



A 4425A

Public Address Mixer

Operating Instructions



Mixer Overview

Description

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

Inputs and Outputs

Inputs 1-6 can be configured for balanced microphone or line use as desired. XLR and dual RCA sockets are provided for each of these inputs. Inputs 7 & 8 are dedicated line inputs provided with dual RCA sockets and variable muting/ducking level. Outputs are 600Ω/0dBm XLR balanced or dual RCA sockets for record/tape out.

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), mic or line operation of 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, screw driver adjust, treble and bass controls for each input channel. A LED VU meter and a headphone socket are 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 ie: 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 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 the optional A 4573 assumes priority 2.

Adjusting VOX muting sensitivity

The adjustment pots are located internally. See page 2 for diagram.

1. Switch off the unit and remove the 240V mains lead and 24V in from the rear.
2. Remove the 6 x M3 screws from the lid and remove the lid.
3. The adjustment pots are located on the main (middle) PCB and are marked EVAC, MIC1, MIC2, MIC3. Adjust the appropriate pot clockwise to increase sensitivity and anti-clockwise to decrease sensitivity.
4. Replace lid and screws and reapply power.

Optional Modules

Alert and evacuation tones are available with the installation of the optional A 4573 tone generator.

An optional compressor/compander module (A 4426) can be fitted internally to inputs 7 and 8. This is desirable when using CD/DVD players as a BGM source. It maintains a consistent output level during CD/DVD playback to eliminate constant adjustment of volume levels from quiet tracks to louder tracks on the disc.

TABLE 1: DIP SWITCH SETTINGS

Inputs 1 - 6 (refer to DIP 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 DIP 7)			
Switch	Item	On	Off
1	Input 8	1V	100mV
2	-	-	-
3	-	-	-
4	Input 7	1V	100mV

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, set input configurations as desired via the DIP switches on rear of unit. The table below shows the various settings.
2. Plug in a low impedance microphone into the microphone input, or a music source (tape or Compact Disc or similar) into the line input.
3. Connect the mixer to an amplifier using a suitable cable. See figure 2, 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 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 4573:

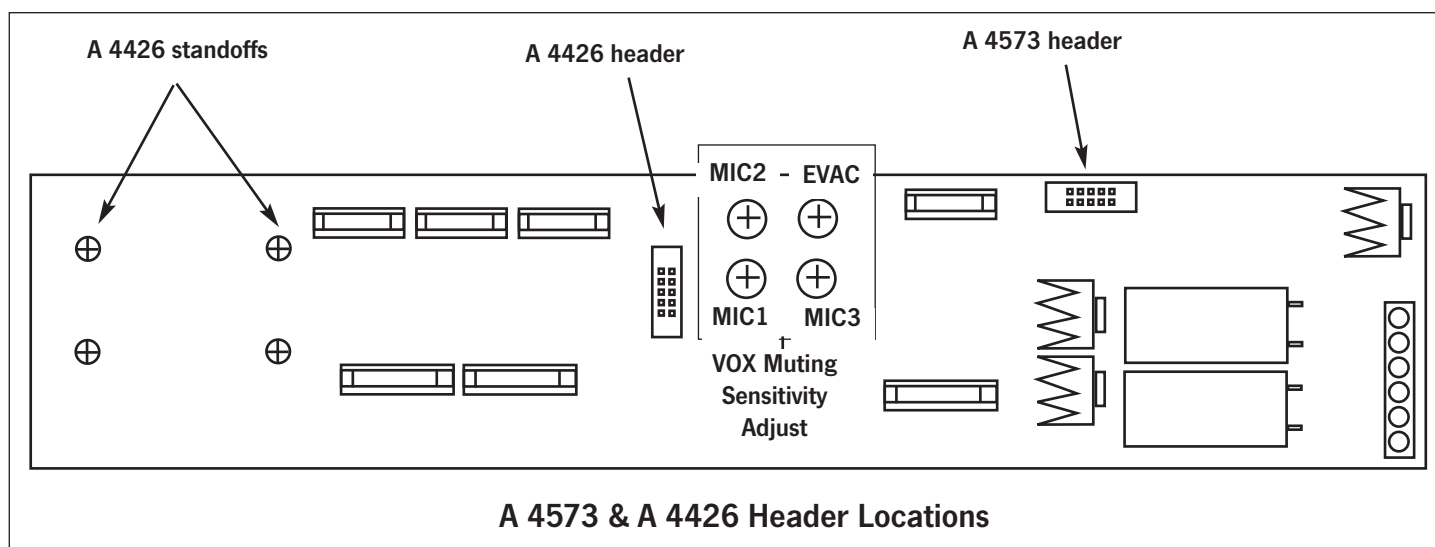
1. Remove lid from unit
2. Unscrew tone generator plate from rear panel
3. Locate tone generator 10 way header on board (this is located at the rear of the main board)
4. Connect ribbon cable header to the 10 way header on the board of mixer.
5. The tone generator is held in by way of 2 screws (supplied) 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 4573 assumes priority 2 when installed

Installing the compressor

A 4426:

1. Remove lid from unit
2. Locate tone generator 10 way header on board (this is located in the middle of the main board)
4. Connect ribbon cable header to the 10 way header on the board of mixer.
5. The compressor board is mounted onto 4 plastic standoffs located on the main printed circuit board.
6. Refit lid and secure with screws.



