

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, burned voice coils, 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 includes running a speaker system with the ISC leads disconnected, or with a non-ARX crossover, or with the wrong processor.

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, DHL 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, Moorabbin, Victoria 3189, Australia.

Or you can Email us at: info@arx.com.au

DeBalance 

8 channel
Audio DeBalancer and
Level Optimizer

OWNER'S MANUAL

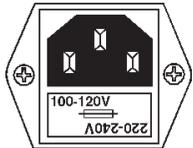
ARX
www.arx.com.au (®)

ARX Systems Pty Ltd, PO Box 15,
Moorabbin, Victoria 3189, Australia
Phone: (03) 9555 7859 Fax: (03) 9555 6747
International Fax: +61-3 -9555 6747

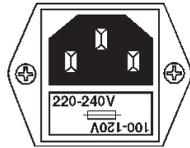
On the Web: www.arx.com.au
Email: info@arx.com.au

! 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 connect power cable to AC power until voltage has been correctly set



RoHS

CE **N1819**

Manufactured in Australia

Complies with 89/336/EEC EMC Directive, amended by 92/31/EEC and 93/68/EEC; 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., and EN 60950 : 1994 Low Voltage Directive

Complies with Australian Standard AS/N25 1053

Our policy is one of continuous improvement, and therefore designs may change without notice. However, unless otherwise stated, specifications will always equal or exceed those previously given.

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

Specifications

Input Impedance	44K Balanced
Input Headroom	+24dB
Input Connector	Female XLR, wired Pin 1 Gnd, Pin 2 + Hot, Pin 3 – Cold
Output Connector	RCA (Phono)
Output Impedance	150 Ohms Unbalanced
Output Level (max)	+24dB
Frequency Response	10Hz- 30KHz ±0.25dB
Signal to Noise Ratio	-96dB unweighted -102dB A weighted
Distortion	.003% THD, 100Hz .0025% THD, 1KHz .00325% THD, 10KHz
Dynamic Range	120dB
Gain Loss	• 0dB Unity, mode switch out, • -14dB, mode switch in (+4dB to -10dB level matching)
Power	100-120/220-240 VAC 50/60Hz 5VA (5 watts) on 3 pin IEC connector with removable cable

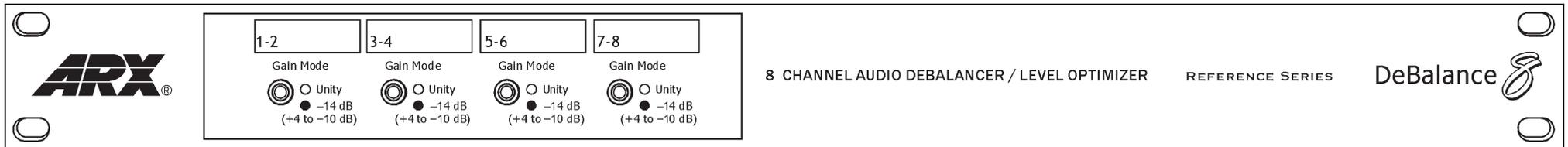
Complete online documentation is available on the ARX website:

www.arx.com.au/de-balance8.htm

Specific queries can be emailed to the factory at info@arx.com.au



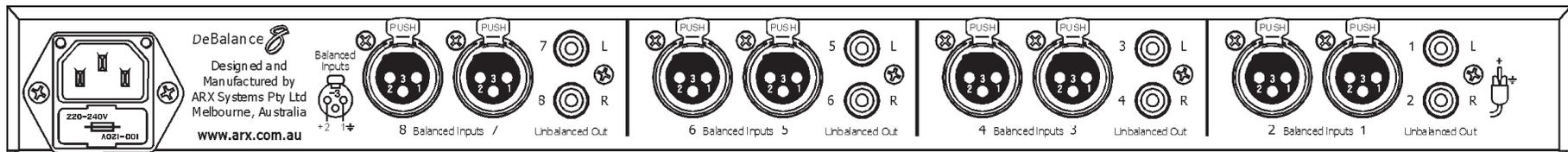
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Front panel

- Channel 1 and 2 Gain Mode switch
- Unity Gain LED and +4dB to -10dB status LED. One of these will always be illuminated if the unit is connected to AC mains power

