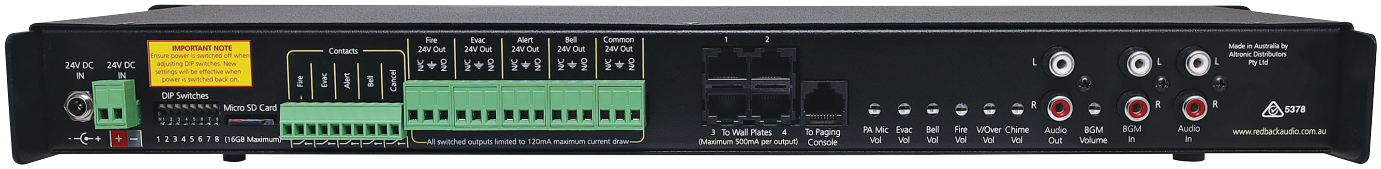


A 4660 Paging Console

Operating Manual

A 4565B Evacuation Controller

Optional Accessories

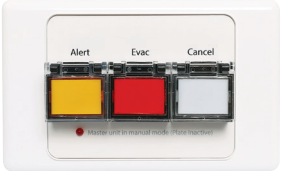
A 2078B Alert/Evac/Cancel Remote Wall Plate (Hard Wired)
A 2081 Alert/Evac/Chime/Cancel Remote Wall Plate (Hard Wired)
A 4578 Alert/Evac/Cancel Remote Wall Plate (U/UTP Cat5)
A 4581 Alert/Evac/Chime/Cancel Remote Wall Plate (U/UTP Cat5)
A 4581V Alert/Evac/Chime/Cancel Remote Wall Plate (U/UTP Cat5)
A 4597 Fire Test/Fire/Cancel Remote Wall Plate (U/UTP Cat5)
A 4658 Power Injector (U/UTP Cat5)
A 4660 Emergency Paging Microphone Console (U/UTP Cat5)

A 2078B Remote Plate

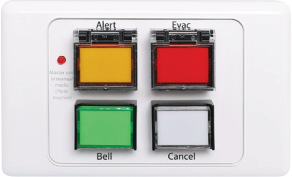
A 2081 Remote Plate

A 4658 Power Injector

A 4581V Remote Plate



A 4578 Remote Plate



A 4581 Remote Plate

A 4597 Remote Plate

User manual revision number: 1.1 24/08/2023

Distributed by Altronic Distributors Pty. Ltd.
Phone: 1300 780 999 Fax: 1300 790 999 Internet: www.altronics.com.au

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.

REDBACK is a registered trademark of Altronic Distributors Pty Ltd

You may be surprised to learn that Altronics 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 Altronics 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.

Published by Altronic Distributors

Contents

1.0 OVERVIEW

1.1 INTRODUCTION

This Evacuation controller is easy to operate and is designed around industry standard building emergency alert/evacuate requirements. When connected to a paging system amplifier, building occupants can be alerted and/or evacuated in the event of an emergency e.g.: fire, gas leak, bomb scare, earthquake. Auto or manual modes are selected by the front panel key switch which uses an industry standard 003 key. Alert & evac switches are fitted with safety covers to prevent accidental operation. Also inbuilt, is a Bell function tone for signalling lunch breaks, start of class etc.
The Alert, Evacuation, Bell, Fire Test and Fire tones and Emergency Messages are all MP3 based and stored on a Micro SD card which is accessible from the rear of the unit. The Alert, Evacuation and bell tones and cancel function are triggered by the front switches when in manual mode or by the rear terminal contacts when in Auto mode for remote activation i.e. a clock, remote switch or remote wall plate. These functions can also be activated by optional wall plates and paging consoles. The Fire tone is activated from the rear Fire trigger or from the A 4597 remote plate. The Fire Test tone is activated by the A 4597 remote plate only.
Provision has been made for a BGM (background music) source to be played through the controller. BGM is automatically muted when any other function is operated. A mic input is provided on the front panel and paging is also available through the A 4660 paging console. These can be used for either general or emergency paging and overrides all other functions. A pre-announcement chime is available on the microphone input. This can be switched on or off via external dip switches. Switched 24V Out connections are provided for all emergency and paging conditions. These contacts are for connection of override relays in remote volume controls, warning strobes, bells etc.

1.2 FEATURES

- Tones conform to AS 1670.4
- Standard 1U 19" rack mount case
- Interfaces with Fire Indicator Boards
- Remote operation of Alert, Evac, Chime, Fire Test, Fire Alarm & Cancel tones
- MP3 based tone playback (with backup hard coded Alert, Evac and Bell tones)
- 24V DC operation
- Auto/Manual/Isolate keyswitch
- Key switch to 003 standard
- Local operation of Alert, Evac and PA
- MP3 based Voice Over messages for Alert and Evac cycles
- Microphone socket for PA use
- Provision for BGM (back ground music)
- Provision for Auxiliary input with front volume control
- Bell chime facility
- Switched 24V DC output for override relays on volume controls
- Switched 24V DC output for strobe operation for Alert mode
- Switched 24V DC output for strobe operation for Evac mode
- Switched 24VDC output for bell mode
- On-board timer for automatic Alert to Evac switchover, adjustable from 30secs to 7.5min in 30 second increments
- Externally operated inputs are activated by switching to ground
- Auxiliary level output
- Suitable for any amplifier with an auxiliary input
- 10 Year Warranty
- Australian Designed and Manufactured

1.3 WHAT'S IN THE BOX

A 4565B Alert/Evacuation Controller
24V DC 2amp Plugpack
Instruction Booklet

1.4 FRONT PANEL GUIDE

The layout of the A 4565B front panel is shown below in figure 1.4.

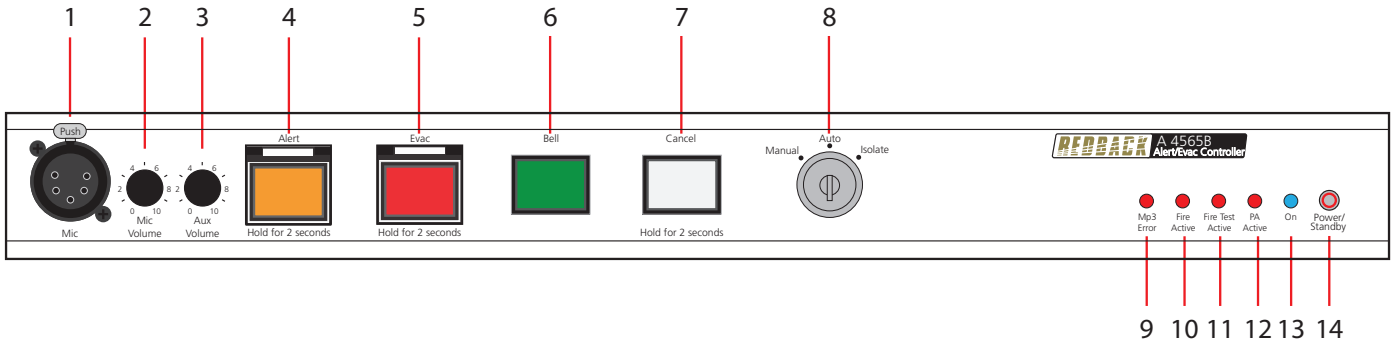


Fig 1.4

1 Microphone socket

Use this socket to connect a PTT (push to talk) microphone with a 5 pin male XLR plug. Suitable microphones with PTT function include the Altronics C 0379 desk paging microphone and the C 0334 CB type fist microphone. This microphone is used for emergency paging.

2 Microphone input volume control

Use this control to adjust the volume of the front microphone input.

3 Auxilliary input volume control

Use this control to adjust the volume of the rear auxilliary input.

4 Alert Tone Activation Switch

This switch is used to activate the Alert tone. This switch will only function when the unit is in manual mode (see section 2.1 for more details). Press for 2 seconds to activate.

5 Evac Tone Activation Switch

This switch is used to activate the Evacuation tone. This switch will only function when the unit is in manual mode (see section 2.1 for more details). Press for 2 seconds to activate.

6 Bell Tone Activation Switch

This switch is used to activate the Bell tone.

7 Cancel Tone Activation Switch

This switch is used to cancel the Alert, Evac or Bell tones. This switch will only function when the unit is in manual mode (see section 2.1 for more details). Press for 2 seconds to activate.

8 Operational Mode Keyswitch

Use this to key switch to select which mode the unit will operate under. There are 3 modes available which are Auto, Manual and Isolate Mode (see section 2.1 for more details). This key is an industry standard 003 key.

9 MP3 Error Mode Indicator

This LED will illuminate when the unit has trouble reading an MP3 file.

10 Fire Active Indicator

This LED will illuminate when the Fire trigger has been activated, resulting in the MP3 file in the Fire folder being played.

11 Fire Test Active Indicator

This LED will illuminate when the Fire test mode has been activated from the A 4597 remote plate, resulting in the MP3 file in the Firetest folder being played.

12 PA Active Indicator

This LED will illuminate when paging has been activated by the A 4660 paging console, or 5 pin XLR front microphone..

13 On Indicator

This LED indicates the unit has power.

14 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.

1.5 REAR PANEL CONNECTIONS

The layout of the A 4565B rear panel is shown below in figure 1.5 .

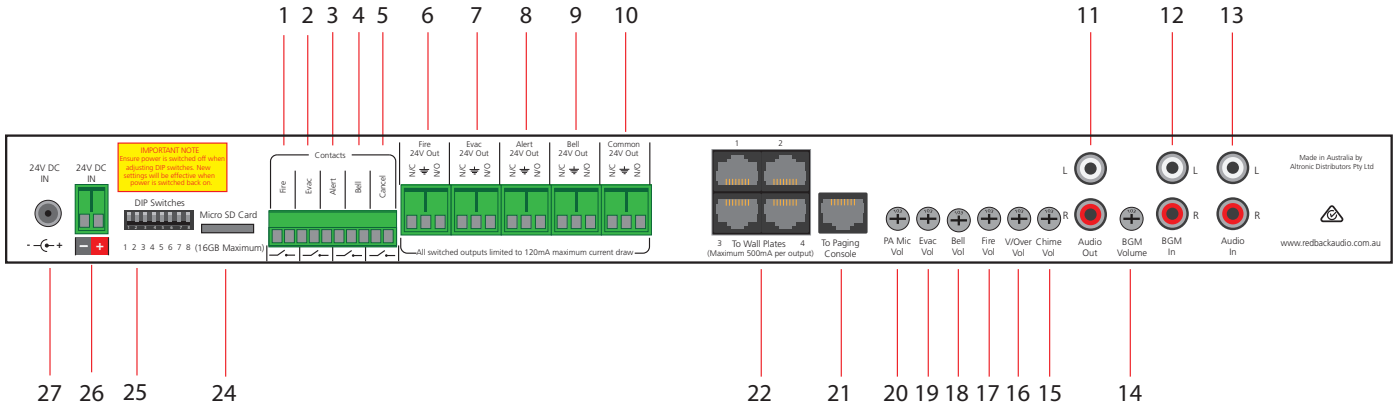


Fig 1.5

1 Fire Contact
These contacts are for remote triggering of the Fire tone. Requires a closing contact to operate.

2 Evac Contact
These contacts are for remote triggering of the Evacuation tone. These could be triggered by a fire indicator board, break glass alarm etc or by connecting the A 2078B or A 2081 remote plates to these contacts (see section 3.1 for more details). Requires a closing contact to operate.

3 Alert Contact
These contacts are for remote triggering of the Alert tone. These could be triggered by a fire indicator board, break glass alarm etc or by connecting the A 2078B or A 2081 remote plates to these contacts (see section 3.1 for more details). Requires a closing contact to operate.

4 Bell Contact
These contacts are for remote triggering of the Bell tone. These could be triggered by a remote switch or by connecting the A 2081 remote plate to these contacts (see section 3.1 for more details). Requires a closing con tact to operate.

5 Cancel Contact
These contacts are for remote triggering of the cancel function. These could be triggered by a remote switch, or by connecting the A 2081 remote plate to these contacts (see section 3.3 for more details). Requires a closing contact to operate.

6 Fire 24V Out
This is a 24V DC output which is activated when the Fire contact is triggered. The terminals provided can be used for “Normal” or “Failsafe” modes (see section 2.5 for more details).

7 Evac 24V Out
This is a 24V DC output which is activated when the Evac tone is activated. The terminals provided can be used for “Normal” or “Failsafe” modes (see section 2.5 for more details).

8 Alert 24V Out
This is a 24V DC output which is activated when the Alert tone is activated. The terminals provided can be used for “Normal” or “Failsafe” modes (see section 2.5 for more details).

