



# A 4430

## 8 Channel Public Address Mixer Operating Instructions



### MIXER OVERVIEW

#### Description

This Redback® 8 channel mixer with Pan and Direct outputs has been designed to meet the requirements of professional public address installations. Its many features makes it perfectly suited for use in shopping centres, gymnasiums, places of worship, office complexes, board rooms, council chambers, court rooms etc.

#### Inputs

Inputs 1-6 can be configured for balanced microphone or mono line use as desired. XLR and dual RCA sockets are provided for each of these inputs.

Inputs 7 & 8 are dedicated stereo line inputs provided with dual RCA sockets. Both these inputs are stereo.

#### Outputs

For each input, separate Direct outputs are supplied which are isolated from any other input/output. The mixer can be configured to only use the Direct outputs, Mixed outputs or both output types together.

The Mixed Outputs are stereo and 600Ω/0dBm XLR balanced for both left and right outputs. Direct Outputs 1 to 6 are mono 600Ω/0dBm XLR balanced. Direct Outputs 7 and 8 are stereo and 600Ω/0dBm XLR balanced for both left and right outputs. Tape/record Out are dual RCA sockets.

#### Input Configuration

Inputs 1-6 include an individual 4 way dip switch enabling selection of mic or line input operation, adjustable line input sensitivity (100mV or 1V), enable/disable priority/VOX muting (see below for priority details) and phantom power on/off.

A DIP switch is provided for inputs 7 & 8 enabling the adjustment of the input sensitivity (100mV or 1V).

#### Front Panel Controls

The front panel includes individual volume controls and tamper proof, screwdriver adjust, treble, bass and pan/balance controls for each input channel. A LED VU

meter and Master volume control is provided for each channel and a headphone socket is provided.

#### Priority and Muting

The mixer incorporates three levels of priority. Inputs 1,2 and 3 will operate the priority/VOX muting regardless of the input configuration i.e. both microphone and line inputs will operate the priority/VOX circuit if this function is selected ON for that input. This is particularly useful when an input is set for line use, as it enables telephone paging, radio microphone, emergency tones, jukebox or similar to mute background music or microphone on other inputs.

Three level priority operates as shown:

Input 1 Priority 1 – mutes inputs 2 - 8,

Input 2 Priority 2 – mutes inputs 3 - 8,

Input 3 Priority 3 – mutes inputs 4 - 8,

Inputs 4-8 are mixed. If the priority function for inputs 1-3 is turned off, then inputs assume no priority and its output will be mixed with inputs 4-8 ie. if all priority functions are switched OFF then all inputs will be mixed.

When fitted and operated, the optional A 2073 alert/evac/chime module will assume priority 2.

#### Optional Modules

Alert and evacuation tones are available with the installation of the optional A 2073 tone generator.

#### Instructions For Use

Remove the mixer from its packaging and inspect for any damage. If the unit appears to be damaged then do not operate as this may damage the unit further.

1. Prior to installation, Input configurations should be set as desired via the DIP switches on rear of unit. Table 1 shows the various settings. BEFORE REMOVING LID PLEASE DISCONNECT THE 240VAC IEC LEAD FROM THE REAR OF THE MIXER. Output configuration should be set via internal Jumpers located inside the Mixer on the Front PCB. See below table.

2. Plug in a low impedance microphone into the

# REDBACK A 4430 Mixer

microphone input, or a music source (tape or Compact Disc or similar) into the line input.

3. Connect the mixer to an amplifier/s using a suitable cable/s. Consult rear panel diagram for details. See figure 2 for plug wiring details
4. Turn all volume controls fully down, tone and pan controls to midway 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 sound performance turn the input level control to a high setting (say 3/4 ) and use the Master as the volume control. Use the other input level controls to set the required mixing ratios. Adjust the bass and treble controls to get the desired sound. For best performance when using long lines between microphones/mixer and or amplifier use balanced lines. These reduce noise or hum that may be induced into the cables. Note that a balanced line uses three wires (two signal wires and one screened earth wire or shield) where an unbalanced cable uses only one signal wire and a screened earth. See the connection details (figure 2) for wiring up plugs etc.

**DO NOT TAMPER WITH THE UNIT. WARNING MAINS VOLTAGE IS PRESENT INSIDE. LEAVE SERVICING TO QUALIFIED PERSONNEL.**

## INSTALLING THE TONE GENERATOR (A 2073)

BEFORE REMOVING LID PLEASE DISCONNECT THE 240VAC IEC LEAD FROM THE REAR OF THE MIXER.

1. Remove lid from unit
2. Unscrew tone generator plate from rear panel
3. Locate tone generator 10 way header on board (this is located at the rear of the main board)
4. Connect ribbon cable header to the 10 way header on the board of mixer.
5. The tone generator is held in by way of 2 screws (supplied) through the rear panel (via the same holes that the tone generator plate was attached).
6. Refit lid and secure with screws.

NOTE: Tones are operated by closing contacts and remain operating whilst contacts are closed. The A 2073 assumes priority 2 when installed.

