

Specifications

Max Input Level	+13 dB Phantom powered +6 dB Battery powered
Input Impedance	1 Meg Ohm
Max Output Level	+12 dB 600 Ohm load Battery or Phantom powered
Output Impedance	680 Ohms Balanced
Output Signal to Noise	-100 dB unweighted -104 dB A weighted
Dynamic Range	112 dB 10K Ohm load
Distortion	100 Hz .0027% 1KHz .0028% 10KHz .0037%
Frequency Response	20Hz to 20KHz, \pm 0.2 dB
Gain through Unit	6dB (Normal Input, Pad switch out)
Pad Switch	-20 dB attenuation
Speaker Input	-40dB attenuation, equivalent to 100:1 decrease in input level; -60db atten. available with Pad switch
Input and Loop Out Connectors	Insulated jack
Output Connector	3 pin XLR, wired Pin 1 Ground, Pin 2 +Hot, Pin 3 - Cold. Global Audio Ground (Pin 1) lift or soft Ground switch
Construction	All-steel chassis, fibreglass PCB
Battery	Rechargeable 9V DC NiMH

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Power Requirements

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

• Battery power

In a world first for this type of device, the DI-PLUS-R is fitted internally with a State-of-the-Art Nickel Metal Hydride (NiMH) rechargeable battery. NiMH batteries do not suffer from the memory-effect that plagued earlier Nickel Cadmium (NiCad) batteries, and gradually reduced the amount of power available after each recharge. If you ever owned an earlier analog mobile/cell phone you'd be aware of this unfortunate phenomenon.

These new NiMH batteries also feature extended battery life, to last through the longest show.

• Phantom power

The DI-PLUS-R will also run on Phantom power if available on the mixing console. Switch the Phantom power ON on the channel the DI-PLUS-R is plugged into, and the Red Phantom power LED will light up on the DI-PLUS-R. This means the DI-PLUS-R is now running on the Phantom power and the batteries are recharging. If you switch the Phantom power off the DI-PLUS-R will revert to battery operation.

PLEASE NOTE:

To charge from Phantom Power the DI-PLUS-R needs to be switched on, i.e. a jack must be inserted into one of the INPUTS.

This is not required if the unit is being charged from an external power supply via the DC jack input.

Did you know...

As well as the DI-PLUS-R and the DI-PLUS2-R, ARX manufacture a six channel rack mount AC powered Direct box:

The DI-6sm 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 mic or line mixer **at the same time.**

Switches on the rear change it from a 6 into 1 mixer to a 1 into 6 mic or line distribution splitter, each split's level controlled by the six individual channel controls. A true Pro Audio toolbox!

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Using the DI-PLUS-R

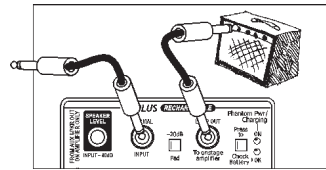
The DI-PLUS-R is a Direct Injection, or Direct, box. It is a self contained, stand alone stereo unit designed to interface unbalanced high impedance lines with professional balanced low impedance inputs. In other words, it will convert an ordinary signal into one that is happy to travel down a long line 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 - Bass guitar, normal guitar, synthesizers, electronic drums, drum machines
- Consumer audio products - CD players, cassette decks, tape decks, video cassette audio, computers.

Operating instructions

Normal Connection

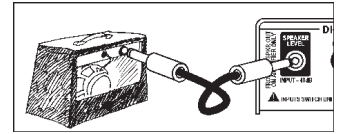


Plug a jack lead with a high impedance source (instrument, unbalanced lines or similar) into the Normal Input. This will turn the unit on and a balanced signal will appear at the XLR Balanced Output on the rear of the unit. This connects to the Input of the mixing console. If the signal needs monitoring, eg. an onstage amplifier,

then connect a lead from the Loop Out to the amplifier. Pushing the Pad switch IN will reduce the input level by -20dB if required.

