

TDP-1 MONO & TDP-2 DUAL PASSIVE DIRECT BOXES



USER MANUAL

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Introduction

Congratulations on your purchase of a TELEFUNKEN Elektroakustik Passive Direct Box. This is a brief overview of some information we thought you may want to know about this product.

Below is a list of all the contents included in this box:

- Direct Box (of course)
- Cloth Carrying Pouch (store your DI in here when not in use, or keep something else in it)
- User Manual (which you're reading)
- 2x Rubber Strips (to provide a slip-resistant grip on the bottom of the direct box)
- TELEFUNKEN Sticker (stick it somewhere cool!)

Product Description

The TELEFUNKEN TDP-1 (mono unit) and TDP-2 (dual unit) are passive direct box designs that combine premium quality components with a rugged construction to create a reliable DI with rich, warm tone. By utilizing an OEP/Carnhill transformer made in the UK, the Telefunken Passive DI's "less is best" approach provides a superior character that best complements the natural tone of your instrument.

The high quality audio transformer is just one of the premium design elements in the TDP passive direct box series. The circuit boards are all 100% hand-assembled exclusively with through-hole components to provide a much more secure and reliable connection compared to common surface-mount technology. All circuit traces are gold-plated for maximum conductivity over the life of the product. High input impedance prevents the loading down of passive pickups. The frequency response of the circuit is ± 1 dB from 10 Hz to 70 kHz, with extremely low distortion and self noise figures.

The circuit is housed in an extremely durable extruded aluminum enclosure with recessed switches and connectors. This rugged construction is designed to easily withstand the wear and tear of gigging. Each channel features two heavy duty metal toggle switches to engage a -15 dB pad and a ground lift. The TDP-2 unit features two independent DI channels with separate controls, giving you the ability to run a stereo signal or two instruments through one footprint.

The TELEFUNKEN Passive DI design is the go-to reliable, high quality direct box. The simple and elegant design approach yields a harmonically rich low-end with a detailed high end, delivering a new standard in reliability and performance for direct boxes.

Applications

Direct boxes are necessary to match instrument level output impedances to low impedance mic level. Prime examples of application are recording bass guitar direct through an interface, running a synthesizer into a recording console, or plugging an acoustic guitar into a PA system.

TDP passive direct boxes are ideal for active bass guitars, high output keyboards, and acoustic guitars for a couple of reasons. The extended low frequency response, down to 10 Hz, allows you to accurately convey the extreme low end of a bass guitar or a subsonic synth pad. Due to the inherent nature of passive DI units, the lower output of the device will allow the engineer or musician to push the input signal harder, allowing for more of that “old school” harmonically rich transformer saturation. As a bonus, the -15 dB PAD switch ensures there is plenty of clean headroom.

Both the TDP-1 and TDP-2 have been designed around a large format OEP/Carnhill transformer with a nickel-iron core, allowing a natural saturation that complements the true tone of your instrument.

WARNING

This direct box has been designed for INSTRUMENT LEVEL signal only. DO NOT plug an amplifier output into the INPUT of the unit.



Input Panel

INPUT: Plug your instrument into the unbalanced female 1/4" INPUT jack using an unbalanced 1/4" cable.

THRU: Connect the THRU to your instrument amplifier input. NOTE: the INPUT and THRU jacks are wired in parallel, meaning they have the exact same connections. Therefore, you can plug your instrument and amplifier into either jack on the input panel and it will work the same.

