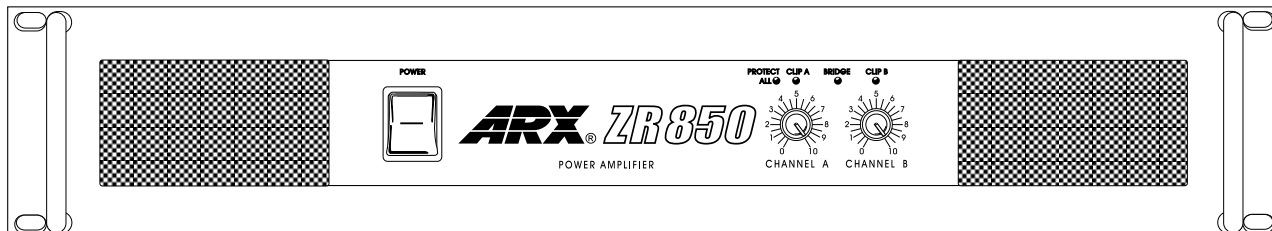


# ZR350 ZR550 ZR850



## DUAL CHANNEL HIGH CURRENT POWER AMPLIFIERS



For the ZR series we asked amplifier users, installers and distributors around the world for their input. Their responses have resulted in a range of amplifiers designed from the ground up for the intensive duty cycle that today's standards of production demand. More power, more protection; less heat, less weight, and most of all - better sound.

Computer modelling and the use of compact, efficient toroidal transformers give the ZR350, 550 and 850 excellent power-to-weight ratios, plus specifications designed to satisfy the most demanding professional applications. They are a distillation of our experience gained through years of making compact, powerful amplifiers.

### New Technology Inside

In the ZR series, ARX design engineers have chosen the new generation Lateral Mosfet devices for the all-important amplifier output stage. These provide ultra fast high current-to-load capability, switching many amperes of high frequency current in nanoseconds, up to 100 times faster than amplifiers using conventional Bipolar transistors.

'Headroom Enhance' circuitry based on the core ISC error correction technology developed by ARX for our new range of ISC Loudspeaker Processors. This provides Maximum power output levels under all AC mains supply voltages and rated load conditions, eliminating Output Stage clipping.

### Flexible Plug-in Modules

A feature of the ZR series is an internal insert point for the new range of ARX Plug-in modules.

- **PMX-Pro PlugIn:** Processor 'on-a-card' with all operating parameters optimised for the PMX 12/ProSUB range of speakers. This PlugIn eliminates the need for a stand-alone processor, reducing system cost, wiring and size.
- **MM-Pro PlugIn:** As above, but optimised for ARX's MM-1/M SUB range.
- **EC PlugIn:** Electronic crossover 'on-a-card'. Using the seamless 24dB Linkwitz-Riley filter circuitry incorporated in our EC-1 and 2 Active

crossovers, EC PlugIns are available in a variety of Preset or user-configurable versions.

### Comprehensive Protection circuitry onboard

Over the years ARX engineers have done intensive research into amplifier protection systems. All the ZR series amplifiers have new re-settable High Current relay switched protection circuits that instantly disconnect the speakers when a potentially damaging signal is detected.

New Input delay muting circuitry eliminates switch on/switch off noise.

### Proven Heat Exchange technology

Dual variable speed cooling fans circulate cooling air through ARX's proven 'UltraFin™' heat-sink, ensuring that the Mosfet output devices are kept well within their thermal tolerance levels under all operating conditions.

### Safety First

In keeping with current safety practices, the outputs are all fully isolated Speakon connectors. For added convenience, there is a separate connector for bridged mono mode.

### Built to Last

Over 18 years ago, ARX was one of the first companies in the world to bring out a high powered amplifier (the legendary SS700) in only 2 rack spaces! A concept that has been embraced by virtually every amp manufacturer since then. Today, thousands of amplifiers later, we've probably had greater experience in getting more from less than just about anyone else!

ARX is dedicated to producing pro audio products that consistently deliver the power and the quality that audio professionals expect.

The ZR series is proof of our commitment - a line of amplifiers that work as hard as you do, day after day, night after night.

## Features

- Toroidal transformer based power supply
- Headroom Enhance circuit for maximum output
- Plug-In module options
- Dual variable speed fans
- LED status display of all amp functions
- Balanced XLR and jack Inputs; Speakon outputs
- Super efficient 'UltraFin' heat-sink
- Unique one piece mother-board construction
- Extra heavy duty rear mounting ears
- Flawless performance in any audio environment

## Specifications

All the ARX ZR series of amplifiers are designed around Toroidal power transformers for low induced noise and efficient power to weight ratio. Heavy duty diode bridges and our 'UltraFin' heatsink are used throughout the range.

All models can be switched to run in bridged mono mode.