## TROUBLE SHOOTING

### 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 input and master volume controls are turned up.
- Check all lead connections

### Fault/Symptom: When Paging the Music is Not Muted

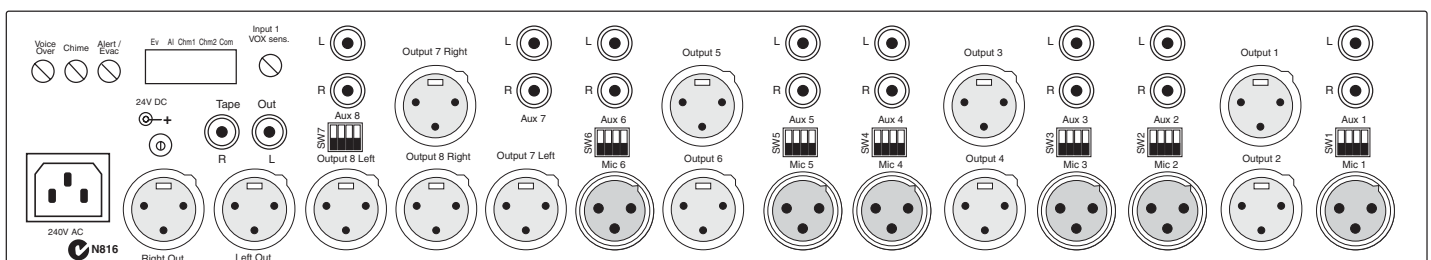
- Set the *VOX Muting* DIP switch to "ON" for that input.

### Fault/Symptom: Microphone Does Not Work

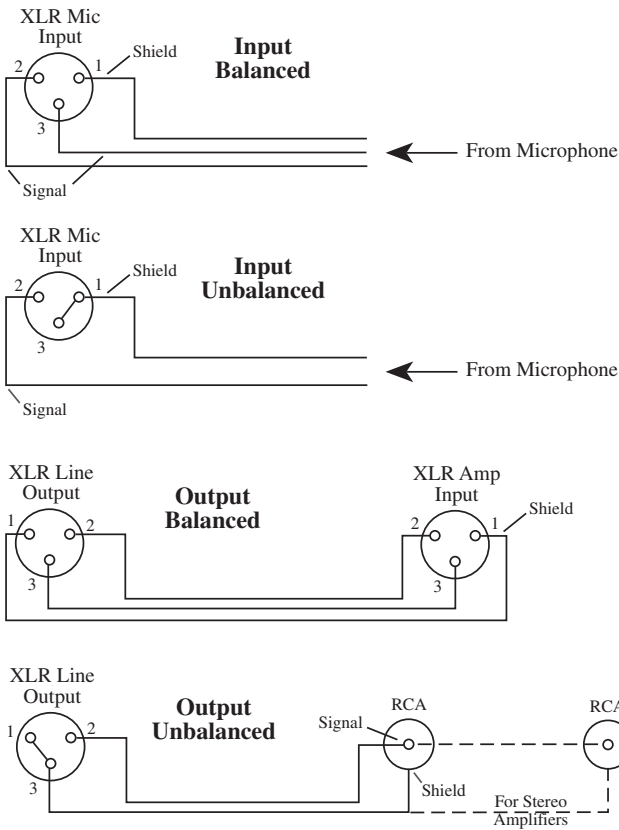
- The microphone may need phantom power. If so set the *Phantom Power* DIP switch on that input to "ON".
- Check microphone volume is turned up.
- Make sure microphone is selected on the appropriate DIP switch.

### Line level too low

- Check sensitivity DIP switch settings. Set to correct configuration ie: 100mV or 1V (see table 1 for DIP switch details)



