

## INTERNATIONAL LIMITED WARRANTY

ARX Systems (ARX) warrants to the first purchaser of any ARX equipment 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 for a further twelve (12) months supply parts only.

**This is our only warranty.** It does not cover finish or appearance items, or if the equipment 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 for a purpose other than that for which it was designed.

This warranty gives you and us specific legal rights and you may also have other rights which may apply.

### **Warranty Service Procedure**

Should it become necessary to have your equipment serviced under the terms of the warranty, please follow these steps:

1. Call your ARX distributor for a Return Authorization (RA) number;
2. **Carefully** repack the unit, in its original packaging where possible, including a note with a description of the problem, and a copy of the receipt showing date of purchase. Attach these to the actual unit itself. Don't forget to write your name and address clearly, and include a phone number where you can be contacted during normal business hours. Make it easy for our service technicians to contact you if they have a question. Also, use **plenty** of packing material - better to be safe than sorry.
3. Send the unit freight prepaid to ARX Systems, at the address given you with your RA number. We will pay the return freight when the serviced unit is returned to you.
4. We strongly recommend you insure the package. We can't fix it if it gets lost! Send it by UPS, Fedex, or any similar service that can track the package. Parcel Post is *not* recommended

*If Warranty Registration Card is missing, please write to ARX in the country of purchase, stating model and where purchased, or to ARX, PO Box 15, Cheltenham, Victoria 3192, Australia.*

*Or you can Email us at: [info@arx.com.au](mailto:info@arx.com.au)*

# DI-4

## OWNER'S MANUAL



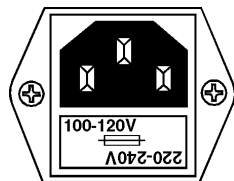
ARX Systems Pty Ltd, PO Box 15,  
Cheltenham, Victoria 3192, Australia  
Phone: 03 - 9555 7859 Fax: 03 - 9555 6747  
International Fax: + 61-3 -9555 6747  
On the Web: <http://www.arx.com.au>  
Email: [info@arx.com.au](mailto:info@arx.com.au)



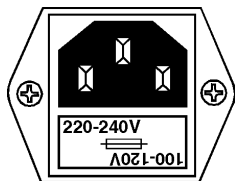
### IMPORTANT - PLEASE READ THIS FIRST



This is a dual voltage unit. It is essential that you check that the voltage on the fuseholder cover below the AC connector on the rear of the chassis is set correctly before connecting it to AC power.



THIS IS SET FOR  
100 V AC TO 120 V  
AC OPERATION



THIS IS SET FOR  
220 V AC TO 240 V  
AC OPERATION

To change, pull fuseholder out and rotate 180°, then push in again. Do not insert power cable into unit until voltage has been correctly set. Do not plug power cable into AC power until voltage has been correctly set

### WARNING SYMBOLS USED ON THIS EQUIPMENT



This symbol is intended to alert you to the presence of important operating instructions contained in this owner's manual



This symbol is intended to alert you to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



This symbol indicates that a Slow Blow fuse is used in this equipment. Replace with same type and value only



#### CAUTION

RISK OF ELECTRIC SHOCK  
DO NOT OPEN



TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE  
COVER OR BACK OF UNIT  
NO USER-SERVICEABLE PARTS INSIDE  
REFER SERVICING TO QUALIFIED PERSONNEL

#### WARNING

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT  
EXPOSE THIS UNIT TO RAIN OR MOISTURE.

#### ATTENTION

RISQUE DE CHOC ÉLECTRIQUE - NE PAS OUVRIR

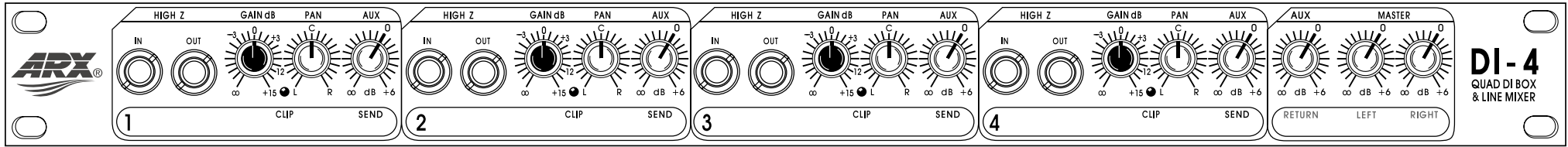


Complies with 89/336/EEC EMC Directive,  
amended by 92/31/EEC and 93/68/EEC and  
meets the following standards: EN 55013 :  
1990, Sections 3.2 and 3.5 EN 55020 : 1988,  
Sections 4.3, 5.4, 6.2, 7.0, 8.0.  
Complies with Australian Standard AS/N25  
1053

