

Redback® A 4480A 8 In to 8 Out Audio Switcher



A 4481



A 4476



A 4931



A 4493

Operating Manual

A 4480A 8 Input / 8 Output Audio Switcher

A 4481 Paging Console

A 4476 Preset Selector Wallplate

A 4931 Local Input Wallplate

A 4493 Music Source Selector Wallplate

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IMPORTANT NOTE:

Please read these instructions carefully from front to back prior to installation. They include important setup instructions.

Failure to follow these instructions may prevent the system from working as designed.

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1.0 OVERVIEW

1.1 INTRODUCTION

Designed to meet the demands of today's complex installations, this unit is a very versatile cost effective public address/background music control system.

In total there are 16 inputs:

- 1 emergency paging input
- 1 alert/evac input
- 6 auxiliary inputs and 2 auxiliary/line inputs
- 2 zone paging inputs
- 1 priority input
- 8 local inputs

Operation is as follows:

Emergency Paging mutes all other inputs, including alert/evac signals and transmits to all zones. Note: the emergency paging input will accept either a low level balanced mic signal (3mV) or a high level balanced signal (700mV). This enables sources other than a microphone to be used. For example, the output of a building occupancy warning system could feed into this input and transmit either verbal messages from the microphone or the alert & evacuation tones. All on an "all call" basis.

Alert/Evac signals mutes all other inputs, except emergency paging and transmits to all zones.

Zone Paging (via optional A 4481 paging station) mutes auxiliary signals and transmits to selected zones. Zone paging may be prohibited for each zone from the front panel on the mic console.

Priority Input mutes auxiliary signals and transmits to selected zones. This input has the same priority as the A 4481 paging stations and works on a "first in best dressed" basis. This input is enabled via a trigger input or vox enabled dual RCA input.

Local Inputs (1-8 via optional A 4478 wall plate) mutes any auxiliary source selected to that zone. Local inputs can be configured for either balanced mic or line operation.

Aux inputs (1-8) can be switched to any zone or combination of zones.

Each of the eight auxiliary inputs have tamper proof volume, treble and bass controls, plus a signal presence indicator. Volume controls are provided for each zone output.

A programmable LCD indicates which input is selected to which outputs.

Tamper proof volume controls and signal presence indicators are provided for local microphone paging and emergency microphone paging.

Remote selection wallplate (A 4491/92) may be connected via Cat5e cable to each zone. This wallplate enables selection of any auxiliary input source, volume adjustment of that zone plus the option to connect a local input source (mic or line) via the optional A 4478 wallplate.

Memory presets are programmable to provide easy recall of certain system configurations including a default setting, last memory setting and 4 memory presets. This is selected from the front panel, or remotely via the optional A 4476 preset selector wallplate (see 5.4, page 28).

System lockout feature to prevent unauthorised adjustment of system settings.

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".

1.2 FEATURES

- 8 Stereo RCA line inputs (internally mono mixed).
- 2 Microphone XLR inputs with phantom power option.
- Adjustable line input sensitivity 0.3/0.7V.
- Individual bass, treble and volume controls of all line inputs.
- 8 Balanced 3 pin XLR line outputs.
- Individual volume controls of all 8 outputs.
- Alert/evacuation/pre chime tone generator included (alert/evac tones comply to AS1670.4) .
- Emergency balanced input with selectable phantom power and input sensitivity.
- Programmable labelling of input sources and output zones via USB keyboard.
- Programme isolate function.
- Four programmable presets.
- Tampering lockout feature.
- Power fail trigger.
- 240V AC or 24V DC operation.
- 19" Rack Mount (2 unit).

Optional Features

- Zone and emergency over-ride paging via A 4481 paging console.
- Remote zone control of volume and music sources via A 4493 wall plate.
- Preset selection via A 4476 preset wall plate.
- Local microphone or music input connection via A 4931 and A 4493 wall plates.

Priority Order

Priority 1 is the highest priority and overrides all others priorities. Priority 2 is next, then priority 3 and so on.

- Priority 1 - Emergency microphone.
- Priority 2 - A 4481 paging consoles 1 & 2 (if fitted, in emergency paging mode).
- Priority 3 - Alert/evacuation tones.
- Priority 4 - A 4481 paging console (in normal mode).
- Priority 5 - Local zone input, if being used.
- Priority 6 - Line inputs.