9 Bell 24V Out
This is a 24V DC output which is activated when the Bell tone is activated. The terminals provided can be used for “Normal” or “Failsafe” modes (see section 2.5 for more details).

10 Common 24V Out
This is a combined 24V DC output which is activated when any of the Bell, Alert or Evac tones are activated. The terminals provided can be used for “Normal” or “Failsafe” modes (see section 2.5 for more details).

11 **Audio Out RCA Connectors**
Connect these outputs to the input of the background music amplifier.

12 **BGM In RCA Connectors**
Connect these to a background music source. The volume control for this is on the rear of the unit (see trimpot in point 14) so that it cannot be tampered with (see section 2.3 for more details).

13 **Aux In RCA Connectors**
Connect these to a background music source. The volume control for this is on the front of the unit. (see section 2.3 for more details). This provides a music source with a volume that can be controlled from the front of the unit.

14 **BGM Volume**
Adjust this trimpot to adjust the volume from the BGM IN RCA's.

15 **Chime Volume**
Adjust this trimpot to adjust the pre-announcement chime volume.

16 **Voice-over Volume**
Adjust this trimpot to adjust the MP3 Voice-over message playback volume.

17 **Fire Volume**
Adjust this trimpot to adjust the MP3 Fire tone playback volume.

18 **Bell Volume**
Adjust this trimpot to adjust the MP3 Bell tone playback volume.

19 **Evac Volume**
Adjust this trimpot to adjust the MP3 Alert and Evac tones playback volume.

20 **PA Volume**
Adjust this trimpot to adjust the paging microphone volume.

21 **RJ45 connector for A 4660 Paging Console**
Use this RJ45 port to connect to the A 4660 paging console.

22 **RJ45 connectors**
These RJ45 ports are used to connect to the remote wall plates for activating the tones remotely (see section 3.3 for more details).

23 **Micro SD Card Socket**
This socket holds the Micro SD card which is used to store all the tones or audio MP3 files.

24 **Dip Switches**
These are used to select the automatic switch-over time between the Alert and Evacuation tones and to also determine chime, voice-over and latching options (see section 2.4 for more details).

26 **24V DC Input (Backup)**
Connects to a 24V DC backup supply with at least 1.5 amp current capacity. (Please observe the polarity)

27 **24V DC Input (Main Supply)**
Connects to a 24V DC supply with at least 1.5 amp current capacity. (Please observe the polarity)

2.0 SETUP GUIDE

2.1 MANUAL, AUTO AND ISOLATE MODES

The unit features 3 modes of operation.

These are Auto, Manual and Isolate, selectable via the keyswitch on the front of the unit. The switch is keyed to a 003 standard key profile, and will allow removal of the key in the "Auto" position only.

Manual Mode:

In the manual position any of the Alert, Evac or Bell functions may be initiated from the switches on the front panel. (Note the Alert, Evac, Bell and Cancel buttons may need to be depressed and held in for 2 seconds).
Paging is also operative in manual mode through the A 4660 Paging Console or the front panel microphone input. This allows the operator to select any of these functions as required.
With the key in this position the rear panel contacts are all inoperative except for the Bell contact.

Manual Operation:

ALERT MODE: Depressing the Alert switch will activate the Alert mode and play the MP3 file located in the Alert Folder on the Micro SD card. The Alert tone is played three times in an Alert cycle on a rotation basis and will ascend in volume. If an Alert Message is available in the Alert Message Folder (see section 2.6) it will be played twice for every three cycles of the Alert tone. This cycle will continue until either the Cancel switch is pressed or the Evac switch is pressed (which will activate the Evacuation mode).
The alert tone can be changed to an evacuation tone at any stage of the Alert cycle simply by depressing the evac switch.
EVAC MODE: Depressing the Evac switch will activate the Evacuation mode and play the MP3 file located in the Evac Folder on the Micro SD card. The Evac tone is played three times in an Evac cycle on a rotation basis. If an Evacuation Message is available in the Evac Message Folder (see section 2.6) it will be played twice for every three cycles of the Evac tone. This cycle will continue until the Cancel switch is pressed.
BELL MODE: Depressing the Bell switch will activate the Bell tone. The Bell tone will play the MP3 file located in the Bell Folder on the Micro SD card.

Auto Mode:

When selected to the auto position the panel will respond to any trigger from the rear contacts of the unit. This could be the Alert, Evac, Bell, Fire or Cancel trigger which could be triggered from a Fire Indicator Board or Break Glass Alarms, etc. In the auto position the front panel alert, evac and cancel controls are inoperative. But all other functions will work, i.e.. front panel microphone paging, bell (front or rear)and music inputs on the rear of the unit whether they be the BGM or Aux inputs. In Auto mode the Alert, Evac, Bell, Fire Test and Fire switches on remote plates and the paging console will all function.

Auto Operation:

ALERT MODE: If the Alert tone is triggered it will activate the Alert mode and play the MP3 file located in the Alert Folder on the Micro SD card. The Alert tone is played three times in an Alert cycle on a rotation basis and will ascend in volume. If an Alert Message is available in the Alert Message Folder (see section 2.6) it will be played twice for every three cycles of the Alert tone. This cycle will continue until either the Cancel trigger is activated, the Evac trigger is activated (which will activate the Evacuation mode) or the Alert/Evac switchover preset time is reached (at which stage the unit will automatically switch into Evac Mode).
The alert tone can be cancelled by pressing the cancel switch on a remote plate or the paging console, by triggering the rear contacts of the A 4565B or by using the key to put the unit into manual mode and then pressing the cancel switch on the front of the A 4565B.
EVAC MODE: If the Evac tone is triggered it will activate the Evac mode and play the MP3 file located in the Evac Folder on the Micro SD card. The Evac tone is played three times in an Evac cycle on a rotation basis. If an Evac Message is available in the Evac Message Folder (see section 2.6) it will be played twice for every three cycles of the Evac tone. This cycle will continue until the Cancel trigger is activated. The Evac tone can be cancelled by pressing the cancel switch on a remote plate or the paging console, by triggering the rear contacts of the A 4565B or by using the key to put the unit into manual mode and then pressing the cancel switch on the front of the A 4565B.
BELL MODE: Depressing the Bell switch will activate the Bell tone. The Bell tone will play the MP3 file located in the Bell Folder on the Micro SD card.

Isolate Mode:

This isolates the unit so that the Alert,Evac, Fire or Fire Test functions cannot be activated either by the front panel switches, the rear contacts, the remote wall plates or the A 4660 paging console. The Bell function is still operational.

2.2 PRIORITIES

The order of priority for the functions of the A 4565B are as follows.

1) Paging (Via the paging console)
2) Paging (via the front panel microphone)
3) Evacuation Tone
4) Alert Tone
5) Fire Tone
6) Fire Test Tone
7) Bell Tone
8) BGM (background music) or Auxilliary Input

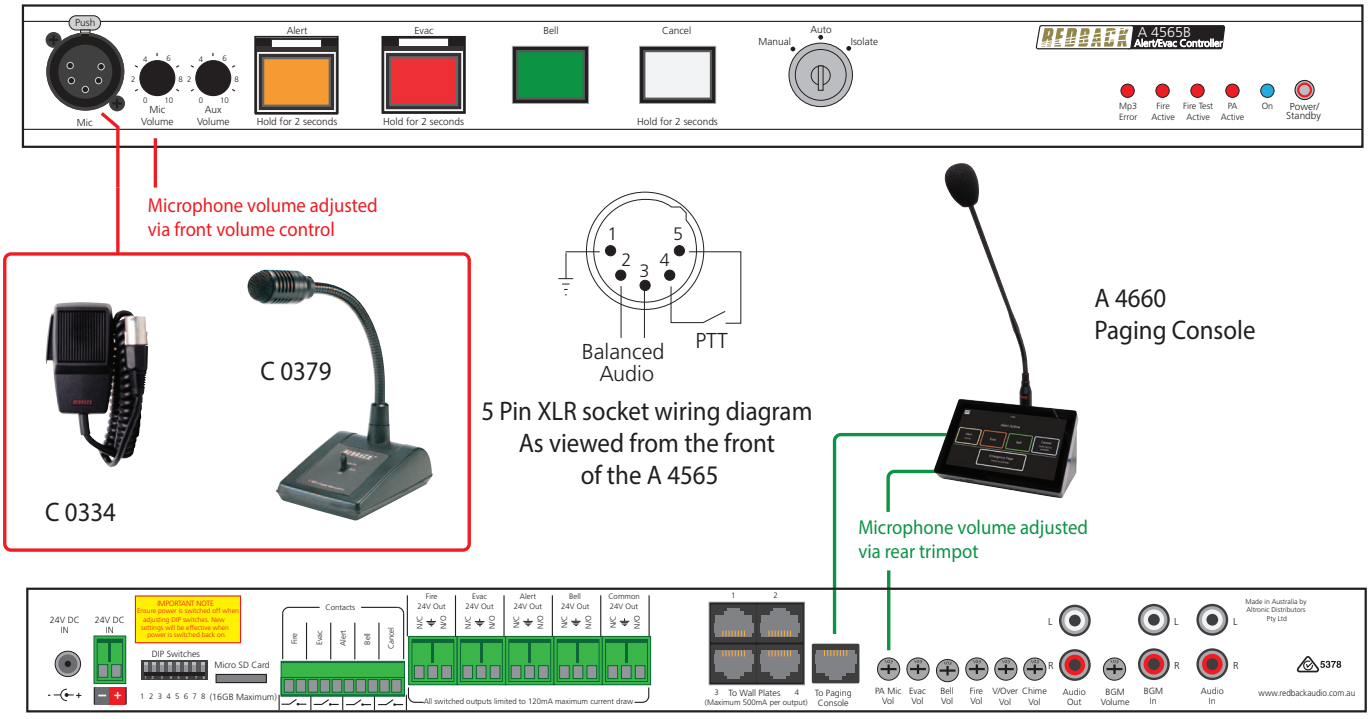


Fig 2.2

Microphone Input

The A 4565B has a microphone input on the front of the unit. This microphone can be used for either general paging or emergency paging. Paging overrides all other functions of the A 4565B. Suitable microphones with the PTT function include the Altronics C 0334 CB type microphone and the C 0379 desk paging microphone. The connection details are shown in fig 2.2. To use an unbalanced microphone, short pins 1 and 2 together on the microphone plug. The output level of the microphone is adjusted via the volume pot on the front of the unit (refer to fig 2.2).
A pre-announcement chime (located in the Chime folder on the SD card) which is available on the microphone input is activated by DIP switch 5 on the rear of the unit (see section 2.4 for more details).

Evacuation Tone

This tone conforms to Australian Standard 1670.4 and once activated has the second highest priority. This can be overriden only by the paging microphone.

Alert Tone

The Alert tone once activated can be overridden by the Evac tone or by the paging microphone.

Bell Tone

Included is a unique tone or bell chime for signalling lunch breaks, start of class etc. This can be operated from the front panel or via contacts on the rear panel for remote activation i.e. by a time clock or remote switch. This can be overriden by the Alert or Evac tones and by the paging microphone.

BGM and Aux Input

Provisions have been made for a BGM source to be played through the controller. The BGM and Aux inputs are automatically muted when any other function is operated (see section 2.3 for more details).

2.3 AUDIO CONNECTIONS

Provision has been made for two different audio sources to be connected to the unit. These are the BGM input and the Aux input. Both of these inputs have the same priority and are automatically muted when any other function is activated i.e. Paging, Alert, Evac or Chime triggering.

BGM Input:
This input is for connecting a background music source to the controller. The stereo sockets are combined internally to form a mono signal. The volume level is set via the BGM level control on the rear of the unit (See Fig 2.3) so that the volume cannot easily be tampered with.

Aux Input:
This input is for connecting an auxiliary source to the controller for the purposes of background music where the source volume is required to be accessible from the front panel. The stereo sockets are combined internally to form a mono signal.

Audio Output:
This output consists of stereo RCA sockets with an output of 0dBm into a 600Ω input. This is suitable for most PA amplifier auxiliary inputs.

