

**Product Guide****A 4031A** 30W 100V Public Address Amplifier

# A 4031A 30W 100V Public Address Amplifier



## Overview

Designed to meet the requirements of small to medium sized professional public address installations, this amplifier delivers an output power of 30W RMS. It is suitable for a wide range of installations including schools, public halls, workshops and sporting complexes.

### High Performance

Frequency response extends from 40Hz to 10kHz at a total harmonic distortion (THD) of less than 0.5%. Output may be 100V line or low impedance (8 - 16Ω) speaker loads.

### Protection Features

Fitted with in-built thermal overload shutdown, over current and short circuit protection for reliable operation in all conditions.

### VOX Muting Functionality

In-built VOX circuit allows telephone paging via line inputs one or two (selectable internally). When paging via the telephone, all other line inputs are muted. This can be used to mute background music during an announcement. When VOX is selected on input 1, muting will occur on inputs 2 and 3. If VOX is selected on input 2 muting will occur on input 3 only.

### Tape Output Connection

This is a mono output configured for a stereo lead allowing direct connection to a stereo source. This may be connected to an auxiliary input on external equipment. It is also suitable for driving 600Ω loads.

## Key Features

- ✓ Push to talk (PTT) muting on microphone 1
- ✓ Balanced microphone inputs
- ✓ VOX muting circuit
- ✓ Stereo line inputs
- ✓ Bass and treble tone controls
- ✓ Tape output
- ✓ Output terminals for 100V line and 8 - 16Ω loads
- ✓ 240V AC operation
- ✓ Short circuit protection
- ✓ Australian designed & assembled

## About Redback® Public Address Amplifiers

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

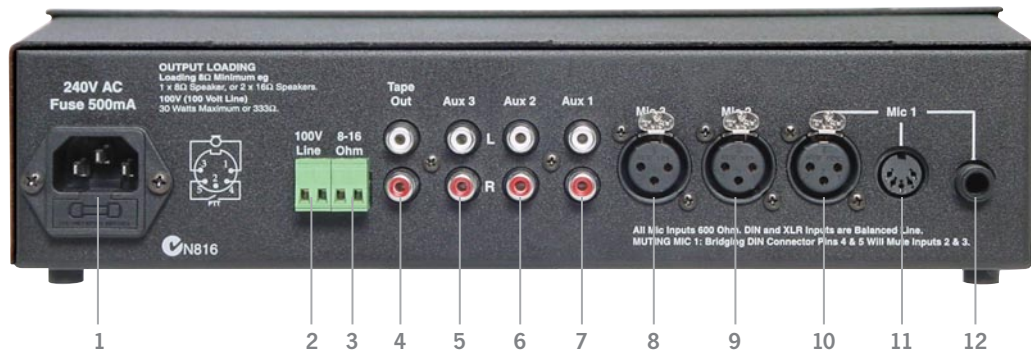
Each unit is covered by a comprehensive 10 year parts and labour warranty. Redback® offers rock solid reliability from over 30 years experience in the commercial sound industry. Redback® offer locally available servicing and parts, plus the ability to offer feedback direct to the manufacturer.

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### Rear Panel



1	240V AC input	5	RCA stereo line (input 3)	9	XLR 3 pin balanced (input 2)
2	100V line terminals	6	RCA stereo line (input 2)	10	XLR 3 pin balanced (input 1)
3	8-16Ω terminals	7	RCA stereo line (input 1)	11	DIN 5 pin unbalanced (input 1)
4	RCA stereo tape output	8	XLR 3 pin balanced (input 3)	12	6.35mm jack unbalanced (input 1)

### Specifications

#### Electrical

Power output:	30 watts RMS
Distortion:	< 0.5% @ 1kHz
Output line:	100V or 8 - 16Ω
Signal to noise ratio	Typically 75dB below rated output.
Freq. response mic :	52Hz - 10kHz, -3dB
Freq. response line:	40Hz - 10kHz, -3dB
Mic 1 sensitivity:	2.6mV balanced or 3.2mV unbalanced
Mic 2 & 3 sensitivity:	2.6mV balanced
Line inputs sensitivity:	150mV
240V AC power:	IEC power connector
Power supply:	240V AC
Protection:	1A AC, 3A x 2 DC internal
Muting:	PTT and VOX via microphone (-79dB)
Indicators:	Power

#### Controls

Volume 1:	Controls mic 1 / line 1
Volume 2:	Controls mic 2 / line 2
Volume 3:	Controls mic 3 / line 3
Bass:	±10dB @ 100Hz
Treble:	±13dB @ 10kHz

#### Mechanical

Dimensions:	300W x 220D x 74H mm
Weight A 4031A:	≈4.8kg

### Connections

	Mic 1	Mic 2 & 3	Line 1, 2 & 3
Inputs	6.35mm (unbalanced) 5 pin DIN (unbalanced) 3 pin XLR fem. (balanced)	3 pin XLR fem. (balanced)	Stereo RCA

**Notes:** The 5 pin din has facility for PTT (push to talk) muting. The PTT contacts will mute input 2 (mic 2 and aux 2) and input 3 (mic 3 and aux 3). The PTT contacts will not mute Aux 1 input. We recommend that you connect only one microphone at a time to input 1.

	Speakers	Tape Out
Outputs	Screw terminals for 100V line and 8-16Ω	Stereo RCA

**Notes:** Minimum impedance for 100V loads is 333Ω (when only the 100V output is used). We do not recommend using this amplifier with a combination of low impedance and 100V line speakers.

### Architect Specifications

#### A 4031A

The amplifier shall have a power output of 30 watts RMS. The unit shall have 3 inputs, each input consisting of one balanced XLR microphone input and dual RCA line input. In addition, microphone 1 input shall have a 5 pin DIN balanced input and a 6.35mm jack unbalanced input. Frequency response shall be 52Hz - 10 kHz (-3dB) for microphone inputs and 40Hz - 10 kHz (-3dB) for line inputs.

The unit shall have separate volume controls for each microphone / line input and tone controls providing 10dB cut or boost at 100Hz and 13dB cut or boost at 10kHz.

The unit shall operate from 240V AC with a LED indicator, and be fuse protected. The unit shall have overload protection via DC fuses.

The amplifier shall be capable of delivering full power of 100V RMS into a 333 ohm (30W) inductive load with less than 0.5% distortion measured at 1 kHz and with system hum and noise typically -72dB with all volume controls at minimum. The speaker outputs shall be 100V and 8 ohms provided via screw terminals. Tape output shall be provided via dual RCA sockets. Internal muting shall be provided by the VOX muting circuit. Muting should be configurable so that input 1 shall over-ride inputs 2 and 3 or input 2 shall override input 3. PTT muting shall also be available on microphone 1 input via the 5 pin DIN socket.

The amplifier shall be housed in a high quality metal chassis suitable for desk or shelf mounting. The amplifier shall be a REDBACK model A 4031A.