1.3 WHAT'S IN THE BOX

A 4480A Audio Switcher
M 8973 24V 5A Power Supply
240V AC power lead (suits Australian Standard)
USB - PS2 compatible keyboard (Altronics D 2111)
Acrylic anti tamper cover
A 4480A Instruction Booklet
A 4573 Instruction booklet

1.4 FRONT PANEL GUIDE

Fig 1.4A shows the layout of the A 4480A front panel.

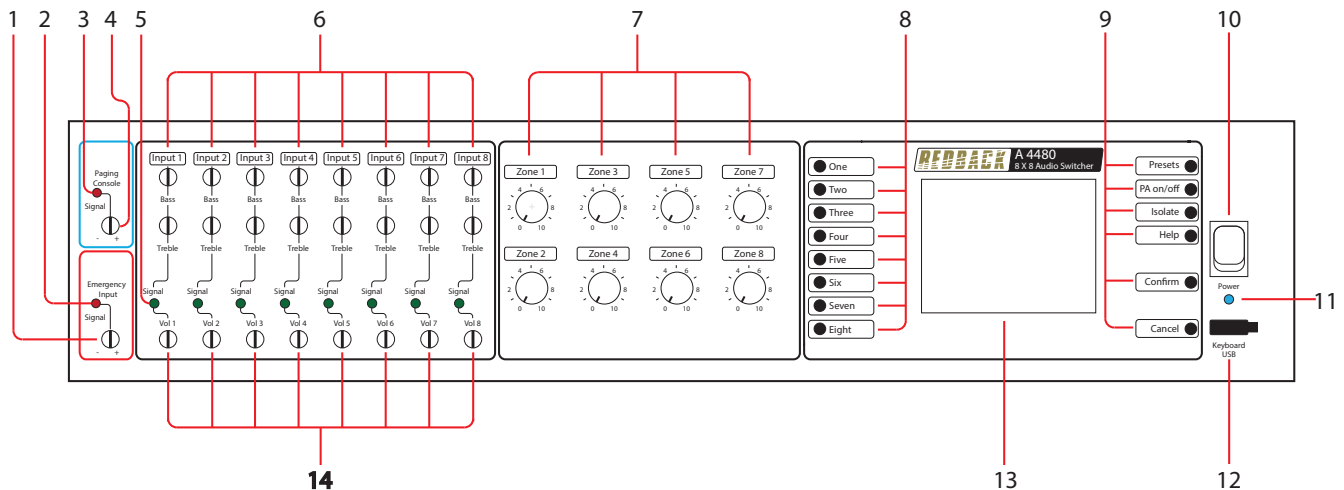


Fig 1.4A

- 1 Emergency microphone volume control**
Use this control to adjust the volume of the emergency microphone input.
- 2 Emergency microphone signal present indicator**
This LED illuminates to indicate a signal is present at the emergency microphone input.
- 3 Paging microphone signal present indicator**
This LED illuminates to indicate a signal is present at the paging microphone input.
- 4 Paging microphone volume control**
Use this control to adjust the volume of the paging microphone input.
- 5 Inputs 1-8 signal present indicators**
These LEDs illuminate to indicate a signal is present at the corresponding RCA inputs.
- 6 Inputs 1-8 bass and treble controls**
Use these controls to adjust the bass and treble of the 8 input sources as desired.
- 7 Zone volume controls**
Use these to adjust the volumes of the zones.
- 8 Zone selection buttons**
These buttons select the output zone.
- 9 Preset selector button**
This button is used to select pre-programmed preset configurations. (See section 4.4 Presets).
Public address on/off button
 This button is used to switch on or off the general paging to a particular zone. (See section 3.3 for more information). This does not block emergency paging.
Program isolate button
 This button is used to isolate inputs from a particular zone. (see section 3.4 for more information)
Help button
 Pressing this button provides help on the selected option. (See section 7.0 Help).
Confirm button
 This button is used to confirm your selected changes. Push "confirm" and "cancel" buttons at the same time to lock and unlock the front panel controls.
Cancel button
 This button is used to exit from the current menu or cancel the selected option. Push "confirm" and "cancel" buttons at the same time to lock and unlock the front panel controls.