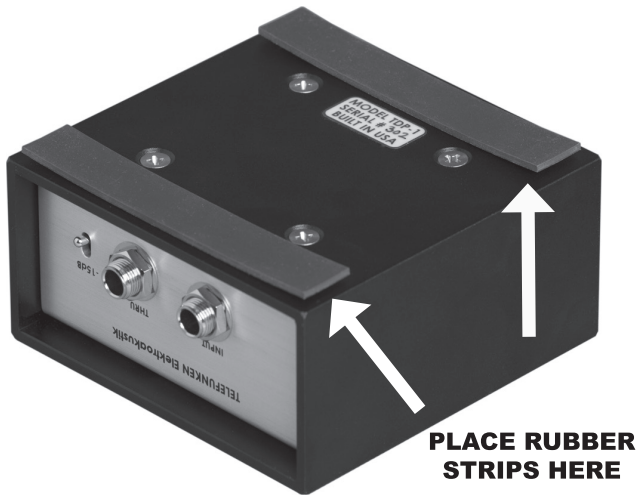
-15dB: By engaging this switch in the UP position, the input signal is attenuated -15 dB. This is provided to pad any extremely high output sources and still output a clean signal. In the DOWN position, there is no pad or attenuation in the signal path.



Output Panel

OUTPUT: Connect an XLR cable from the OUTPUT connector to the input of your device (mixer, console, interface, etc.). This is a balanced male XLR with standard pin 2 hot wiring.

GROUND LIFT: In the UP position, labeled LIFT, this switch lifts the input signal ground. Engage this switch if you encounter a ground hum or low level buzz. In the DOWN position, labeled GND, there is no ground lift in the signal path.



PLACE RUBBER STRIPS HERE

Rubber Strip Application

Included in the box are 2 adhesive-backed rubber strips to apply to the bottom of the DI. This provides increased grip and slip resistance to keep the DI from sliding around on stage or any surface it is placed on. We recommend applying the strips so they are parallel to the chassis opening and model sticker. Remove the backing to the adhesive and position it so the strip does not cover any screws. See image above.

Frequently Asked Questions

What is a direct box used for?

A direct box is a device used for matching instrument output impedances to low impedance microphone level signals. Direct boxes are commonly referred to as a DI ("Direct Insert or "Direct Inject").

When should I used a passive direct box?

A general rule of thumb is selecting a direct box that is opposite your pickup type. If you have an active instrument, TDP passive direct boxes are suggested. Typical active instruments include acoustic guitars with battery powered preamps, bass guitars with active pickups, keyboards, synthesizers, and headphone output of computers and laptops.

Can I use the TDP-2 Dual DI with two instruments?

Yes, the two channels are completely independent. This means the TDP-2 can be used with stereo instruments or two completely separate sound sources without the worry of cross-talk. You can also use only one side of the unit for a single mono source without needing to use the other channel. Note: If using the TDP-2 with a stereo device, make sure both channel switches are in the same position for a balanced output. For example, if using the -15dB pad on a stereo keyboard, put both pad switches in the UP position to evenly attenuate the left and right signals.

Does the TELEFUNKEN direct box add gain to my instrument?

No, in fact it's the opposite. The TDP-1 and TDP-2 are passive DIs which, by nature, yield a -10dB insertion loss.

Does my Direct Box need power?

No. Passive direct boxes do not require phantom +48V or an external power source to operate.

Can I use the passive DI for re-amping?

Though the TDP passive series will pass signal, we strongly suggest using a re-amp box to ensure that the amplifier sees the correct levels and impedance.

TDP-1 / TDP-2 TECHNICAL SPECIFICATIONS

Type	Passive Direct Box
Transformer	Custom Wound OEP/Carnhill Transformer
Frequency Response	10 Hz- 70 kHz, ± 1 dB
Input Impedance	> 20 k Ω
Output Impedance	< 200 Ω
Weight	482 g (1.06 lb)
Dimensions	100mm L x 100mm W x 50mm H
Maximum Input Level (For 1% THD)	> +18 dBV
Input Connections	1/4" Jack
Output Connections	XLR Output, 1/4" Thru

Warranty

TELEFUNKEN Elektroakustik direct boxes come with a 3-year warranty. What does this mean? In the off chance anything goes wrong during normal use and operation, we will fix it. If you have a question or issue, please email repairs@t-funk.com.

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