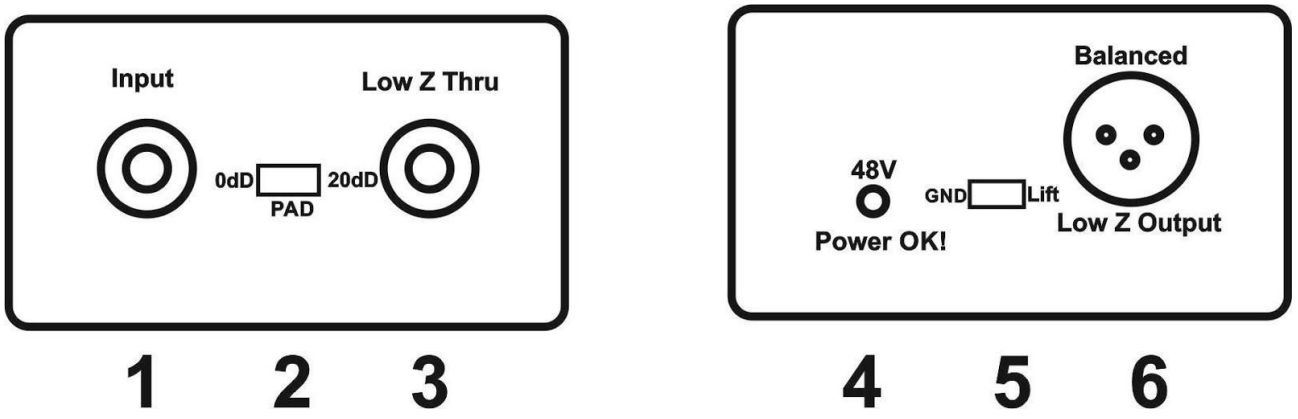
Introduction

Congratulations on your purchase of Simple Way DI-BOX!

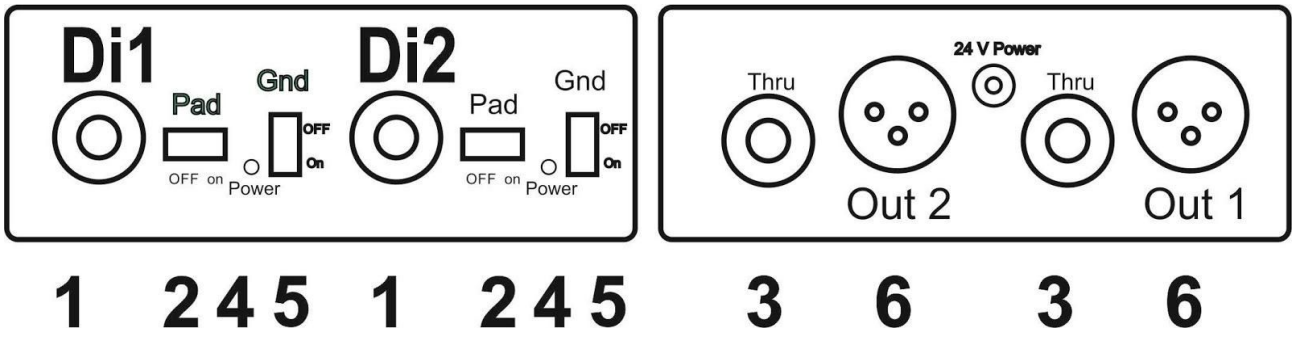
We provide our own line of Di-Boxes since 2013, which contains D1 mono version, D2 stereo version and High-End mono version. All these products combines unique engineering solutions and unsurpassed quality of sound.
After researching the Di-Box market, we couldn't find a device which would not distort the sound in an acceptable extent.
This is why we have decided to create a universal device that performs all the necessary functions, and at the same time meets the most stringent requirements of the audio signal quality.. While designing this product, we used previous experiences of our developers in creating Hi-End class sound-reproducing equipment. Now, the result of our work is in your hands. We appreciate that you have chosen our product and we guarantee that our technologies will help you to achieve higher goals in your art.

Inputs-Outputs / functions

Di-Box D1 and High End



Stereo Di-Box D2



1. Hi-Z Input ¼
2. PAD -20 dB signal attenuator
3. THRU: ¼ output
4. Power Quality Indicator LED
5. GROUND LIFT(GND LIFT)
6. Balanced Low-Z Output

Quick start

Attention! - Before connecting or disconnecting any sound devices, make sure all volume levels are set to zero or that audio system is turned off. This will avoid any loud pops in your sound system that could cause system damage and unpleasantly affect your ears.
"Simple Way D1" is an active DI-box, and requires a standard 24V or 48V phantom power provided by most mixing desks and/or preamplifiers. There is a LED (power light) indicator, that helps you verify the availability and quality of power feed. Simple Way DI automatically changes its operating modes, adjusting to the delivered power supply. In case the phantom power supply cannot provide a standard current, the device will remain operable with a slight loss of sound quality. If the power light lights up at first then goes down, the device may be short of power.

