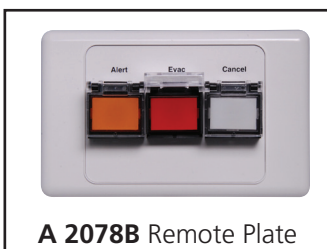# REDBACK

AUSTRALIAN MADE®

# Operating Manual

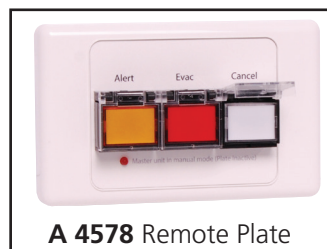## A 4575A Alert/Evacuation Controller

## Optional Wall Plates

**A 2078B** Remote Plate

**A 2081** Remote Plate

**A 4578** Remote Plate

**A 4581** Remote Plate

Redback® Proudly Made In Australia

## 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 amplifier from working as designed.

**REDBACK** is a registered trademark of Altronic Distributors Pty Ltd

Since 1976 Redback amplifiers have been manufactured in Perth, Western Australia by Altronics. With over 35 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

## Australian Made Status

All Redback house products made by Altronics will now be sporting the official Australian Made logo. Since starting manufacturing of commercial audio equipment in the mid 70's we have always taken pride in producing a quality local product.

The new adoption of the Australian Made logo will help us get the word out to local and export markets that our products carry the official compliance seal of the Australian Made campaign. We have always pushed our 'local is better' line in all of our marketing efforts, it's always an added boost when you are backed up by a widely recognised and respected icon.

## 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 bulletproof reliability. We've heard PA contractors tell us they still see the original Redford amplifier still in service in schools - that's over 37 years of operation - and still going strong!

**1.0 Overview**

**2.0 Setup**

**3.0 Remote Wall Plates**

**4.0 Troubleshooting**

# 1.0 OVERVIEW

## 1.1 INTRODUCTION

This easy to operate controller 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 unique tone for signalling lunch breaks, start of class etc.

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. 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. This can be used for either general or emergency paging or to record an emergency message. Paging 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 & Cancel tones
- 240V mains and 24V DC operation
- Auto/Manual/Isolate keyswitch
- Internationally accepted IEC mains socket (240V AC)
- Key switch to 003 standard
- Local operation of Alert, Evac and PA
- Voice over message on board
- 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 remote alert activation adjustable
- Externally operated inputs are activated by switching to ground from 30secs to 7.5min in 30second increments
- 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 4575A Alert/Evacuation Controller
240V AC IEC C13 Appliance Mains Lead 10A 3 Pin Black
Instruction Booklet

## 1.4 FRONT PANEL GUIDE

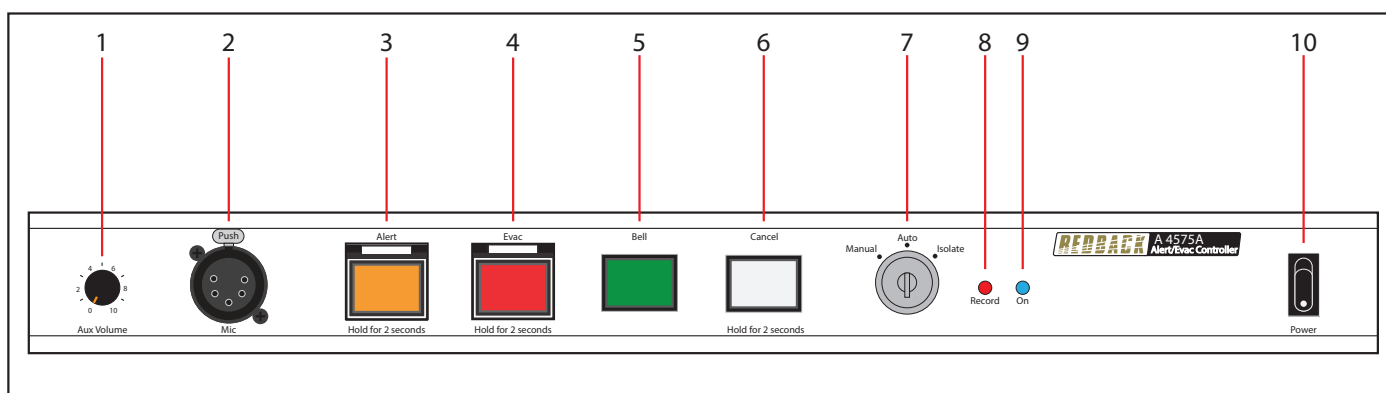**Fig 1.4A** shows the layout of the A 4575A front panel.



**Fig 1.4A**

**1        Auxiliary input volume control**
Use this control to adjust the volume of the auxiliary music input.

**2        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 or to record the emergency voice over message.

**3        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). It may need to be pressed for up to 2 seconds to activate.

**4        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). It may need to be pressed for up to 2 seconds to activate.

**5        Bell Tone Activation Switch**
This switch is used to activate the Bell tone.

**6        Cancel 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). It may need to be pressed for up to 2 seconds to activate.

**7        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.

**8        Record Mode Indicator**
This led will illuminate when the unit is recording the voice-over message (see section  2.6 for more details).

**9        On Indicator**
This led indicates the unit has power.

**10       Power Switch**
Use this to turn the unit on.

## 1.5 REAR PANEL CONNECTIONS

Fig 1.5A shows the layout of the A 4575A rear panel.



**Fig 1.5A**

**1      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).

**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).

**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).

**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).

**5      Chime, Tones and BGM Volumes**
Adjust these trimpots to adjust the Bell volume, Alert and Evacuation tones volume and the background music volume.

**6      Switched 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).

**7      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).

**8      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).

**9      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).

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

**11      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).

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

**13      Record Switch**
Press this button to start recording the "Voice-over' message. (see section 2.6 for more details).

**14      Voice-over Volume**
Adjust this trimpot to adjust the message voice-over playback volume.

**15      Microphone Volume**
Adjust this trimpot to adjust the paging microphone volume.

**16      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).

**17      RJ45 connector**
These RJ45 ports are used to connect to the remote wall plates for activating the tones remotely (see section 3.3 for more details). The Altronics A 4585 and future peripheral devices also connect to these ports.

**18      24V DC Input**

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

**19      DC fuse (1A M205)**
This fuse protects the internal power supply. Replace with 1A rated fuse only.

**20      230V AC power socket (Australian standard)**
Connects to 230V AC mains power with the included IEC lead.

# 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 functions may be initiated from the controls on the front panel, i.e. Alert, Evac, Cancel or Paging.  This allows the operator to select either of these functions as required. With the key in this position the rear panel contacts are inoperative.

> **Manual Operation:** Depressing the alert switch will activate the alert tone until it is reset. The alert tone is reset by depressing the cancel button. Note the cancel button will need to be depressed and held in for 2 seconds. The alert tone can be changed to an evacuation tone simply by depressing the evac switch. Note the evac button will need to be depressed and held in for 2 seconds.
> Where the unit has the voice over option activated, the evacuation tone will sound for four cycles, then play the voice over message twice, and repeat this sequence until it is cancelled.

**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 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 chime (front or rear )and music inputs on the rear of the unit whether they be the BGM or Aux inputs.

