



REDBACK A 4285C Phase5 250W 100V Public Address Mixer Amplifier User Guide

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Product Guide

A 4285C Phase5® 250W 100V Public Address Mixer Amplifier



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Overview

Designed in conjunction with Australia's leading PA professionals to cater for the needs of multi-source installations. This redesigned unit offers the ability to monitor amplifier status via the colour LCD screen, plus custom labelling of inputs. The A 2711 optional USB & SD card module provides music playback when fitted. Engineered for professional PA installations, the A 4285C delivers 250W RMS power. Frequency response extends from 50Hz to 15kHz $\pm 3\text{dB}$ at a total harmonic distortion (THD) of less than 0.5% @ 1kHz. Voice/Vox muting, including three levels of input priority, bass and treble controls and phantom powering capability enable unparalleled flexibility for a wide scope of applications such as schools, shopping centres, workshops, mine sites and office buildings. Operates from 240V AC mains or 24V DC permitting battery backup operation during mains power failure. Output can be 100V line, 70V line or low impedance (4 – 16 Ω) loads.

LCD status readout.

Indicates input and output levels, amplifier status; including heatsink temperature, overload and over current conditions. 240V AC or 24V DC operation. Also allows custom labelling of input sources via USB keyboard.

Flexible input configuration.

Each input can be configured for either balanced microphone or line use. A dip switch is supplied for each input providing the following features:

- Phantom power on/off
- Mic or line
- 100mV or 1V
- Vox muting on/off (priority)

Three levels of priority.

Priority selection is by a dip switch on the rear panel: Input 1 over 2-6, input 2 over 3-6 and input 3 over 4-6.

Protection & Limiting

In the event of an overload, the output current is limited by the internal circuitry, thus reducing the output voltage at the speaker terminals. Input limiting restricts the output to 110V regardless of input level. This prevents dangerously high voltages from damaging the loudspeaker. The circuit includes thermal overload shutdown, over current and overload protection plus fuses on both AC and DC supply rails.

Key Features

- ✓ Australian made
- ✓ 10 year manufacturer warranty with local product support
- ✓ VU meter on LCD screen
- ✓ Output peak limited
- ✓ Multi-stage thermally cued fan cooling
- ✓ 2U 19" rack mount
- ✓ Record out terminals
- ✓ Remote volume facility
- ✓ Optional alert, evac & chime tone generator (A 4573)
- ✓ Vox activated 24V DC output
- ✓ 6 inputs with 3 pin XLR or 2 x RCA sockets
- ✓ Phantom powering available on all inputs
- ✓ Three levels of priority
- ✓ Option for mic/line to operate vox muting on inputs 1 to 3

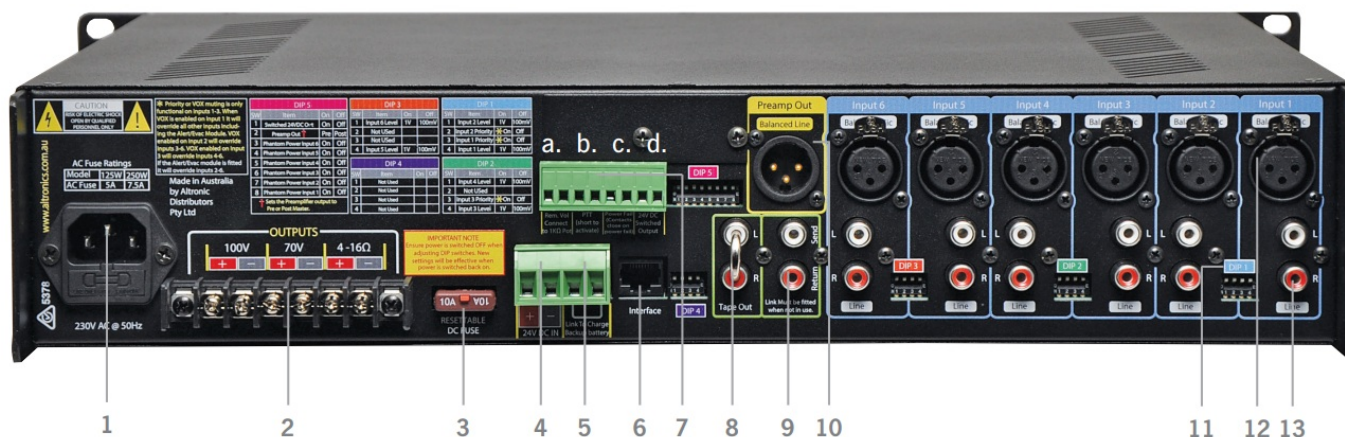
- ✓ Push to talk (PTT) terminals on rear panel
- ✓ Bass and treble tone controls
- ✓ Power amp line out connector
- ✓ Terminals for 100V line, 70V line and 4 – 16Ω loads
- ✓ 240V AC or 24V DC power operation
- ✓ Thermal & fuse overload protection
- ✓ Built in short circuit protection
- ✓ 300mA trickle charge facility for 24V DC batteries
- ✓ Master volume can be configured as pre or post line out