Channels 3 to 8 identical



Rear Panel Connectors

- Channels 1 - 2 Unbalanced RCA Output sockets. Pin + (Hot), Sleeve Ground
- Channels 1 - 2 Balanced XLR Input sockets. Pin 2 HOT +, Pin 3 Cold -, Pin 1 Ground
- IEC 3 pin AC connector and integral fuseholder. Replace fuse with correct value only: 100 - 120 V AC 1 amp, 220-240 V AC 0.5 amp. Please also refer to voltage details on Page 2

Channels 3 to 8 identical

Architects' and Engineers' Specifications

The unit shall be an 8 channel device that electronically converts balanced audio signals to unbalanced signals. 4 switches on the front panel (1 per pair of channels) shall offer the option of unity gain or +4 dB to -10 dB level matching.

It shall be mounted into a standard 1 RU all steel chassis with extruded aluminium front panel. All Inputs shall be Balanced 3 pin XLR type, wired Pin 2 + (Hot), Pin 3 - (Cold), and Pin 1 Ground. All Outputs shall be unbalanced RCA (phono) connectors, wired Tip + (Hot), Sleeve Ground.

The Signal to Noise ratio shall be -96dB unweighted, and -102 dB A weighted.

The Input impedance shall be 44K Ohms Balanced, and the Output impedance shall be 150 ohms Unbalanced. Dynamic Range shall be 120dB.

Maximum Input headroom shall be +24 dB, and maximum Output Level shall be +24 dB. THD shall be 0.003% @ 100Hz, 0.025% @ 1KHz, and 0.0032% @ 10KHz.

AC power range shall be switchable 100 to 120V or 220 to 240V AC, using a standard three pin IEC connector, with built-in fuse and voltage change switch.

The unit shall be the ARX DeBalance 8

Applications

- Studio, Live and Broadcast
- Sound Reinforcement
- AV Systems/CD/Audio-for-Video
- Anywhere professional balanced signals need converting to unbalanced signals

Setting Up

Like so many of our best ideas, setting up your **DeBalance 8** is simplicity itself.

Firstly connect the unit to AC power.

Please Note:

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. See Page 2 for more details on this.

Your balanced signal plugs into the XLR input sockets of, say, Channel 1 and 2, and the de-balanced outputs appear at the corresponding RCA output connectors next to them. Continue on for all 8 channels if required.

That's all there is to it. From the **DeBalance 8** the unbalanced signals can be run to the next item in the signal chain. Since each channel of the **DeBalance 8** is independent of the others, 8 different sources or 4 separate stereo pairs can be unbalanced in this way.

The Gain Mode switches on the front panel give you the choice of unity gain through pairs of channels on the **DeBalance 8**, using it as a debalancer only; or as a level optimizer as well, bringing the +4 dB levels down to -10 dB (14dB overall gain loss) per channel pair.

LEDs on the front panel indicate which mode has been selected. One of these will always be illuminated if the unit is connected to AC mains power

Introduction

Thank you for choosing this ARX **DeBalance 8** Audio Balancer and Level Optimizer. We hope you enjoy using it as much as we enjoyed creating it. As with all ARX equipment, it has undergone extensive factory calibration and 'burn in' before shipping. To ensure continued trouble free use, please familiarise yourself with the contents of this manual before using the LEVEL 8.

About the DeBalance 8

Sooner or later there comes a time when Pro Audio Balanced outputs need to be converted to Unbalanced, to silently interface with -10dB unbalanced inputs of consumer electronics. Distortion and noise from a mismatch at this point will be amplified throughout the system.

Now there's a simple and straightforward solution to this problem – the all-new **ARX DeBalance 8**, an 8 channel audio debalancer and level optimizer specifically designed to handle this critical task.

ARX's proprietary debalancing circuits take the Balanced +4dB levels from professional audio systems and effortlessly convert them into the unbalanced signals that all units with unbalanced inputs need, such as LCD, LED and plasma screens and other consumer-type products

Inputs are industry standard balanced 3 pin XLR type, and outputs are unbalanced RCA connectors .

Pairs of Gain Mode switches on the front panel let you select unity gain through the **DeBalance 8**, using it as a debalancer only, or as a level optimizer as well, bringing the +4 dB levels down to -10 dB (-14dB overall loss). Status LEDs on the front panel indicate which mode has been selected.

Housed in a rugged all steel chassis with extruded aluminium front panel, the ARX **DeBalance 8** is the ideal professional engineer's tool for the critical task of impedance and level converting.