

## 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. 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, Moorabbin, Victoria 3189, Australia.*

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

# BarMIX

## Multimedia Zoner/Mixer

## OWNER'S MANUAL



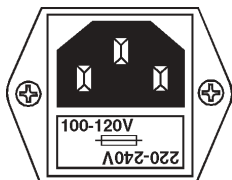
ARX Systems Pty Ltd, PO Box 15,  
Moorabbin, Victoria 3189, Australia  
Phone: (03) 9555 7859 Fax: (03) 9555 6747  
International Fax: +61-3-9555 6747  
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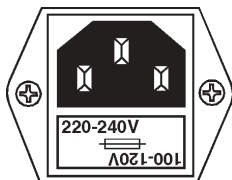
## IMPORTANT - PLEASE READ THIS FIRST



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

## BarMIX™ Specifications

### Input Impedance

Mic: 4 KOhms balanced, Line: 100 KOhms unbalanced

### Input Gain

Mic: Variable 20 dB to 60 dB with rear trim control  
Line: -10 to +10 dB

### Output Level (Max)

+ 21dB

### Signal to Noise ratio

-90 dB 'A' weighted  
Note: All inputs @ unity, Master @ unity

### Distortion @ Unity Gain

Below .005% 100Hz to 10 KHz

### Dynamic Range

115 dB

### Mic Channel EQ

**Low** 100Hz 15dB Cut/Boost  
**Mid** 800Hz 15dB Cut/Boost, Broad Q  
**High** 10KHz 15dB Cut/Boost

### Zone EQ

**Low** 100Hz 10dB Cut/Boost  
**High** 10KHz 10dB Cut/Boost

### Level Control

∞ to +6dB Gain (0 to 11)

### Hi Z Input Connectors

Phono (RCA type)

### Balanced Output Connectors

Male XLR: Pin 1 Ground, Pin 2 +, Pin 3 -

### Frequency Response

20Hz—20KHz ±1dB

### Power Requirements

100-120/220-240 V AC, 50/60 Hz 8VA (8 watts)  
on 3 pin IEC connector

### Weight

5 lbs/2.2 Kg

### Dimensions

19"W x 1¼"H x 6"D, 482 x 44 x 155mm

### Options

**BM-1 VCA Remote Level Control.** Optional DC controlled VCA pack. Wall plate connects to BarMIX via balanced cable with TRS jack connector. Use 1 per Zone

Complete online documentation is available on the ARX website:

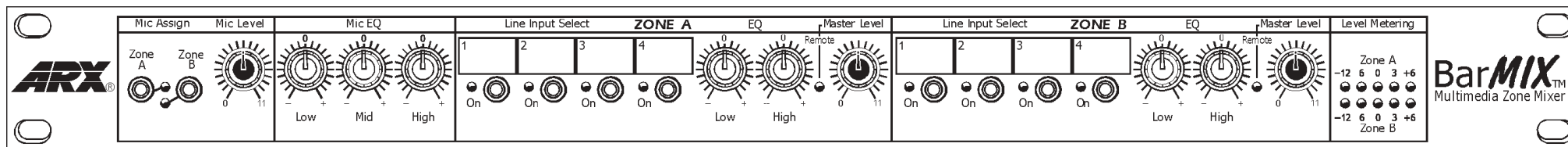
[www.arx.com.au/barmix.htm](http://www.arx.com.au/barmix.htm)

Specific queries can be emailed to the factory at [info@arx.com.au](mailto:info@arx.com.au)



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. ARX® is a Registered Trade Mark of ARX Systems Pty Ltd. BarMIX™ is a trade mark or ARX Systems Pty Ltd. Any other names and trademarks are used for information purposes only, and no other intent is expressed or implied

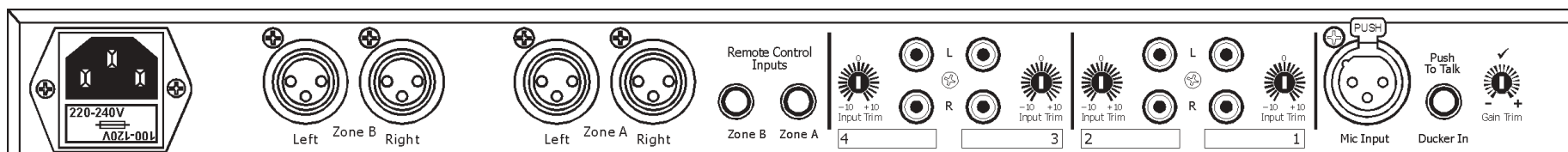
## Front Panel



- Microphone Zone assign switches and LEDs
- Microphone Level control
- 3 way EQ controls for the microphone
- Zone A program source switches, with label panels and LED indicators to show active source

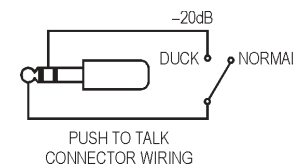
- Zone A 2 way EQ controls
- Zone A Remote control status LED
- Zone A Master Level control
- Zone A and B Output Level LED metering  
(Zone B functions identical to Zone A)

## Rear Panel



- 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
- Zone A and B Balanced XLR Outputs wired Pin 1 Ground, Pin 2+ (Hot), Pin 3 - (Cold)
- Remote Master Zone Output connectors
- Sources 1, 2, 3 and 4 Input Gain trim controls
- Sources 1, 2, 3 and 4 Phono (RCA type) input connectors
- Balanced XLR microphone connector

- Microphone Gain trim control
- TRS jack connector for Mic override (Press-to-talk ducker) to attenuate line inputs by 20 dB. Wired so shorting Tip and Ring enables ducker



### ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The signal processor shall be mounted in a steel chassis six inches (150mm) deep and one rack unit high. The unit shall be a Zoner/Mixer, i.e, it shall accept inputs from four separate stereo sources as well as a microphone, and send them to two separate zones. A switch on the rear panel shall switch the output of the two zones to either stereo (Left and Right), or Mono. An LED shall indicate which mode is active.

