



passive di-box **dx 10**instruction manual bedienungsanleitung

KLOTZ DX10 passive di-box instruction manual english

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#### welcome

Thank you for choosing this KLOTZ AIS product! Our KLOTZ DX10 passive DI Box is a top-quality product made in Germany.

Every product from our company undergoes rigorous material and functional testing. KLOTZ AIS therefore grants a 5-year warranty on the KLOTZ DX10 assuming correct use of the product. The purchase date must be verified by submission of an invoice or receipt.

Please read these instructions carefully before starting to use your KLOTZ DX10, in order to achieve the best possible sound for your purpose. If you have any other questions about this product or how to use it, feel free to email us at info@klotz-ais.com



### introduction

Mixing desks love balanced signals —but not all signal sources deliver them. Guitar or bass amps and keyboards rarely have balanced outputs, and guitars cannot be connected directly to a mixer. This is where the KI OT7 dx10 comes in!

A DI box converts a high-ohm unbalanced signal into a low-ohm balanced signal. To do this, the signal from the instrument is fed into the DI box between the instrument and the amp. "DI" stands for "direct injection" because the DI box is directly "injected" or fed with the instrument signal.

The KLOTZ dx10 then balances the signal so that it can be transmitted over long distances without hiss or background noise before it is fed into a mixer for further processing. The KLOTZ dx10 is a passive DI box; unlike active DI boxes, it does not require an external power supply. Just connect it up, and off you go!

We ensure all our components are manufactured to high quality in conformity with our rigorous company standards. The transformer is by far the most important component in a DI box, and the one that has the most influence on the sound. It has a 6+6:1 transformer ratio.

The transformer we use in the KLOTZ dx10 was developed by us in-house with special care, to reflect its crucial role in the performance and sound behaviour of the DI box. Only the best materials were good enough. We chose mu-metal, a soft magnetic nickel-iron alloy with outstanding permeability (magnetic conductivity). The KLOTZ dx10 offers neutrality and stability of sound that is superior to other DI boxes on the market. Say goodbye to distortion!

### connections & controls

## input view



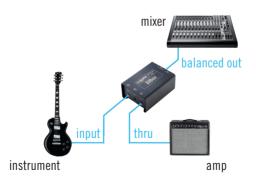


Recessed sockets and switches offer excellent protection from accidental use

### application examples

Before you connect the KLOTZ **dx 10** with your equipment, set the volume of your instruments and amplifiers and your mixer faders to "0" or " $-\infty$ ". This prevents that notorious "pop" when you plug in your instrument, as well as protecting your ears — and your PA system.

- 1. Plug your instrument into "Input".
- Connect to the amplifier using "Thru". If you are working with a line signal such as a keyboard signal, the signal can be fed to a sub-mixer, recording unit or active monitor from here.
- 3. Connect "Balanced Out" to a microphone input (i.e. mic level) on the mixer
- Now you can restore your instrument volume controls and mixer faders to their original level. If necessary, eliminate any hum by setting "Lift/Gnd" (ground lift switch).
- If the signal is distorted although your volume and mixer level settings are correct, set the input sensitivity to "- 20 dB" using the pad switch. You may need to adjust the mixer volume if you do this.



### re-amping

Re-amping is an interesting recording method in which various sounds can be added to pre-recorded guitar signals. It is not a new invention, but has been common practice for decades. In re-amping, a previously recorded guitar signal is retransmitted through the guitar amp and re-recorded.

- Set up your system as usual with the KLOTZ dx10 and make a "clean" recording of the signal from "Balanced Out" on a separate track.
- 2. At the same time, use a microphone to record the signal from the guitar/amp, likewise on a further separate track.
- Now you can retransmit the "clean" track to the guitar amp via the KLOTZ dx10 and re-record it, adding whatever sound you like.
- 4. To do this, connect the output of the mixer channel in question with the "Balanced Out" of the KLOTZ dx10 and the "Input" of the KLOTZ dx10 with your guitar amp. Please note that you will need a femalefemale XLR adapter (XLR Gender Changer, KLOTZ AIS article number: XLR-FF).
- Now you're ready to explore the wonderful world of re-amping! You can record your clean original track through various amps with a range of different sounds, add effects, try out mic positions, etc.
- 6. This is the classic form of re-amping. However, re-amping can also be performed using software. To do this, feed the previously recorded clean signal into your recording software via an audio interface. It can then be edited by adding one or several guitar sounds from a plugin.

# Why is the output of the KLOTZ dx10 not as loud as signals from other sources such as a keyboard?

The KLOTZ dx 10 is a passive DI box, designed to output a balanced signal at mic level. It is compatible with standard mic inputs on a mixer.

# Can phantom power from the mixer impair or even damage the KLOTZ dx10?

No, the KLOTZ **dx10** is unaffected by the mixer's phantom power.

## Do I really need a DI box? Can't I just hook up my instrument to the mixer?

Of course it is theoretically possible to feed even high-ohm unbalanced signals from an instrument directly into the mixer. However, this is not advisable with an electric guitar because it omits the amplifier, which is a critical element in shaping the sound. The key benefits of a DI box are its ability to transmit a signal free from background noise due to the balanced wiring, lossless signals even over longer distances, and correct impedance matching.

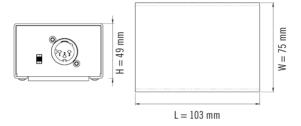
### Which are better - active or passive DI boxes?

It is a matter of personal taste whether you prefer the sound from an active or passive DI box. The great advantage of passive DI boxes is the galvanic isolation achieved by the transformer. Because the input and output are completely separated, electrical hum and background noise are things of the past.

### technical specs and dimensions

#### box

housing: dimensions: extremly solid V2A steel frame  $L=103\ mm;\ W=75\ mm;\ H=49\ mm$ 



#### technical data

unbalanced input and output: balanced output:

max. input level at attn. OFF: max. input level at attn. 20: max. output level: frequency response: harmonic distortion: 6.3 mm jack socket XLR 3p. male

+10 dBu (2.5 V) / 20 kΩ +30 dBu (25 V) / 40 kΩ -10 dBu (250 mV) / 200  $\Omega$  10 Hz - 30 kHz (+/- 0.3 dB) < 0.1 %

### warranty

We applied the same high quality standards when choosing the other components. The ultra-rugged housing easily copes with the stresses and strains of live performance. We're so convinced by our quality that every KLOTZ DX10 carries a 5-year warranty!