> **Auto Operation:** If the alert tone is triggered the unit will sound for a preset time, and will then change to the evacuation mode. This preset time is determined by the internal DIP switch settings (see section 2.4). The evacuation tone will continue to sound until the panel has been reset by either triggering the cancel contact on the rear of the unit or by using the key to put the unit into manual mode and then pressing the cancel button. Once the alert tone has been triggered, triggering the evac contact will automatically change the unit from alert to evac mode.
> When the alert is triggered, the unit will sound the alert tone for a preset time, then the evac tone for four cycles, sound the voice over message twice, then sound the evac tone for four cycles, and continue in this evac/voice over sequence (see section 2.6 for more details about the voice-over).
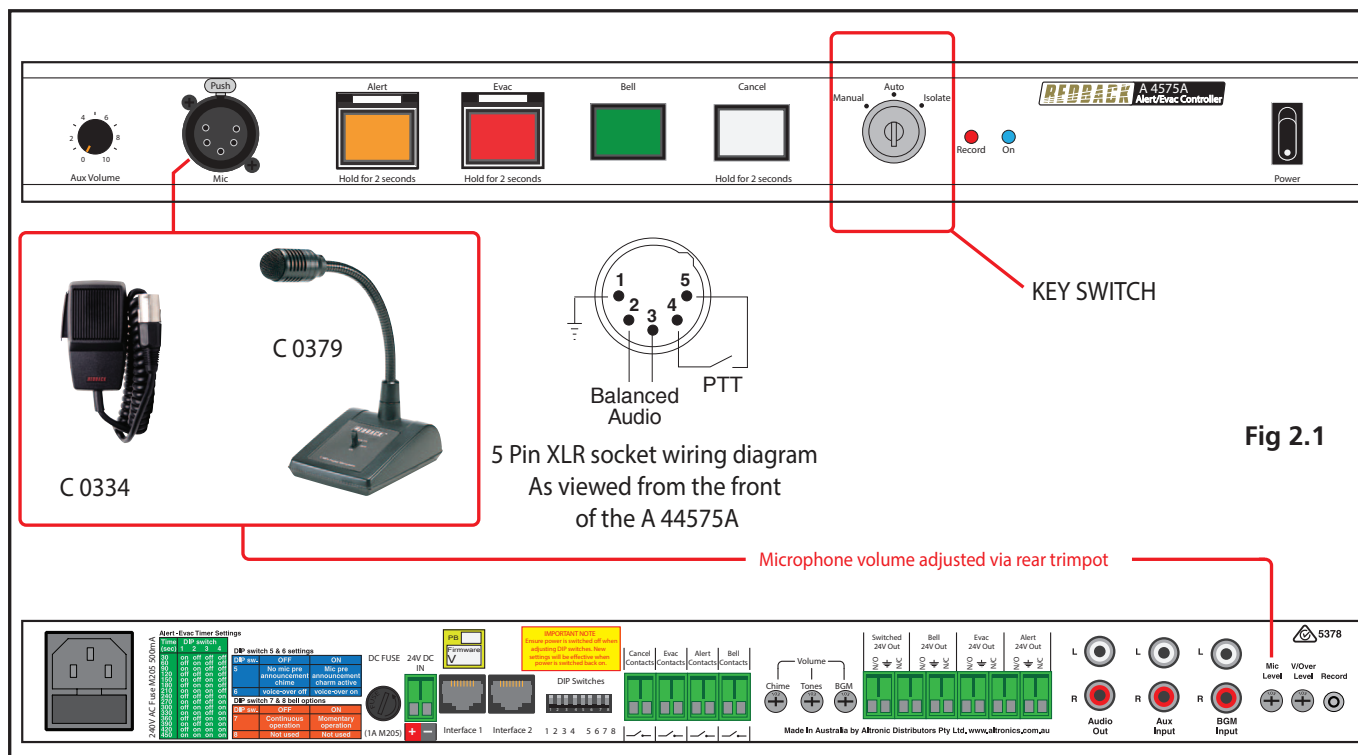>
> Note 1: The tone that is being sounded (i.e. alert, evac, bell) will be indicated by the illumination of the relevant front panel indicator.
>
> Note 2: In the Auto position, all other functions will work, e.g. BGM, bell chime, and paging.
>
> Note 3: To cancel a tone in Auto mode, either use the remote cancel contacts or the key switch switched to manual mode & the cancel button. Note the cancel button will need to be depressed for 2 seconds. This is to prevent accidental cancelling of a tone.

**Isolate Mode:**

This isolates the unit so that the Alert,Evac or Bell functions cannot be activated either by the front panel switches, the rear contacts or by the remote wall plates.

Push

Aux Volume   Mic   Alert   Evac   Bell   Cancel   Manual   Auto   Isolate

Hold for 2 seconds   Hold for 2 seconds   Hold for 2 seconds

Record   On

**REDBACK** A 4575A Alert/Evac Controller

Power

C 0379

KEY SWITCH

C 0334

5

2   3   4

Balanced Audio   PTT

5 Pin XLR socket wiring diagram
As viewed from the front
of the A 44575A

**Fig 2.1**

Microphone volume adjusted via rear trimpot

## 2.2 PRIORITIES

The order of priority for the functions of the A 4575A are as follows.

1) Paging (Via the front panel microphone)
2) Evacuation Tone
3) Alert Tone
4) Bell/Chime Tone
5) BGM (background music) or Auxilliary Input

**Microphone Input**
The A 4575A 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 4575A. It can also be used to record the emergency message if this is required (see section ? for more details). 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 2.1. 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 trimpot on the rear of the unit (refer to fig 2.1).
A pre-announcement chime which is available on the microphone input is set by the DIP switches 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/Chime 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.
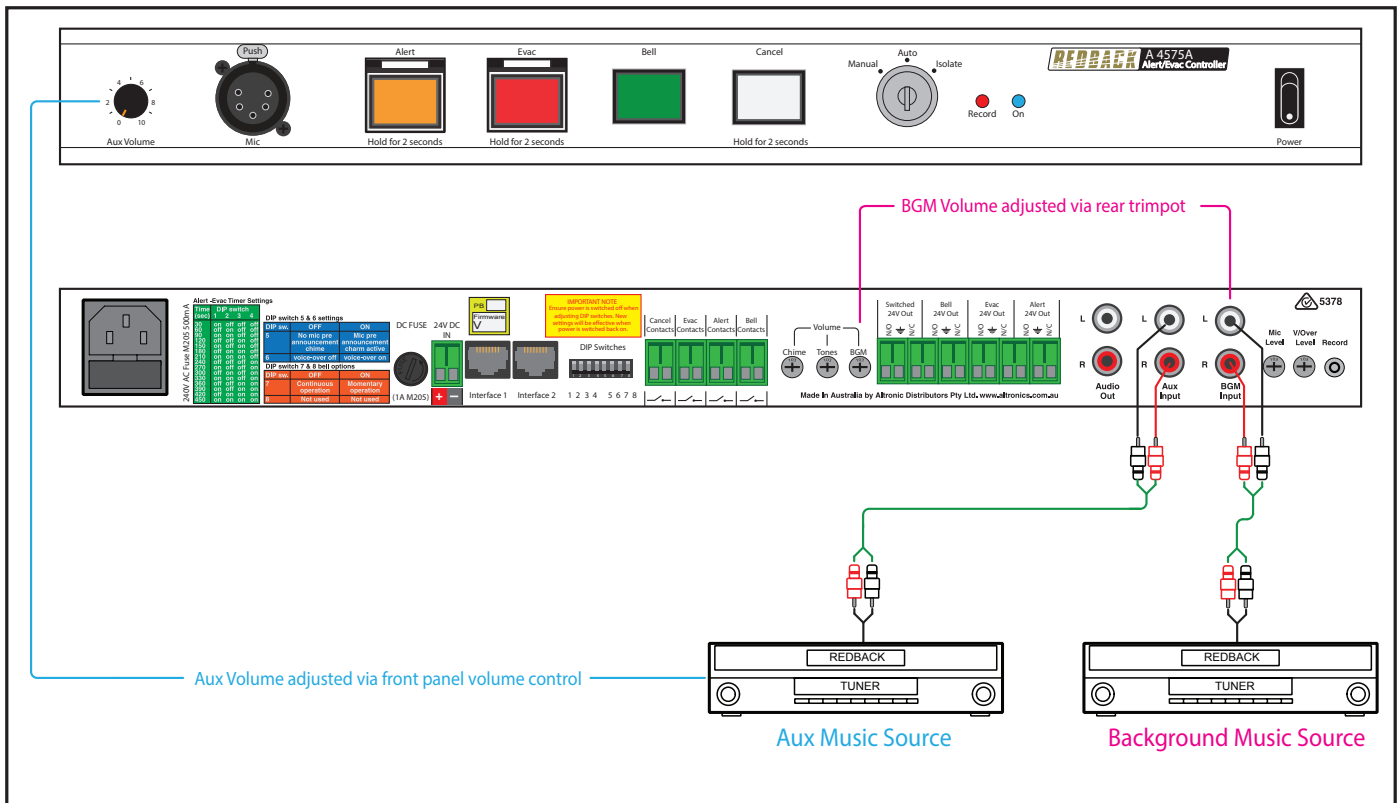


**Fig 2.3**

**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:
Tones: This sets the output level of the alert & evac tones.
Chime: This sets the output level of the bell/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 1-4 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 30s.

**Switch 5 Pre-announcement Setting:**
DIP switch 5 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 6 Voice Over Setting:**
DIP switch 6 is used to configure the voice over message (see section
OFF: Voice over will not play during the evac cycle
ON : Voice over will play during the evac cycle.