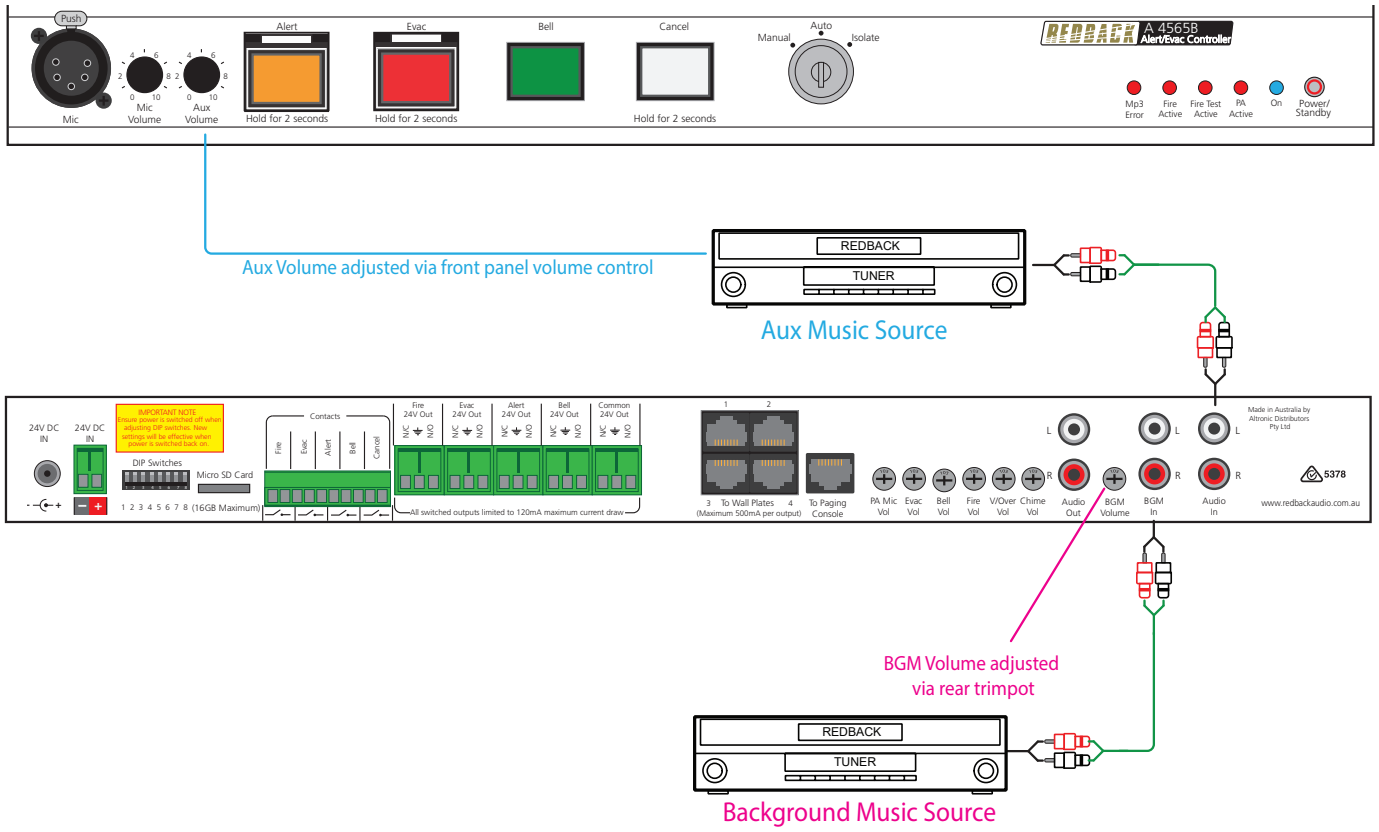


Fig 2.3

Rear Panel Volume Controls:
The output levels of the Alert, Evac and bell/chime tones can all be adjusted via trimpots located on the rear of the unit. Volumes are set as follows:
Evac Vol: This sets the output level of the alert & evac tones.
Chime: This sets the output level of the chime.

NOTE: The microphone volume is affected by the tones level. Set this level after setting the tones volume control as the mic volume is relative to the tones volume. Adjusting the tones volume up will increase the mic volume, and adjusting the tones volume down will decrease the mic volume.

2.4 DIP SWITCH SETTINGS

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

Switches 1-2 Not Used.

Switch 3 Pre-announcement Setting:
DIP switch 3 is used to configure the pre-announcement chime, which is heard when the PTT microphone paging is activated.

OFF: No pre-announcement chime
ON: Pre announcement chime is activated immediately upon commencement of paging.

Switch 4 Tones Setting:
DIP switch 4 is used to configure the source of the output tones. These can be set to play the MP3 files on the Micro SD card or revert to the internal Alert, Evac and Bell tones stored on the internal microprocessor.
(Note: No Fire Test or Fire tones are stored internally).

OFF: Output tones set by MP3 files on the Micro SD card.
ON: Output tones set by the internal microprocessor.
(Note: In the ON position the A 4565B will start without the Micro SD card inserted).

Switches 5-8 Evacuation Timer Settings:
These switches control the time period before the unit switches from the alert, to the evac tone (in auto mode). This time period can be switched from 30s to 7.5 minutes in 30s increments. See fig 2.4 for more information.
Factory preset is set to OFF. When set to OFF the unit will not switch over from the Alert mode to the Evac mode.

Alert -Evac Timer Settings

Time (sec)	DIP switch 5	6	7	8
off	off	off	off	off
30	on	off	off	off
60	off	on	off	off
90	on	on	off	off
120	off	off	on	off
150	on	off	on	off
180	off	on	on	off
210	on	on	on	off
240	off	off	off	on
270	on	off	off	on
300	off	on	off	on
330	on	on	off	on
360	off	off	on	on
390	on	off	on	on
420	off	on	on	on
450	on	on	on	on

Fig 2.4

2.5 24V OUTPUT CONNECTIONS

The A 4565B is fitted with five sets of 24V switched outputs for driving external devices such as strobes, sirens and attenuators. Each output has a maximum current draw of 120mA. When connecting devices which require more than 24V DC @ 120mA then an external supply and relays will be required.
In the illustration of figure 2.5 a high current school bell is to be activated by the Bell 24V switched output. As the current draw of the Bell is more than 120mA, a relay board is used to switch an external power supply. The Altronics S 4444 24V Relay Board as shown is an inexpensive and easily installed option designed for this purpose. 24V DC strobes such as the Altronics S 5423, S 5430 and S 5435 strobes also draw more than 120mA so they are connected in the same fashion as shown in figure 2.5.

Common 24V Out:
These contacts are for connection of override relays in remote volume controls. An override relay is necessary where attenuators are used so that the alert tone, evac tone or message is broadcast at full volume regardless of the volume setting on the individual volume control (attenuator).
The override relay can be set to "NORMAL" mode when connection is made between the N/O (normally open) contact and the GND connection. In this configuration 24V appears when any of the alert tone, evac tone, voice over message or paging functions are activated.
The override relay can be set to "FAILSAFE" mode when connection is made between the N/C (normally closed) contact and the GND connection. In this configuration 24V is removed when any of the alert tone, evac tone, voice over message or paging functions are activated.

Alert/Evac 24V Out:
These contacts are for switched 24V outputs whenever the alert or evac tones are activated. These may be used to run external systems such as strobes in unusually noisy environments. These operate in the same manner as the common 24V out contacts i.e. connection between the N/O contact and the GND contact will operate in NORMAL mode and connection between the N/C contact and the GND will operate in FAILSAFE mode.

Bell 24V Out:
These contacts are for operating an external relay used to operate something like a lunch bell etc.
These operate in the same manner as the switched 24V out contacts i.e.: connection between the N/O contact and the GND contact will operate in NORMAL mode and connection between the N/C contact and GND will operate in FAILSAFE mode.

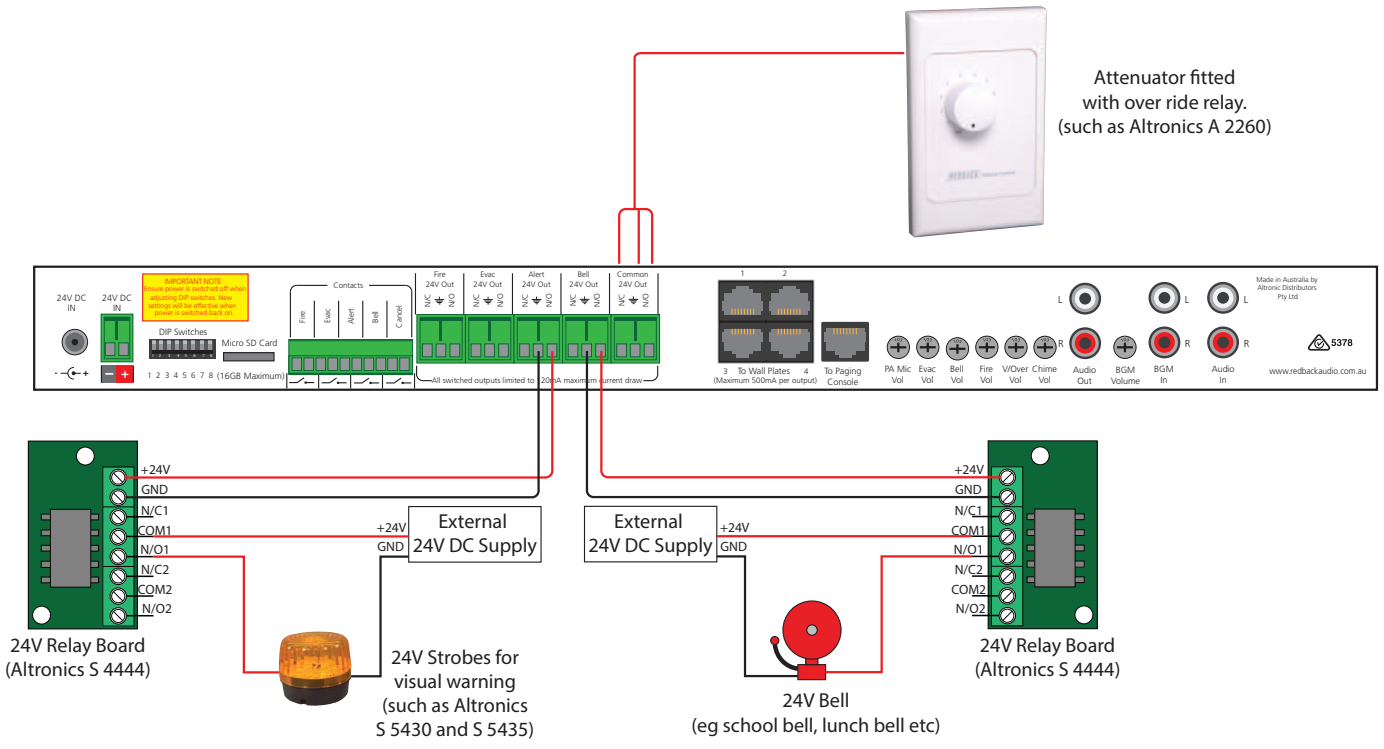


Fig 2.5

2.6 MP3 AUDIO FILES and ALERT and EVAC VOICE OVER MESSAGES

The supplied MIcro SD card houses all the MP3 audio files used for the output tones. These files are stored in seven separate folders (see figure 2.6) and relate to the corresponding output. e.g. the Alert folder houses the MP3 file to be played when the Alert mode is triggered.
These files can be any length and bit rate, but must be in MP3 format (they cannot be Wav files or AAC files).
(NOTE: only one MP3 file can be in each folder).
There is also a folder labelled "#LIBRARY# which contains a host of sample MP3 files.

The "Voice" folder contains the MP3 audio files played as the Alert and Evacuation messages. There are separate folders for both the Alert and Evac messages as shown in figure 2.6.

The messages have to be recordered in MP3 format using any readily available PC software or other means, and then transferred to these folders.

Activating the Voice Over Message:

Voice over messages become active when an MP3 file is present in the relevant folder. If the voice over message is not required leave the folder empty.

