

Redback® A 4420C 8 Channel Public Address Mixer



Operating Manual A 4420C 8 CHANNEL MIXER

Redback® Proudly Made In Australia

Distributed by Altronic Distributors Pty. Ltd.

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IMPORTANT NOTE:

Please read these instructions carefully from front to back prior to installation.
They include important setup instructions.
Failure to follow these instructions may prevent the unit from working as designed.

User manual revision number: 1.0 10/11/2022

Redback® A 4420C 8 Channel Public Address Mixer

1.0 INTRODUCTION

This 8 channel mixer incorporates a variety of practical features ensuring suitability for a wide scope of PA and sound reinforcement applications. Features include: selectable phantom power for electret/condenser type microphones on all mic inputs, optional VOX muting of AUX inputs, bass and treble controls (microphone channels can be routed through tone controls or bypassed as desired), individual level controls together with master level control. A 600Ω/0dBm XLR balanced line output is provided, enabling connection to a maximum of 16 power amplifiers.

2.0 FEATURES

- 6 microphone and 2 line inputs
- All mic inputs are 3 pin XLR balanced
- Line inputs via twin RCA sockets
- Phantom Powering (12V DC) available for all microphone inputs (DIP switch selectable ON or OFF for all inputs simultaneously) This function is factory set to "OFF"
- Optional VOX (Voice activated) muting of the auxiliary music inputs (DIP switch selectable) when any of the microphone inputs are used. This function is factory set "OFF"
- The microphones have a Bass cut switch to reduce feedback and improve vocal clarity (DIP switch selectable). This function is factory set to "Bass Cut"
- Bass and Treble Controls for the Auxiliary inputs
- The microphone inputs can be selected to either channel through, or bypass the tone controls (DIP switch selectable). This is factory set in the "BYPASS" position
- Supplied with Industry standard 3 pin XLR connectors for microphone inputs and stereo RCA's for Auxiliary inputs.
- The output of the mixer has been designed to operate with power amplifiers equipped with a balanced input . If you wish to drive an unbalanced amplifier, then simply connect one of the output signal lines of the mixer to Earth, and use the other output (see figure 3)
- Individual input and master volume controls
- 24VDC input
- 10 Year Warranty
- Australian Designed and Manufactured

3.0 INSTRUCTIONS FOR USE

1. Prior to installation, set the DIP switches to the desired settings (see section 4.0).
2. Plug in a low impedance microphone into the microphone input (refer to fig 2), or a music source (Compact Disc or similar) into the auxiliary input.

For best performance when using long lines between microphones and the mixer use balanced lines. These have the effect of cancelling out any noise or hum that may be induced into the cables.

(Note that a balanced line uses three wires (two signal wires and one earth wire or shield) where an unbalanced cable uses only one signal wire and an earth).

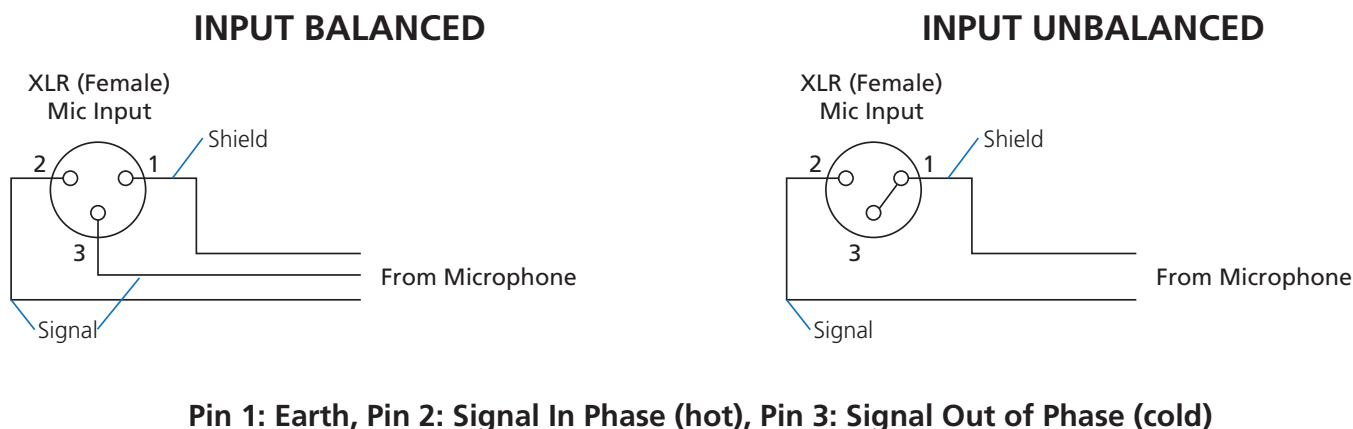
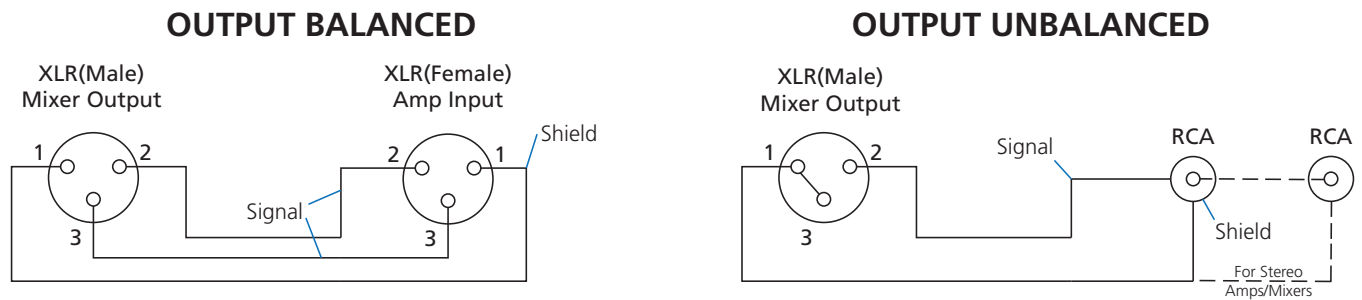


