

# Four Channel Passive Direct Box



# **USER'S GUIDE**



APPLIED RESEARCH AND TECHNOLOGY

### **IMPORTANT SAFETY INSTRUCTIONS - READ FIRST**





This symbol, wherever it appears, alerts you to important operating and maintenance instructions in the accompanying literature. Please read the manual.

#### **Read instructions**

Retain these safety and operating instructions for future reference. Heed all warnings printed here and on the equipment. Follow the operating instructions printed in this user guide.

#### Do not open

There are no user serviceable parts inside. Refer any service work to qualified technical personnel only.

#### Moisture

To reduce the risk of fire or electrical shock, do not expose the unit to rain, moisture or use in damp or wet conditions. Do not place container of liquid on it, which may spill into any openings

#### Heat

Do not locate the unit in a place close to excessive heat or direct sunlight, as this could be a fire hazard. Locate the unit away from any equipment, which produces heat such as: power supplies, power amplifiers and heaters.

#### Environment

Protect from excessive dirt, dust, heat, and vibration when operating and storing. Avoid tobacco ash, drink spillage and smoke especially that associated with smoke machines.

#### Handling

Protect the controls from damage during transit. Use adequate padding if you need to ship the unit. To avoid injury to yourself or damage to the equipment take care when lifting, moving or carrying the unit.

#### Servicing

if it is exposed to moisture, spilled liquid or if smoke odor or noise is noted. Refer servicing to qualified technical personnel only.

#### Installation

Install the unit in accordance with the instruction printed in the user guide.

#### **OVERVIEW**

The ART PDB4 Four Channel Passive Direct Box is a deceptively simple, yet surprisingly useful addition to any serious collection of audio equipment. The PDB4 is a four channel passive direct box that features four quality fully transformer isolated direct boxes in a 1U 19-inch rack mount chassis.

Inputs and outputs of each of the four channels are isolated to maximize channel separation. Transformer isolation on each output helps to eliminate system ground loops.

It is a rock solid, roadworthy interface for connecting outputs of electronic musical instruments (or other audio sources) to the balanced inputs of mixer consoles and other balanced audio products.

The PDB4 also allows connection of a music source to an instrument amplifier while simultaneously patching it to a mixer.

#### Features

- Four Fully Isolated Channels
- Switchable Input Attenuation (0dB, -20dB, -40dB)
- 50k Ohm Phone Instrument/Line input
- 50k Ohm Phone Parallel Link/Thru Jack
- 600 Ohm XLR Output Jack
- Switchable Ground Lift
- 1U 19-inch Chassis
- Three year warranty

#### **USING A PDB4**

#### 1. Electric guitar and bass pick up output signals

The high impedance signal from a guitar or bass guitar pickup is translated by the PDB4 into a low impedance balanced signal required by mixing consoles. **Suggested setting** – set the input attenuation to 0dB.

#### 2. Keyboards and line level signals

The PDB4 automatically balances and matches the line level outputs of modern electronic keyboards. If you are using a multiple keyboard setup and your keyboards are all plugged into a single instrument amplifier, the PDB4 can be used to replace individual direct boxes. Simply send the output of the instrument amplifier to the PDB4 and then to the console (instead of a separate DI box for each keyboard). **Suggested setting** – set the input attenuation to -20dB (line level) or –40dB (amp level).

#### 3. DJ console output signals

DJ mixers often supply only an unbalanced –10dB signal. The PDB4 converts this signal to a balanced line level signal before it reaches the console, while providing a convenient method of connector transition with the capability to run long cables. **Suggested setting** – set the input attenuation to 0dB or –20dB.

#### 4. Speaker level signals

The PDB4's ability to accept speaker level inputs from a power amplifier's output allows post-amplifier, post EQ and effects signals to be fed directly to the console. In this manner, a particular effect or amplifier sound can be sent directly to the mix. **Suggested setting** – set the input attenuation to –40dB (amp level).

However you decide to use it, we're sure you'll find the ART PDB4 Four Channel Passive Direct Box to be an indispensable addition to your audio equipment arsenal.

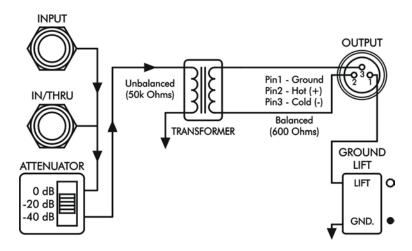


Diagram of One Channel

#### WARRANTY INFORMATION

#### **Limited Warranty**

Applied Research and Technology will provide warranty and service for this unit in accordance with the following warrants:

Applied Research and Technology, (ART) warrants to the original purchaser that this product and the components thereof will be free from defects in workmanship and materials for a period of **three** years from the date of purchase. Applied Research and Technology will, without charge, repair or replace, at its option, defective product or component parts upon prepaid delivery to the factory service department or authorized service center, accompanied by proof of purchase date in the form of a valid sales receipt.

#### Exclusions

This warranty does not apply in the event of misuse or abuse of the product or as a result of unauthorized alterations or repairs. This warranty is void if the serial number is altered, defaced, or removed.

ART reserves the right to make changes in design or make additions to or improvements upon this product without any obligation to install the same on products previously manufactured.

ART shall not be liable for any consequential damages, including without limitation damages resulting from loss of use. Some states do not allow limitations of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific rights and you may have other rights, which vary, from state to state.

For units purchased outside the United States, an authorized distributor of Applied Research and Technology will provide service.

#### SERVICE

The following information is provided in the unlikely event that your unit requires service.

- 1. Be sure that the unit is the cause of the problem. Check to make sure that the unit has power supplied, that all cables are connected correctly, and that the cables themselves are in working condition. You may want to consult with your dealer for assistance in troubleshooting or testing your particular configuration.
- 2. If you believe that the ART unit is at fault, go to <u>www.artproaudio.com</u>. You may contact Customer Service for more assistance, or directly request a Return Authorization for service in the "resources" area of the website.
- 3. If you are returning the unit for service, pack the unit in its original carton or a reasonable substitute. The original packaging may not be suitable as a shipping carton, so consider putting the packaged unit in another box for shipping. Print the RA number clearly on the outside of the shipping box. Print your return shipping address on the outside of the box.
- 4. Include with your unit: a note with the RA number and your contact information, including a return shipping address (we cannot ship to a P.O. box) and a daytime phone number, and a description of the problem, preferably attached to the top of the unit. Also include a copy of your purchase receipt.

Fill in the following information for your reference:

Date of purchase	
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Purchased from \_\_\_\_\_

Serial Number

#### SPECIFICATIONS

Ground Lift	Switchable
Input Attenuation	Switchable (0dB, -20dB, -40dB)
Input Impedance	50k Ohms
Output Impedance	600 Ohms
Input Jacks	1/4" TS unbalanced
Output Jack	XLR Male balanced
Frequency Response	10Hz - 50kHz +/-0.5dB@+4dBuhigh, 19"
Enclosure	Steel 1U high, 19" rack mount
Dimensions (HWD)	1.75" x 19" x 6" (44mmx483mmx152mm)
Weight	6.5 lbs. (2.95 kg)



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