

Xdirect

**Professional Active Direct
Box**

Accessories



User's Manual



IMPORTANT SAFETY INSTRUCTION – READ FIRST



This symbol, whenever it appears, alerts you to the presence of uninsulated dangerous voltage inside enclosure-voltage that may be sufficient to constitute risk of shock.



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

Read Instructions: Retain 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.

Grounding: Only connect the unit to equipment with properly grounded mains power. Do not defeat the grounding and polarization means of the power cord plug of the connected equipment. Do not remove or tamper with the ground connection on the power cord of the connected equipment.

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: Refer servicing to qualified technical personnel.

Installation: Install the unit in accordance with the instructions printed in the user guide.

INTRODUCTION:

Thanks for purchasing Applied Research and Technology's Xdirect. The Xdirect is a high quality interface that lets you connect instrument, line, or speaker level signals to a mixer or other balanced input. The high impedance single-ended ¼-inch and XLR inputs are buffered and converted, by very low noise active electronics, into an isolated balanced low impedance signal source. The Xdirect has an extremely flat and wide frequency response and can handle high signal levels while still maintaining an isolated balanced low impedance output. This gives the Xdirect a very clean and neutral sound with a wide variety of signal sources and over long signal runs in high noise environments.

INSTALLATION AN OPERATIONS:

The Input Attenuator switches allow for a wide range of signal levels and the Input Link jack allows for tapping off of your signal chain. The Ground Lift switch lets you totally separate the input and output signal grounds, when appropriate, to isolate two systems, thereby reducing hum and ground-loop noise.

What further sets the Xdirect apart from other "active DI" boxes are its extended features and versatility.

We have added a switchable low pass Filter that cuts out all very high frequency interference. This Bessel filter on the input is placed out of the audio range and is primarily intended to reduce radio frequency interference before it gets into the main system. The filter is also very effective in reducing any digital computer noise artifacts when using the Xdirect as an interface between a computer based audio workstation and your monitors.

A Phase Invert switch, while not normally included with your run of the mill D.I. box, has been added to allow you to switch signal polarity right at the source. This feature is especially handy when you are combining a direct tap with a microphone feed in the mix.

The Xdirects active circuitry is powered by an internal 9volt battery, when external power is not available. In this mode it draws 3.5 ma which should give you more than 250 hours of operation off of a new battery. If phantom power is available, then the Xdirect will

automatically draw its power from the external source. The Battery on/off switch lights dim when the unit is running off of the battery, lights brightly when it is running off of phantom power, and is off when the unit is inactive.

The compact black anodized all aluminum case and it's flexible power design allow the Xdirect to provide years of trouble free service in Live Sound, Permanent/Fixed Install, D.J., and virtually any PA application. It's full feature set, rugged construction, and high-end specifications make the Xdirect the obvious choice whenever you have to interface high impedance sources with a low noise balanced system.

SPECIFICATIONS:

Frequency Response:	10Hz –100kHz, +/- .5dB @ +0dBu
Maximum Output Level:	+6dBu (battery powered), +14dBu (phantom powered)
Maximum Input Level:	+4/+24/+44dBu
Dynamic Range:	>100dB typical
Input Connections:	¼-inch TRS and XLR female unbalanced, 470k Ohm
Output Connection:	XLR male balanced, <600 Ohm
THD:	<.05% Typical
Filter Type/Response:	Switchable, Low Pass, -3dB @ 30kHz
Input Attenuation:	Switchable, (0dB, -20dB, -40dB)
Output Phase:	Switchable, Normal/Invert
Ground Lift:	Switchable, fully isolates inputs from chassis and output.
Power Requirements:	9volt @3.5ma (internal battery) or 18VDC–48VDC @9.5ma (phantom power)
Dimensions HxWxD (in):	1.75 x 4.2 x 3.5
HxWxD(mm):	44.5 x 107 x 89
Weight (lbs/kg):	.75 / .34

WARRANTY INFORMATION:

Limited Warranty (USA only)

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. The warranty terms listed above are only valid within the United States of America. For units purchased outside the United States, an authorized distributor of Applied Research and Technology will provide service. For information on warranty and service policies outside of the U.S., please contact your local distributor.

Please fill in the following information for your reference:

Date of purchase: _____

Purchased from: _____

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 www.artproaudio.com. Select "Support", then "Return Authorization Request" to request a return authorization number.
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.



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Xdirect
XDT-5004-101
V1.3