- 10 Power switch**
Use this to switch to turn on mains power 220-240V AC.
- 11 On indicator**
This led indicates the unit has power.
- 12 Keyboard USB input**
This USB connection is for a keyboard for programming the LCD.
- 13 LCD**
The LCD is used to indicate which inputs are selected to which outputs.
- 14 Inputs 1-8 volume controls**
Use these to adjust the volumes of the RCA input sources.

1.5 REAR PANEL CONNECTIONS

Fig 1.5A shows the layout of the A 4480A rear panel.

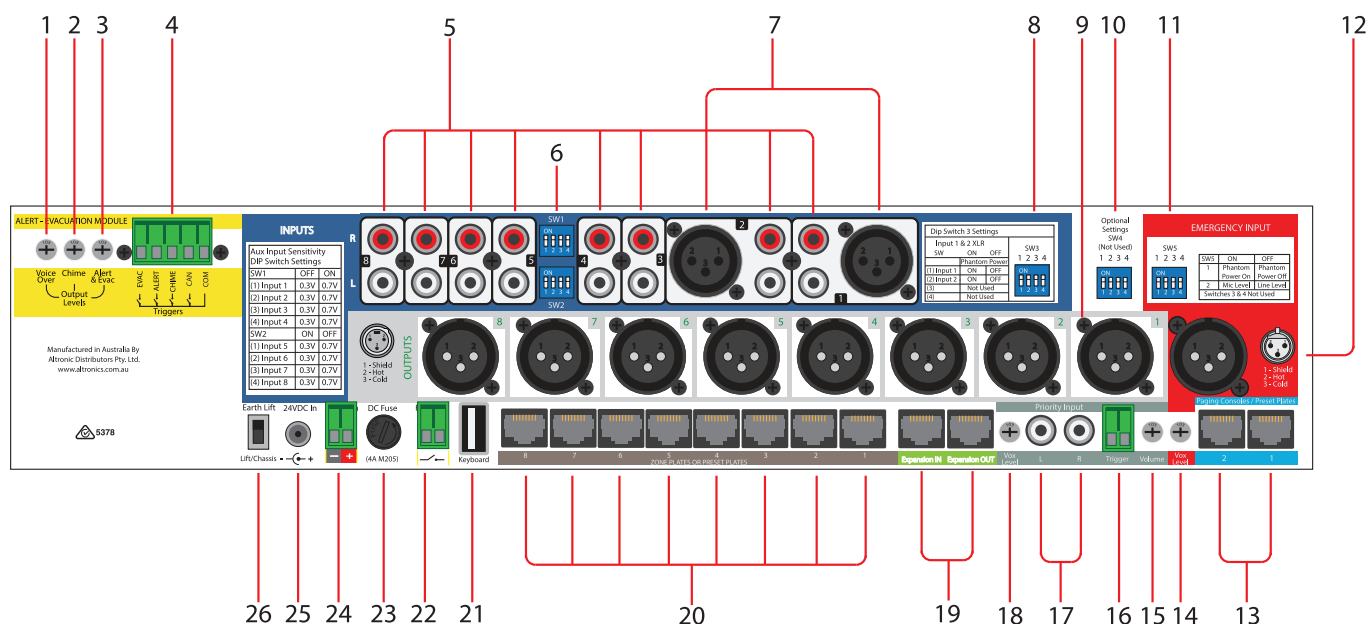


Fig 1.5a

- 1-4 A 4573 Alert/Evac/Chime Module Controls**
This module generates Alert and Evacuation tones for use in an emergency. Triggering of these tones and the volume adjustment trimpots are located here. Refer to section 2.1 for more details.
- 5 Stereo RCA input connectors**
Connect these inputs (1-8) to the input audio sources such as a CD player etc. These inputs are converted to mono internally. Note. Inputs 1 & 2 also have a line level XLR input (Refer to section 7).
- 6 RCA input sensitivity DIP switches**
These DIP switches are used to set the input sensitivity of the 8 auxiliary input sources. Each input can be configured for an input sensitivity of 0.3V or 0.7V. See fig 1.5b.