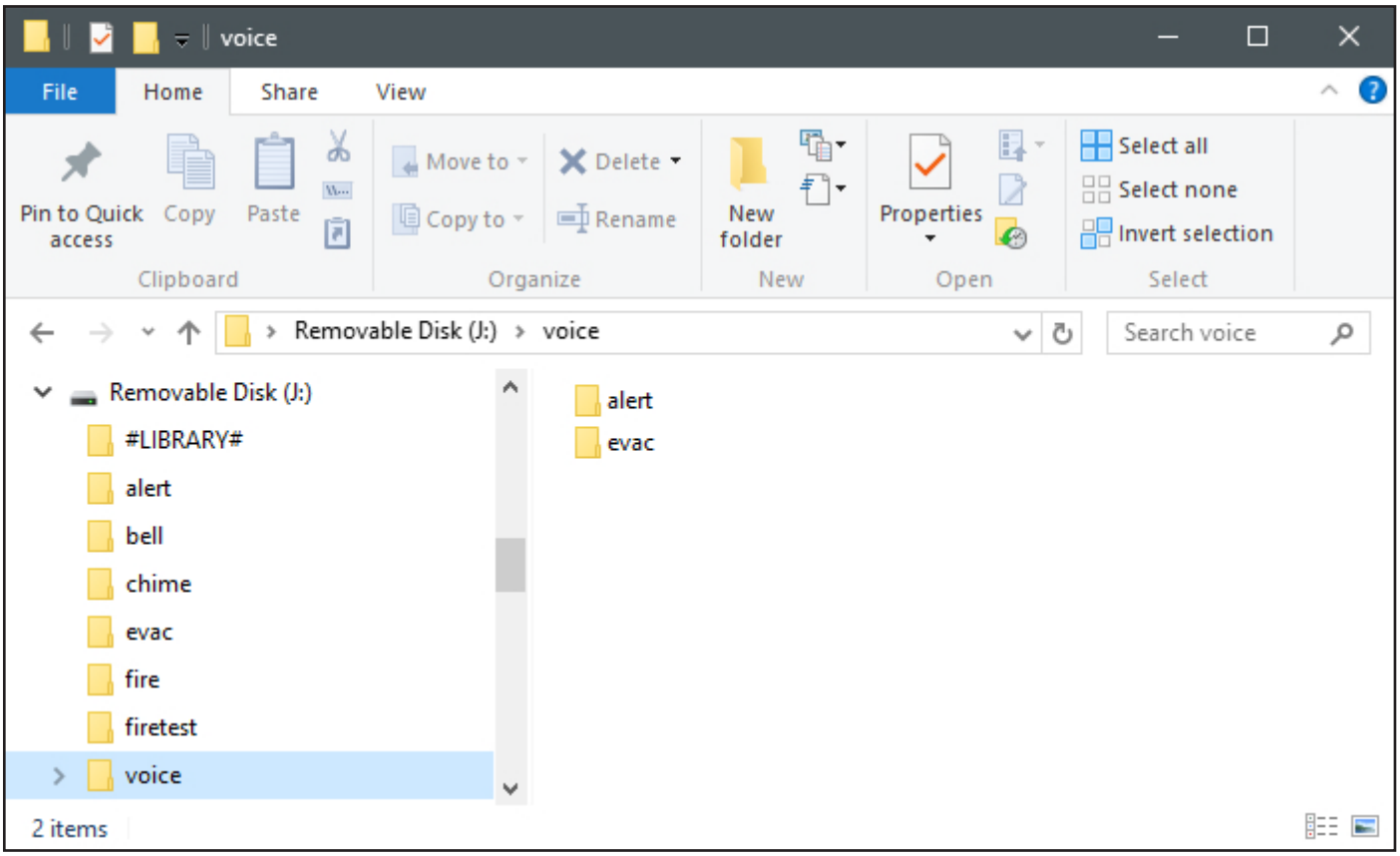


Fig 2.6

2.7 ALERT, EVAC and BELL Tones Backup

The A 4565B has hard coded Alert, Evacuation and Bell tones in the event of an SD card failure or the removal of the SD card while the unit has power. These tones are played by the internal microprocessor and cannot be modified.
(Note: The unit will not start if the Micro SD card is not fitted on power up).
(NOTE: The hard coded Alert/Evac mode has no voice over messages).

2.8 INSTALLING MP3 FILES

You will first need to remove power from the A 4565B then remove the Micro SD card from the rear of the unit.
To remove the Microp SD card push the card in and it will eject itself.

In order to access the program, the Micro SD card will need to be connected to a PC. You will need a PC or laptop equipped with an Micro SD card reader to do this. If an Micro SD slot is not available then the Altronics D 0371B OR D 0377 USB Memory Card Reader or similar would be suitable (not supplied).

Step by step guide to installing an MP3 onto the MIcro SD card with a Windows installed PC

Make sure the PC is on and card reader connected and correctly installed. Then insert the SD card into the reader.
Go to "My Computer" or "This PC" and open the SD card which is usually marked "Removable disk".

In this case it is named "Removable disk (J:) as shown in figure 2.7.

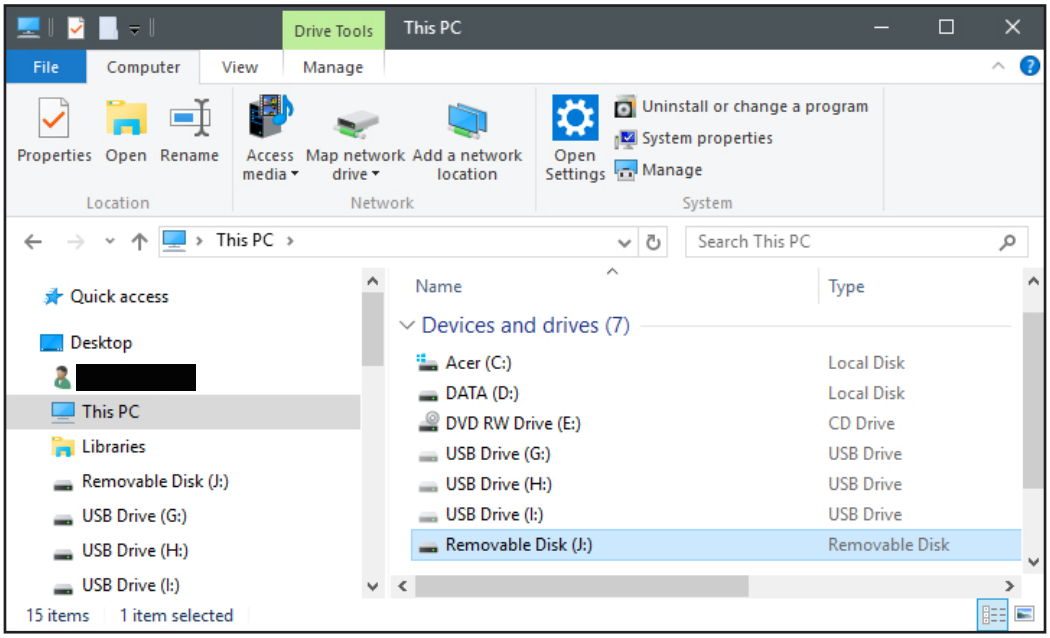


Fig 2.7

Open the Removable Disk and you should get a window that looks like figure 2.8.

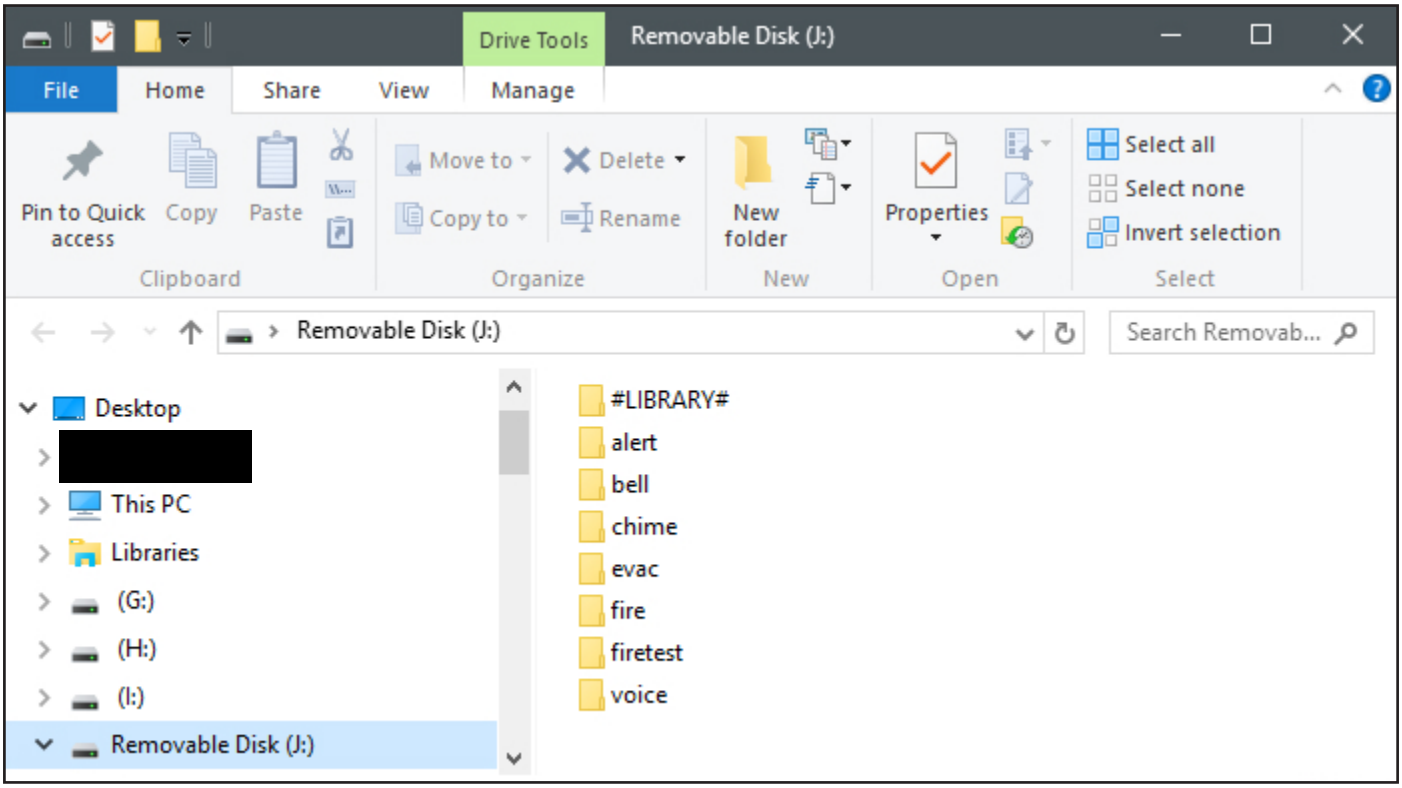


Fig 2.8

The contents of the SD Card include a Library folder of sample MP3 files and seven folders for the MP3 files associated with the various functions of the A 4565B.
There should be default MP3 files included in each folder. These will need to be replaced with your own MP3 files.

Open the folder in which you want to install an MP3 (in our case it's the Alert folder) and you should see an MP3 file which is named Alert.MP3 as shown in figure 2.9.

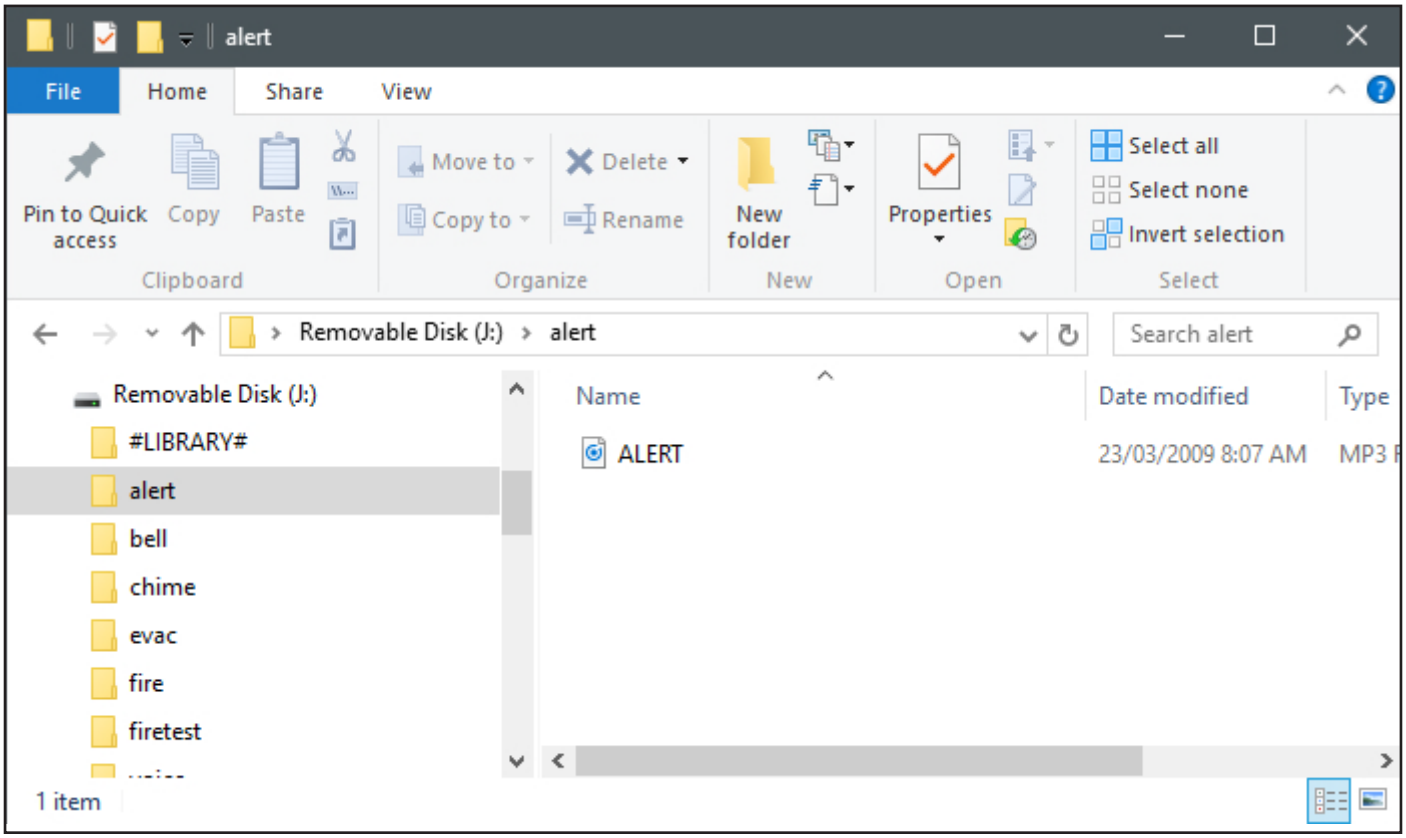


Fig 2.9

This MP3 file needs to be deleted and replaced by the MP3 file you want to play when you activate the Alert mode. The MP3 file name is not important. But it is important that there is only one MP3 file in the Alert folder.

