



Operating Manual

A 4435A 4 CHANNEL MIXER WITH MESSAGE PLAYER

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.

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You may be surprised to learn that Altronic is still manufacturing hundreds of product lines right here in Australia. We have resisted the move offshore by offering our customers better quality products with innovations to save them time and money.

Our Balcatta production facility manufactures/assembles:

Redback public address products
One-shot speaker & grill combinations
Zip-Rack 19 inch rack frame products

We strive to support local suppliers wherever possible in our supply chain, helping to support Australia's manufacturing industry.

Redback Audio Products

100% developed, designed & assembled in Australia.

Since 1976 we have been manufacturing Redback amplifiers in Perth, Western Australia. With over 40 years experience in the commercial audio industry, we offer consultants, installers and end users reliable products of high build quality with local product support. We believe there is significant added value for customers when purchasing an Australian made Redback amplifier or PA product.

Local support & feedback.

Our best product features come as a direct result of feedback from our customers, and when you call us, you speak to a real person - no recorded messages, call centres or automated push button options. It's not only the assembly team at Altronic who are employed as a direct result of your purchase, but hundreds more at local companies used in the supply chain.

Industry leading 10 year warranty.

There's a reason we have the industry leading DECADE warranty. It's because of a long tried and tested history of bullet-proof reliability. We've heard PA contractors tell us they still see the original Redford amplifier still in service in schools.

We offer this comprehensive parts & labour warranty on almost every Australian Made Redback public address product. This offers both installers and end users peace of mind that they will receive prompt local servicing in the rare event of any problems.

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1.0 OVERVIEW

1.1 INTRODUCTION

This unique Redback PA mixer features four input channels which are user selectable for either balanced mic, line or auxiliary use. In addition it incorporates a four channel SD card based message player making it an excellent choice for retail, supermarkets, hardware stores and more.

The mixer could be used for general paging and BGM applications, and the message player for customer service applications, in-store advertising or for pre-recorded commentary at galleries, display stands etc.

The message player and each input all have individual level, treble and bass controls. Vox muting/Priority is provided for channels one and two with front panel adjustable sensitivity. The message player priority slots in between inputs one and two. Custom messages, tones and music may be loaded onto the message player SD card. The messages are activated by a closing set of contacts. If input one is active when a message contact is closed, the message is queued and played once input one is no longer in use.

Messages are played on a first in, best dressed (FIBD) basis, and will also be queued if one message is playing and another is activated.

Inputs 1 and 2 have priority and would be used for telephone paging or interfacing with an Evacuation system.

BGM should be fed to inputs 3 or 4 and not to inputs 1 or 2, as any message will not play whilst audio is playing on inputs 1 or 2 until there is a break. I.e. if it is music, the message may not play for several minutes. If the mic is being used, this is the same case, but a PA announcement generally only goes for a few seconds, in which case a message will play shortly after.

Input four is also fitted with a 3.5mm jack input for connection to a smartphone/tablet as an audio source. When connected, this overrides any source connected to input 4 on the rear panel. Each input has a 3 pin XLR (3mV) and dual RCA sockets with adjustable sensitivity settings. These can be set 100mV or 1V for the stereo RCAs. Message player contacts are provided via pluggable screw terminals. 24V DC operation from the included power supply or battery backup.

1.2 FEATURES

- Four input channels
- SD card message player for audio announcements
- Individual level, bass and treble control on all inputs
- 3.5mm music input
- Adjustable input sensitivity on line inputs
- 24V DC battery back up terminals
- Four sets of closing contacts for message triggering
- 24V DC switched output
- Message active indicators
- Adjustable Vox sensitivity
- 10 Year Warranty
- Australian Designed and Manufactured

1.3 WHAT'S IN THE BOX

A 4435A Mixer 4 Channel with MP3 Message player
24V 1A DC Plugpack
Instruction Booklet

1.4 FRONT PANEL GUIDE

Fig 1.4 shows the layout of the A 4435A front panel.

