

Specifications

Max Input Level

- + 12 dB Phantom powered
- + 6 dB Battery powered

Input Impedance

1 Meg Ohm

Max Output Level

- + 17 dB 10K Ohm load Phantom powered
- + 12 dB 10K Ohm load Battery powered
- + 11 dB 600 Ohm load Phantom powered
- + 12 dB 600 Ohm load Battery powered

Output Impedance

680 Ohms Balanced

Output Signal to Noise

- 100 dB unweighted
- 104 dB A weighted

Dynamic Range

- 117 dB 10K Ohm load Phantom powered
- 112 dB 10K Ohm load Battery powered
- 111 dB 600 Ohm load Phantom powered
- 107.5 dB 600 Ohm load Battery powered

Distortion

- 100 Hz .0018%
- 1KHz .0028%
- 10KHz .0056%

Frequency Response

20Hz to 20KHz, \pm 0.2 dB

Gain through Unit

6dB (Pad switch out)

Pad Switch

Global -20 dB attenuation

Input and Loop Out Connectors

Insulated jack

Output Connectors

3 pin XLR. Wired Pin 1 Ground, Pin 2 + Hot, Pin 3 - Cold. Global Audio Ground (Pin 1) lift switch

Construction

All-steel chassis, fibreglass PCB

Battery Access

Twist connector opens chassis, snap-in battery holder inside. No tools required

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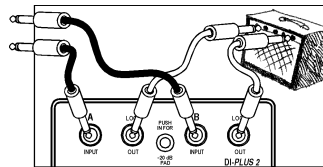
Using the DI-PLUS 2

The DI-PLUS 2 is a Direct Injection, or Direct, box. It is a self contained, stand alone stereo unit designed to interface a left and right pair of unbalanced high impedance lines with professional balanced low impedance inputs. In other words, it will convert ordinary signals into ones that are happy to travel down a long line and meet a mixing console at the other end. It has many applications for Live Sound, Studio or Broadcast use.

Typical uses are:

- Musical instruments - Keyboards, synthesizers, electronic drums, drum machines
- Consumer audio products - CD players, cassette decks, tape decks, video cassette audio, computers.

Operating instructions



Input Connections

A stereo high impedance source (instrument, unbalanced lines or similar) plugs into Inputs A and B (typically Left to A and Right to B). If the signal needs monitoring, eg. an onstage amplifier, then connect a lead from the Loop Outs of each

channel to the amplifier. Pushing the Pad switch IN will reduce both input levels by -20dB if required.

Note: If you are only using **One** channel of the DI-PLUS 2, make sure that you use Channel A. The Channel A Input jack switches the DI-PLUS 2 on.

Special Note. The DI-PLUS 2 is a Line level device, so it is not designed to accept Microphone level signals.



Output Connections

Connect a balanced microphone lead from each 3 pin XLR connector on the rear of the DI-PLUS 2 to a pair of input channels on the mixing console. Pan the channels Left or Right as required.

Pushing the Audio Ground Lift switch IN will isolate both Pin 1 outputs of the DI-PLUS 2 to stop Ground Loops if required.

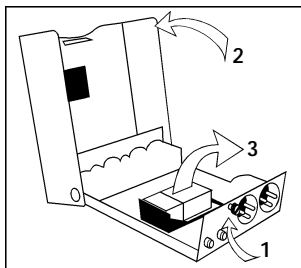
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Power Requirements

The DI-PLUS 2 is an active device, *ie.* it needs power to run. This power can be supplied 2 ways:

• Battery power.

The DI-PLUS 2 has provision for 1 x 9 volt battery internally. To get to the battery compartment, unscrew the knurled captive bolt on the rear panel, and push the top part of the chassis upwards. The battery compartment will immediately be visible. Remove the old battery, replace with a new 9v alkaline battery and close the lid. Re-tighten the bolt finger tight only.



That's all there is to it. No tools, no screwdrivers required!

• Phantom power.

The DI-PLUS 2 will also run on Phantom power if available on the mixing console. Switch the Phantom power ON on the channel the DI-PLUS 2 is plugged into, and the Red Phantom power LED will light up on the DI-PLUS 2. This means the DI-

PLUS 2 is now running on the Phantom power and the batteries are disengaged. If you switch the Phantom power off the DI-PLUS 2 will revert to battery operation, although we recommend using Phantom Power if available as it gives an approx 6dB increase in overall headroom (*see Specifications, p 4*).

Did you know...

ARX manufacture a complete range of singles and multiple Direct boxes:

The **DI-4** is a 19" 1 RU AC powered unit which has 4 independent Direct boxes, each with high impedance Input and Loop out jack connectors, a 00 to +15dB level control, clip LED, balanced XLR output and individual audio ground lift switches. As well as Direct mode, it can also function as a 4 into 2 stereo line mixer, **at the same time**, with Pan controls, plus an Aux send and stereo Aux return. For total flexibility channels 1 and 2 can also be switched out of the mix to direct only.

The **DI-6s** is a 19" 1 RU AC powered unit that has 6 independent Direct boxes, each with high impedance Input and Loop out jack connectors, a 00 to +15dB level control, clip LED, balanced XLR output and individual audio ground lift switches. It can also function as a 6 into 1 line mixer **at the same time**. A switch on the rear changes it from a 6 into 1 mixer to a 1 into 6 line distribution splitter, each split's level controlled by the six individual channel controls. A true Pro Audio toolbox!

