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, 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

SX/ZX SERIES POWER AMPLIFIERS

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

IMPORTANT - This amplifier is designed to be connected ONLY to the AC voltage ticked ☑ below

☐ **100 V AC, 50 - 60 Hz**

☐ **120 V AC, 50 - 60 Hz**

☐ **220 V AC, 50 - 60 Hz**

☐ **240 V AC, 50 - 60 Hz**

It is essential that you check that this voltage is correct for your area before connecting it to AC power. Do not plug power cable into AC power until voltage has been checked. If incorrect, contact your ARX distributor.

Your warranty does not cover connecting the amplifier to the wrong voltage AC power!

All models have a fixed power lead with an external fuse mounted on the chassis. Replace fuse with correct value as marked on the rear of the amplifier

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 ÉLÉCTRIQUE - NE PAS OUVRIR

CE N1819

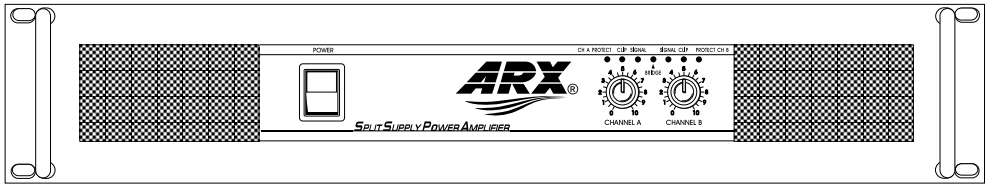
Complies with 89/336/EEC EMC Directive, amended by 92/31/EEC and 93/68/EEC and meets the following standards:EN 55013 : 1990, Sections 3.2 and 3.5 EN 55020 : 1988, Sections 4.3, 5.4, 6.2, 7.0, 8.0.

Complies with Australian Standard AS/N25 1053

Specifications	*SX1500*	*SX3000*	*ZX3200*
Power Output :			
Both channels @ 8:	490	660	700
Both channels @ 4:	700	1,000	1,000
Both channels @ 2:	------	-------	1,250
Distortion:			
1 Watt @8 ohms	.02%	.027%	.027%
10 Watts @8 ohms	.012%	.028%	.028%
Prior to clip @8 ohms	.027%	.025%	.025%
1 Watt @4 ohms	.03%	.042%	.042%
10 Watts @4 ohms	.02%	.042%	.042%
Prior to clip @4 ohms	.04%	.044%	.044%
Channel Separation:			
@ 1KHz	-88dB	-88dB	-88dB
@ 10KHz	-80dB	-80dB	-80dB
Front panel indicators:			
Signal present LED:	yes	yes	yes
Clip LED:	yes	yes	yes
Bridge LED:	yes	yes	yes
Protection:	yes(2)	yes(2)	yes(2)
Weight: Kg	16	20	21
Lbs	35	44	46.5
Input sensitivity: for rated output 8 ohms:	1.3V	1.4V	1.4V
Frequency response: @ rated output:	20Hz - 20KHz ± 0.4dB		
Input Impedance:	40Kohms Balanced		
Input Connectors:	XLR(2)		
Output Connectors:	Speakon (2)		
Construction	1.2mm steel monocoque, with 4mm steel front panel and rear rack mount ears. 2 handles, Lexan front and rear labels, fixed power cord		

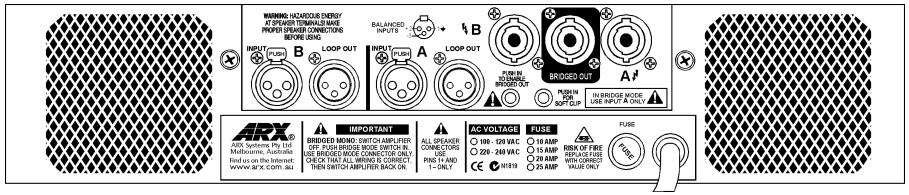
All are standard 2 rack units (3½", 89mm) high, 19" (482mm) wide, and 16" (405mm) deep.

Add at least >3" (80mm) to depth behind front panel to allow for rear rack mount ears, cabling and connectors. Add >1" (32mm) to depth before front panel to allow for handles and controls.



Front Panel

- EasyGrip Handles
- Detented Level controls
- Protection, Clip, Signal present and Bridge LEDs
- 4 mm steel front panel
- Non-scratch Lexan printed panel
- Illuminated power switch
- Fan filters



Rear Panel

- Variable speed DC cooling fans (4 per amp)
- Balanced XLR Inputs and XLR Loop outputs
- Bridged Mono mode switch, Soft Clip switch
- A, B and Bridged Mono Speakon speaker connectors
- AC Power Lead and fuse
- Rear rack ears for four point racking
- Main AC isolation switch (some models)

Application Notes

Things to check before you plug the amplifier in

Main AC power - check that the voltage on your amplifier is the same as the voltage at the power point. It is a good idea to check this before plugging the amplifier into the power point. Be especially careful of plugging into unchecked 'piggyback' plugs, power distribution boxes or extension cables.

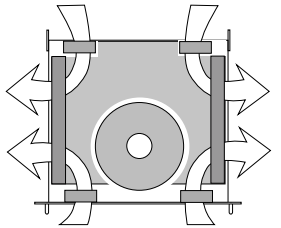
Your warranty does not cover damage caused by incorrect wiring.

Make sure the amplifier is connected to the same AC power supply and Earth/Ground as the rest of the system, otherwise you may set up an Ground loop hum.