Check the properties of the MP3 file.
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 2.10.

Make sure the "Read Only" box has no tick in it.

The new MP3 is now installed on the card. Repeat these steps for the other MP3 folders if you need to.

Step 7: The card can be removed from the PC following windows safe card removal procedures. Make sure the A 4565B is OFF and insert the SD card into the slot in the front; it will click when fully inserted.
The A 4565B is ready to use.

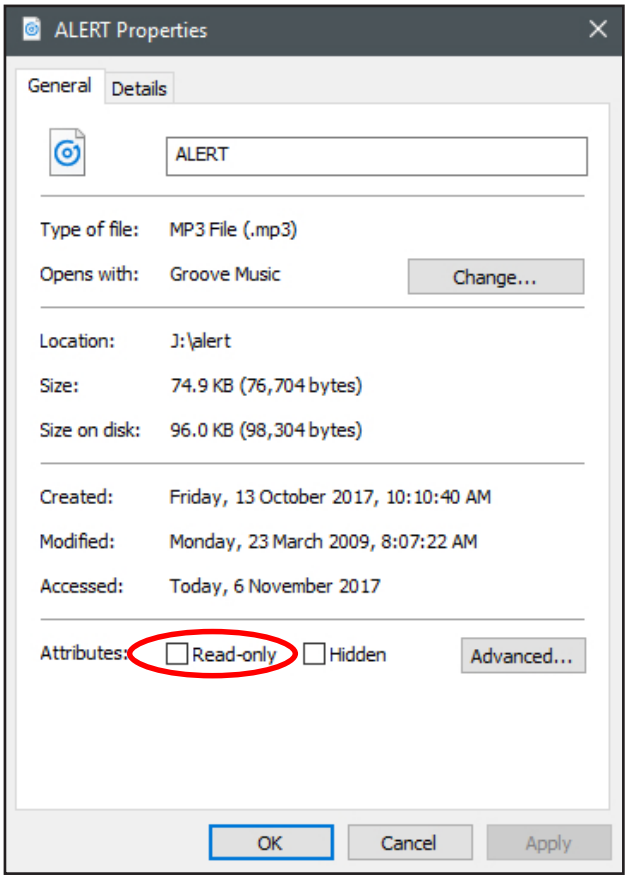


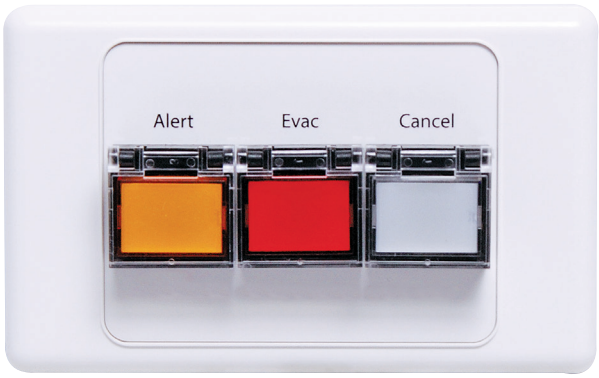
Fig 2.10

3.0 REMOTE WALL PLATES

There are five remote wall plates which can be connected to the A 4565B for remote triggering of the Alert, Evacuation, Bell, Fire Test and Fire Alarm tones and for remotely cancelling any tones which may be active.

3.1 A 2078B Remote Plate

The A 2078B wall plate provides a remote means of triggering the Alert and Evacuation tones and the cancel function. Connection is made to the A 4565B via 6 wires as shown in Fig 3.1B. Remote triggering is only available when the A 4565B is in "Auto" mode which is selected by the key switch on the front of the A 4565B. If standard Cat5 cable is used for the wiring, the plate can be located up to 30m away from the main unit. This can be increased to 100m away using heavier guage cable, which reduces the voltage drop across this distance and ensures the switch LEDs illuminate.



The Alert/Evac/Cancel switches on the A 2078B wall plate are connected to the corresponding contacts on the rear of the A 4565B. While the Alert and Evac LEDs on the wall plate are connected to the Alert 24V and Evac 24V outputs of the A 4565B. The cancel LED is not connected. A mimimum of six wires can be used if the ground connections of the Alert and Evac 24V outputs and the Alert/Evac and cancel switch grounds are linked together (see Fig 3.1B).

If the Alert and Evac switches on the A 2078B are pressed when the A 4565B main unit is in "Manual" or "Isolate" mode, nothing will happen. If the Alert and Evac switches are pressed on the A 4565B while in "Manual" mode the Alert and Evac switches on the A 2078B wall plate will illuminate.

Fig 3.1A

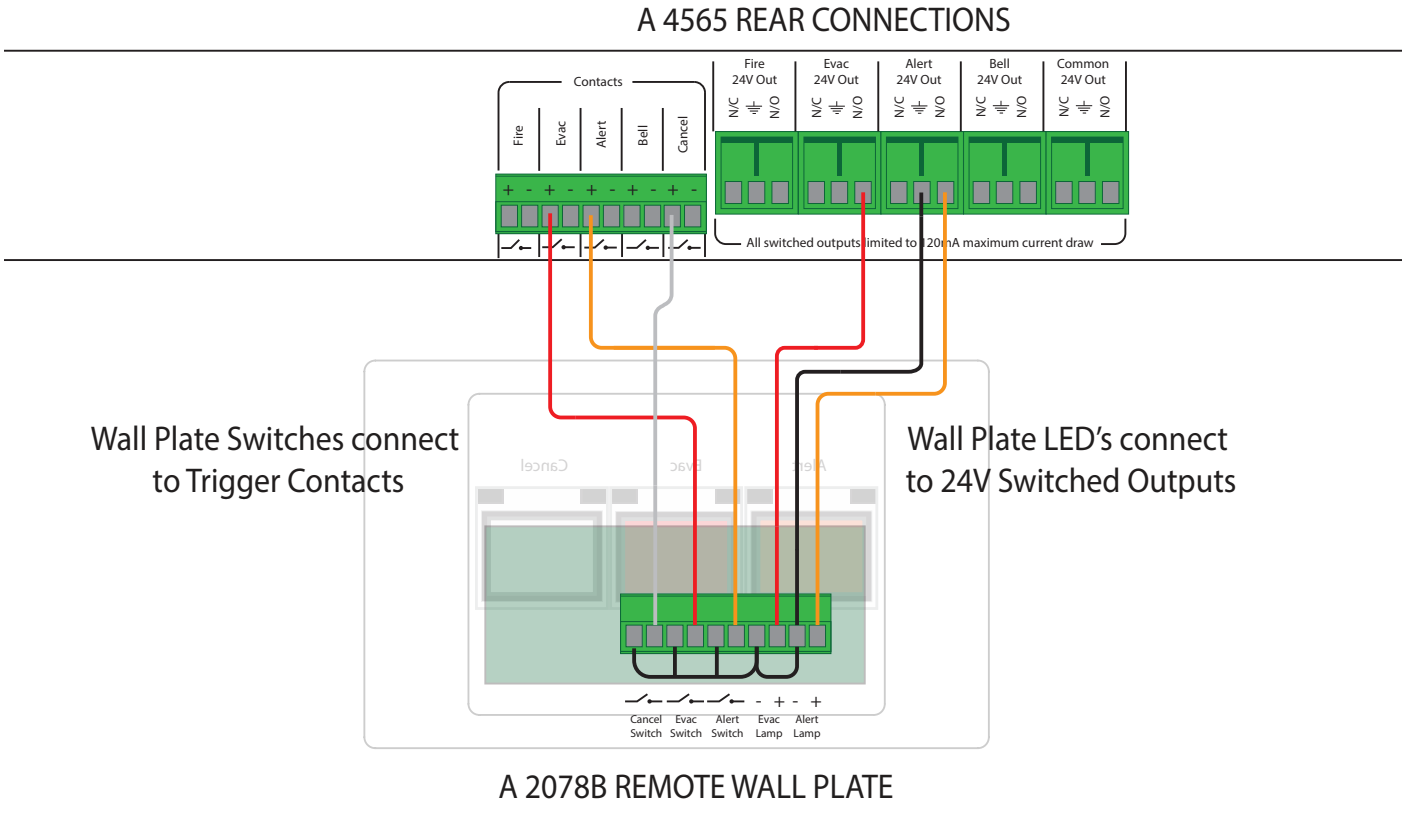


Fig 3.1B

3.2 A 2081 Remote Plate

The A 2081 wall plate provides a remote means of triggering the Alert, Evacuation and Bell tones and the cancel function. Connection is made to the A 4565B via a minimum of 8 wires, if the ground connections of the Alert,Evac and Bell 24V outputs and the Alert/Evac/Chime and cancel switch grounds are linked together (see Fig 3.2B).
(It is possible to use Cat5/6 cable for this purpose). Remote triggering is only available when the A 4565B is in "Auto" mode which is selected by the key switch on the front of the A 4565B. If light duty cable is used for the wiring (such as Cat5 cable), the plate can be located up to 30m away from the main unit. This can be increased to 100m away using heavier guage cable, which reduces the voltage drop across this distance and ensures the switch LED's illuminate. The Alert/Evac/Chime/Cancel switches on the A 2081 wall plate are connected to the corresponding contacts on the rear of the A 4565B. While the Alert,Evac and Bell LEDs on the wall plate are connected to the Alert,Evac and Bell 24V outputs of the A 4565B. The cancel LED is not connected.

If the Alert,Evac and Chime switches on the A 2081 are pressed when the A 4565B main unit is in "Manual" OR "Isolate" mode, nothing will happen. If the Alert, Evac and Bell switches are pressed on the A 4565B while in "Manual" mode the Alert, Evac and Chime switches on the A 2081B wall plate will illuminate.