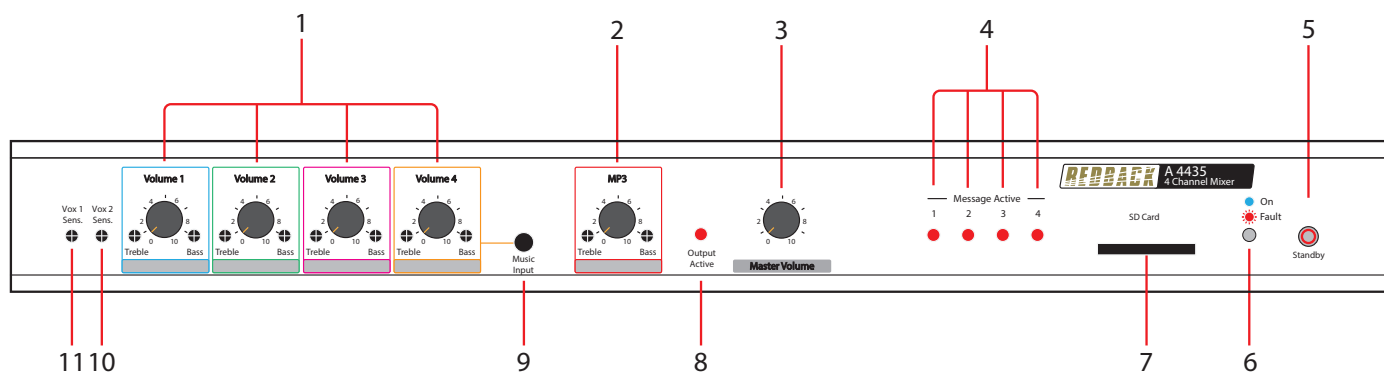


Fig 1.4

1 Inputs 1-4 volume controls

Use these controls to adjust the output volume, bass and treble of inputs 1-4.

2 MP3 volume control

Use these controls to adjust the output volume, bass and treble of the MP3 audio.

3 Master Volume

Use these controls to adjust the output volume, bass and treble of the master volume.

4 Active Message Indicators

These LED's indicate which MP3 message/audio file is active.

5 Standby Switch

When the unit is in standby mode this switch will illuminate. Press this button to switch the unit ON. Once the unit is ON the On indicator will illuminate. Press this switch again to put the unit back in standby mode.

6 On/Fault Indicator

This led indicates when the unit has power if the LED is blue. If the LED is red a fault has occurred with the unit.

7 SD Card

This is used to store the MP3 audio files for the message/audio playback. Note the unit is supplied with a tamper cover so that the SD card is not easily removed. The SD card may need to be pushed in with a screwdriver to insert and to remove because of the depth of the socket.

8 Output Active Indicator

This led indicates when the unit has an input signal present.

9 Music input

This input will override input 4 when connected. Use this for connection of portable music players.

(Note 1: this input has a fixed input sensitivity).

(Note 2: switch 1 on DIP4 must be set to ON to enable this function).

10 VOX 1 Sensitivity

This sets the VOX sensitivity of input 1. When the VOX is active on input 1, inputs 2-4 are muted.

11 VOX 2 Sensitivity

This sets the VOX sensitivity of input 2. When the VOX is active on input 2, inputs 3-4 are muted.

1.5 REAR PANEL CONNECTIONS

Fig 1.5 shows the layout of the A 4435A rear panel.

