar signal into a PA. Bass guitars produce low frequencies that can be difficult to capture with microphones. Because of this, using a DI is preferable. The DI1 can also be used to plug guitars, especially acoustic guitars with pick-ups, directly into a PA. Here is a step-by-step guide on how to do this.

1. Connect the output of the guitar/bass guitar to the DI1's INPUT.
2. Connect DI1's THRU to the input of the guitar/bass guitar amp.
3. Connect DI1's OUTPUT to the input of main PA mixer.



One of the DI1's features is the combine switch, which allows you to sum two line inputs if needed.

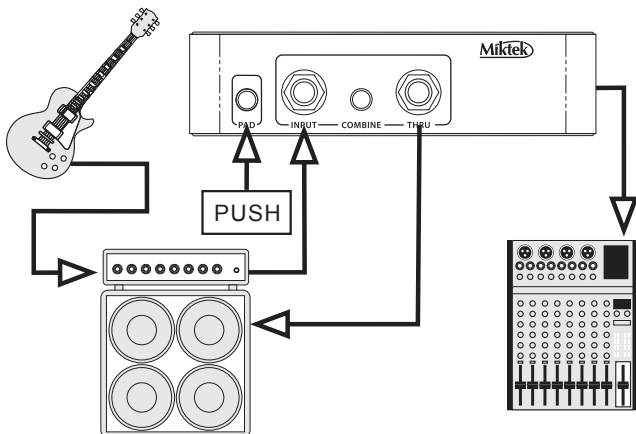
1. Make sure the COMBINE switch is ON.
2. Connect the output of the guitar/bass guitar to the DI1's INPUT.
3. Connect the output of the 2nd guitar/bass guitar to the DI1's THRU
4. Connect DI1's OUTPUT to the input of main PA mixer.

NOTE: To avoid any annoying sound while connecting the DI1 or when switching from battery to phantom power, please turn down the volume control of your mixer's output.

### CONNECTING HIGH POWER SIGNALS

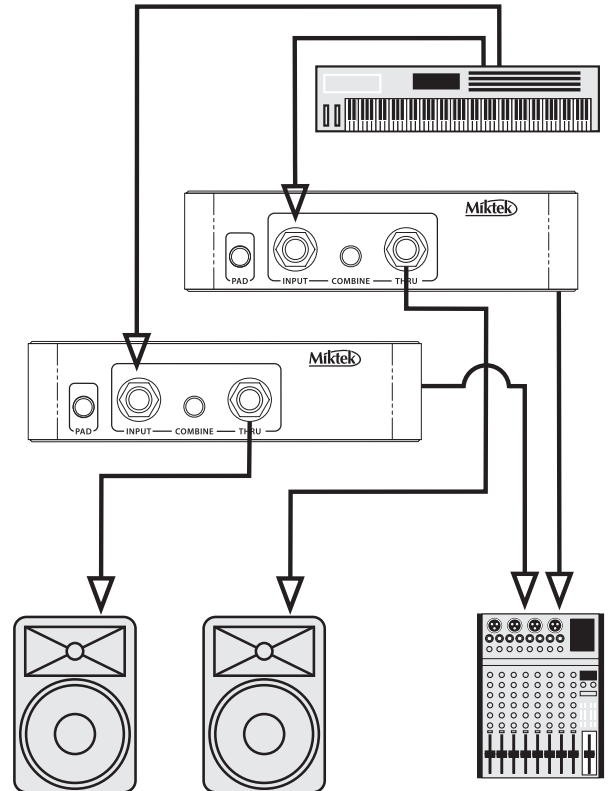
The DI1 provides the capability of tapping off the signals from amplifiers, such as the output of a guitar/power amplifier. You can also use DI1 to connect to the speaker output of a consumer stereo system or boom box, for example, if you want to sample some old records or cassette tapes.

1. Make sure the PAD switch is ON
2. Connect the output of the guitar/bass guitar to the guitar amplifier's input
3. Connect the guitar amplifier's speaker output to the DI1's INPUT
4. Connect the DI1's THRU to the to the input of the guitar amplifier's speaker
5. Connect the DI1's balanced XLR OUTPUT to the input of main PA mixer



### CONVERTING THE OUTPUT OF UNBALANCED DEVICES

The DI1 can be very useful in the studio or on stage for connecting unbalanced devices, for example, keyboards. The output levels of most keyboards are low, so their signals can benefit greatly by connecting their unbalanced outputs to the DI1. By doing so, the signal can be sent cleanly for long distances while benefitting from the low noise and common mode rejection provided by DI1's OUTPUT. The following shows a typical hook-up for a stereo keyboard connected to a stereo stage monitor system and the main PA mixer.



### SPECIFICATIONS

Frequency Response	5-35kHz, -3dB
Noise Level	-104 dBu
THD+N	0.013% typ. @ 1VRMS, 1kHz
Input Impedance	
Guitar -	1 Meg. Ohm /
Amp -	10k Ohm
Max. Input Level (1%THD)	+8.1 dBu (9V Battery) / 11.3 dBu (48V Phantom Power)
Input	1/4" Phone Jack, unbalanced
Thru	1/4" Phone Jack, unbalanced
Output	XLR Connector, balanced
Phantom Power	24-48 VDC
Battery	9V
Dimensions 1	44 W x 102 D x 38 H mm
Weight	KG

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