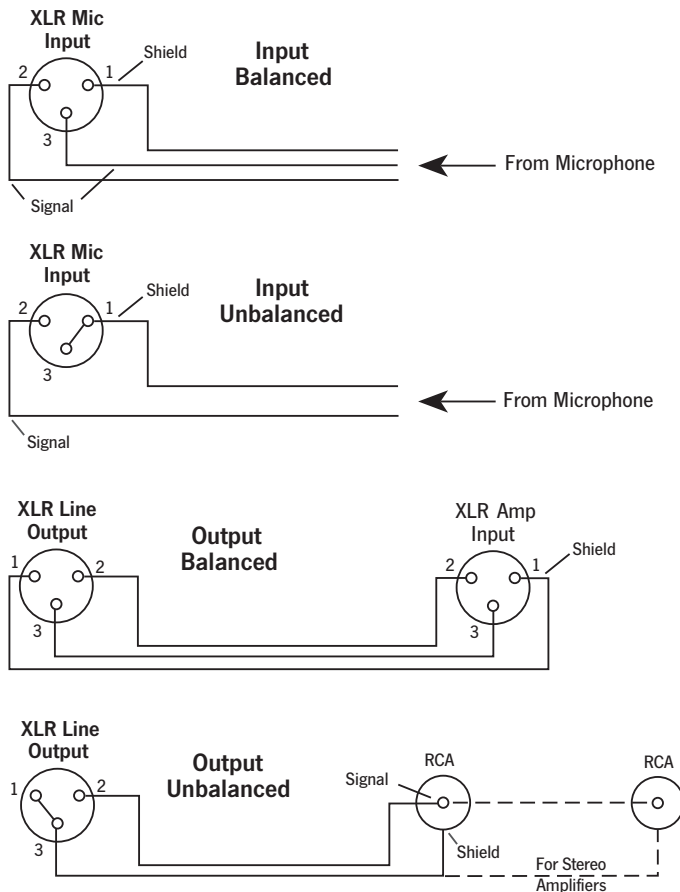


Figure 2.
Connection Details

Microphone Connections

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

Pin 1:.....Earth

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

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

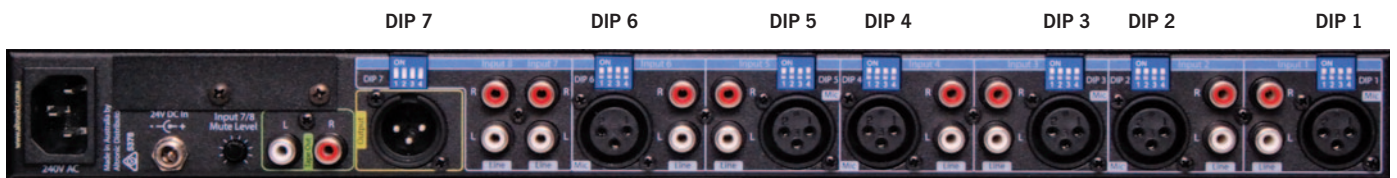
Output Connections

Connector Type:XLR 3Pin Male

Pin 1:.....Earth

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

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



A 4425A Rear Panel Layout

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.
- Adjust the muting level control (inputs 7-8)

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.

Input 7-8 no muting

- Check muting level adjustment on the rear panel

Line level too low

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

Specifications

Inputs:6 microphone - balanced 200-600 Ω
2 line - unbalanced 100k Ω

Output:600 Ω balanced 0dBm

DISTORTION

Mic inputs:< 0.3% @ 1KHz

Line inputs:< 0.3% @ 1KHz

FREQUENCY RESPONSE

Mic:30Hz-15kHz

Line:18Hz-23kHz

S/N ratio:All controls min. -98dB

Sensitivity:Mic 1.25mV, line 100mV or 1V

Phantom power:Nominal 12V DC

Output connectors:3 pin XLR balanced
Dual RCA sockets

INPUT CONNECTORS

Mic inputs:3 pin XLR balanced

Line inputs:Dual RCA sockets

CONTROLS

Mic inputs:Volume

Line inputs:Volume

Bass: ± 10 dB @ 100Hz

Treble: ± 10 dB @ 10kHz

Master:Volume

Indicators:Power on LED

Power supply:240V AC or 24V DC

Dimensions:482W x 152D x 44H mm

Weight: ≈ 3 kg

Colour:Black

All measurements measured in respect to 1kHz reference.

*Specifications subject to change without notice

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