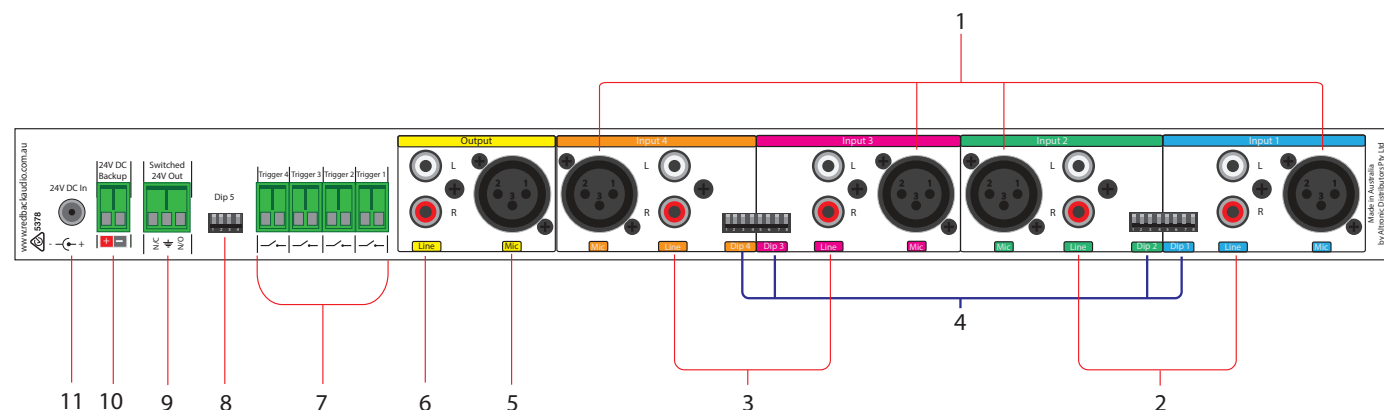


Fig 1.5

1 Microphone Inputs

There are four microphone inputs which all incorporate a 3 pin balanced XLR. Phantom power is available at each Mic input and is selected via DIP switches on DIP1 - DIP4 (For more details see DIP switch settings).

2 RCA Unbalanced Line Inputs 1+ 2

The line inputs are dual RCA connectors which are internally mixed to produce a mono input signal. The input sensitivity of these inputs can be adjusted to 100mV or 1V via the DIP switches. These inputs would be suitable for telephone paging or for connection to an evacuation system. Not recommended for background music when using message player.

3 RCA Unbalanced Line Inputs 3 +4

The line inputs are dual RCA connectors which are internally mixed to produce a mono input signal. The input sensitivity of these inputs can be adjusted to 100mV or 1V via the DIP switches. These inputs would be the preferable inputs for background music (BGM).

4 Dip Switches DIP1 - DIP4

These are used to select various options such as phantom power on mic inputs, Vox options and input sensitivities. Refer to DIP Switch Settings section.

5 Preamp Out (Balanced Line Output)

A 3 pin 600ohm 1V balanced XLR output is provided for passing the audio signal on to a slave amplifier or to record the output of the amplifier.

6 Line Out

Dual RCA's provide a line level output for recording purposes or to pass the output on to another amplifier.

7 Remote triggers

These contacts are for remote triggering of the internal MP3 player. There are four contacts which correspond to the four MP3 files stored in the trigger folders of the SD card.

8 DIP 5

These switches provide various play modes (see DIP switch settings for more details).

9 Switched Out

This is a 24V DC output which is activated when any of the remote triggers are operated. The terminals provided can be used for "Normal" or "Failsafe" modes. The output terminals have a N/O (normally open), N/C (normally closed) and a ground connection. In this configuration 24V appears between the N/O and ground terminals when this output is activated. When this output is not active 24V appears between the N/C and ground terminals.

10 24V DC Input (Backup)

Connects to a 24V DC backup supply with at least 1 amp current capacity. (Please observe the polarity)

11 24V DC input

Connects to a 24V DC Plugpack with 2.1mm Jack.

2.0 SETUP GUIDE

2.1 MP3 FILE SETUP

The MP3 audio files are stored on an SD card which is located on the front of the unit as shown in figure 1.4. These MP3 audio files are played when the triggers are activated.

These MP3 audio files can be removed and replaced with any MP3 audio file (Note: The files must be in MP3 format), whether it be music, a tone, a message etc.

The audio files are located in four folders labelled Trig1 to Trig4 on the SD card as shown in figure 2.1.

A library of MP3 tones are also supplied in the folder labelled #LIBRARY#.

In order to put MP3 files onto the SD card, the SD card will need to be connected to a PC. You will need a PC or laptop equipped with a SD card reader to do this. If a SD slot is not available then the Altronics D 0371A USB Memory Card Reader or similar would be suitable (not supplied).

You will first need to remove power from the A 4435A and then remove the SD card from the front of the unit. To access the SD card, push the SD card in so that it pops back out, and then remove the card.

Step by step guide to put an MP3 into it's associated folder with a Windows installed PC.

Step 1: Make sure the PC is on and card reader (if required) connected and correctly installed. Then insert the SD card into the PC or the reader.

