

Product Guide**A 4380A** 250W 100V Public Address Power Amplifier

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Overview

Manufactured in Australia to stringent engineering criteria, the A 4370A amplifier exhibits remarkable performance and outstanding reliability. Over 2 years in design and development, the evolution of the A 4370A included extensive consultation and input from pro sound contractors and installers across the country. The host of features incorporated commend this amplifier series to the most demanding of pro sound and industrial PA system applications.

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, which spins very slowly to maintain an optimum operating temperature and to minimise ambient noise. In quiescent or ordinary cycle paging mode the fan is inoperative.

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 'Overload' LED flashes, indicating a fault with the speaker circuit.

Key Features

- ✓ Australian made
- ✓ 10 year manufacturer warranty with local product support
- ✓ Robust design incorporating latest MOSFET technology
- ✓ Very Low noise and distortion
- ✓ 70V, 100V and 4-16Ω outputs
- ✓ 240V AC or 24V DC operation
- ✓ 24V DC @ 1A output for external devices
- ✓ Multi stage thermally cued fan cooling
- ✓ Output Peak Limited
- ✓ Thermal Overload protected
- ✓ Signal Presence Indicators
- ✓ Fault Indicators
- ✓ Power Status Indicators
- ✓ Rack Mountable (suits 19 inch racks)

About Redback® Public Address Products

Redback® products are proudly designed, engineered and manufactured in Australia.

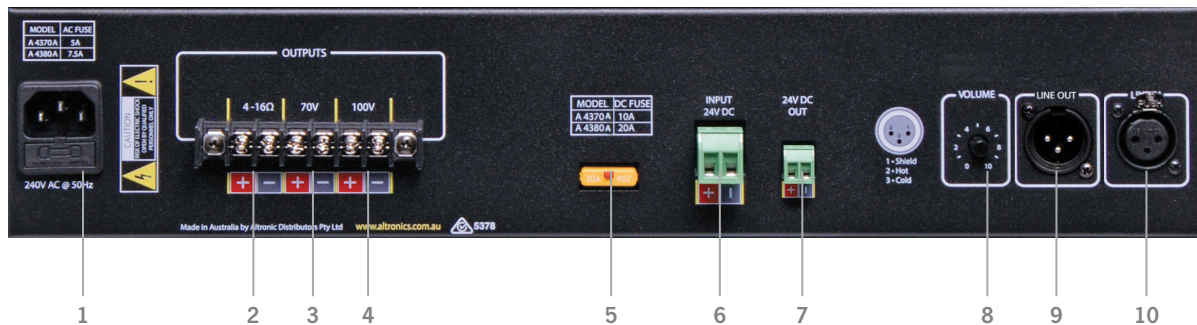
Each unit is covered by a comprehensive 10 year parts and labour warranty. Redback® offers rock solid reliability from over 40 years experience in the commercial sound industry. Redback® offer locally available servicing and parts, plus the ability to offer feedback direct to the manufacturer.

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Rear Panel



- | | | | | | |
|---|-----------------------------|---|------------------------------------|----|-------------------------------|
| 1 | 240V AC input | 5 | DC blade fuse (resettable) | 9 | XLR 3 pin balanced (line out) |
| 2 | 4-16Ω terminals | 6 | 24V DC input terminal | 10 | XLR 3 pin balanced (line in) |
| 3 | 70V line speaker terminals | 7 | Charging output for backup battery | | |
| 4 | 100V line speaker terminals | 8 | Volume control | | |

Specifications

Electrical

Power:	250 Watt RMS
Distortion:	< 0.5%, @ 1kHz
Frequency response:	50Hz - 15kHz, -3dB
Output line:	100V, 70V, or 4 - 16Ω
Input sensitivity:	500mV balanced
Signal to noise ratio:	(peak limiting by-passed) > 90 dB
Line output:	600Ω balanced, 0dBV, 3 pin XLR
Speaker Connection:	Screw terminals
24V DC Output:	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:	250mA Standby, 17A Full @ 24V DC
Protection:	7.5A AC and 20A DC fuse
Power supply:	240V AC or 24V DC (nominal)
Input Impedance:	10KΩ

Controls

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

Mechanical

Dimensions:	483W x 340D x 88H mm
Weight:	≈14 kg

Connections

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

Note: We do not recommend using this amplifier with a combination of low impedance and 100V line speakers.

Architect Specifications

The amplifier shall have a power output of 250 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 a LED bargraph VU meter, power switch, power LED indicator, signal presence LED indicator, output peak limiting LED indicator, overtemperature LED indicator and flashing overload LED indicator.

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 output limiting in event of overload or overdrive. The unit shall have automatic shutdown and restart in the event of overtemp conditions. The unit shall provide a 24V 300mA trickle charge for batteries.

The amplifier shall be capable of delivering full power of 100V RMS into a 250W inductive load with less than 0.5% distortion measured at 1 kHz and with a signal to noise ratio of less than 90dB below rated output. 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 PHASE 4 model A 4380A.