**Switch 7 Bell Setting:**
DIP switch 7 sets the bell to either continuous or momentary mode. This is regardless of the bell being activated via the front bell switch or the rear bell contact.
In continuous operation the bell will sound for as long as the bell switch or rear contact is triggered.
In momentary operation the bell will sound for only a short period regardless of how long the bell is triggered.
OFF: Continuous operation
ON: Momentary operation

**Switch 8 Not Used.**

## Alert -Evac Timer Settings

| Time (sec) | DIP switch 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| 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 |

### DIP switch 5 & 6 settings

| DIP sw. | OFF | ON |
|---|---|---|
| 5 | No mic pre announcement chime | Mic pre announcement charm active |
| 6 | voice-over off | voice-over on |

### DIP switch 7 & 8 bell options

| DIP sw. | OFF | ON |
|---|---|---|
| 7 | Continuous operation | Momentary operation |
| 8 | Not used | Not used |

**Fig 2.4**

## 2.5 24V OUTPUT CONNECTIONS

**Switched 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 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 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.
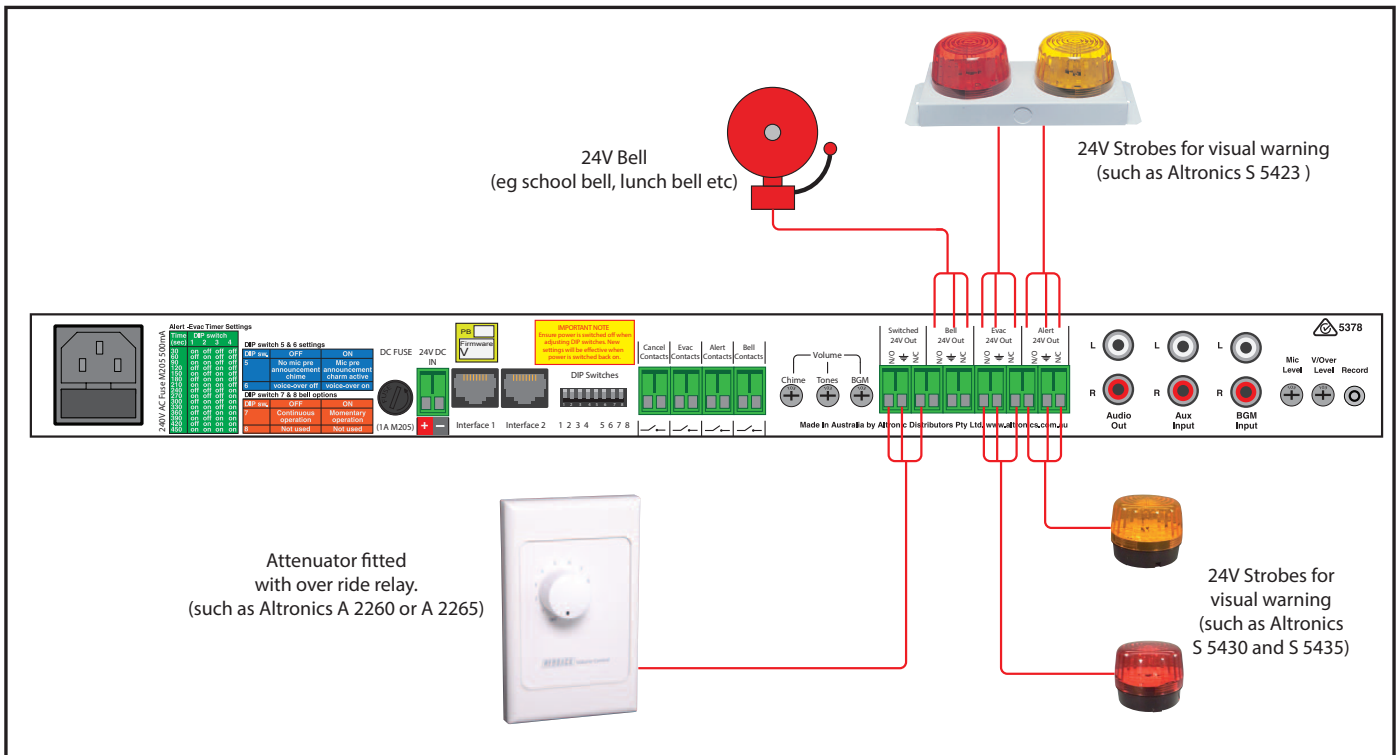


**Fig 2.5**

## 2.6 RECORDING OF VOICE OVER MESSAGE

The A 4575A has the facility to record an emergency message which can be set to play during the Evac tone cycle. To record a message follow these steps.

1) Connect a push to talk microphone to the front panel XLR input socket. The microphone must have the PTT (push to talk) function. The wiring for these microphones can be seen in Fig 2.6.
Suitable microphones with the PTT function include the Altronics C 0334 CB type microphone and the C 0379 desk paging microphone. Set the keyswitch to "manual" (the unit will not record in the "auto" or "isolate" positions).

2. Push the "record" button on the back of the unit. The record LED on the front of the unit will illuminate to indicate it is ready to record.

3. Use the microphone PTT button to start recording your message. The message can be any length from 1 to 16 seconds. Recording will not begin until the PTT is activated.

4. Message recording will finish when the PTT microphone is de-activated. The recorded message will then be played back. The output level of the recorded message can be adjusted using the trimpot on the rear of the unit as shown in Fig 2.6.

**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.

5. To re-record the message simply follow steps 2 to 4 again.

NOTE: To cancel recording a message, turn the key switch to "isolate" or remove the power from the unit.

**Activating the Voice Over Message:**
Now that the message is recorded it needs to be turned ON.
Switch DIP switch 6 to "ON" to activate the recorded message to play during the evacuation tone cycle.
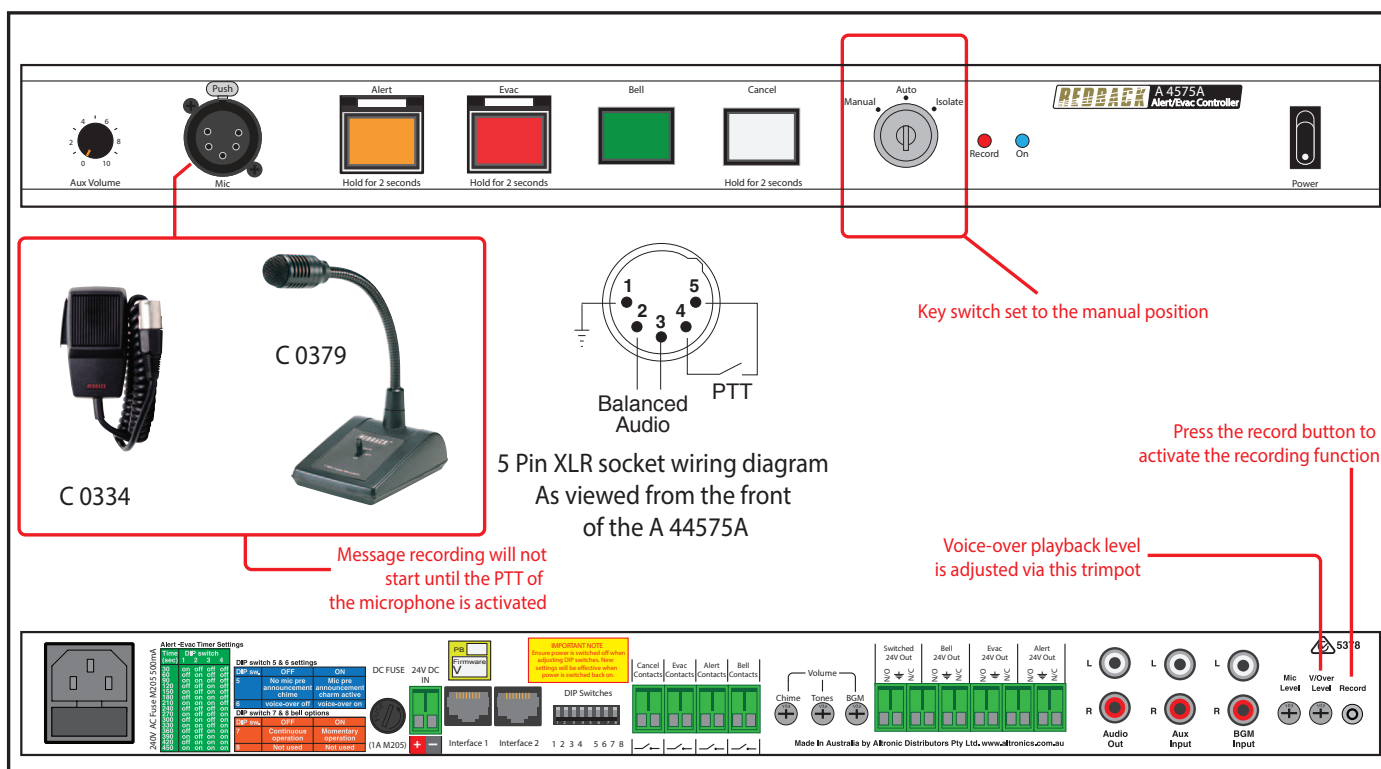(Refer to Dip switch settings in section 2.4)