### DI-4 Specifications

#### Channels 1 - 4

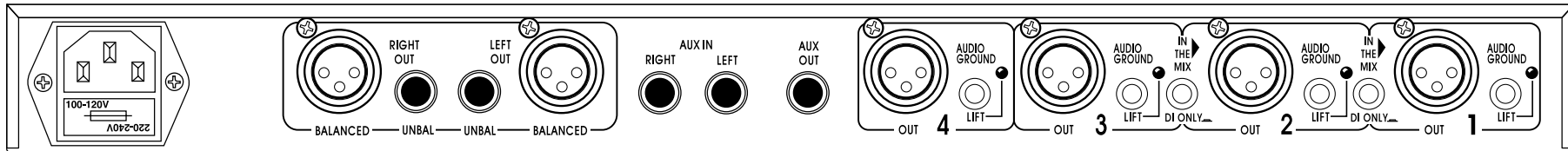
<b>High Z Input Impedance</b>	2.2 Meg Ohm
<b>Max Channel Gain</b>	15dB
<b>Clip LED</b>	Illuminates 1dB prior to clip
<b>Direct Output Impedance</b>	300 ohms Balanced
<b>Max Input Level</b>	+ 20dB
<b>Max Output Level</b>	+ 21dB
<b>Signal to Noise</b>	-96dB(unity gain)
<b>Frequency Response</b>	20Hz to 20KHz, ± 0.5dB
<b>Distortion</b>	< 0.004%, 1KHz, + 4dB
<b>Output Connector</b>	3 pin XLR
<i>Left/Right Master</i>	
<b>Output Impedance</b>	300 Ohms Balanced
<b>Max Output Level</b>	+ 21dB
<b>Signal to Noise</b>	-90dB (unity gain)
<b>Frequency Response</b>	10Hz to 20KHz, ± 0.5dB
<b>Distortion</b>	< 0.004%, 1KHz, + 4dB
<b>Output Connector</b>	Balanced 3 pin XLR, Unbalanced jack
<i>Auxiliary</i>	
<b>Aux Send configuration</b>	Pre fade, post input gain
<b>Max Output Gain</b>	+ 6dB
<b>Output Impedance</b>	150 Ohms unbalanced
<b>Max Output Level</b>	+ 21dB
<b>Aux In/ Out Connector</b>	Jack. Tip +, Sleeve Ground
<b>Aux Return Type</b>	Constant amplitude into L/R busses, Left jack for mono return
<b>Max Input Gain</b>	+ 6dB
<b>Input Impedance</b>	40 K Ohms
<b>AC Power</b>	100-120, 220-240 V AC, 8 VA
<b>Size</b>	19"W x 6"D x 1 3/4"H, 482 x 155 x 44mm
<b>Weight</b>	2.2 Kg (5 lbs)



### Front Panel Controls

- Unbalanced Hi Z insulated phone jack Input and Output socket
- Channel Level control; from ∞ through 0dB to + 15 dB
- Channel clipping indicator LED
- Channel Pan control
- Channel Auxiliary send
- Numbered marker panel for labelling DI assigns. Use grease pencil or

- Chinagraph type only. Do not use felt tip pens as these may permanently stain your front panel.
- Aux Send Master level control
- Left and Right Master level controls



### Rear Panel Connectors

- Channels 1-4 Balanced Outputs. Pin 2 + Hot, Pin 3 - Cold, Pin 1 Ground
- Channels 1-4 audio Ground lift switch
- Channels 1-4 Ground lift LED indicator
- Channels 1 and 2 InThe Mix or DI only switches
- Aux out jack connector

- Left and Right Aux In jack connectors
- XLR Balanced Left and Right Master outputs. Pin 2 + Hot, Pin 3 - Cold, Pin 1 Ground
- Unbalanced Left and Right jack Master output jacks

### DI-4 Application Notes

Setting up your DI-4 is very straightforward. It will accept virtually all High Impedance (Hi Z) Unbalanced lines and convert them to Electronically Balanced Low Impedance (Lo Z) lines, suitable for all professional audio applications.