Step 2: Go to "My Computer" or "This PC" and open the SD card which is usually marked "Removable disk". In this example it is named "USB Drive (M:)".

Select the removable disk and then you should get a window that looks like figure 2.1.

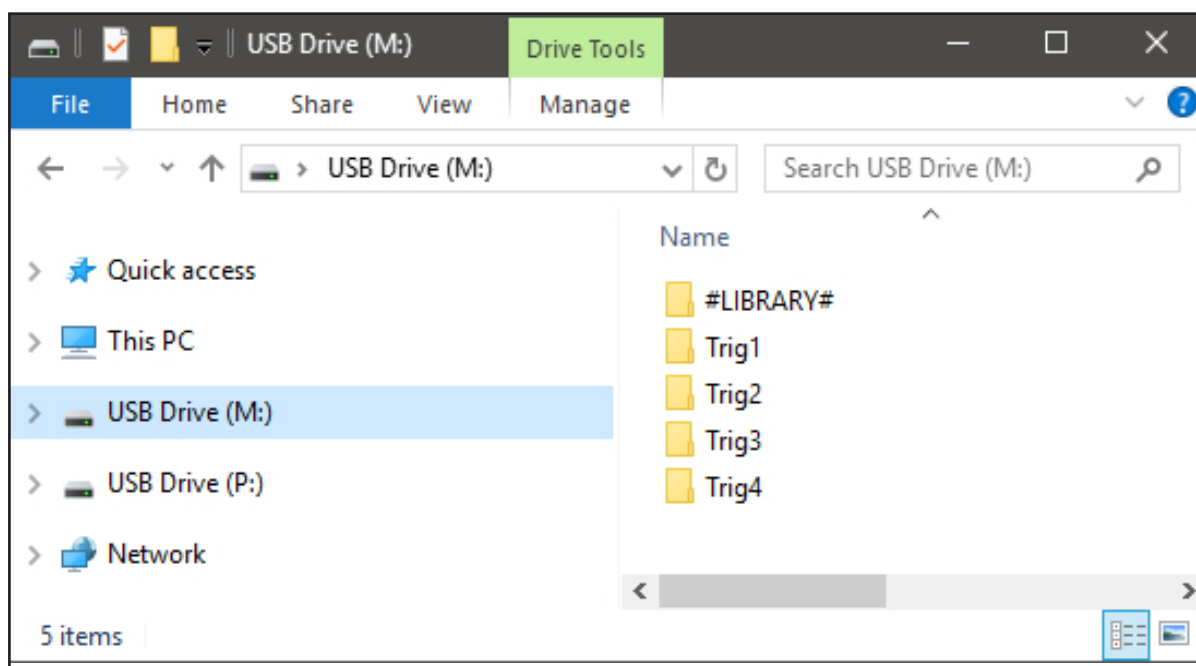


Fig 2.1

The #LIBRARY# folder and the four trigger folders are now visible.

Step 3: Open the folder to change, in our example the "Trig1" folder, and you should get a window that looks like figure 2.2

Step 4: You should see an MP3 file "1.mp3".