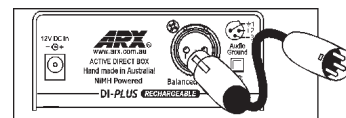
Special Note. The DI-PLUS-R is a Line level device, so it is not designed to accept Microphone level signals.

Connection from Amplifier



For applications where the sound of the instrument/amplifier combination is required, connect a lead from the Aux (or External) speaker output on the rear of the amplifier to the Speaker Level Input (-40dB) on the DI-PLUS-R. If the signal is still too hot, then switch the PAD switch in as well to reduce the input by a further -20dB.

Note: Be sure to always use the Aux or External speaker output on the amplifier. **Never disconnect the speakers on a valve/tube amplifier.**



Connect a balanced microphone lead from the 3 pin XLR connector on the rear of the DI-PLUS-R to an input channels on the mixing console. Pushing the Audio Ground Lift switch IN will isolate the Pin 1 output of the DI-PLUS-R to stop Ground Loops if required.

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INTERNATIONAL LIFETIME WARRANTY

ARX Systems (ARX) warrants to the first purchaser of this DI-PLUS-R 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-R 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-R, 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 with your DI-PLUS-R. 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, Moorabbin, Victoria 3189, 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-R
Single Channel
RECHARGEABLE
Active Direct Box

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International Fax: +61-3-9555 6747
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Thank you for choosing this ARX DI-PLUS, 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 single channel stand-alone format, the DI-PLUS-R 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-R features a Normal gain high impedance unbalanced input on the front panel, running to a balanced XLR output on the rear. There is also a separate -40dB Speaker Level input for signal coming from the External (auxiliary) speaker output of an amplifier. A global Pad switch drops both the Normal input and the Speaker Level input by a further 20dB, making it suitable for all applications, from the softest keyboard to the hottest broad-

cast levels.

Rechargeable NiMH Battery

In a first for this type of product, the new DI-PLUS-R is fitted with a state-of-the-art Nickel Metal Hydride (NiMH) memory-effect-free rechargeable battery, which recharges whenever Phantom Power is detected. If no Phantom is present, it can be recharged via a standard 12V DC external power supply. Production crew heaven!

Automatic Phantom switching

The DI-PLUS-R 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.

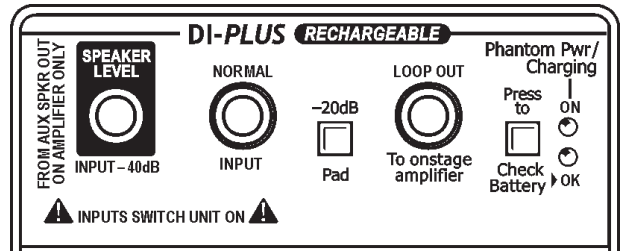
Rugged all-steel case

A lot of direct boxes are fitted into brittle cast alloy or plastic cases. Not this one! The tough all-steel inner and outer chassis of the DI-PLUS-R 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-R provides a rugged, no-compromise solution to all direct injection and signal balancing requirements.

Front Panel Connections

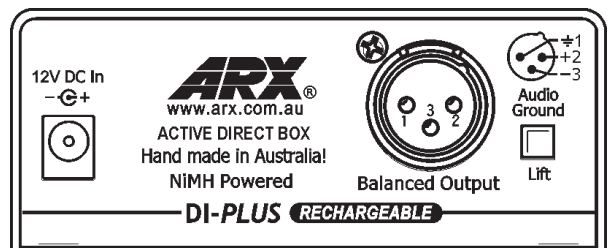


- Speaker Level Input Jack
- Normal Input Jack
- Pad switch
- Loop out Jack
- Battery check switch and green battery status LED.

LED will light up when switch is pressed if battery is good

- Red Phantom power LED. Will illuminate if DI-PLUS-R detects Phantom power and is charging battery.

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