**Fig 2.6**

# 3.0 REMOTE WALL PLATES

There are four remote wall plates which can be connected to the A 4575A for remote triggering of the Alert, Evacuation and Bell 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 4575A via a minimum of 7 wires as shown in Fig 3.1B. Remote triggering is only available when the A 4575A is in "Auto" mode which is selected by the key switch on the front of the A 4575A. 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 4575A. While the Alert and Evac leds on the wall plate are connected to the Alert 24V and Evac 24V outputs of the A 4575A. The cancel led is not connected. A mimimum of seven wires can be used if the ground connections of the Alert and Evac 24V outputs are linked and if 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 4575A main unit is in "Manual" or "Isolate" mode, nothing will happen. If the Alert and Evac switches are pressed on the A 4575A while in "Manual" mode the Alert and Evac switches on the A 2078B wall plate will illuminate.



**Fig 3.1A**



**Fig 3.1B**

A 2078B REMOTE WALL PLATE
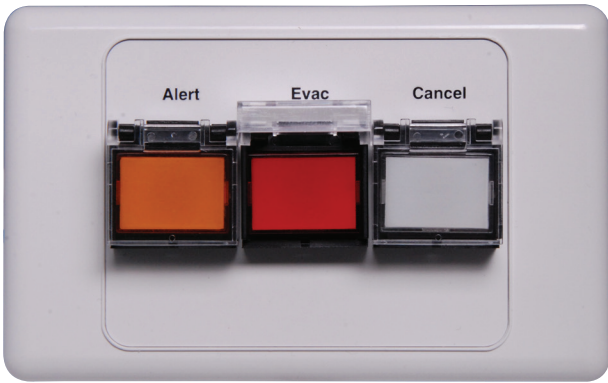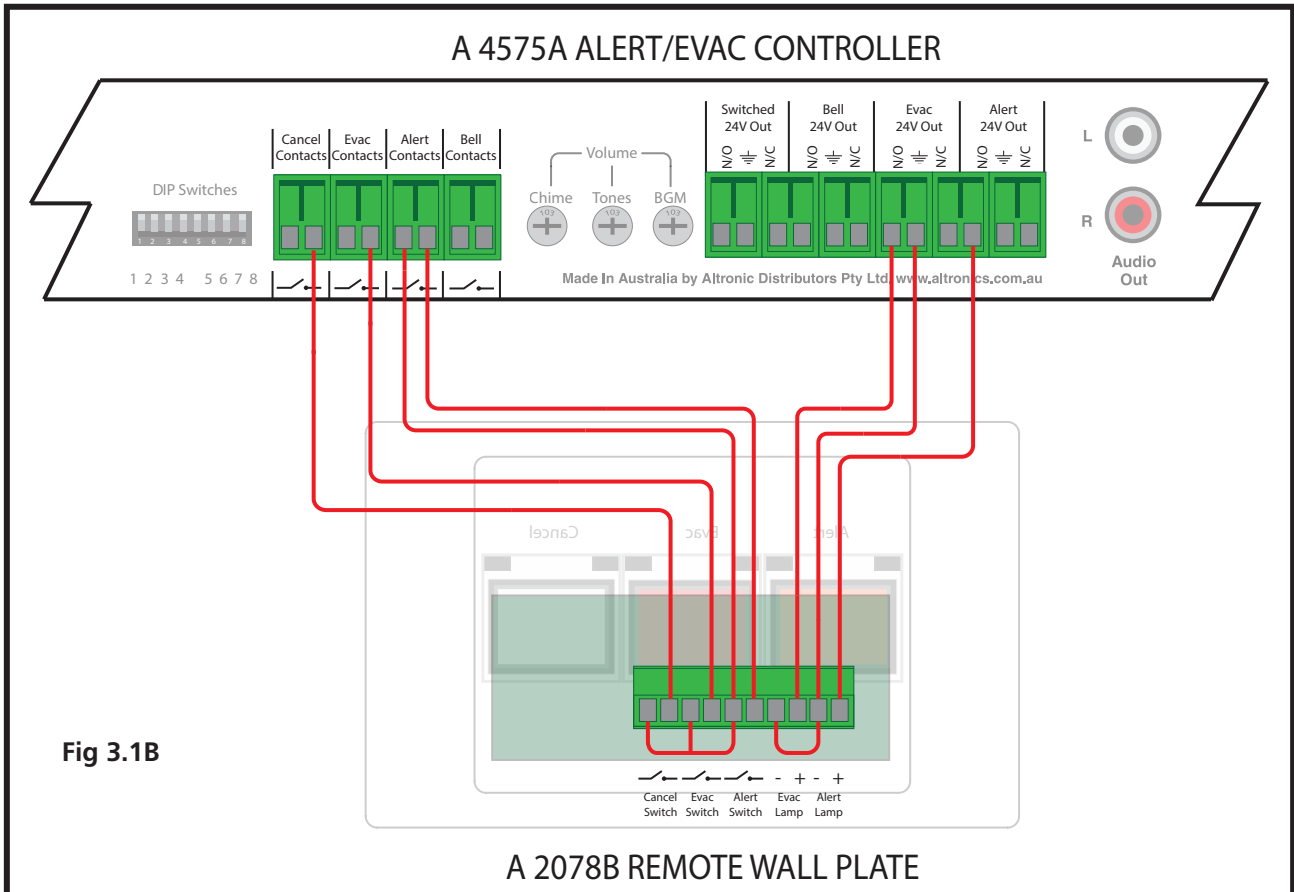
## 3.2 A 2081 Remote Plate

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 4575A via a minimum of 9 wires as shown in Fig 3.2B. Remote triggering is only available when the A 4575A is in "Auto" mode which is selected by the key switch on the front of the A 4575A. 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/Chime/Cancel switches on the A 2081 wall plate are connected to the corresponding contacts on the rear of the A 4575A. While the Alert,Evac and Bell leds on the wall plate are connected to the Alert,Evac and Bell 24V outputs of the A 4575A. The cancel led is not connected. A mimimum of nine wires can be used if the ground connections of the Alert,Evac and Bell 24V outputs are linked and if the Alert/Evac/Chime and cancel switch grounds are linked together (see Fig 3.2B).

If the Alert,Evac and Chime switches on the A 2081 are pressed when the A 4575A main unit is in "Manual" OR "Isolate" mode, nothing will happen. If the Alert, Evac and Bell switches are pressed on the A 4575A while in "Manual" mode the Alert, Evac and Chime switches on the A 2081B wall plate will illuminate.



**Fig 3.2A**



**Fig 3.1B**

## 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.

Connection is made to the A 4575A via standard Cat5e cabling as shown in Fig 3.3C. There are two RJ45 ports on the rear of the A 4578 wall plate, either of which can be used. If the A 4578 has a connection problem with the A 4575A main unit the LED on the wall plate will flash.

Remote triggering is only available when the A 4575A is in "Auto" mode which is selected by the key switch on the front of the A 4575A.