Figure 2. XLR microphone connection details.

3. Connect the mixer to an amplifier using a suitable cable. See figure 3 for connection details when wiring from 3 Pin Male XLR outputs to RCA connectors or 3 pin XLR inputs.

(Note that a balanced line uses three wires (two signal wires and one earth wire or shield) where an unbalanced cable uses only one signal wire and an earth).



Pin 1: Earth, Pin 2: Signal In Phase (hot), Pin 3: Signal Out of Phase (cold)

Figure 3. XLR mixer output connection details.

4. Turn all controls fully down and then switch the mixer and amplifier on.
5. Turn up the level control associated with the input that you are using to about half way. Talk into the microphone (or play some music) and adjust the Master level to achieve the required level.

For the best noise performance turn the input level control to a high setting and use the Master as the volume control. Use the other input level controls to set the required mixing ratios. If you are using the auxiliary inputs, adjust the bass and treble controls to get the desired sound. If you have the tone routing DIP switch set to "TONE THROUGH", you may also adjust the Bass and Treble controls when using microphone(s) to get the desired sound.

4.0 DIP SWITCH SETTINGS

DIP Switches

Switch 1 - ON - Bass Normal, OFF - Bass Cut

Switch 2 - ON - Mic inputs routed through tone controls. OFF - Mic inputs bypass tone controls.

Switch 3 - ON - Mic inputs VOX mute AUX 1 and AUX 2.

Switch 4 - ON - Enables Phantom power (12V DC) to Mic inputs 1-6.

5.0 FAULTS/SYMPTOMS

Fault/Symptom: No Sound

- Check that there is power on both the mixer and power amplifier. The mixer has a LED light to indicate if there is power.
- Check master volume is turned up.
- Check all lead connections

Fault/Symptom: When Paging the Music is Not Muted

- Set the VOX Muting DIP switch to "ON".

Fault/Symptom: Bass Control Fails to Give Bass Boost

- Check that the Bass Cut DIP switch is set to "ON"

Fault/Symptom: Microphone Does Not Work

- The microphone may need phantom power. If so set the Phantom Power DIP switch to "ON".
- Check microphone volume is turned up.

Fault/Symptom: Tone Controls Do Not Work on Mic

- Set the Tone Routing DIP switch to "ON".

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6.0 SPECIFICATIONS

Auxiliary

No. of Channels:.....2
Sensitivity (master full):.....260mV
Signal to Noise Ratio:.....better than 76dB
Frequency Response (± 3 dB):.....60Hz - 20kHz
Input Impedance:.....100k Ohm
Muting Level:-50dB
Mode:Unbalanced
Connector Type:Stereo RCA

Tone Controls

Bass Control: ± 9 dB at 80Hz
Treble Control: ± 10 dB at 10kHz

Bass Cut Switch on Microphone

Switch "OFF":-6dB/Octave from 150Hz

Phantom Power

Voltage:12V
Output Impedance:3.4k ohm

Microphone

No. of Channels:6
Sensitivity (master full):1.2mV
Signal to Noise Ratio:better than 71dB
Frequency Response (± 3 dB):60Hz to 20kHz
Input Impedance:600 Ohm
Mic Impedance:200 - 600 Ohm nominal
Mode:Balanced
Connector Type:3 Pin XLR Female

Output

Signal to Noise Ratio :
(all controls mid way)-85dB, ref 0dBm
(all controls maximum)-58dB, ref 0dBm
Impedance:600 Ohms
Distortion:Less than 0.06%
Max Output Level:+19dBm
Mode:Balanced
Connector Type:3 Pin XLR Male

Power

Voltage:24V DC

* Specifications subject to change without notice

All Australian made Redback products are covered by a 10 year warranty.

Should a product become faulty please contact us to obtain a return authorisation number. Please ensure you have all the relevant documentation on hand. We do not accept unauthorised returns. Proof of purchase is required so please retain your invoice.