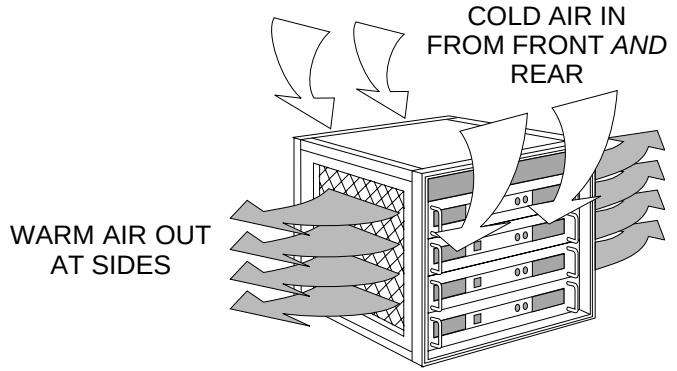
These amplifiers weigh approximately 20 kilos/44 lbs each. For maximum rigidity, we strongly recommend that you use the rear mounting slots as well as those on the front panel.

All these amplifiers have 4 cooling fans that force air around and through the heatsinks.

Air flow diagram



It is ***extremely*** important that you ensure that there is ***unrestricted*** air access to these fans, and also ***unrestricted*** air exit path. Clean the fan filters regularly or at the first sign of becoming clogged.



All SX series amplifiers have sufficient fan cooling capacity built in, and need no extra external fan cooling to operate normally. Their compact 'UltraFin' heatsinks provide massive surface areas for rapid cooling and stable temperatures.

BUT...

When racking up the SX/ZX amplifiers, a you MUST allow space for the air to exit from the ***sides*** of the amplifier. Remember that Power = Heat, and Maximum air flow = successful heat management.

The easy way to handle it is as in the diagram above, with open sides to the rack, optionally covered with wide steel mesh. However, if you need to group several amp racks side by side, then the rack itself should be made wider to provide an air chamber at the sides of the amplifier. This must be supplemented by additional fan forced air extraction from the rack.

Don't forget that in the case of the ZX3200 we're talking about the same power output in watts as a medium size electric bar radiator!

WARNING!

THERE ARE NO USER SERVICEABLE PARTS INSIDE THE AMPLIFIER, SO PLEASE DON'T TAKE THE LID OFF AND POKE AROUND!

Amplifiers run on DC voltages provided by the amplifier's internal power supply. The SX series have separate + and - DC fuses for both channels, mounted internally on the power supply circuit board. The power Mosfets used in the amplifiers are extremely rugged devices, and the correct rating fuses in the power supply ensure that the amplifier circuitry is protected from short circuit damage.

A blown DC fuse will be indicated by a very distorted low volume output from that side of the amplifier. A blown AC fuse will be indicated by nothing working at all - check to see if the fans are turning.

Any blown fuse should be investigated. It doesn't necessarily mean that something is wrong with the amplifier, but indicates that there is something wrong in the complete signal path, from the mixing console to the speakers.

If an AC fuse blows:

- Switch the power off, replace the fuse with another of the same rating.
- Switch the power back on.
- If it blows again, switch the power off and replace the fuse with another of the same rating.
- If it doesn't blow when you switch it back on, then the fault is somewhere else. Time to start checking those leads.
- If the fuse does blow, then contact your nearest ARX service centre or the dealer where you bought the amplifier.

If a DC fuse blows:

Get a qualified service person to inspect inside the amplifier. Please don't do it yourself! There are **very** dangerous voltages inside amplifiers, even when they have been turned off!

Other Rear Panel Controls

Soft Clip

On the rear panel the Soft Clip switch eliminates clipping when switched in. **We recommend that this switch be switched IN at all times when using the amplifier**. Flush with the panel is OUT, depressed is IN. Use a pencil to push it IN.

Bridged Mono

On the rear panel, this switches the amplifier into a single channel unit. Use Channel A input only and the Bridged Mono Speakon output in this mode. **WARNING** All the amplifiers deliver very high RMS power in this mode. Make sure your speakers are capable of handling this amount of power. An 8 ohm speaker load in bridged mono mode is equivalent to a 4 ohm load per channel.

Introduction

Thank you for choosing this ARX amplifier. We hope you enjoy using it as much as we enjoyed creating it. It is a precision engineered product designed for professional use in all pro-audio applications, and as such, a working knowledge of basic electronic safety procedures is assumed on the part of the operator.

Like all ARX equipment, it has undergone extensive factory calibration, 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 SX/ZX amplifiers

A series of amplifiers designed smart, and ready for the intensive duty cycle that today's standards of production demand. More power, more protection, less heat, less weight.These amplifiers represent significant breakthroughs in the the art of providing effortless, reliable power from compact, efficient amplifier designs.

Ultra reliable mosfet circuitry, plus a rugged, high current non-switching power supply are complemented by innovative Split Supply™ drive circuitry plus new relay switched resettable protection circuits that instantly disconnect the speakers if a problem is detected.

Each channel has Signal Present and Protection LEDs, and Clip LEDs which flash if the amplifier attempts to deliver more power than is available, regardless of load. A single LED marked Bridge indicates that the amplifier has been switched to bridged mono mode.

All amplifiers utilize massive precision engineered UltraFin™ heatsinks, to rapidly and evenly dissipate heat from the amplifier. Multiple cooling fans supply a high c.f.m forced air supply to ensure optimum temperature of the output devices.

Look inside these amplifiers and you'll see that they look a whole lot different from traditional amplifiers, with their masses of loose wiring, solder tags, and loads of interconnected circuit boards. We've learned a lot of manufacturing lessons from our successful range of ARX signal processors, and we've adapted those techniques by putting all the circuitry on one motherboard. Monococque construction, designed using computer modelling techniques, has enabled us to produce a more efficient, rigid, all steel chassis for strength without excess weight.

The ARX commitment is to produce amplifiers that will survive the toughest musical environment, day after day, night after night, because we know that audio professionals like yourself depend on them to earn a living.