Aux Input Sensitivity DIP Switch Settings		
SW1	OFF	ON
(1) Input 1	0.3V	0.7V
(2) Input 2	0.3V	0.7V
(3) Input 3	0.3V	0.7V
(4) Input 4	0.3V	0.7V
SW2	ON	OFF
(1) Input 5	0.3V	0.7V
(2) Input 6	0.3V	0.7V
(3) Input 7	0.3V	0.7V
(4) Input 8	0.3V	0.7V

Fig 1.5b

- 7 XLR line inputs**
inputs 1 & 2 can be either RCA inputs or female XLR inputs.

- 8 XLR input phantom power settings**
Phantom power can be applied to the XLR inputs via DIP switch 3. Refer to Fig 1.5c.


Dip Switch 3 Settings			
Input 1 & 2 XLR			SW3 1 2 3 4
SW	ON	OFF	
	Phantom Power		
(1) Input 1	ON	OFF	
(2) Input 2	ON	OFF	
(3)	Not Used		
(4)	Not Used		

Fig 1.5c

- 9 Male XLR balanced line output connectors**
Connect these outputs (1-8) to the zone amplifiers. Use a 3 pin female XLR connector (pin 1 GND, pin 2 Cold, pin 3 Hot).
- 10 Optional Dip Switch Settings**
Currently not used
- 11 Emergency input settings DIP switches**
Change the sensitivity of the 3 pin emergency XLR from balanced mic level to balanced line level. Also selects phantom power to this input. See fig 1.5d.


SW5			
1	2	3	4
			
SW5	ON	OFF	
1	Phantom Power On	Phantom Power Off	
2	Mic Level	Line Level	
Switches 3 & 4 Not Used			

Fig 1.5d

- 12 Emergency microphone female 3 pin XLR socket**
Use this input for emergency or "all call" paging. This has overall priority and goes to all zones. This input is suitable for connection to the output of a building EWIS system allowing remote paging and alert/evac tones to be transmitted on an "all call" basis. Sensitivity can be set to mic (0.3V) or line level (0.7V) using the DIP switch. See SW5 in fig1.5d for details.
- 13 RJ45 connectors for preset plate or paging consoles**
These RJ45 ports connect to the A 4481 zone paging consoles or A 4476 preset plate.
- NOTE: A maximum of eight A 4481 mic consoles and a single A 4476 preset plate may be used at the same time. In this case only seven A 4475 zone wallplates can be used. The A 4476 will operate in any "Zone wall plate" or "Paging console" RJ45 port.
- 14 Emergency input Vox Level**
Use this trimpot adjustment to change the vox level for the emergency mic input.
- 15 Priority input Volume**
Use this trimpot adjustment to change the output level of the priority input.
- 16 Priority input trigger**
Use this contact to trigger the priority input.
- 17 Priority Input RCA Connectors**
Connect this input to an input audio source such as telephone paging, or special event player such as the playing of the "ODE". This inputs is converted to mono internally.
- 18 Priority Input Vox Level**
Use this trimpot adjustment to change the vox level for the priority input.
- 19 Expansion In/Expansion Out RJ45 connectors.**
This is currently not used.

- 20 RJ45 connectors for zone wall plates**
These RJ45 ports connect to the A 4475 remote zone wallplates, if used.
- 21 USB keyboard connector**
Connects to a standard USB keyboard for programming the front panel LCD.
- 22 Power Fail connector**
A closing contact which can be used to trigger a buzzer or lamp via an external relay for indication of a power fail.
- 23 DC fuse (4A M205)**
This fuse protects the internal power supply. Replace with 4A rated fuse only.
- 24 Pluggable 24VDC backup power socket**
Connects to 24V DC power source via Euroblock screw terminals. Observe correct polarity when connecting.
- 25 24VDC power socket**
Connects to 24V DC plugpack supplied with 2.1mm adaptor.
- 26 Earth Lift switch**
This switch is used to isolate the input earth from the chassis to help eliminate earth loops or hum.