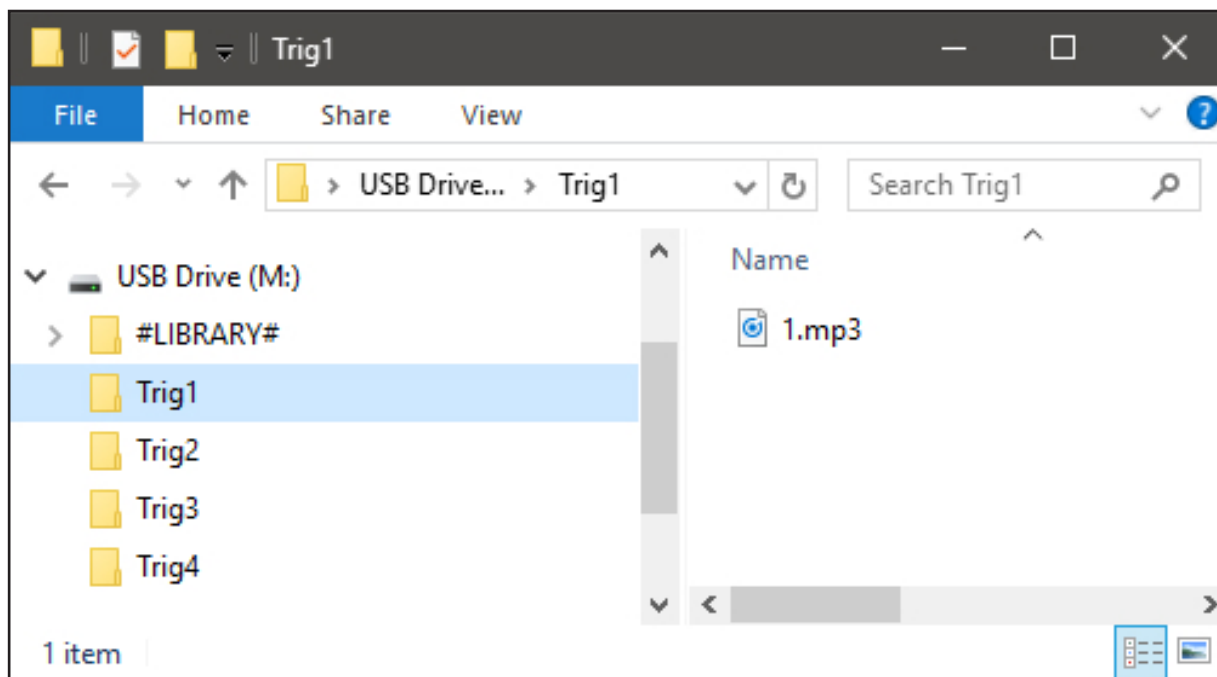


Fig 2.2

This MP3 file needs to be deleted and replaced by the MP3 file you want to play when you the rear Trigger 1 contact. The MP3 file name is not important only that there is only one MP3 file in the “Trig1” folder. Make sure you delete the old MP3!

NOTE the new MP3 file cannot be “Read only”. To check this right click on the MP3 file and scroll down and select Properties, you will get a window that looks like figure 2.3. Make sure the “Read Only” box has no tick in it.

Repeat these steps for the other folders as required.

The new MP3’s are now installed on the SD card, and the SD card can be removed from the PC following windows safe card removal procedures.

Make sure the A 4435A is not powered and insert the SD card into the SD card slot ; it will click when fully inserted.

The A 4435A can now be powered back on.

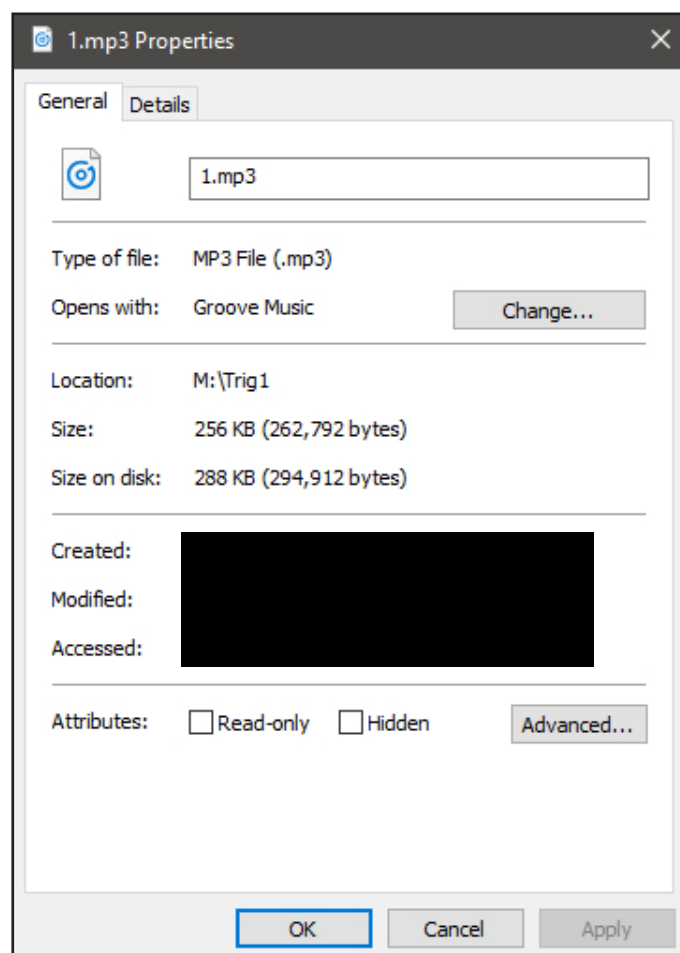


Fig 2.3

2.2 POWER CONNECTIONS

A DC socket and a 2 way terminal have been provided for 24V DC input.