Please check the condition of the phantom power supply.
Connect the instrument to the Hi-Z Input, connect the Low-Z Thru to the guitar amplifier, and Balanced Low-Z Output to the mixing desk or the audio interface. When the PAD switch is set to 0dB, slowly raise the volume fader of the mixer while listening to the signal. “Simple Way D1” is capable of processing most sources, but if there is a distortion of sound with especially loud signals, it is recommended to switch the PAD to -20 dB.
"Simple Way D1" is capable of eliminating the majority of noises, caused by ground loops. If you hear a hum with a frequency of 50-60Hz and their harmonics, please break the ground circuit by placing the GND switch in to LIFT position. Now you are ready to use “Simple Way D1”.
Enjoy the pure and harmonious sound of your instruments!

Functionality

Connection Options

There are two most common ways of connecting your DI-BOX.

The first way is more relevant for live performances. The instrument is connected to the Hi-Z Input, the amplifier is connected to the Low-Z Thru, and the balanced output (Low-Z Output) is connected to the mixer. This option allows the musician to adjust the sound of the instrument independently, without interfering with the sound engineers gain structure.

The second way is more useful in sound recording studios, and the difference is that it does not use the “through” output, and the sound goes directly into the audio interface or mixer.

Signal distortion

Nowadays bringing sound material to the listener thru all transformation processes without spoiling it is still a massive problem. Devices, such as DI-box, commonly seem unimportant and their role in the general construction of sound has always been considered as secondary, and until the recently, they have been left without attention. Most manufacturers stick to the ordinary way and use cheap components and the simplest circuit solutions. Our devices have adapted the previous experiences of working with the highest class equipment. They are made using discrete elements, according to the canons of circuit technology of similar devices.

The flagship of the Di line is High-End model.

Apart from the improved scheme, it has specialized elements of audio applications.

All of these components allowed us to create the high-end class devices, which is transmitting even the slightest nuances of the musician's playing, with the greatest care and respect.

-20dB PAD

Sometimes we see instruments that have an extremely loud output signal. Such instruments can overload the electronics of “D1” and cause a distortion of sound.To avoid this situation, the “D1” has a PAD function that reduces the input sensitivity by 20 dB, providing a

clean signal and maximum dynamic range in any situation. Note, that when the PAD function is on, the input resistance drops from 4.7MΩ to 47 kΩ. It is recommended to use PAD function only when it is not possible to adjust signal volume in another way.

GND LIFT switch

Grounding is very important in audio systems. A properly grounded device is not only safer to use but also helps reduce the amount of noise and background in the audio signal. Connecting multiple audio system components/instruments with long wires under the voltage, can occur in nasty ground loops.

Ground loops can be generally identified by a low hum (60Hz in the US, 50Hz in Europe) through the sound system.

To deal with such interferences, use GND/LIFT function, GND/LIFT: Disconnects the ground between the input and the XLR output when set to the LIFT position to help eliminate hum.

Notice, that in a case when a guitar or other instrument is not connected to the network and does not have its own grounding is plugged into DI-box, it's recommended to connect ground by moving GND/LIFT switch to GND position. Anyway, the best position of the switch is determined by ear according to the interference minimum.

Balanced XLR Output

The “Simple Way DI” is equipped with a balanced XLR output that complies with the AES (Audio Engineering Society) standards, where the 1st contact corresponds to GROUND, the 2nd contact to – Low Pass signal, and the 3rd- to Hi pass signal. The XLR allows us to ensure the compatibility of the device with the vast majority of modern sound systems.

Phantom power

“Simple Way DI” – is an active DI-box, and requires 24-48V DC power supplied by the mixer/audio interface.

That means that the current flows through the XLR wire, parallel to the audio signal and feeds the device circuit. A similar method was developed to power condenser microphones, but found its use in other devices as well.

Layout

“Simple Way Di” Devices are designed to be as durable and easy to use as possible. For maximum weight relief, they are made of aluminum and are coated with a particularly durable lacquer to keep their appearance as long as possible. We are sure that our DI-boxes can stoically withstand ruthless conditions on the stage and at the same time retain their efficiency and sound quality.

Common questions.

- **What is a DI box?**

A DI-box is a device, that is commonly used in recording studios and concert venues for connecting instruments with other audio equipment. It is primarily used to convert hi - Z unbalanced output signals (from the instrument) to a low - Z balanced (mic-level) signal. A Di-box is also used to break the ground loops, formed during device commutation by signal and network wires when it's necessary. DI-boxes are usually used to connect electric guitars or keyboard instruments to the microphone input of a mixing console or sound card. As a rule,an XLR connector is used to make a connection. Also, this device minimizes distortion and interference that can occur when the cable transmits the signal over significant distances.

- **Why Simple Way DI is better than other products?**

The original engineering solutions, developed during the design of the High-End class equipment, allowed us to obtain a unique sound quality and versatility in the application of our devices. Using our DI, you can be sure that the sound of your instruments will always be on top.