If the Alert and Evac switches on the A 4578 are pressed when the A 4575A main unit is in "Manual" or "Isolate" mode, nothing will happen. If the Alert and Evac switches are pressed on the A 4575A while in "Manual" mode the Alert a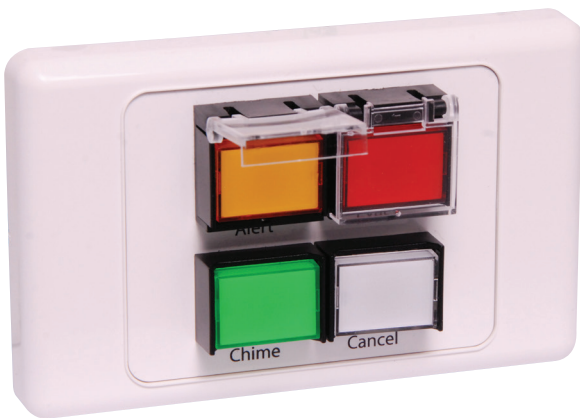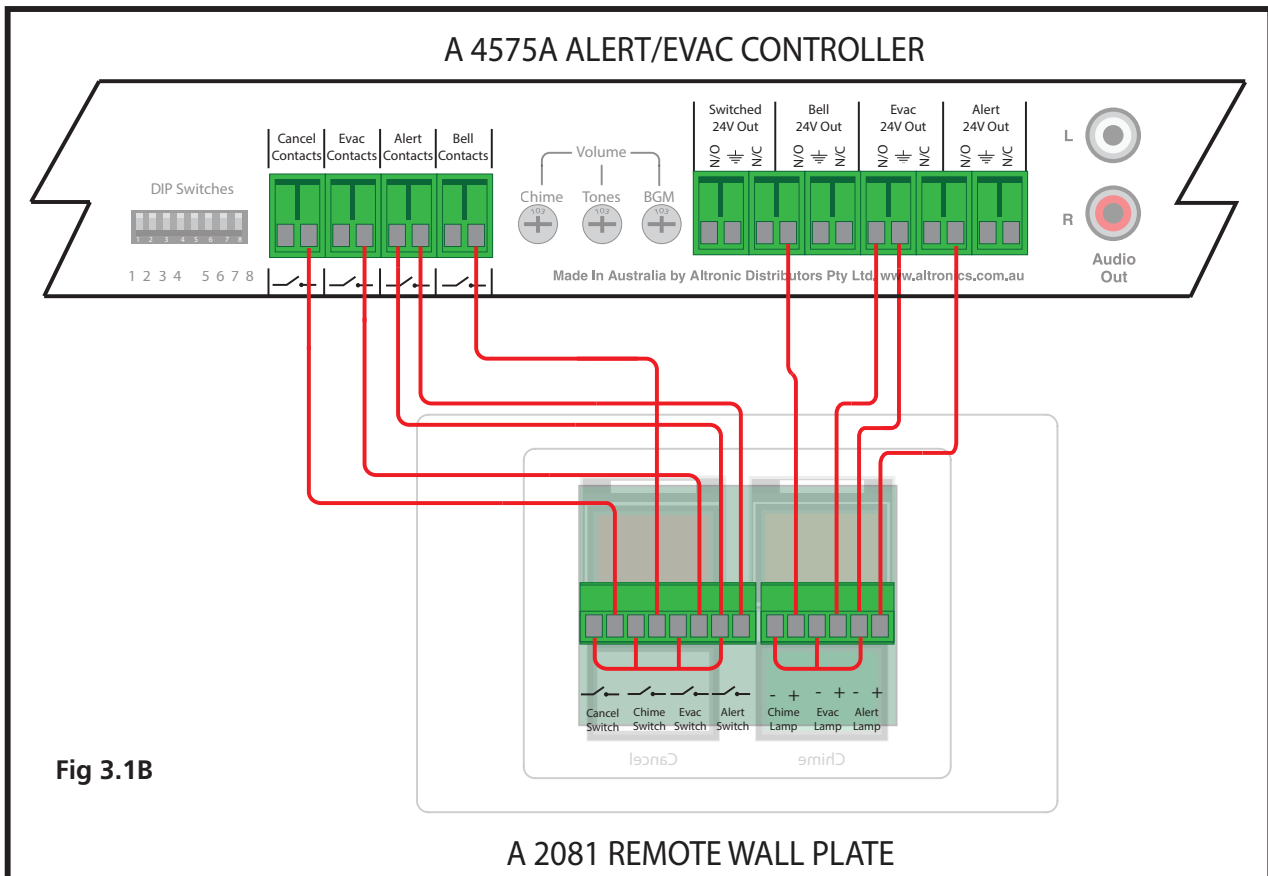nd Evac switches on the A 4578 wall plate will illuminate. A LED on the wall plate will illuminate when the A 4575A main unit is in "Manual" or "Isolate" mode to alert the user that the wall plate is inactive.



**Fig 3.3A**

### CASCADING THE A 4578 PLATES

If more than one remote wall plate is required then the A 4578 wall plates can be cascaded together with only one connection back to the A 4575A required (see Fig 3.3C). A Maximum of 16 plates is recommended, (If more than 16 wall plates are required contact Altronics for configuration details). There are two RJ45 ports on the rear of the A 4575A, either of which can be used for connection to the wall plates.

The A 4575A also supports connection of the A 4581 wall plate which is the same as the A 4578 but with the addition of a "Chime" button. Both the A 4578 and A 4581 plates can be connected to the A 4575A at the same time and in any combination. Figure 3.3D illustrates one example.

Every wall plate must have a unique ID which is set by the DIP switches which are accessed on the rear of the unit. A maximum of 63 ID's are available. Fig 3.3B illustrates the DIP switch ID settings.

DIP Switches 7-8 are not used.

| ID | DIP Switch Settings | | | | | |
|----|----|----|----|----|----|----|
| | 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 |

| ID | DIP Switch Settings | | | | | |
|----|----|----|----|----|----|----|
| | 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 3.3B**

Up to 16 A 4578 wall plates can be cascaded together  (*)
from a single RJ45 port of the A 4575A .
* (If more than 16 wall plates are required contact
Altronics for configuration details).

If any of the A 4578 plates has a connection problem with the
A 4575A main unit the LED on the wall plate will flash.

A 4578 Remote Wall Plate

To next wall plate

CAT5e cable (Max 300 Metres)

Either of the RJ45 ports of the A 4575A can be used.

A 4575A ALERT/EVAC CONTROLLER

**Fig 3.3C**



Up to a maximum 16 wall plates can be cascaded together. (*)
Both RJ45 ports from the A 4575A can be utilised.
Any combination of A 4578 or A 4581 plates can be used together.

* (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 4575A main unit the LED on the wall plate will flash.

A 4575A ALERT/EVAC CONTROLLER

**Fig 3.3D**

## 3.4 A 4581 Remote Plate

The A 4581 wall plate provides 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.
Connection is made to the A 4575A via standard Cat5e cabling as shown in Fig 3.3C. There are two RJ45 ports on the rear of the A 4581 wall plate, either of which can be used.
If the A 4581 has a connection problem with the A 4575A main unit the LED on the wall plate will flash.
Remote triggering is only available when the A 4575A is in "Auto" mode which is selected by the key switch on the front of the A 4575A.
If the Alert, Evac and Bell switches on the A 4581 are pressed when the A 4575A main unit is in "Manual" or "Isolate" mode, nothing will happen. If the Alert, Evac and Bell switches are pressed on the A 4575A while in "Manual" mode the Alert, Evac and Bell switches on the A 4581 wall plate will illuminate. The LED on the wall plate will illuminate when the A 4575A main unit is in "Manual" or "Isolate" mode to alert the user that the wall plate is inactive.