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 45 years experience in the commercial sound industry. Redback® offer locally available servicing and parts, plus the ability to offer feedback direct to the manufacturer.

Rear Panel



1	240V AC input
2	100V/70/4-16Ω line terminals
3	10A DC resettable blade fuse
4	24V DC input terminal
5	24V DC battery charge link terminal
6	RJ45 Interface port
7	a. Remote Volume Control Contacts b. PTT Contacts c. Power Fail Contacts d. 24V DC Switched Output
8	Tape Out RCA
9	Send / Return RCA
10	Preamplifier XLR Output
11	Input 1 DIP Switch Selections
12	Input 1 Balanced 3 Pin XLR
13	Input 1 Line Stereo RCA

Specifications

Electrical

Power output:	250 Watts RMS
Distortion:	< 0.5% @ 1kHz
Output line:	100V, 70V or 4-16Ω
Signal to noise ratio (Limiting by-passed)	
Mic inputs:	Typically 75dB below rated output.
Line inputs:	Typically 81dB below rated output.
Line output:	600Ω balanced, 0dBV
Mic input frequency response:	50Hz – 12kHz, -3dB
Line input frequency response:	50Hz – 15kHz, -3dB
Input sensitivity:	100mV-1V (line), 3mV balanced (mic)
Power supply:	240V AC or 24V DC
Current draw:	350mA standby, 17A full load @ 24V DC
240V AC power:	IEC power connector
24V DC power:	Screw terminal
Protection:	7.5A AC, 20A DC fuses
Vox muting:	60dB below rated output
LED indicators:	Power, fault, all other indicators on LCD

Controls

Master Volume:	Controls all output level
Line Inputs:	Volume
Bass:	±10dB @ 100Hz
Treble:	±10dB @ 10kHz
Power:	On/Off switch

Mechanical

Dimensions:	483W x 380D x 88H mm (410D inc. handles)
Weight:	≈19.5kg

Optional Add Ons

A 2711	MP3 USB/SD Audio Module
A 4573	Alert/Evac Tone Module
A 2280B	Remote Volume Wall plate

Connections

Inputs	Mic 1-6	Line 1-6	Send/Return
	3 pin XLR female (balanced)	Stereo RCA	RCA sockets
Outputs	Speakers	Tape Out	Preamp Out
	Screw terminals for 100V line, 70V line and 8-16Ω	Mixed mono Dual RCA sockets	3 pin XLR male (balanced), RCA socket

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

Architect Specifications

A 4285C

The amplifier shall have a power output of 125 Watts RMS. The unit shall have 6 inputs. All inputs shall consist of one balanced XLR microphone input and dual RCA line input. In addition, a local music input shall have a 3.5mm stereo line unbalanced input. Frequency response shall be 50Hz – 12 kHz (-3dB) for microphone inputs and 50Hz – 15 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 10dB cut or boost at 10kHz.


The unit shall operate from 240V AC or 24V DC 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 (250W) inductive load with less than 0.5% distortion measured at 1 kHz and with system hum and noise typically -75dB with all volume controls at minimum. The speaker outputs shall be 100V and 4-16 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, 3 and local music or input 2 shall override input 3 and local music.

Amplifier status readout shall be provided via front panel LCD readout. The amplifier shall be housed in a high quality 2RU metal chassis suitable for rack mounting. The amplifier shall be a REDBACK PHASE 5 model A 4285C.

Internet: www.redbackaudio.com.au

Documents / Resources

	<p>REDBACK A 4285C Phase5 250W 100V Public Address Mixer Amplifier [pdf] User Guide A 4285C Phase5 250W 100V Public Address Mixer Amplifier, A 4285C, Phase5 250W 100V Public Address Mixer Amplifier, Address Mixer Amplifier, Mixer Amplifier</p>
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