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INTERNATIONAL LIFETIME WARRANTY

ARX Systems (ARX) warrants to the first purchaser of this DI-PLUS 2 that it is free from defects in materials and workmanship under normal use and service. ARX's sole obligation under this warranty shall be to provide, without charge, parts and labour necessary to remedy defects, if any, which appear within twelve (12) months from date of purchase; and to supply parts only for the life of the product to the original purchaser.

This is our sole warranty. It does not cover finish or appearance items, nor does it apply if the DI-PLUS 2 has been, in ARX's sole judgement:

- Subjected to misuse, abuse, negligence or accident;
- Repaired, worked on, or altered by persons not authorized by ARX,
- Connected, installed, adjusted or used otherwise than in accordance with the instructions supplied by ARX.

This warranty gives you and us specific legal rights, and you may also have other rights which can vary from state to state.

To obtain warranty service for your DI-PLUS 2, call or write to ARX or the dealer you purchased it from. They will give you the correct address to send your unit to. Have your sales receipt showing date of purchase handy, and include a copy of it with your DI-PLUS 2. Pack the unit well - we are not responsible for damage caused by unsuitable packing during shipment. Send the unit to us pre-paid, by a delivery service like FedEx, UPS, or any other service that can track the shipment. We will return it to you freight paid.

If you have any questions, or any part of this is unclear, please write to ARX Systems in the country of purchase, or to the address below.

PO Box 15, Cheltenham, Victoria 3192, Australia.
Phone: +61 (0)3 9555 7859 Fax: +61 (0)3 9555 6747
You can also Email the factory at: info@arx.com.au

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Owner's Manual

DI-PLUS 2
Dual Channel Active
Direct Box

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Thank you for choosing this ARX DI-PLUS 2, a major step forward in active direct boxes. We hope you enjoy using this unique product as much as we enjoyed creating it. As with all ARX equipment, it has undergone extensive factory testing and 'burn in' before shipping. To ensure continued trouble free use, please familiarise yourself with the contents of this manual before using.

Packaged in a dual channel stand-alone format, the DI-PLUS 2 represents a fresh look at active D.I. requirements.

• **Precision engineered**

Ultra quiet, ultra clean circuitry delivers maximum headroom whatever the signal. Premium grade components, plus an all-steel chassis gives excellent hum and noise specifications and superb audio quality in a tough, roadworthy package.

• **Level control**

The DI-PLUS 2 features dual high impedance unbalanced inputs on the front panel, running to balanced XLR outputs on the rear. A global Pad switch drops the input by a further 20dB, making it suitable for all applications, from the softest keyboard to the hottest broadcast levels; and all in glorious stereo! Plus, the Left and Right channel Gains match up perfectly for accurate stereo imaging.

• **Battery compartment**

The revolutionary simple 'clamshell' action of the DI-PLUS 2 battery compartment makes battery changing extremely easy, even on the darkest stages. A single 9v alkaline battery snaps into a PCB mounted battery holder for fast, secure location. No fragile battery clip leads to break, no tools required, no screws to lose. Production crew heaven!

• **Automatic Phantom switching**

The DI-PLUS 2 will automatically switch itself to the console's own Phantom Power, if available, and an LED will indicate this mode. Turn the Phantom Power off and it will instantly revert back to battery mode.

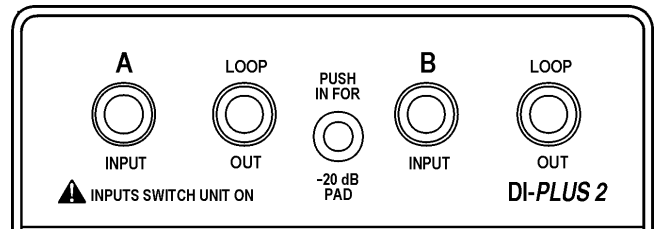
• **Rugged all-steel case**

A lot of direct boxes are fitted into brittle cast alloy cases. Not this one! The tough all-steel inner and outer chassis of the DI-PLUS 2 provide excellent RF/EMF shielding while making it a sturdy, heavy duty unit that is hard to dislodge, and hard to leave behind.

Whether you're a Studio or Live Sound engineer, installation contractor, or broadcast engineer, you want all the dynamics and clarity of the original sound source transferred to the mixing console.

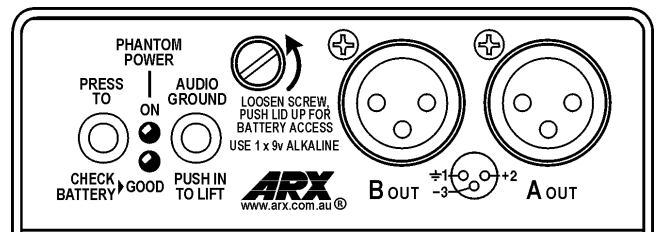
The ARX DI-PLUS 2 provides a rugged, no-compromise solution to all direct injection and signal balancing requirements.

Front Panel Connections



- High Impedance Input Jacks
- Pad switch
- Loop out Jacks

Rear Panel Connections



- Balanced XLR output connectors. Pin 3 – Cold, Pin 2 + Hot, Pin 1 Audio Ground.
- Audio Ground lift switch. Will isolate Pin 1 when switched IN
- Battery check switch and green battery status LED.

LED will light up when switch is pressed if battery is good
• Red Phantom power LED. Will illuminate if DI-PLUS 2 detects Phantom power.