

Product Guide**A 4390** 500W 100V Public Address Power Amplifier

A 4390 500W 100V Public Address Power Amplifier



Overview

This booster is ideal for installations requiring a high power zone amplifier. Ideal for use in shopping centres, pedestrian precincts, public transport facilities and convention centres. Operates on 240V AC and 24V DC for battery backup operation. Input is via 3 pin balanced XLR (500mV). Level control is rear mounted to prevent tampering or accidental adjustment.

High Performance

Frequency response extends from 50Hz to 15kHz at a total harmonic distortion (THD) of less than 0.5%. Output is 4 to 16 ohm, 70V and 100V line.

Thermally Cued Fan Cooling

Redback® amplifiers incorporate on demand, multi-staged thermally cued fan forced cooling. The output power stage is thermally monitored enabling automatic operation of a long life cooling fan to force air through a specially designed heatsink tunnel to maintain correct operating temperature.

Protection Features

Over temperature sensing is employed to shut down the amplifier in extreme over heat conditions, eg extreme over load and /or over drive misuse. Re-start is automatic once normal temperatures are attained.

The output voltage is limited to 110V maximum RMS voltage irrespective of load impedance to prevent damage to speaker load. Standard 100V line PA amplifiers can deliver up to 180 volts or more under conditions of high drive and very light loading. This output over voltage can quickly destroy any loudspeakers connected.

In the event of an overload, the output current is limited by the internal circuitry, thus reducing the output voltage at the speaker terminals. The front panel LEDs indicate the fault type.

All protection features are self resetting once fault condition has been removed.

Key Features

- ✓ Australian made
- ✓ 10 year manufacturer warranty with local product support
- ✓ Multi-stage thermally cued fan cooling
- ✓ Input signal presence indicator
- ✓ Output peak limited
- ✓ 2U 19" rack mount (ears included)
- ✓ 3 pin XLR input, 3 pin XLR loop out
- ✓ Level control rear mounted
- ✓ 100V, 70V and 4 - 16Ω outputs
- ✓ Thermal and overload protection
- ✓ 240V AC, or 24V DC operation
- ✓ 300mA 24V battery trickle charge

About Redback® Public Address Amplifiers

Redback amplifiers are proudly designed, engineered and manufactured in Australia.

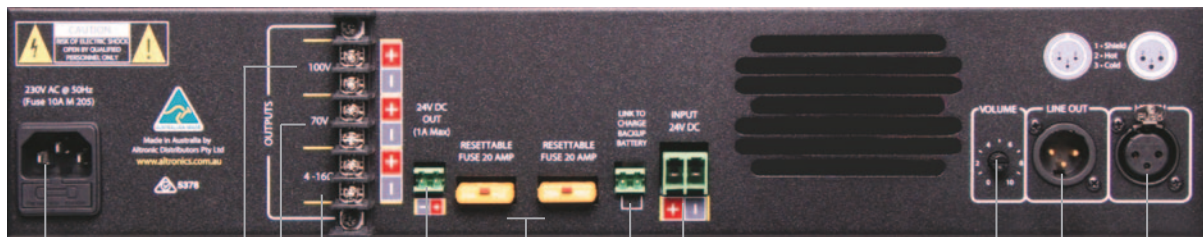
Each unit is covered by a comprehensive 10 year parts and labour warranty. Redback® offers rock solid reliability from over 30 years experience in the commercial sound industry. Redback® offer locally available servicing and parts, plus the ability to offer feedback direct to the manufacturer.

Product Guide

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Rear Panel



1 2 3 4 5 6 7 8 9 10 11

1	240V AC IEC input & AC fuse	5	24V DC output	9	Volume control
2	100V line terminals	6	Protection blade fuses (DC)	10	XLR 3 pin male balanced line out
3	70V line terminals	7	24V DC charge link	11	XLR 3 pin female balanced line in
4	4-16Ω terminals	8	24V DC power input		

Specifications

Electrical

Power output:	500W watts RMS
Distortion:	< 1.0% @ 1kHz
Output line:	100V, 70V or 4-16Ω
Signal to noise ratio	>90dB
Frequency response:	50Hz - 15kHz, -3dB
Line output:	600Ω balanced, 0dBV, 3 pin XLR
Speaker connection:	Screw terminals
Trickle charge:	Screw terminals
Inputs:	3 pin XLR (500mV)
24V-30V dc power:	Screw terminals
240V ac power:	IEC power connector
Indicators:	Mains, 24V dc, Power, Signal presence, Over temp, Over current, Shut down, Peak limiting
Current Draw:	500mA Standby, 35A Full @ 24V DC
Power supply:	240V AC or 24V DC (nominal)
Protection:	10A AC and 2 x 20A DC

Controls

Volume 1:	Controls line 1
Power:	On/Off switch

Mechanical

Dimensions:	≈ 483W x 380D x 88H
Weight:	≈22kg

Connections

Inputs	Line In	
	3 pin XLR female (balanced)	
Outputs	Speakers	Line Out
	Screw terminals for 100V line, 70V line and 4-16Ω	3 pin XLR male (balanced)

Notes: This amplifier should not be used with low impedance and 100V line speakers together.

Architect Specifications

A 4390

The amplifier shall have a power output of 500 watts RMS. The unit shall have a balanced 3 pin XLR line input. Frequency response shall be 50Hz – 15 kHz (-3dB).

A volume control shall be positioned on the rear panel. The front panel shall have indicators for mains power, 24V dc power, signal presence, over temperature, over current, shut down condition and peak limiting.

The unit shall operate from 240V AC or 24V DC and each shall be individually fuse protected. It shall have multi stage thermally cued fan cooling. The unit shall have automatic shutdown and restart in the event of an overload condition.

The amplifier shall be capable of delivering full power of 100V RMS into a 20 ohm (500W) inductive load with less than 1.0% distortion (typically <0.5%) measured at 1 kHz and with a signal to noise ratio of better than 90dB. The speaker outputs shall be 100V, 70V and 4-16 ohms provided via screw terminals. The output voltage shall be limited to 100V RMS to provide speaker protection. A 3 pin XLR line out socket shall be provided on the rear panel.

The amplifier shall be housed in a high quality 2RU metal chassis suitable for rack mounting.

The amplifier shall be a REDBACK model A 4390.



Made in Australia by Altronic Distributors Pty. Ltd.

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