2.0 SETUP GUIDE

This is intended to be a quick setup for a minimal install. Section 3.0 will build on the initial setup and cover the installation of peripheral connections and more in depth detail on programming the unit. In this basic configuration we will use a setup in a bar as an example. The install requires 2 audio sources, a tuner and a dvd player. This audio will be fed to 4 different zones, the main bar, the beer garden, the restaurant, and the kitchen. All adjustments will be made from the front panel of the A 4480A.

A programming template in PDF format is available to download from the Altronics website. This allows you to map your inputs, outputs, zone names, source names and presets before you commence programming. A printed copy is located at the end of operating manual (see section 9.0).

2.1 ALERT/EVACUATION/CHIME MODULE

The A 4573 module generates pre announcement chimes and alert and evacuation tones.

Separate volume controls are included for adjustment of the alert/evac tone level, the chime level and the message voice-over level. The chime and alert/evac tones are triggered by closing contacts via a five way euro block. These triggers can be set to momentary or alternate action by on board DIP switches.

Chimes included on the module include pre announcement, Ding Dong, repeating Bing and repeating Bong. All of these are DIP switch selectable.

The module is also fitted with a switch over option which changes the evacuation tone from the Alert tone to the Evacuation tone after a set time. This can be adjusted from 30 seconds to 270 seconds in 30 second increments or it can be switched off altogether.

A microphone has been included which is used to record an emergency voice over message if required. This message can be turned on via DIP switches, and will play twice after the evacuation tone has repeated four times.

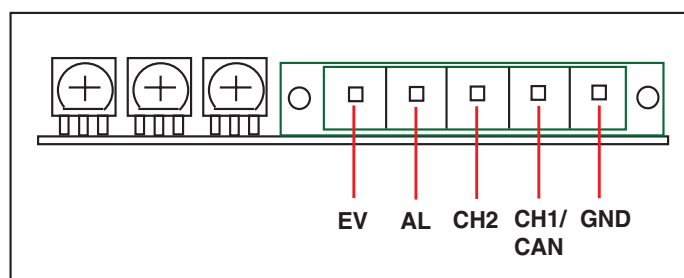


Fig 2.1a

Triggering the tones

The unit is triggered by closing the contacts on the 5 way pluggable header. There are four different trigger inputs as shown in Fig 2.1a.

Evac tone - triggered by a closed contact between EV (alert tone) and GND (ground).

Alert tone - triggered by a closed contact between AL (alert tone) and GND (ground).

Chime 2 - triggered by a closed contact between CH2 (chime 2) and GND (ground).

Chime 1/Cancel - triggered by a closed contact between CH1/CAN (chime 1/cancel) and GND (ground).

The alert and evac triggers can be set to momentary or latched action. In momentary operation the alert or evac tones will operate only while the trigger is activated. In latched operation the tones will operate continuously after they have been triggered, even with a momentary contact. This option is set by DIP switch 1 (Refer to table 2 for DIP switch settings).

Table 2: DIP Switch Settings		
SW	ON	OFF
1	Momentary Alert & Evac Operation.	Latched/Continuous Alert & Evac Operation.
2	Voiceover ON.	Voiceover OFF.
3	Not Used	
8	Mic Recording ON.	Mic Recording OFF.

Switch Over Option

The A 4573 is equipped with a "switch over" option which switches the unit from the Alert tone to the Evacuation tone automatically. This can be adjusted from 30 seconds to 270 seconds in 30 second increments or it can be switched off entirely. This is adjusted by switch 1 (refer to table 1 for selection details).

Table 1: Switch 1 Settings	
SW1 Pos	Switch Over Option
0	Disabled
1	Alert switches to Evac after 30 seconds
2	Alert switches to Evac after 60 seconds
3	Alert switches to Evac after 90 seconds
4	Alert switches to Evac after 120 seconds
5	Alert switches to Evac after 150 seconds
6	Alert switches to Evac after 180 seconds
7	Alert switches to Evac after 210 seconds
8	Alert switches to Evac after 240 seconds
9	Alert switches to Evac after 270 seconds

Voice Over message

The A 4573 has a voice over option which is used to playback a recorded message. This is enabled by switching DIP switch 2 to "ON" (Refer to table 2 for DIP Switch settings). Once enabled the recorded message will play twice after four cycles of the evac tone.