The DC socket is for connection of the supplied plugpack which comes with a standard 2.1mm jack connector. The socket also has a threaded connector so that the Altronics P 0602 (shown in Flg 2.4) could be used. This connector eliminates accidental removal of the power lead.

The 2 way terminal is for connection of a backup power supply or battery.

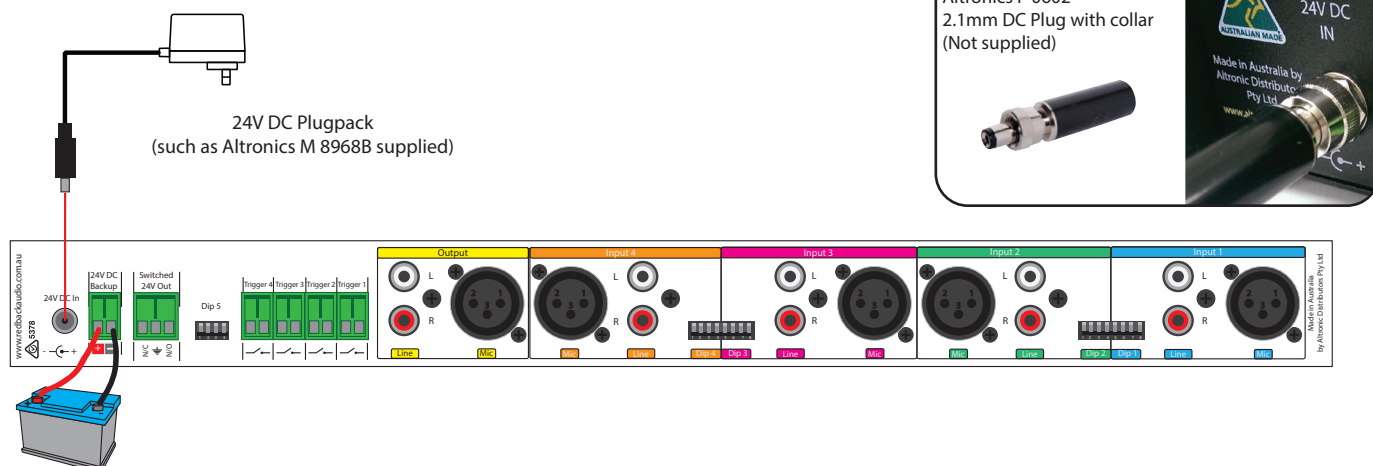


Fig 2.4

2.3 AUDIO CONNECTIONS

Fig 2.5 demonstrates a simple example of the A 4435A in use in a department store. The XLR output of the mixer is fed into an amplifier which in turn connects to speakers throughout the store. A background music (BGM) source is fed into the line level RCA's of input 2. A microphone at the front desk is connected to input 1, and has vox priority turned on via the DIP1 switches. Any time the microphone is used the BGM will be muted. A security message is played randomly, set off by a timer which is connected to trigger 1 and plays an MP3 "Security to the front of the store". The paint section in the store has a "Assistance Required" button, which when pressed activates trigger two and plays an MP3 "Assistance required in the paint section". The output of the mixer is connected to a recorder which keeps a record of everything output from the system including anything said into the microphone.