Fig 3.2A

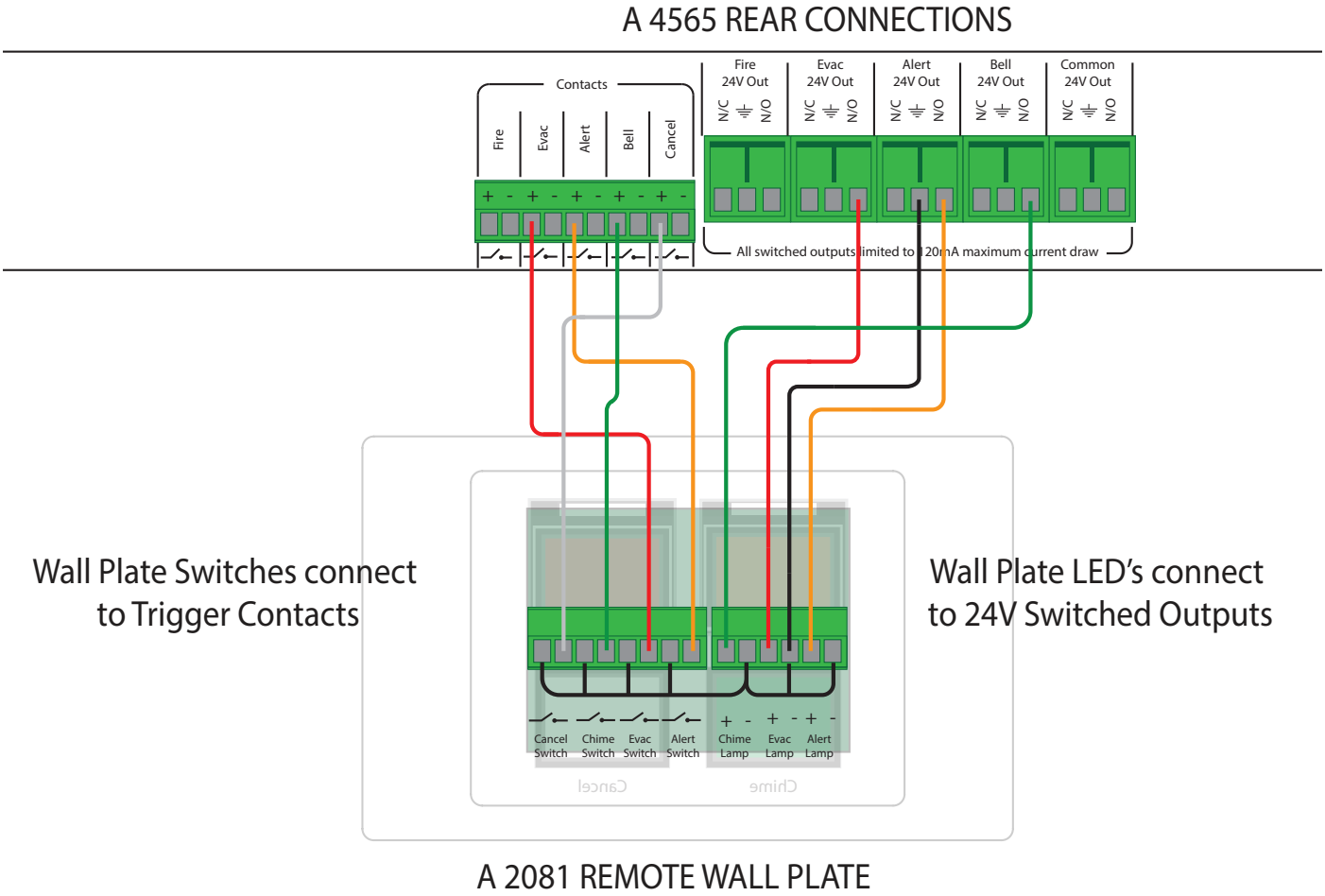
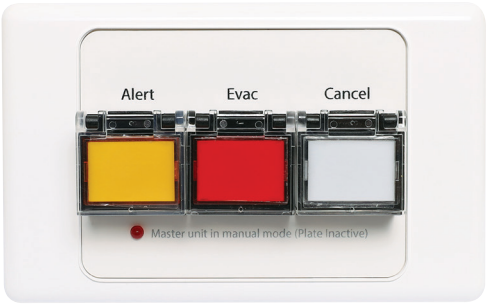


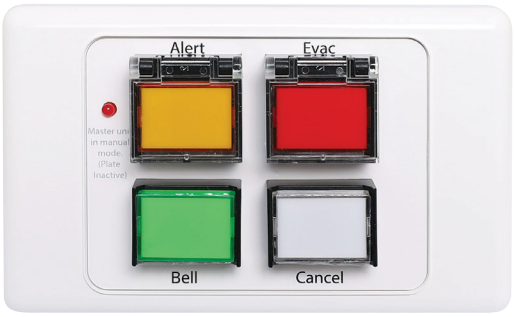
Fig 3.2B

3.3 A 4578 Remote Plate



The A 4578 wall plate allows a remote means of triggering the Alert and Evacuation tones and the cancel function. The switches are momentary operation and must be pressed for up to 3 seconds to activate. The switches have protective "flip up" covers to prevent accidental operation.
If the A 4578 has a connection problem with the A 4565B main unit the LED on the wall plate will flash.
Remote triggering is only available when the A 4565B is in "Auto" mode which is selected by the key switch on the front of the A 4565B.
If the Alert and Evac switches on the A 4578 are pressed when the A 4565B main unit is in "Manual" or "Isolate" mode, nothing will happen. If the Alert and Evac switches are pressed on the front of the A 4565B while in "Manual" mode the Alert and Evac switches on the A 4578 wall plate will illuminate. An LED on the wall plate will illuminate when the A 4565B main unit is in "Manual" or "Isolate" mode to alert the user that the wall plate is inactive.

3.4 A 4581 and A 4581V Remote Plates



The A 4581 and A 4581V wall plates provide a remote means of triggering the Alert, Evacuation and Bell tones and the cancel function. The switches are momentary operation and must be pressed for up to 3 seconds to activate. The Alert and Evac switches have protective "flip up" covers to prevent accidental operation.
If the A 4581/V has a connection problem with the A 4565B main unit the LED on the wall plate will flash.
Remote triggering is only available when the A 4565B is in "Auto" mode which is selected by the key switch on the front of the A 4565B. If the Alert, Evac and Bell switches on the A 4581/V are pressed when the A 4565B main unit is in "Manual" or "Isolate" mode, nothing will happen. If the Alert, Evac and Bell switches are pressed on the front of the A 4565B while in "Manual" mode the Alert, Evac and Bell switches on the A 4581/V wall plate will illuminate. The LED on the wall plate will illuminate when the
A 4565B main unit is in "Manual" or "Isolate" mode to alert the user that the wall plate is inactive.

3.5 A 4597 Remote Plate

The A 4597 wall plate provides the means to remotely operate the Fire Test and Fire Alarm tones of the A 4565B.
The switches are momentary operation and must be pressed for up to 3 seconds to activate. The switches have protective "flip up" covers to prevent accidental operation.
There are two RJ45 ports on the rear of the A 4597 wall plate, either of which can be used.
If the Fire Test and Fire Alarm switches on the A 4597 are pressed when the A 4565B main unit is in "Manual" or "Isolate" mode, nothing will happen.
NOTE: The FIre Test tone cannot be triggered by any other means than the A 4597 wall plate. The Fire tone can also be triggered by the contact on the rear of the A 4565B.

3.6 CONNECTING THE A 4578, A 4581, A 4581V and A 4597 REMOTE PLATES

Connection is made to the A 4565B via standard Cat5e cabling as shown in Fig 3.6b. There are two RJ45 ports on the rear of the A 4578, A 4581 and A 4597 wall plates, either of which can be used. Connection to the A 4565B is via the four available RJ45 output ports.
Up to a maximum 16 wall plates can be cascaded together through use of the four RJ45 ports from the A 4565B.
Any combination of A 4578, A 4581 or A 4597 plates can be used together.
It is recommended that a maximum of four remote plates are connected to each output port.
(The maximum current draw on each port is 0.5amps)

NOTE: If more than 16 wall plates are required contact Altronics for configuration details.

CASCADING THE A 4578, A 4581 and A 4597 REMOTE PLATES

If more than one remote wall plate is required then the wall plates can be cascaded together with only one connection back to the A 4565B required (see Fig 3.6b). A Maximum of 16 plates is recommended, (If more than 16 wall plates are required contact Altronics for configuration details). There are four RJ45 ports on the rear of the A 4565B, any of which can be used for connection to the wall plates.

REMOTE PLATE ID

Every A 4578, A 4581 and A 4597 remote plate must have a unique ID which is set by the DIP switches which are accessed on the rear of the wall plate. A maximum of 63 ID's are available. Fig 3.6a illustrates the DIP switch ID settings.

DIP Switches 7-8 are not used.

A record sheet has been supplied for recording these ID's for future use.

	DIP Switch Settings					
ID	1	2	3	4	5	6
1	ON	OFF	OFF	OFF	OFF	OFF
2	OFF	ON	OFF	OFF	OFF	OFF
3	ON	ON	OFF	OFF	OFF	OFF
4	OFF	OFF	ON	OFF	OFF	OFF
5	ON	OFF	ON	OFF	OFF	OFF
6	OFF	ON	ON	OFF	OFF	OFF
7	ON	ON	ON	OFF	OFF	OFF
8	OFF	OFF	OFF	ON	OFF	OFF
9	ON	OFF	OFF	ON	OFF	OFF
10	OFF	ON	OFF	ON	OFF	OFF
11	ON	ON	OFF	ON	OFF	OFF
12	OFF	OFF	ON	ON	OFF	OFF
13	ON	OFF	ON	ON	OFF	OFF
14	OFF	ON	ON	ON	OFF	OFF
15	ON	ON	ON	ON	OFF	OFF
16	OFF	OFF	OFF	OFF	ON	OFF
17	ON	OFF	OFF	OFF	ON	OFF
18	OFF	ON	OFF	OFF	ON	OFF
19	ON	ON	OFF	OFF	ON	OFF
20	OFF	OFF	ON	OFF	ON	OFF
21	ON	OFF	ON	OFF	ON	OFF
22	OFF	ON	ON	OFF	ON	OFF
23	ON	ON	ON	OFF	ON	OFF
24	OFF	OFF	OFF	ON	ON	OFF
25	ON	OFF	OFF	ON	ON	OFF
26	OFF	ON	OFF	ON	ON	OFF
27	ON	ON	OFF	ON	ON	OFF
28	OFF	OFF	ON	ON	ON	OFF
29	ON	OFF	ON	ON	ON	OFF
30	OFF	ON	ON	ON	ON	OFF
31	ON	ON	ON	ON	ON	OFF
32	OFF	OFF	OFF	OFF	OFF	ON

	DIP Switch Settings					
ID	1	2	3	4	5	6
33	ON	OFF	OFF	OFF	OFF	ON
34	OFF	ON	OFF	OFF	OFF	ON
35	ON	ON	OFF	OFF	OFF	ON
36	OFF	OFF	ON	OFF	OFF	ON
37	ON	OFF	ON	OFF	OFF	ON
38	OFF	ON	ON	OFF	OFF	ON
39	ON	ON	ON	OFF	OFF	ON
40	OFF	OFF	OFF	ON	OFF	ON
41	ON	OFF	OFF	ON	OFF	ON
42	OFF	ON	OFF	ON	OFF	ON
43	ON	ON	OFF	ON	OFF	ON
44	OFF	OFF	ON	ON	OFF	ON
45	ON	OFF	ON	ON	OFF	ON
46	OFF	ON	ON	ON	OFF	ON
47	ON	ON	ON	ON	OFF	ON
48	OFF	OFF	OFF	OFF	ON	ON
49	ON	OFF	OFF	OFF	ON	ON
50	OFF	ON	OFF	OFF	ON	ON
51	ON	ON	OFF	OFF	ON	ON
52	OFF	OFF	ON	OFF	ON	ON
53	ON	OFF	ON	OFF	ON	ON
54	OFF	ON	ON	OFF	ON	ON
55	ON	ON	ON	OFF	ON	ON
56	OFF	OFF	OFF	ON	ON	ON
57	ON	OFF	OFF	ON	ON	ON
58	OFF	ON	OFF	ON	ON	ON
59	ON	ON	OFF	ON	ON	ON
60	OFF	OFF	ON	ON	ON	ON
61	ON	OFF	ON	ON	ON	ON
62	OFF	ON	ON	ON	ON	ON
63	ON	ON	ON	ON	ON	ON

Fig 3.6a

The figure below illustrates the wiring required when connecting multiple remote wall plates to the A 4565B. The remote plates can be connected to any of four output ports and can be cascaded together by CAt5e cabling.

Up to a maximum 16 wall plates can be cascaded together. (*)
All four RJ45 ports from the A 4565 can be utilised.
Any combination of A 4578,A 4581 or A 4597 plates can be used together.
It is recommended that a maximum of four remote plates are connected to each output port.
(The maximum current draw on each port is 0.5amps)

* (If more than 16 wall plates are required contact Altronics for configuration details).

If any of the A 4578 or A 4581 plates has a connection problem with the A 4565 main unit, the LED on the wall plate will flash.