Simply choose a channel on the front, and turn the Gain control hard Left. Plug your line into the Input, and your XLR lead into the corresponding Output on the rear. Turn the channel Gain control up until the required output level is reached. 0dB or Unity Gain is marked on the Gain control at approximately 12 o'clock.

To reduce the signal level, turn to the Left; to increase it turn to the Right, up to a maximum of + 15dB. The Clip LED will light up if any part of the

circuitry is being overloaded. If this occurs, reduce the Input level until it stops. Use the audio Earth/Ground lift switch to eliminate Ground loop hum if necessary.

If the Input signal needs to continue on to a musician's individual amplifier, for example Bass or Keyboards, insert a lead into the channel Output on the front panel and run it to the amp.

The DI-4 also has a Mix function. This is especially useful for today's multiple keyboards, drum machine, music computer set ups. Up to 4 individual components can be plugged into the DI-4, and individual balanced lines can be run down to the main console. A summed mix of these can be sent out to

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either the monitor console via the Master Balanced Outputs, or to the musician's personal amp via the Master Unbalanced Outputs, or both at the same time if you wish.

If you are running short of channels to the main console, this summed mix can be sent to the main console and the musician can balance the onstage mix to their own taste.

The Aux send can either drive an effect or be used to generate a separate mix.

The Left and Right Aux returns can either return the effect into the mix, or bring a stereo tape or CD signal into the mix.

You don't have to have all the channels in the mix. If you prefer to keep some signals as Direct only, that's no problem. On the rear panel, Channels 1 and 2 can be individually switched in or out of the mix as required.

The DI-4 is also ideal as a -10 dB to +4 dB level matcher for consumer audio to pro audio, home studio equipment, and Audio for Video in discos and clubs.

In Radio and TV broadcast work the DI-4 is a must in any remote truck, OB van or mixing suite, being easily and quietly able to deliver the +8 dB or greater line levels that are common to the industry. It will do this in DI mode or Stereo Line mixer mode.

In short, the ARX DI-4 is a truly unique audio problem solver for all facets of the audio industry, from Broadcast and Studio work through to Discos, Clubs and Concert sound.

Being AC mains powered the DI-4 has no batteries to go flat, nor does it require Phantom Power. However, many mixing console have Phantom Power available to all channels or none, or to blocks of channels. If this is the case, then the DI-4 will quite happily accept Phantom Power.

### **Special Note**

Just two things the DI-4 won't do (apart from make the coffee):

1. It is a Line Mixer, so it won't accept Microphone level signals, and
2. It's not designed to accept speaker level, so don't plug the output of an amplifier into it.

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### **Introduction**

Thank you for choosing this ARX DI-4. 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.

### **About the DI-4**

ARX is proud to present another 'must have' product in its series of audio toolboxes. The new DI-4 is a winning combination of four Direct boxes, *and* a four channel stereo line mixer, with an Aux send and a stereo return.

The DI-4 has been designed to handle all signal interfacing requirements, with unparalleled ease of use and specifications.

Set it up any way you want; as Four individual DI units, as a Four into Two line level mixer (at the same time!) or any combination of ins and outs that you need.

On the front panel, each channel has two high impedance jack connectors. The first is an input and the other is a looped high impedance output which can go to an instrument amplifier if required. There is also a channel Gain control, from infinity through to +15dB, enough Gain to drive the longest lines, plus a Pan control for mixer applications.

A handy feature on each channel is the Aux send, which can either drive an effect or be used to generate a separate mix.

The Left and Right Aux returns can either return the effect into the mix, or bring a stereo tape or CD signal into the mix.

If you prefer to keep some signals as Direct only, that's no problem for the DI-4. On the rear panel, Channels 1 and 2 can be individually switched in or out of the mix as required.

The rear panel also has the Balanced XLR outputs for Channels 1 to 4, each with its own audio ground lift switch and status LED. The Aux send and Left and Right Aux returns are jack connectors.

The stereo master outputs are both Balanced XLR and unbalanced Jack connectors for maximum flexibility in operation.

In today's competitive audio environment, every piece of equipment has to earn its place in the rack. User friendly intuitive layout, plus precision engineering and superb specs make the ARX DI-4 a 'must have' unit for any sound system.