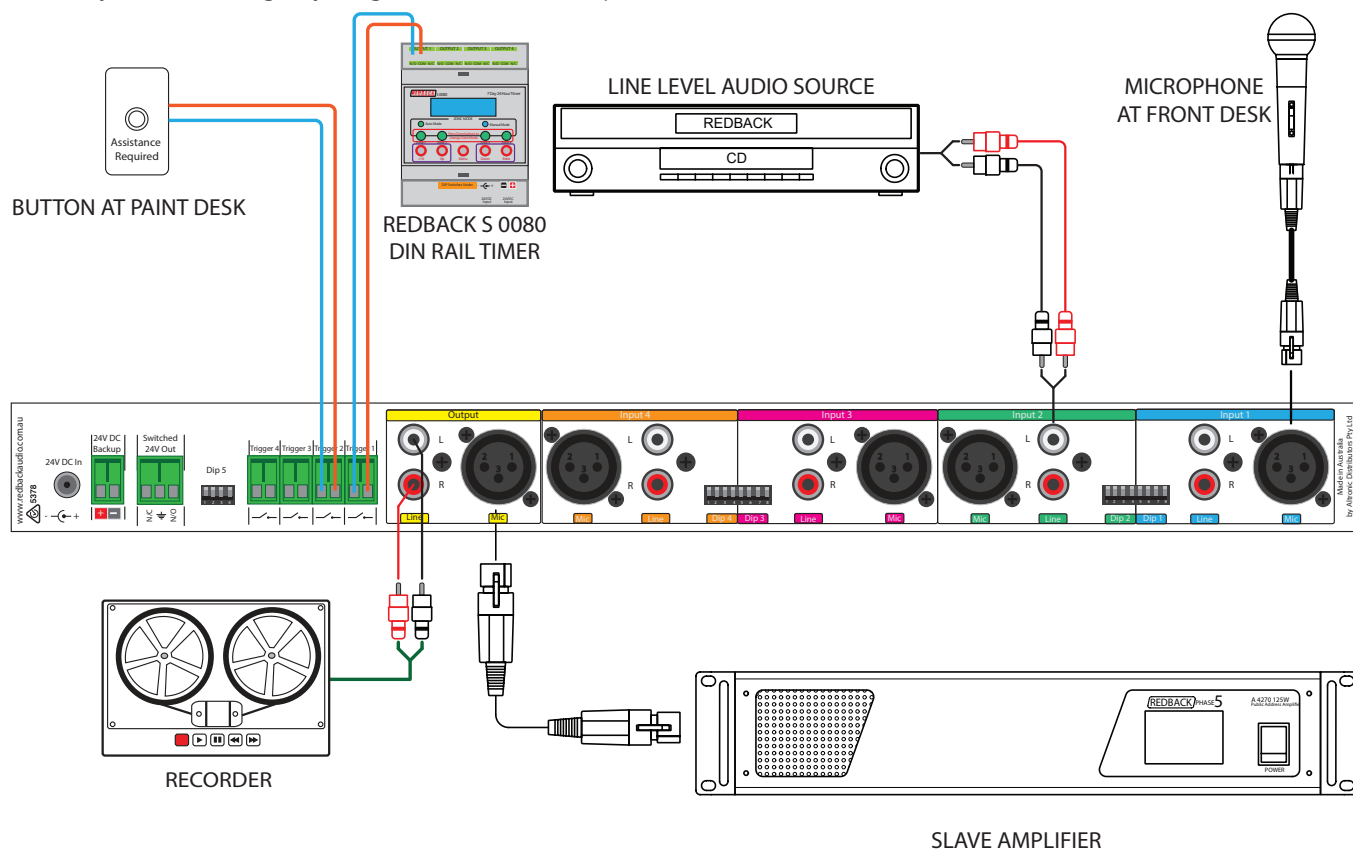


Fig 2.5

Redback® A 4435A Mixer 4 Input & Message Player

2.4 DIP Switch settings

The A 4435A has a set of options which are enabled via the DIP switches 1-5.

DIP 1-4 set the input level sensitivity, phantom power and priorities for inputs 1-4 as outlined below.

(* Priority/VOX muting is only available for Mic inputs 1-2. Line Inputs 3-4 have no priority levels.)

DIP 1

Switch 5 - Input 1 Select - OFF - Mic, ON - Unbalanced Line Input

Switch 6 - Sets Input 1 sensitivity to either ON - 1V or OFF - 100mV. (This affects the unbalanced Line Input only)

Switch 7 - Sets Input 1 priority or VOX to ON or OFF.

Switch 8 - Enables Phantom power to the Mic on input 1.