**Fig 3.4A**

| DIP Switch Settings | | | | | | | DIP Switch Settings | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | 1 | 2 | 3 | 4 | 5 | 6 | ID | 1 | 2 | 3 | 4 | 5 | 6 |
| 1 | ON | OFF | OFF | OFF | OFF | OFF | 33 | ON | OFF | OFF | OFF | OFF | ON |
| 2 | OFF | ON | OFF | OFF | OFF | OFF | 34 | OFF | ON | OFF | OFF | OFF | ON |
| 3 | ON | ON | OFF | OFF | OFF | OFF | 35 | ON | ON | OFF | OFF | OFF | ON |
| 4 | OFF | OFF | ON | OFF | OFF | OFF | 36 | OFF | OFF | ON | OFF | OFF | ON |
| 5 | ON | OFF | ON | OFF | OFF | OFF | 37 | ON | OFF | ON | OFF | OFF | ON |
| 6 | OFF | ON | ON | OFF | OFF | OFF | 38 | OFF | ON | ON | OFF | OFF | ON |
| 7 | ON | ON | ON | OFF | OFF | OFF | 39 | ON | ON | ON | OFF | OFF | ON |
| 8 | OFF | OFF | OFF | ON | OFF | OFF | 40 | OFF | OFF | OFF | ON | OFF | ON |
| 9 | ON | OFF | OFF | ON | OFF | OFF | 41 | ON | OFF | OFF | ON | OFF | ON |
| 10 | OFF | ON | OFF | ON | OFF | OFF | 42 | OFF | ON | OFF | ON | OFF | ON |
| 11 | ON | ON | OFF | ON | OFF | OFF | 43 | ON | ON | OFF | ON | OFF | ON |
| 12 | OFF | OFF | ON | ON | OFF | OFF | 44 | OFF | OFF | ON | ON | OFF | ON |
| 13 | ON | OFF | ON | ON | OFF | OFF | 45 | ON | OFF | ON | ON | OFF | ON |
| 14 | OFF | ON | ON | ON | OFF | OFF | 46 | OFF | ON | ON | ON | OFF | ON |
| 15 | ON | ON | ON | ON | OFF | OFF | 47 | ON | ON | ON | ON | OFF | ON |
| 16 | OFF | OFF | OFF | OFF | ON | OFF | 48 | OFF | OFF | OFF | OFF | ON | ON |
| 17 | ON | OFF | OFF | OFF | ON | OFF | 49 | ON | OFF | OFF | OFF | ON | ON |
| 18 | OFF | ON | OFF | OFF | ON | OFF | 50 | OFF | ON | OFF | OFF | ON | ON |
| 19 | ON | ON | OFF | OFF | ON | OFF | 51 | ON | ON | OFF | OFF | ON | ON |
| 20 | OFF | OFF | ON | OFF | ON | OFF | 52 | OFF | OFF | ON | OFF | ON | ON |
| 21 | ON | OFF | ON | OFF | ON | OFF | 53 | ON | OFF | ON | OFF | ON | ON |
| 22 | OFF | ON | ON | OFF | ON | OFF | 54 | OFF | ON | ON | OFF | ON | ON |
| 23 | ON | ON | ON | OFF | ON | OFF | 55 | ON | ON | ON | OFF | ON | ON |
| 24 | OFF | OFF | OFF | ON | ON | OFF | 56 | OFF | OFF | OFF | ON | ON | ON |
| 25 | ON | OFF | OFF | ON | ON | OFF | 57 | ON | OFF | OFF | ON | ON | ON |
| 26 | OFF | ON | OFF | ON | ON | OFF | 58 | OFF | ON | OFF | ON | ON | ON |
| 27 | ON | ON | OFF | ON | ON | OFF | 59 | ON | ON | OFF | ON | ON | ON |
| 28 | OFF | OFF | ON | ON | ON | OFF | 60 | OFF | OFF | ON | ON | ON | ON |
| 29 | ON | OFF | ON | ON | ON | OFF | 61 | ON | OFF | ON | ON | ON | ON |
| 30 | OFF | ON | ON | ON | ON | OFF | 62 | OFF | ON | ON | ON | ON | ON |
| 31 | ON | ON | ON | ON | ON | OFF | 63 | ON | ON | ON | ON | ON | ON |
| 32 | OFF | OFF | OFF | OFF | OFF | ON | | | | | | | |

**Fig 3.4B**

### CASCADING THE A 4581 PLATES
If more than one remote wall plate is required then the A 4581 wall plates can be cascaded together with only one connection back to the A 4575A required (see Fig 3.4C). A Maximum of 16 plates is recommended, (If more than 16 wall plates are required contact Altronics for configuration details). There are two RJ45 ports on the rear of the A 4575A, either of which can be used for connection to the wall plates.
The A 4575A also supports connection of the A 4578 wall plate which is the same as the A 4581 but without the "Chime" button. Both the A 4578 and A 4581 plates can be connected to the A 4575A at the same time and in any combination. Figure 3.4D illustrates one example.