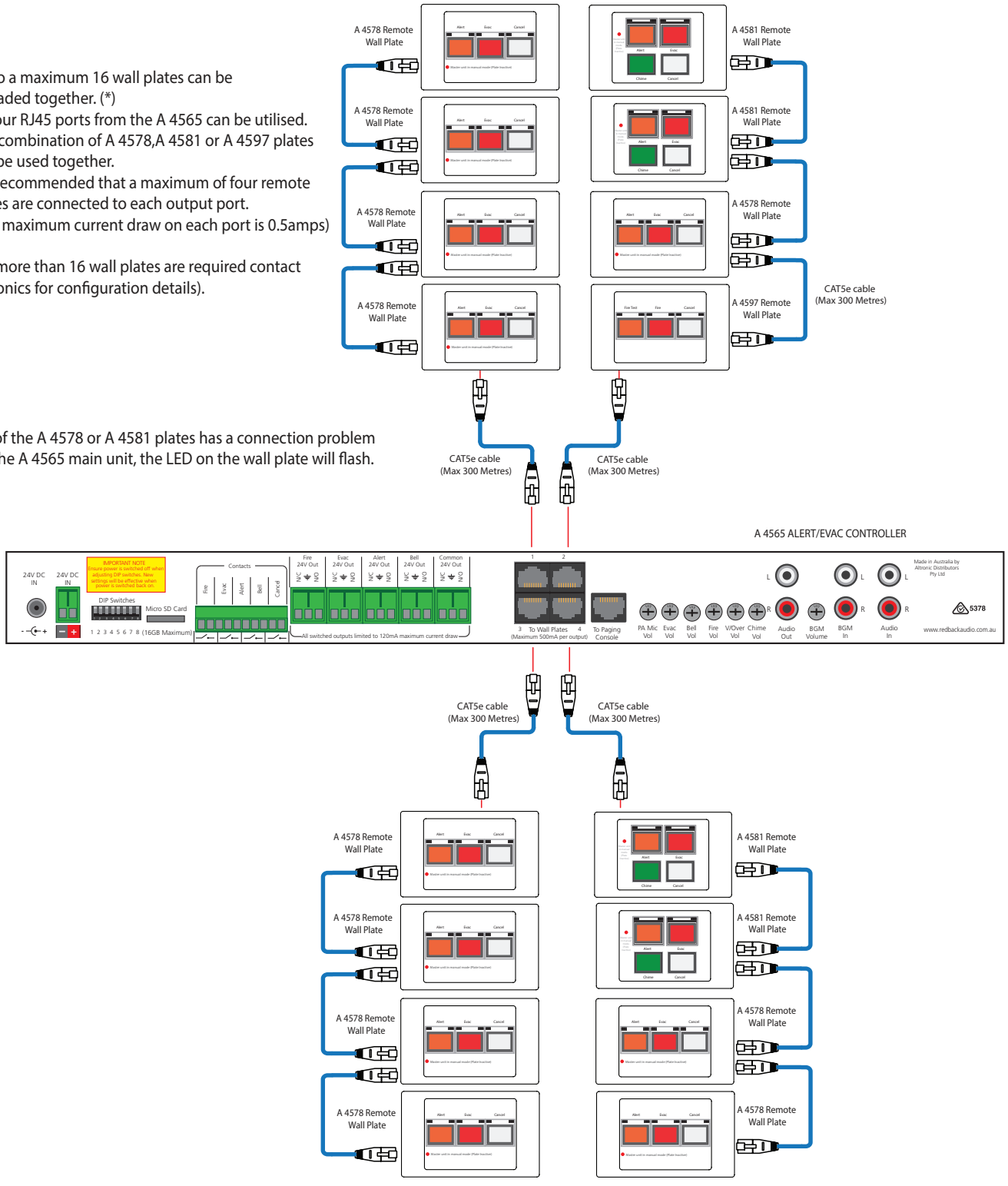


Fig 3.6b

The sheet below is supplied to provide the user with a written record of each remote plate' s ID and location.

3.7 REMOTE PLATE ID SHEET

ID	LOCATION e.g. Boardroom	REMOTE PLATE e.g. A 4578
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		
33		
34		
35		
36		
37		
38		
39		
40		
41		
42		
43		
44		
45		
46		
47		
48		
49		
50		

4.0 A 4660 PAGING CONSOLE

4.1 A 4660 OVERVIEW

The A 4660 paging console provides general paging, emergency paging and remote selection of "Alert", "Evac", "Bell" and "Cancel" modes.

General paging is achieved by simply pressing the PTT (push to talk) switch and then speaking. General paging will override the Bell function.

Emergency paging is available when the unit is in an emergency mode i.e In Alert or Evac Mode.
If one of these modes is active, emergency paging is achieved by pressing the paging button.
When activated, emergency paging overrides all functions of the A 4565B.

A maximum of 1 paging console can be connected to the A 4565B. The console is wired back to the A 4565B via Cat5e/6 cabling to the RJ45 port on the rear of the unit (see section 4.3 for details).

Note: For a long cable run a Redback® A 4658 power injector may be required.

Each unit must be assigned an address which is set when the A 4660 is first initialised, or it can be re-assigned by accessing the Factory Reset option (see page 22). The address when connecting to the A 4565B can be any number from 1-8.

The Alert, Evac and Bell modes can be activated from the A 4660 paging console. Simply Press the button for the desired mode and hold for 2-3 seconds to activate.
Note: These modes are inactive when the A 4565B is in manual or isolate mode.

4.2 A 4660 SETTINGS MENU

The settings menu can be accessed using the icon on the top left of the screen. Once in this menu the following screen will be displayed, which shows the various settings available.

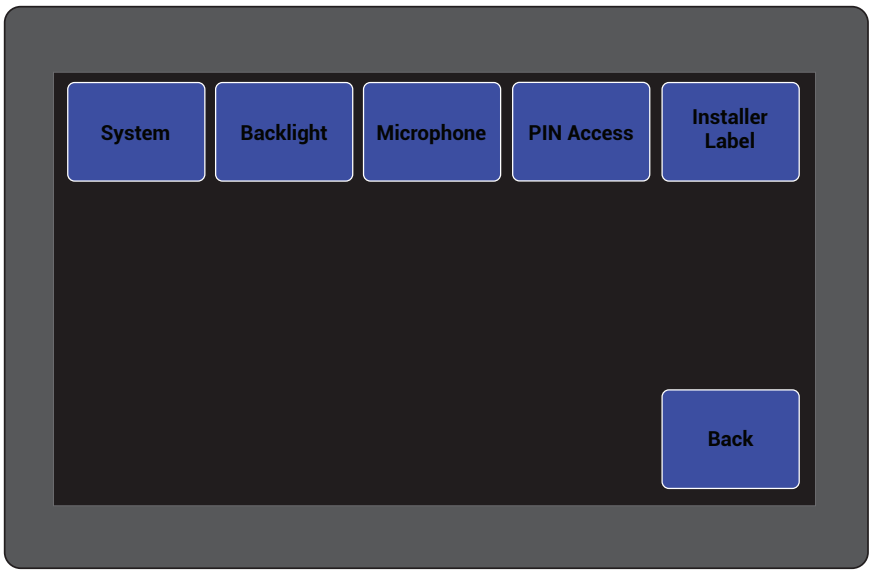


Fig 4.1 - Console Settings Screen.

4.2.1 System Settings

The System settngs screen is shown in figure 4.2.

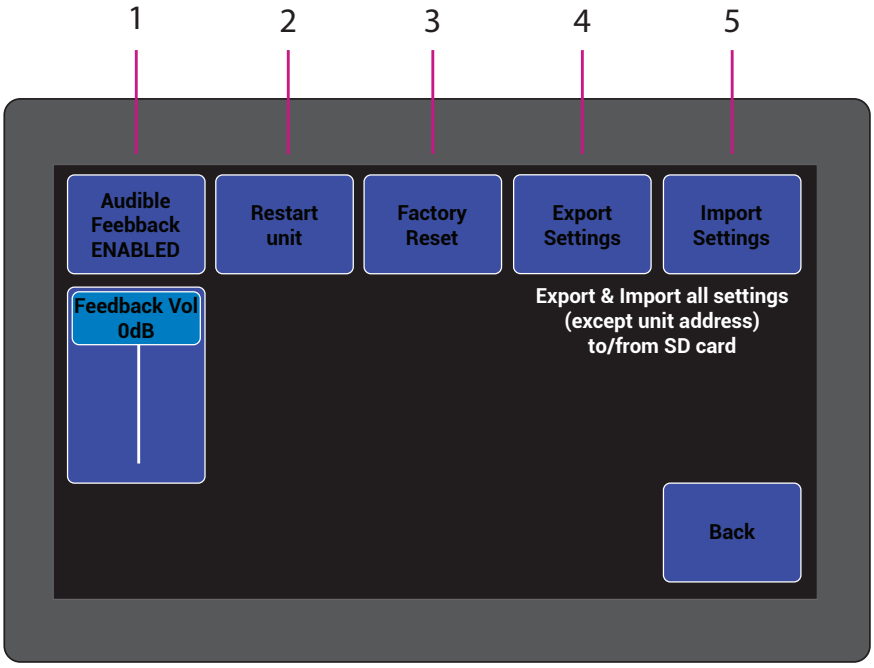


Fig 4.2 - System Settings Screen.

1 **Audible Feedback** - Allows you to enable/disable the audible feedback (in built speaker) on button presses and set the volume. Press the button to enable/disable and use the slider below to adjust the feedback volume.

2 **Restart unit** - This will cycle power to the A 4565B and re-start the unit. Handy if the unit is locked away.

3 **Factory reset** - This will reset the unit back to it's default settings. This option is also required to re-assign the paging console address (Press the factory reset button, tap confirm and a prompt will appear for the units address. Select the required address (which can be any number from 1-8). If any settings need saving before the factory reset, use the Export Settings option below.

4 **Export Settings** - This feature allows the settings of the unit to be transferred to another unit or kept as a back up. Simply insert a Micro Sd card into the unit and follow the prompts.

5 **Import Settings** - This feature allows the settings of the unit to be imported from another unit. Insert a Micro SD card and follow the prompts.

4.2.2 Backlight Settings

Press the "backlight" button to display the screen shown in figure 4.3.

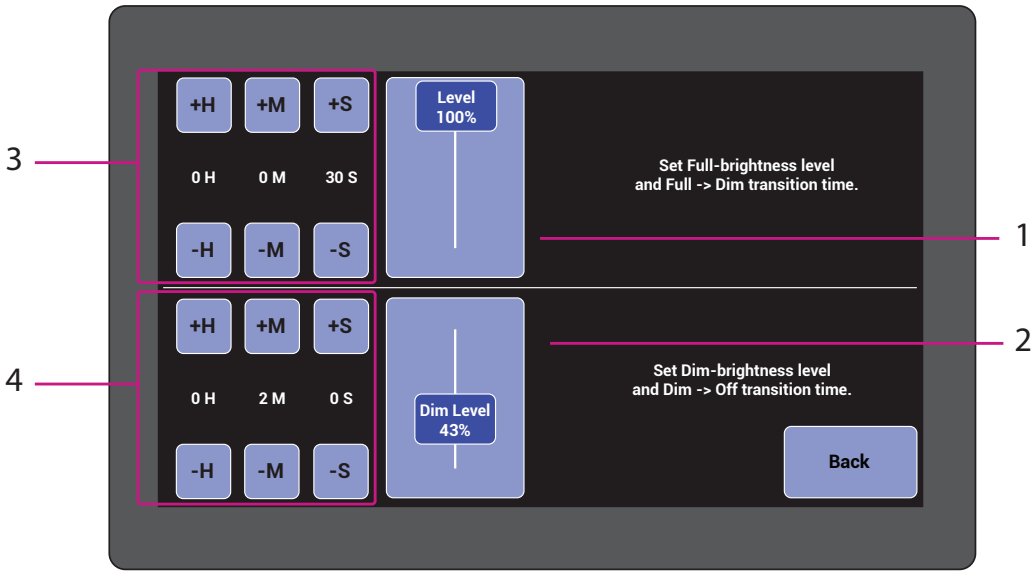


Fig 4.3 - Backlight Settings Screen.

There are two levels of screen brightness which come into effect, when the screen hasn't been touched for a period of time set by the user.

This menu screen allows the user to select the active screen brightness level, the dimmed brightness level and timeout periods for the transition from active screen mode to dimmed mode, and the transition period from dimmed mode to screen off mode.

1 **Active Screen Brightness Level** - Use this slider to adjust the brightness level of the active screen.

2 **Dimmed Screen Brightness Level** - Use this slider to adjust the brightness level of the dimmed screen

3 **Active Screen to Dimmed Mode transition time** - Use these buttons to adjust the timeout period to enter dimming mode (set to 0 for the screen to be remain always on).

4 **Dimmed Mode to screen Off transition time** - Use these buttons to adjust the timeout period from dimmed screen mode to the screen turning off completely (This is unavailable if the dimming mode is set to zero).

4.2.3 PIN Access - Set an optional access PIN preventing unauthorised access to the wallplates settings. Type in a preferred PIN and press "E" to accept. Press "C" to delete PIN digits or to reset the PIN (For access without a PIN, delete all PIN digits). Once complete press the BACK button and the change will take effect.

4.2.4 Installer label - Allows you to customise an installer label which is displayed on the top of the main screen.

Use the displayed keyboard to enter the label and press enter.

4.2.5 Microphone settings

Press the "microphone" button to display the screen shown in figure 4.4.
From this menu the chime options and action of the paging button are set.