### Input Connectors

Balanced Jack and Female XLR with input link (parallel mono) switch. Pin 3 -, Pin 2 +, Pin 1 Electronic Ground

### Output Connectors

Neutrik Speakon

### Input Impedance

40 Kohms Balanced

### Input Sensitivity

ZR350/550 .775 Vrms (0 dB)

ZR800 1.15 Vrms (3.5 dB)

### Input CMRR @ 1KHz >70dB

**Signal/Noise Ratio** >100dB (DIN weighted)

### Distortion:

**THD @ 1 KHz** 0.002%

**I.M.** 0.005%

**Slew Rate** 35V  $\mu$ S

**Rise Time** 2.8  $\mu$ S

**Damping Factor** 200:1

**Channel Separation:** @ 1KHz -88dB

### Frequency response:

@ rated output: 20Hz - 20KHz  $\pm$ 0.4dB

### Metering:

LED status indicators for Clip, Bridge, and Protection shut down

### Protection Features

- Unique 'Headroom Enhance' circuit provides maximum output levels without clipping
- Relay switched DC sensing
- 'SilentStart/SilentStop' Input/Output muting at turn on/off

### Cooling

Ultra Fin heatsink and variable speed DC cooling fans: 2 fans, in front to back mode

### PlugIn Modules\*

- **PMX-Pro** Processor-on-a-card for PMX 12 speakers
- **MM-Pro** Processor-on-a-card for all MM-1 speakers
- **EC PlugIn** Active Crossover-on-a-card

### AC Power

Supplied 'zone-specific' 100/120/220/240V AC with removable power lead

### Weight

ZR350: 10 Kg (22 lbs)

ZR550: 11 Kg (25 lbs)

ZR850: 12 Kg (27 lbs)

### Size

All are standard 2 rack units high and 19" (482mm) wide

**Depth:** 16" (400mm)

Add >3" (80mm) to depth behind front panel to allow for rear rack mount ears and connectors.

Add >1" (32mm) to depth before front panel to allow for handles and controls.

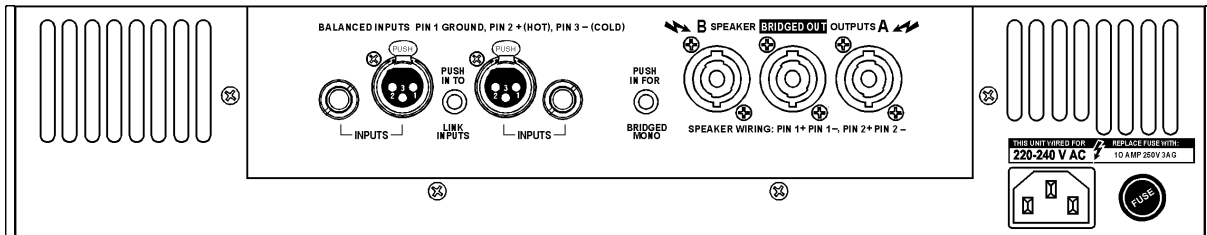
### Construction

All steel chassis and front panel, with Lexan front print. Front panel power switch and level controls. Rear rack mount ears for four point racking.

Contractor versions of the ZR series amplifiers are also available.

These are internally fitted with 100V line transformers. For more information ask to see the ZR350C, ZR550C, and ZR850C product sheet.

\***Note:** PlugIn modules are available separately and should be fitted by a suitably qualified technician



## Rear Panel

- XLR and Jack inputs
- Inputs link switch
- Bridged mono switch
- Neutrik Speakon outputs.
- Removable power lead

## How Much Power?

Choose the amplifier power output that's just right for your application from our Power Chart. *Please Note:* When comparing amplifier power ratings, remember that these are true RMS power ratings and should not be confused with the unsustainable peak ratings often claimed by other amplifier manufacturers.

## Power Chart *Watts RMS \*Both Channels Driven*

MODEL	8 OHMS*	4 OHMS*	BRIDGED 8 OHMS
ZR350	100	150	300
ZR550	200	270	540
ZR850	300	400	800

Specifications available on CD ROM. Latest updates available at: [www.arx.com.au](http://www.arx.com.au)



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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.



## Architectural Specifications

The amplifier shall be a 2 rack unit high dual channel unit 16" (405mm) deep.

The amplifier shall be of all steel monocoque construction, with front and rear rack mounting points. Input connectors shall be Balanced 3 pin XLR type, wired Pin 3-, Pin 2+, and Pin 1 Audio ground. Output connectors shall be Neutrik Speakons.

Input Impedance shall be 20 Kohms Balanced, with a CMRR of >70dB @ 1 KHz.

The rear panel shall have a switch to link inputs A and B, a Bridged mono mode switch with separate Bridged output connector, and there shall be an internal insert point for a Plug-in processor module card.

There shall be LED status indicators for Clip and Protection functions. Protection features shall consist of headroom enhancing soft limit circuitry, 2 x fans, relay switched DC sensing, and Input/Output muting at turn on and turn off.

(ZR350)  
The Output power of channels A and B shall be 100 watts RMS into an 8 ohm load. The amplifier shall be the ARX ZR350.

(ZR550)  
The Output power of channels A and B shall be 200 watts RMS into an 8 ohm load. The amplifier shall be the ARX ZR550.

(ZR850)  
The Output power of channels A and B shall be 300 watts RMS into an 8 ohm load. The amplifier shall be the ARX ZR850.

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  
Email: [info@arx.com.au](mailto:info@arx.com.au) Internet: [www.arx.com.au](http://www.arx.com.au)