**A 4430 Rear Panel Layout**



**Figure 2. Connection Details**

**Microphone Connections**

**Connector Type:** ....XLR 3Pin Female

**Pin 1:**.....Earth

**Pin 2:**.....Signal Inphase (hot)

**Pin 3:**.....Signal Out of Phase (cold)

**Output Connections**

**Connector Type:** .....XLR 3Pin Male

**Pin 1:**.....Earth

**Pin 2:**.....Signal Inphase (hot)

**Pin 3:**.....Signal Out of Phase (cold)

**TABLE 1: DIP SWITCH SETTINGS**

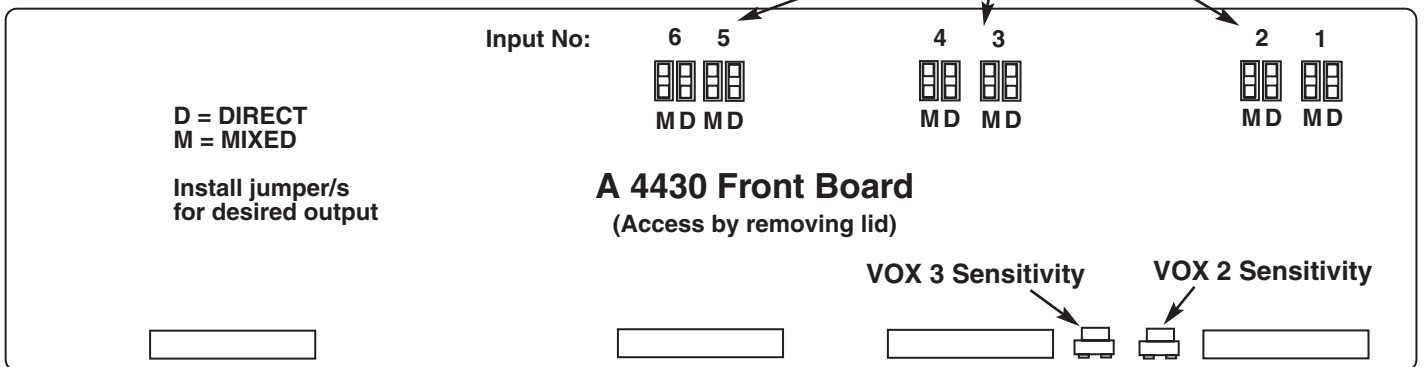
**Inputs 1 - 6 (refer to SW 1-6)**

Switch	Item	On	Off
1	Input Type	Line	Mic
2	Line Level	1V	100mV
3	Priority	On	Off
4	Phan. Pwr	On	Off

**Inputs 7 - 8 (refer to SW 7)**

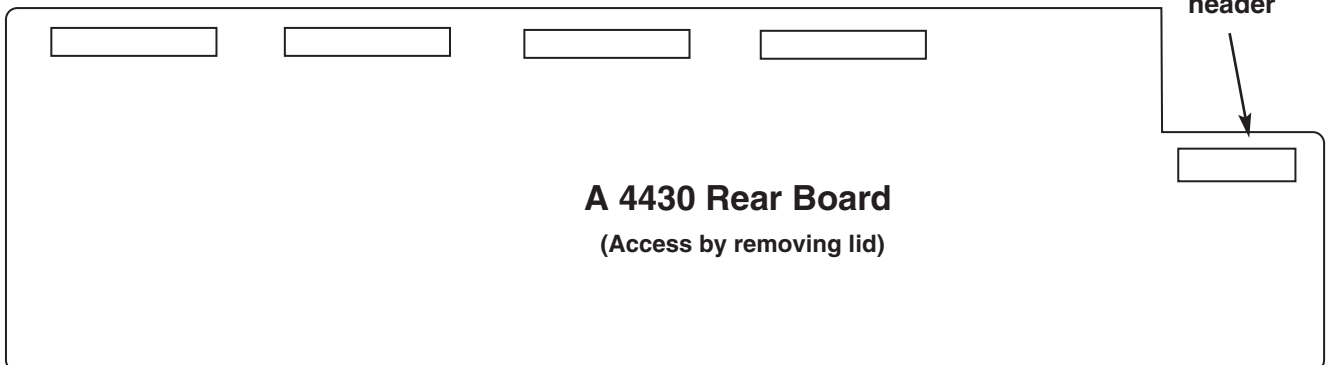
Switch	Item	On	Off
1	Input 8	1V	100mV
2	-	-	-
3	-	-	-
4	Input 7	1V	100mV

**Output configuration jumpers**



**Trimpot & Jumper Locations**

**A 2073 header**



**A 4430 Rear Board**  
(Access by removing lid)

**Header Location: A 2073 Alert/Evac Expansion Module**

## SPECIFICATIONS

Inputs: .....6 microphone – balanced 200-600Ω  
2 line – unbalanced 100KΩ  
Output: .....600Ω balanced 0dBm

## DISTORTION

Mic inputs:.....less than 0.3%  
Line inputs:..... less than 0.3%

## FREQUENCY RESPONSE

Mic: .....30Hz-15kHz  
Line: .....18Hz-23kHz  
S/N ratio:.....All controls min. -98dB  
Sensitivity: .....Mic 1.25mV, line 100mV-1V  
Phantom power:.....Nominal 12V DC  
Output connectors: .....3 pin XLR balanced

## INPUT CONNECTORS

Mic inputs: .....3 pin XLR balanced  
Line inputs: .....RCA stereo sockets

## CONTROLS

Mic & Line inputs: .....Volume  
Bass: .....±10dB @ 100Hz  
Treble: .....±10dB @ 10kHz  
Master: .....Volume  
Indicators: .....Power on LED, VU meter

Power supply: .....240V AC or 24V DC  
Protection: .....0.5A fuse  
Dimensions:.....482W x 152D x 44H mm  
Weight: .....~3kg  
Colour: .....Black

All measurements measured in respect to 1kHz reference.  
\*Specifications subject to change without notice

Distributed by Altronic Distributors Pty. Ltd. Perth. Western Australia.  
Phone: 1300 780 999 Fax: 1300 790 999  
Internet: [www.altronic.com.au](http://www.altronic.com.au)

*Proudly Assembled in Australia*