Every wall plate must have a unique ID which is set by the DIP switches which are accessed on the rear of the unit. A maximum of 63 ID's are available. Fig 3.4B illustrates the DIP switch ID settings.
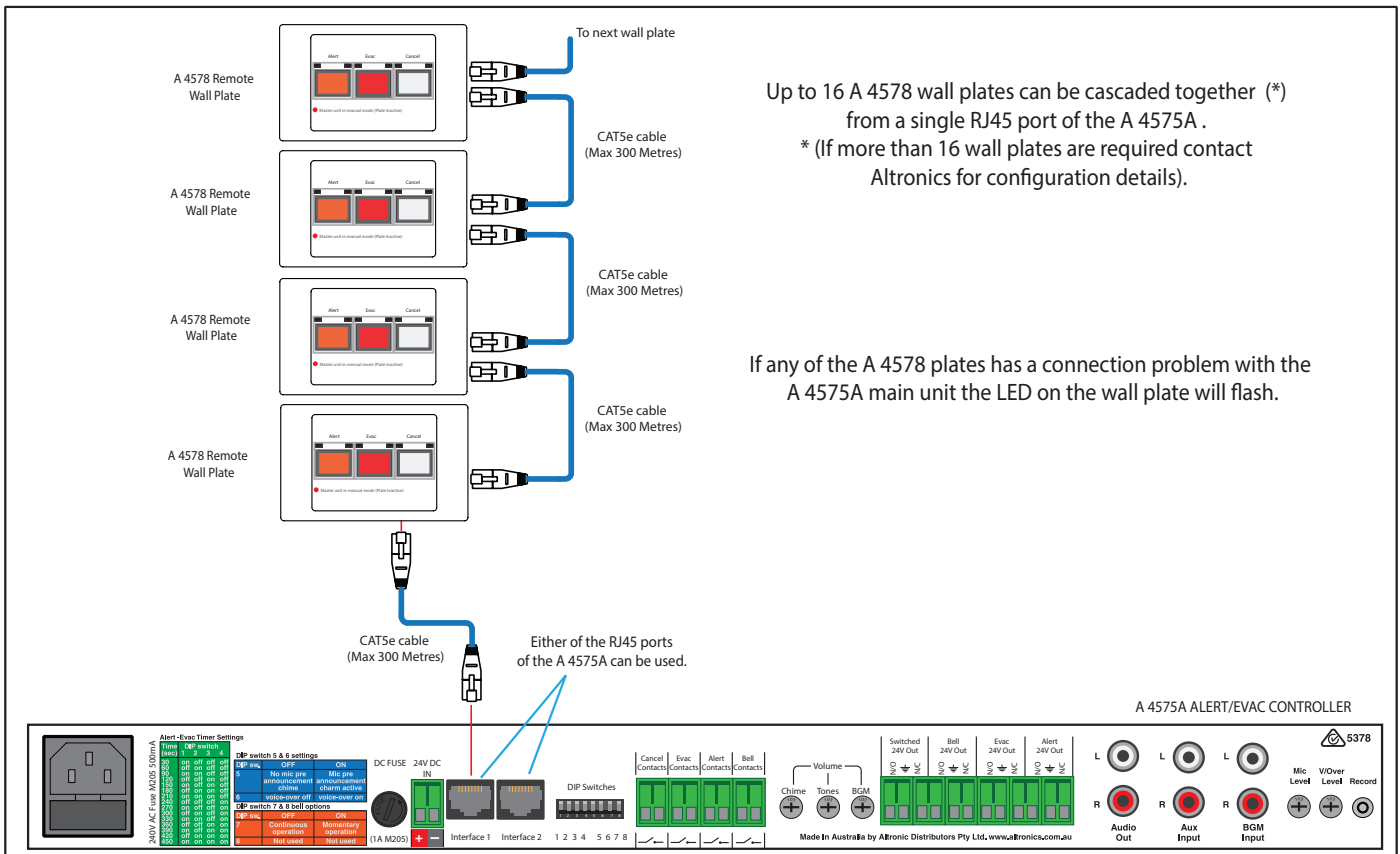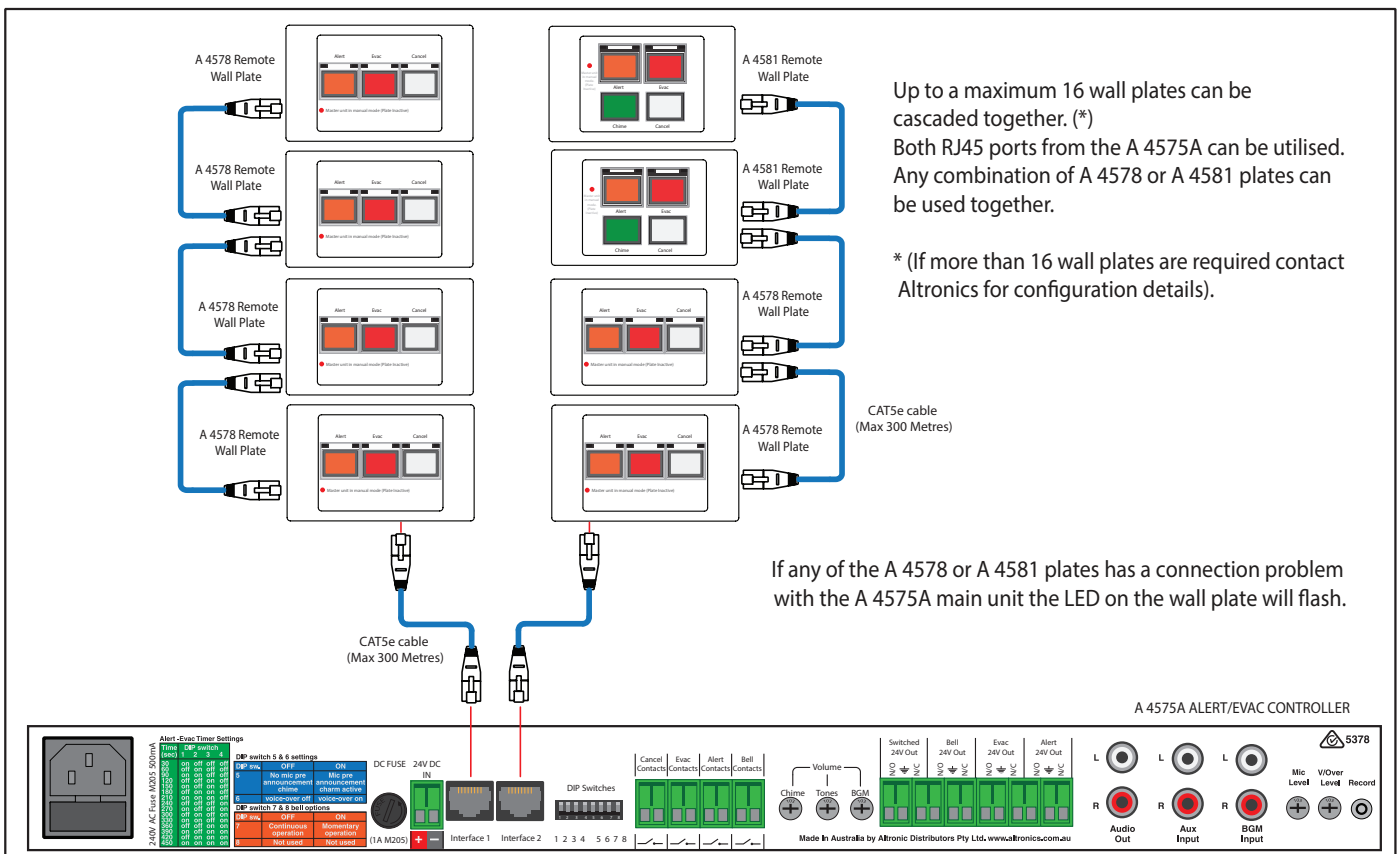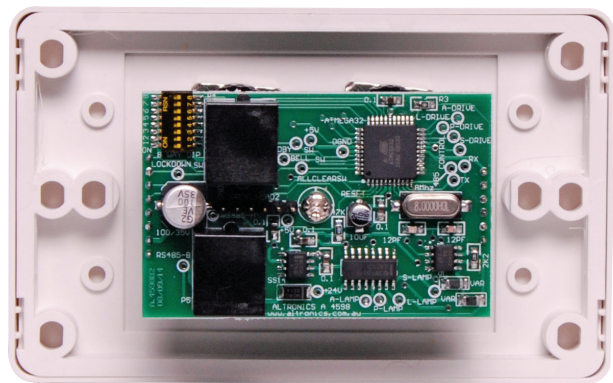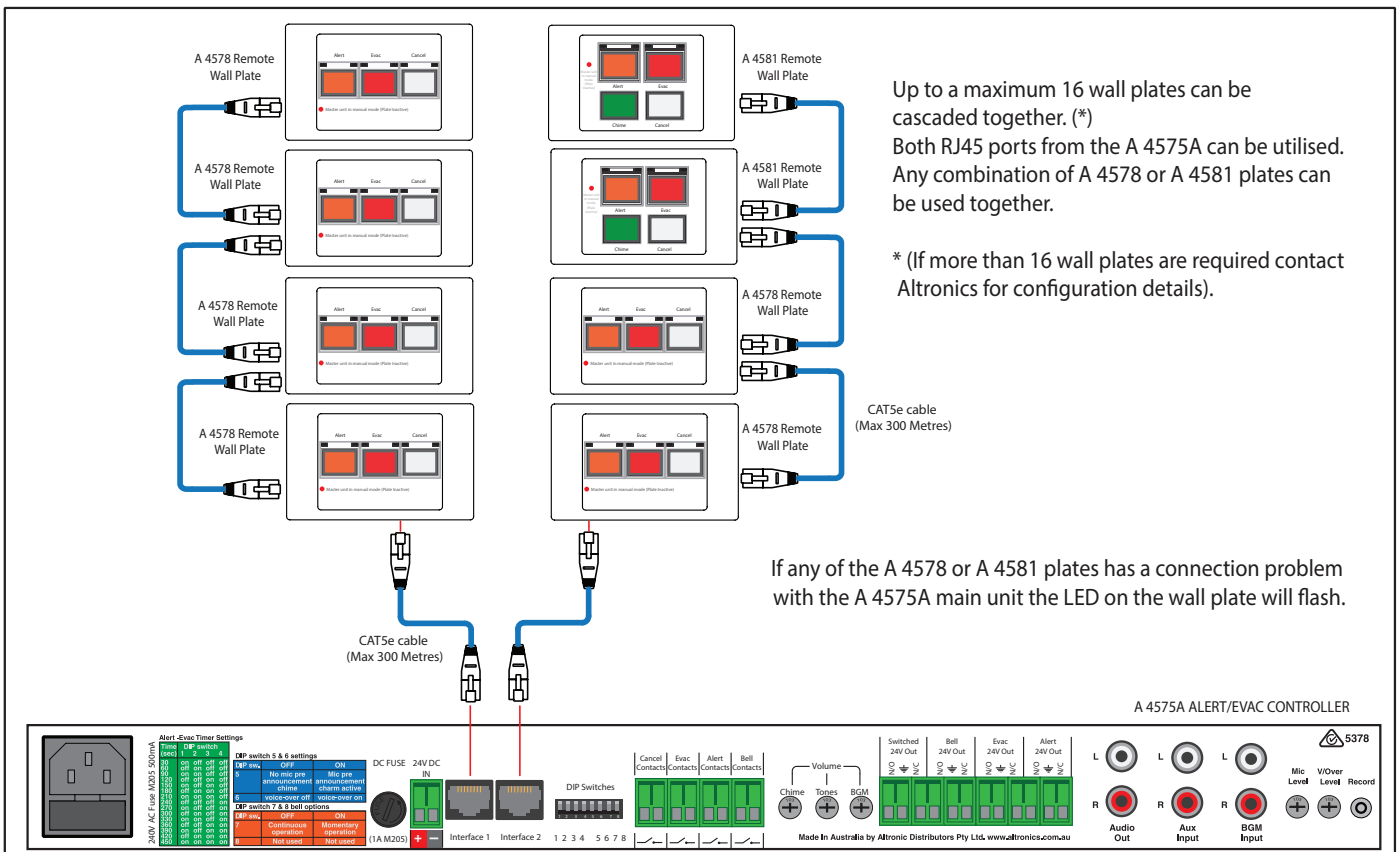
DIP Switches 7-8 are not used.

To next wall plate

CAT5e cable
(Max 300 Metres)

CAT5e cable
(Max 300 Metres)

CAT5e cable
(Max 300 Metres)

A 4581 Remote
Wall Plate

Up to 16 A 4581 wall plates can be cascaded
together from a single RJ45 port of the A 4575A .
* (If more than 16 wall plates are required contact
Altronics for configuration details).

If any of the A 4581 plates has a connection problem
with the A 4575A main unit the LED on the wall plate will flash.