- **What is phantom power?**

phantom power is used when the power supply and signal communication take place over the same wires, in the context of professional audio equipment, XLR wires are used for this purpose. Phantom power supplies are often built into mixing consoles, audio interface and similar equipment, and you can often see that they have a switch.

- **What if there is no sound?**

Please check the integrity of the instrument and XLR wires. In most cases, faulty wires are the cause of the problem. It is important to note, that DI uses the maximum voltage available for phantom power. Therefore, if damage occurs in the XLR wire, DI will not work. If the replacement of the wires did not help, check the serviceability of the instrument output and the input to the mixer. This can be done by connecting the instrument directly to the amplifier, and at the output - by checking the sound on another mixer track.

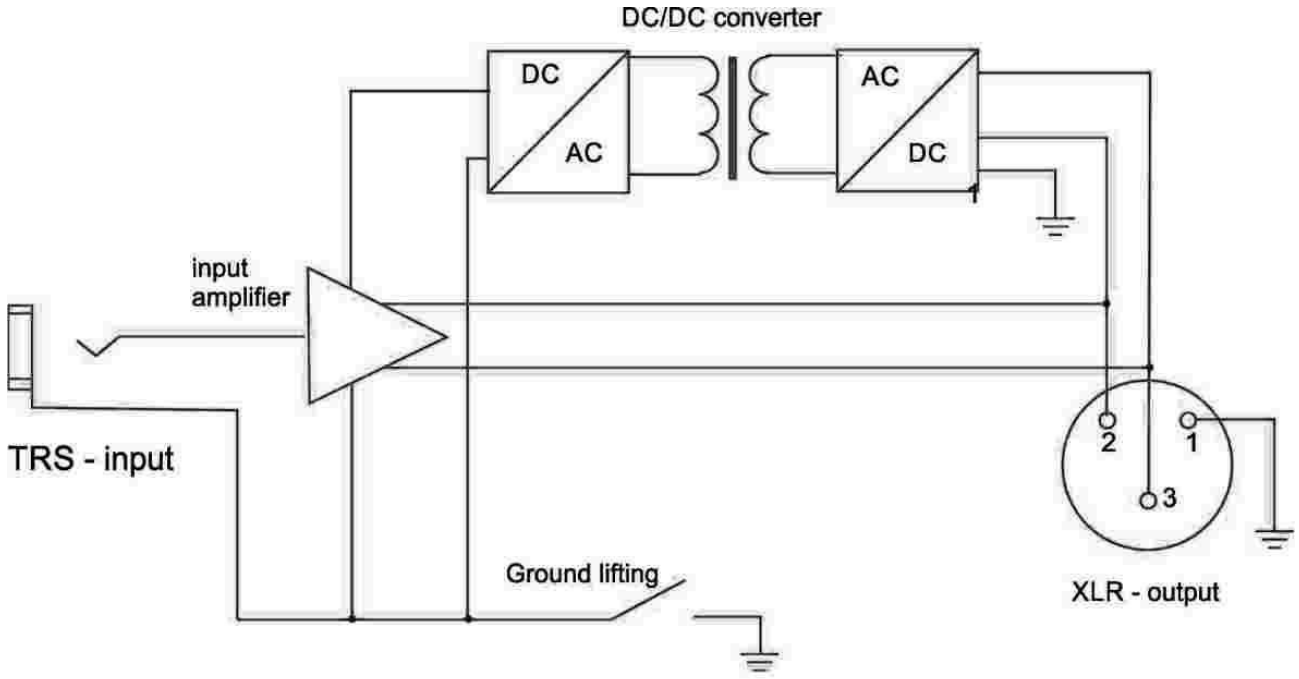
- **What if “Simple Way D1” stopped working?**

In the case our Di-boxes suddenly becomes unusable without a particular reason, we provide repairing service.
Please contact us via e-mail di@simple.lv, or get in touch with your local dealer.

Warranty.

Warranty issues are considered based on the local Consumer Rights Protection Act according to the region of sale.

Scheme and Specification



Di-box с вторичным питанием

Circuit type - analog circuit, made on the discrete semiconductor devices operating in class A, without common negative feedback.

Specifications

Input impedance: >4,7 MOhm
Input impedance with PAD enabled: 47 kOhm
PAD reduction: 20 dB
Unbalanced noise level (10-20 kHz): <-100 dBu
Non linear distortion, PAD enabled (-20dB, guitar) : <0.001%
Non linear distortion, input level at 0dBu, at 1kHz: <0.003% (typically <0.002%)
Non linear distortion, input level at 0dBu, at 100Hz: <0.006% (typically <0.004%)
Max input level (<3% distortion): >+9 dBu
Max input level with PAD enabled (<3% distortion): >+29 dBu
Balanced output (XLR) impedance: <10 Ohm
Unbalanced output (Jack) impedance: 100 Ohm.

Dimension and weight:
D1 – 14,7x9,4x5,3cm – 370g
High End – 14,7x9,4x5,3cm – 370g
D2 – 18,0x11,3x4,3cm – 440g