The microphone input shall have a level control and three way Equalisation controls. The microphone connector shall be a balanced XLR input with an Input impedance of 4 K Ohms. There shall also be an input for a ducker control to attenuate line inputs by 20 dB, and LEDs to indicate microphone status. The microphone shall be able to be routed to either or both output zones.

Each Line source shall have High Z Left and Right phono (RCA type) connectors, with associated Gain trim controls -10dB to +10 dB on the rear panel. A switch and status LED on the front panel shall

indicate which source is active in each zone. These switches shall be interlocking so that only one of the four input sources per zone can be selected at one time.

Each Zone shall have two-way Equalisation and the option of fitting a VCA controlled Remote Master output level control. Each Master output shall have a dedicated 5 LED metering display

Input source impedance shall be 100K Ohms, and the input headroom shall be +21dB. The frequency response (all channels and masters) shall be 20 Hz to 20 KHz,  $\pm 0.4$ dB. The Output impedance shall be 300 ohms balanced, and the maximum Output level shall be +21dB, with a Signal to Noise ratio at unity of -90 dB 'A' weighted. Output connectors shall be Balanced XLR type. THD shall be below .005%, 100Hz to 10 KHz, and the unit shall have a dynamic range of 111dB.

Power shall be supplied via a removable mains cable, connecting to an IEC connector with an integral fuse and voltage change switch on the unit's rear panel.

The Zoner/Mixer shall be the ARX BarMIX.

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## Using the BarMIX

Setting up your BarMIX is very straightforward and intuitive.

Firstly, connect the unit to AC power. **Please Note** that it 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.

### Getting started

1. Connect the Zone A and B outputs to their respective amplifiers, then switch the amplifiers on. Don't turn them up just yet.
2. Connect the input sources to the 4 pairs of RCA connectors on the rear panel, and mark in both zones on the front panel what each of them is: CD, Video, Radio, etc.
3. Set the Input trim controls next to each RCA at 0 (12 o'clock)
4. Set them all to play,
5. Turn up the amplifiers about half way
6. Press any line source switch on Zone A, (or B - whichever one you will be able to listen to)
7. Bring up the Zone A Master level until you can hear something. If all the sources are connected and playing, then **something** will come out of the speakers!
8. Switch through each of the sources on Zone A, while adjusting the Input trim controls on the rear panel. Aim to get each of the sources at around the same volume, so the when you switch through them there is no variation in level from one to the other.
9. Turn the amplifiers up to their normal operating level, then adjust the Zone EQ and Level control until you have the system sounding correct.

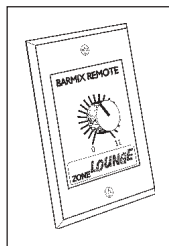
That's it for the Line inputs. Leave it playing while we go to the Microphone.

1. Connect the Microphone lead to the balanced XLR input on the rear panel. If you have a separate push-to-talk connector, plug that in as well.
2. Set the Input Gain trim control next to the XLR connector to the tick (12 o'clock)
3. Switch the Mic to the Zone required - A, B or both, with the front panel switches. If you have a push-to-talk button on the mic, press it down.
4. Speak into the mic while adjusting the mic level control on the front panel until you reach the output level required.
5. Adjust the mic EQ for the best sound, and that's just about it!

Congratulations - you've just set up the complete BarMIX system.

If you are using the optional BM-1 VCA Remote Level Control pack, this will come with appropriate connecting details which you should follow. If this option has been fitted, the front panel control on the BarMIX will be inoperative, and the Remote LED next to it will be lit.

BM-1 REMOTE  
LEVEL CONTROL



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## Introduction

Thank you for choosing this **ARX BarMIX**. 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 BarMIX

The ARX BarMix is a unique 'user-friendly' Zoner/Mixer, enabling a choice of four stereo audio sources to be routed to each of two zones.

#### • Intuitive Layout

The linear ergonomic flow of the front panel controls, coupled with the visual feedback of level settings and source selection makes using the BarMix totally intuitive, even for casual staff with no prior experience.

Up to four stereo sources as well as a microphone can be connected to the BarMix, such as: Tape/cassette/DVD/CD decks, TV/Satellite/video audio, Juke Box/Karaoke systems. Interlocking switches and an associated status LEDs for each source ensure that there is no risk of accidentally selecting two sources for the one zone.

A front panel switch turns the microphone on or off, and there is also provision to connect a push-to-talk signal for priority/evac override.

Dual colour-coded LED meters show output levels for each zone.

#### • Control Options

Each of the two output zones has the option of being controlled Locally, ie from the control on the unit itself, or Remotely, with the optional BM-1 VCA Remote Level Control. A front panel LED indicates if this option is active.

This is useful if the unit needs to be mounted some distance away from where it is likely to be controlled. For example, the BarMix unit may be installed alongside other audio equipment, while the Remote can be located behind the bar.

#### • Superb Audio Quality

Every day, ARX Audio interface products solve audio problems for thousands of people around the world. We're fanatical about audio quality because we're betting that you are, too. That's why we have comprehensive EQ control for the microphone, and for both Zones as well, rather than a single 'Tone' knob, to ensure that you and your clients get the best possible sound.

Ease of use, flexible setup, superb audio quality - that's the ARX BarMIX promise!