CAT5e cable
(Max 300 Metres)

Either of the RJ45 ports
of the A 4575A can be used.

A 4575A ALERT/EVAC CONTROLLER

**Fig 3.4C**



A 4578 Remote
Wall Plate

A 4578 Remote
Wall Plate

A 4578 Remote
Wall Plate

A 4578 Remote
Wall Plate

A 4581 Remote
Wall Plate

A 4581 Remote
Wall Plate

A 4578 Remote
Wall Plate

A 4578 Remote
Wall Plate

Up to a maximum 16 wall plates can be
cascaded together. (*)
Both RJ45 ports from the A 4575A can be utilised.
Any combination of A 4578 or A 4581 plates can
be used together.

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

CAT5e cable
(Max 300 Metres)

If any of the A 4578 or A 4581 plates has a connection problem
with the A 4575A main unit the LED on the wall plate will flash.

CAT5e cable
(Max 300 Metres)

A 4575A ALERT/EVAC CONTROLLER

**Fig 3.4D**

# 4.0 TROUBLE SHOOTING

## 4.1 SYMPTOMS AND REMEDIES

| SYMPTOMS | REMEDIES |
|---|---|
| Low Level Recording | Ensure that a good quality mic is being used and the operator is speaking clearly into the mic. |
| Mic Volume Level Is Low | Adjust mic volume on rear of unit |
| Alert/evac tone levels are ow | Adjust tones volume on rear of unit |
| No power to unit from AC mains. | Check fuse and replace with M205 type 500mA fuse if required. Check power to unit |
| Front volume control not functioning | Front volume control functions on aux input only. Check connections to  rear of unit. |
| DIP switch changes not effective | Turn the unit OFF before changing DIP switch settings. Settings become effective after power is returned. |
| Voice over message not recording | Make sure the microphone used to record message has PTT function. |

## 4.2 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 4.2. 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.**
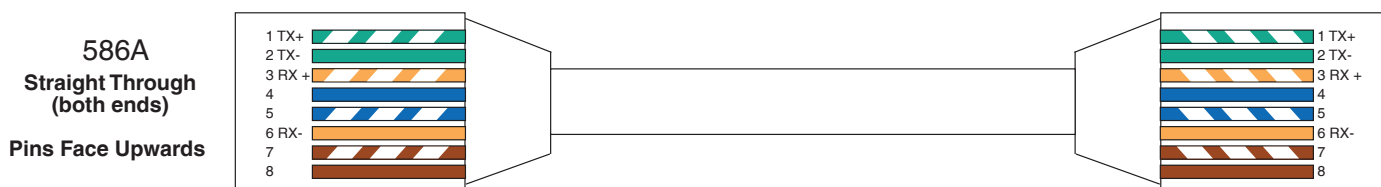
**586A**
**Straight Through**
**(both ends)**

**Pins Face Upwards**

1 TX+
2 TX-
3 RX +
4
5
6 RX-
7
8

1 TX+
2 TX-
3 RX +
4
5
6 RX-
7
8

**Fig 4.2**

**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".**

## 5.0 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
PLEASE NOTE: Maximum combined output load should not
                        exceed 1Amp.
INPUT CONNECTORS:
        Mic:.........................................................5 pin XLR
        Aux Input:..................................RCA Stereo Socket
        24V DC Power:..............................Screw Terminals
        240V AC Power:........................IEC Chassis Socket
        Remote Alert, Evac, Bell, Cancel:......Screw Terminals
MUTING:...........................Via Microphone Switch Contact
CONTROLS:
        Mic Input:.............................................Rear Volume
        BGM Input:...........................................Rear Volume
        Alert, Evac, Chime Tones:......................Rear Volume
        Voice over:...........................................Rear Volume
        Auxiliary Input:.........................Front Panel Volume
        Power:...............................................On/Off Switch
        Mode Selection:...Keyswitch Keyed to 003 Standard
        Alert Switch:........................Illuminated Push Switch
        Evac Switch:........................Illuminated Push Switch
        Bell / Chime Switch:.............Illuminated Push Switch
        Cancel Switch:.....................................Push Switch
INDICATORS:...................................Power on, Record LED
POWER SUPPLY:...................................240V AC or 24V DC
DIMENSIONS:≈................................. 482W x 125D x 44H
WEIGHT: ≈......................................................... 2.2 kg
COLOUR: ..............................................................Black
```

* Specifications subject to change without notice

# 6.0 CIRCUIT DIAGRAM

Shown below is the full circuit diagram of the A 4575A.

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

Should a product become faulty please contact us to obtain a return authorisation number. Please ensure you have all the relevant documentation on hand. We do not accept unauthorised returns. Proof of purchase is required so please retain your invoice.
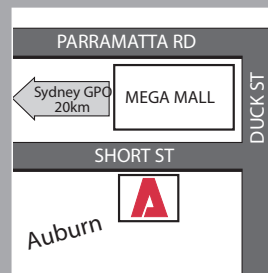
# Ph: 1300 797 007    Fax: 1300 789 777
# www.altronics.com.au

## Sydney, NSW.

15 Short St, AUBURN, NSW 2144

Open:
Mon-Fri 8.30am - 5.30pm
Sat 9.00am - 4.00pm



## Melbourne, Vic.

891 Princes Hwy, SPRINGVALE, VIC 3171

Open:
Mon-Fri 8.30am - 5.30pm
Sat 9.00am - 5.00pm
Sun 10.00am - 4.00pm
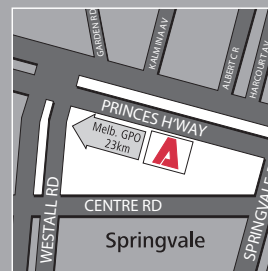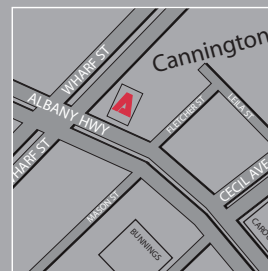


## Perth, WA.

174 Roe St, PERTH, WA 6000

Open:
Mon-Wed,Fri 8.00am - 5.30pm
Thur 8.00am - 8.00pm
Sat 8.30am - 5.00pm
Sun 12.00pm - 5.00pm
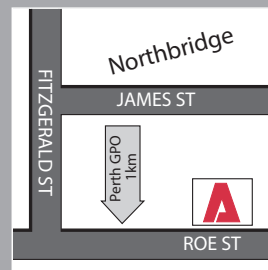


## Cannington, WA.

Unit 6, 1326 Albany Highway, CANNINGTON, WA 6107

Open:
Mon-Wed,Fri 8.00am - 5.30pm
Thur 8.00am - 8.00pm
Sat 8.30am - 5.00pm



## Balcatta, WA.

Unit 7, 58 Erindale Rd, BALCATTA, WA 6021

Open:
Mon-Fri 8.00am - 5.30pm
Sat 8.30am - 5.00pm
Sun 10.00am - 4.00pm

# ACCESSORIES

Just some of Altronics products which compliment the A 4575A Alert/Evacuation Controller

## C 0379 Desk Paging Microphone

This desk microphone has a tapered low frequency response for articulate speech reproduction and enhanced clarity.
Fitted with a 2 metre lead and terminated with a 5 pin XLR which includes a PTT mute switching pair. The PTT switch features both momentary and lock-on positions.

## C 0334 CB Type Balanced Microphone

Low impedance, 500 Ohm, omni-directional, dynamic microphone with curly cord fitted with a 5 pin XLR plug which includes a PTT mute switching pair.

## S 5423 24V Low Power Fire Evac Strobe

Low current draw dual red and amber coloured strobe lights for emergency evacuation systems. Housed in a sturdy, white powder-coated steel case with conduit knockouts for cable entry. A terminal block allows quick power connection.

## S 5430 24V 15W Red Strobe
## S 5435 24V 15W Orange Strobe

24V DC strobe with 5 watt output. Uses Xenon tube for high energy flash with current draw of 250mA.

## A 2260 10W PA Attenuator - Vertical
## A 2262 10W PA Attenuator - Horizontal

Designed to control 100V line speaker systems. They feature 11 position switches for fine adjustment of sound level. They include an over-ride relay for emergency paging .

## A 2265 40W PA Attenuator - Vertical
## A 2267 40W PA Attenuator - Horizontal

Designed to control 100V line speaker systems. They feature 11 position switches for fine adjustment of sound level. They include an over-ride relay for emergency paging .