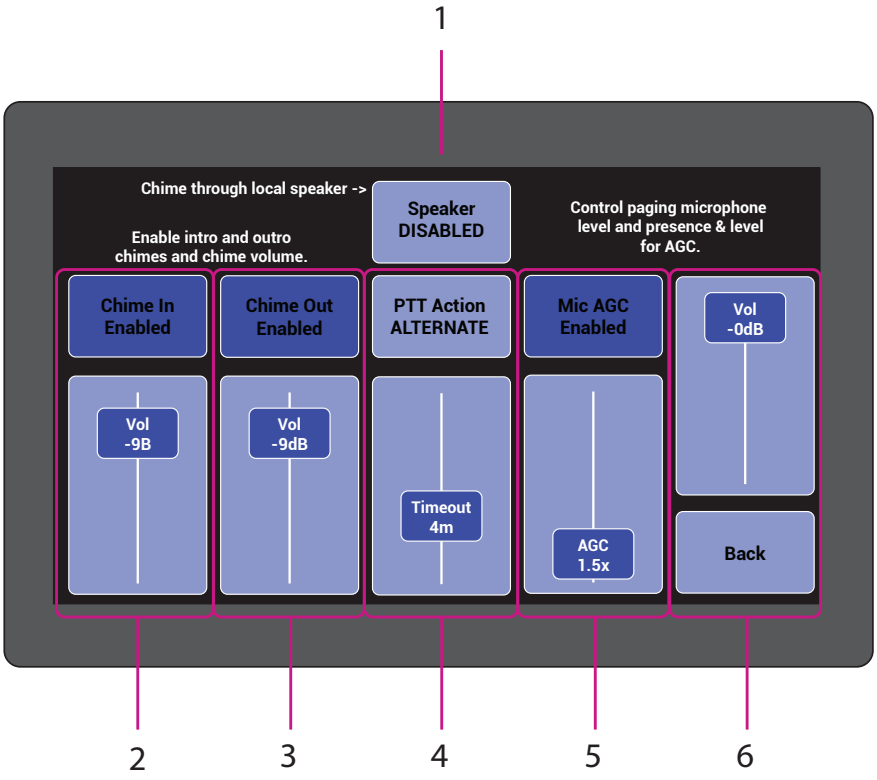


Fig 4.4 - Microphone Settings Screen.

1 **Console Speaker** - This button enables the speaker built into the A 4660. If enabled the chime will be audible from the console as well as through the paging system.

2 **Chime In** - This button allows you to enable or disable the pre-annoucement chime on the paging audio. The level can also be adjusted to suit the installation. For instance a user may require the pre-annoucement chime be louder than the normal programming.

3 **Chime Out** - This button allows you to enable or disable the post-annoucement chime on the paging audio. The level can also be adjusted to suit the installation. For instance a user may require the post-annoucement chime be louder than the normal programming.

3 **PTT Action** - This button determines the action of the paging button. If momentary action is selected the paging button will need to be held to page. If alternate action is selected the paging button needs to be pressed and released to start paging. The paging mode will stay active for the period set by the timeout, or until the paging is cancelled by the user.

5 **Mic AGC** - Allows for the microphones automatic gain control (AGC) effect to be adjusted up or down according to installation requirements. AGC allows the signal to automatically adjust to compensate for variations in level of peoples voices when making paging annoucements. Please note high levels of AGC will increase audible noise in the system while paging.

6 **Paging Level** - Adjust the paging level to suit the installation. This allows for paging to be adjusted to suit the level of programming from other sources connected to the system.

4.3 Connecting the paging console

The console is connected to the A 4565B via standard Cat5e/6 cabling as shown in Fig 4.5.

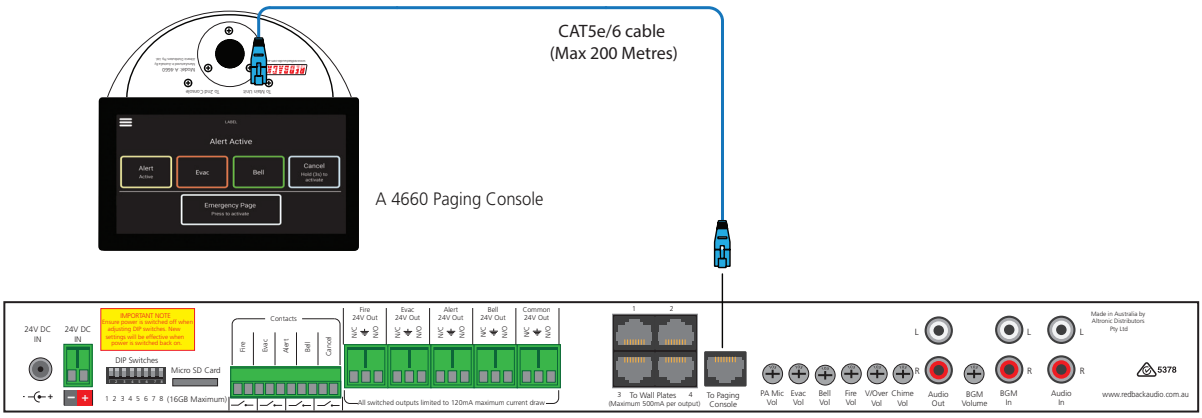


Fig 4.5

There is one RJ45 port on the back of the A 4565B which can be used to connect a single A 4660 paging console. The maximum distance between the A 4565B and a paging console is 200m.
Note: External power injectors (Redback ® A 4658) may be required if power problems are encountered from long cable runs. This is shown connected to the console in the example of figure 4.6.

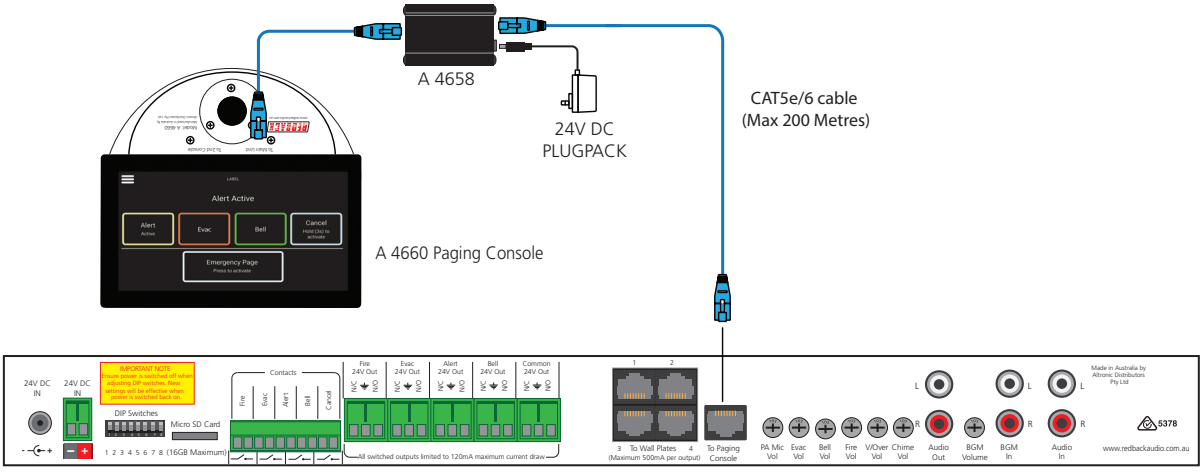


Fig 4.6

Note: Power Over Ethernet or POE's cannot be used as the power injectors as they run on 48V. The A 4565B and A 4660 systems are powered by 24V DC. Use of POE's will void the warranty.

5.0 TROUBLE SHOOTING

5.1 SYMPTOMS AND REMEDIES

SYMPTOMS	REMEDIES
Front (XLR) Mic volume level is low.	Adjust mic volume on front of unit.
Audio files not playing.	Make sure they are in MP3 format. Make sure Micro SD card inserted properly. Check MP3 is installed in appropriate folder.
Alert/evac tone levels are low.	Adjust Evac volume on rear of unit.
Pre-Announcement Chime volume is low	Adjust Chime volume on rear of unit.
Paging Console Mic volume level is low.	Adjust PA Mic volume on rear of unit.
Front volume control not functioning	Front volume control functions on aux input only. Check connections to rear of unit.
Remote plate not functioning or recognised.	Make sure plate ID is set correctly. Check wiring.
Alert or Evac message not playing.	Check MP3 is installed in a voice folder.
DIP switch changes not effective.	Turn the unit OFF before changing DIP switch settings. Settings become effective after power is returned.
I don't know how to record a message.	This unit does not have a recording facility. A message MP3 will have to be recorded on a PC or some other equipment.
24V DC outputs stop working.	These outputs are limited to 120mA output and will trip the internal fuse when overloaded. They will reset once they have cooled down.

5.2 RJ45 cabling configuration for system components (586A 'Straight through')

System components are connected using "pin to pin" configuration RJ45 data cabling as shown in fig 5.1. When installing ensure all connections are verified with a LAN cable tester before switching any system component on.

Failure to follow the correct wiring configuration may result in damage to system components.

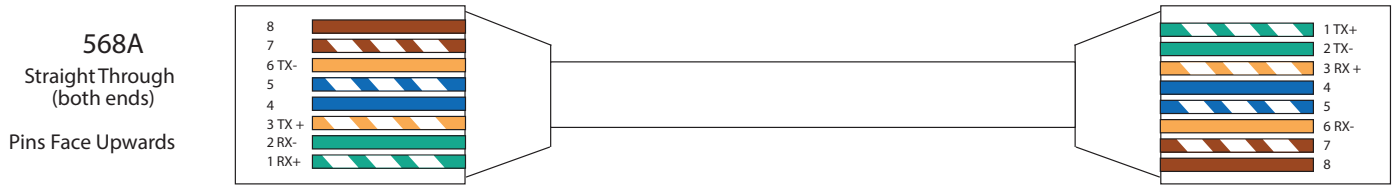


Fig 5.1

WARNING

System components are connected using standard "pin to pin" configuration RJ45 data cabling. When installing ensure all connections are verified before switching any system component on.

Failure to follow the correct wiring configuration may result in damage to system components.

For the correct wiring configuration, see section 6.0 "Troubleshooting".

6.0 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 4565B and insert it into your PC. (Follow the steps on page 14 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 disconnected, insert the SD card back into the A 4565B.
7) Reconnect power to the A 4565B. The unit will check the SD card and if an update is required the A 4565B will perform the update automatically.

7.0 SPECIFICATIONS

OUTPUT LEVEL:.....0dBm
DISTORTION:.....0.01%
FREQ. RESPONSE:.....140Hz - 20kHz
SIGNAL TO NOISE RATIO:
- Aux/Music Input:.....-90dB typically
- Alert/Evac/Chime:.....-70dB typically

INPUT SENSITIVITY:
- Mic:.....2mV Balanced
- BGM/Aux Input:.....300mV Unbalanced

OUTPUT CONNECTORS:
- Audio Output:.....RCA Stereo Socket
- Switched 24V DC Out:.....Screw Terminals
- Alert 24V DC Out :..... Screw Terminals
- Evac 24V DC Out:.....Screw Terminals
- Bell 24V DC Out:.....Screw Terminals
- Fire 24V DC Out:.....Screw Terminals
- *PLEASE NOTE: Output loads limited to 120mA.*

INPUT CONNECTORS:
- Mic:.....5 pin XLR
- Aux Input:.....RCA Stereo Socket
- 24V DC Power:.....Screw Terminals
- 24V DC Power:.....2.1mm DC Socket
- Remote Alert,Evac,Bell,Fire,Cancel:.Screw Terminals

MUTING:.....Via Microphone Switch Contact

AUDIO STORAGE:
- Micro SD Card: .....Max 32GB

CONTROLS:
- BGM Input:.....Rear Volume
- Bell, Evac, Chime, Fire Tones:.....Rear Volume
- Voice over,PA Mic:.....Rear Volume
- Mic Input:.....Front Panel Volume
- Auxiliary Input:.....Front Panel Volume
- Power:.....On/Off Switch
- Mode Selection:.....Keyswitch 003 Standard
- Alert Switch:.....Illuminated Push Switch
- Evac Switch:.....Illuminated Push Switch
- Bell Switch:.....Illuminated Push Switch
- Cancel Switch:.....Push Switch

INDICATORS:.....Power on
- ..... MP3 Error
- ..... Fire Active
- .....Fire Test Active
- ..... PA Active

POWER SUPPLY:.....24V DC
DIMENSIONS:≈..... 482W x 125D x 44H
WEIGHT: ≈..... 1.6 kg
DC FUSE: 2A (M205)
COLOUR: .....Black

* Specifications subject to change without notice