DIP 2

Switch 1 - Input 2 Select - OFF - Mic, ON - Unbalanced Line Input

Switch 2 - Sets Input 2 sensitivity to either ON -1V or OFF -100mV. (This affects the unbalanced Line Input only)

Switch 3 - Sets Input 2 priority or VOX to ON or OFF.

Switch 4 - Enables Phantom power to the Mic on input 2.

DIP 3

Switch 5 - Input 3 Select - OFF - Mic, ON - Unbalanced Line Input

Switch 6 - Sets Input 3 sensitivity to either ON - 1V or OFF - 100mV. (This affects the unbalanced Line Input only)

Switch 7 - Not used

Switch 8 - Enables Phantom power to the Mic on input 3.

DIP 4

Switch 1 - Input 4 Select - OFF - Mic, ON - Line/Music input (*Must be set to ON for Music Input to operate*)

Switch 2 - Sets Input 4 sensitivity to either ON - 1V or OFF - 100mV. (This affects the unbalanced Line Input only)

Switch 3 - Not used

Switch 4 - Enables Phantom power to the Mic on input 4.

Input 1: When VOX is enabled on input 1 it will override inputs 2 - 4.

Input 2: When VOX is enabled on input 2 it will override inputs 3 - 4.

DIP 5

Switch 1 - ON - Hold trigger contact closed to play, OFF - Hold trigger contact closed momentarily to play.

Switch 2 - ON - Trigger 4 acts as a remote cancel, OFF - trigger 4 acts as normal trigger.

Switch 3 - Not used

Switch 4 - Not used

IMPORTANT NOTE:

**Ensure power is switched off when adjusting DIP switches.
New settings will be effective when power is switched back on.**

3.0 TROUBLE SHOOTING

If the Redback® A 4435A Mixer/Message Player fails to deliver the rated performance, check the following:

No Power, No Lights

The standby switch is used to turn the unit on. Make sure this switch has been pressed.
Make sure mains power switch is on at the wall.
Check the supplied plugpack is connected correctly.

MP3 files not playing

The files must be MP3 format. Not wav, AAC or other.
Check SD card is inserted correctly.

DIP switch changes not effective

Turn the unit OFF before changing DIP switch settings. Settings become effective after power is returned.

4.0 FIRMWARE UPDATE

It is possible to update the firmware for this unit by downloading updated versions from www.altronics.com.au or redbackaudio.com.au.

To perform an update, follow these steps.

- 1) Download the Zip file from the website.
- 2) Remove the SD card from the A 4435A and insert it into your PC. (Follow the steps on page 8 to open the SD card).
- 3) Extract the contents of the Zip file to the root folder of the SD Card.
- 4) Rename the extracted .BIN file to update.BIN.
- 5) Remove the SD card from the PC following windows safe card removal procedures.
- 6) With the power turned OFF, insert the SD card back into the A 4435A.
- 7) Turn the A 4435A ON. The unit will check the SD card and if an update is required the A 4435A will perform the update automatically.

Redback® A 4435A Mixer 4 Input & Message Player

5.0 SPECIFICATIONS

OUTPUT LEVEL:.....0dBm

DISTORTION:.....0.01 %

FREQ. RESPONSE:.....140Hz - 20kHz

SENSITIVITY

Mic inputs:3mV balanced

Line inputs:.....100mV-1V

OUTPUT CONNECTORS

Line out:3 pin XLR balanced or 2 x RCA

Switched out:Screw terminals

INPUT CONNECTORS

Inputs:3 pin XLR balanced or 2 x RCA

..... 3.5mm stereo jack front panel

24V DC power:Screw terminals

24V DC Power:2.1mm DC Jack

Remote triggers:Screw Terminals

CONTROLS:

Power:.....Standby Switch

Bass:.....±10dB @ 100Hz

Treble:.....±10dB @ 10kHz

Master:Volume

Inputs 1-4:Volume

MP3:Volume

INDICATORS:.....Power on, MP3 error,

.....Message active

POWER SUPPLY:..... 24V DC

DIMENSIONS:≈..... 482W x 175D x 44H

WEIGHT: ≈..... 2.1 kg

COLOUR:Black

* Specifications subject to change without notice