Note: this voice over will only operate when the A 4573 is in evac mode.

To record a message, connect the supplied microphone to the 2 way euro block as shown in figure 2.1B. To start recording, set DIP switch 8 to "ON" and start talking into the microphone. When finished recording, set the DIP switch back to 'OFF'.

Adjusting Volume Levels

The output levels for the chime, alert/evac tones and the voice over are all adjustable via trimpots as shown in Fig 2.1B.

Note: The Alert and Evac tones are adjusted using the same trimpot. They cannot be adjusted separately.

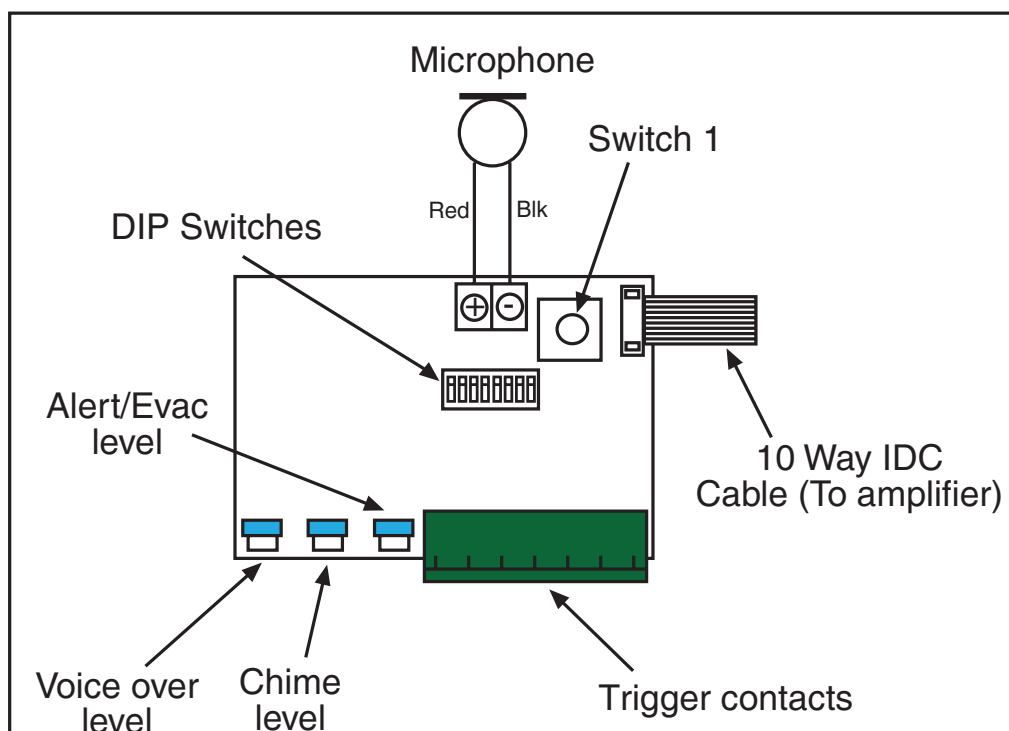


Fig 2.1b

Chime Options

There are two contacts available for activating the chime tones, and there are four different chimes available (pre announcement, Ding Dong, Repeating Bing and Repeating Bong). It is possible to have two different chimes available to use at the same time, but if the cancel trigger is required then the module is limited to one available chime trigger (Refer to table 3 for selection details).

Table 3: DIP Switch Settings For Tones

DIP				CHIME CONTACT	
4	5	6	7	CH2	CAN/CH1
OFF	OFF	OFF	OFF	Pre Announce	Ding Dong
ON	OFF	OFF	OFF	Pre Announce	Repeating Bong
OFF	ON	OFF	OFF	Pre Announce	Repeating Bing
OFF	OFF	ON	OFF	Pre Announce	CANCEL
OFF	OFF	OFF	ON	Ding Dong	Pre Announce
ON	ON	ON	ON	Ding Dong	Repeating Bong
OFF	ON	ON	ON	Ding Dong	Repeating Bing
ON	OFF	ON	ON	Ding Dong	CANCEL
ON	ON	OFF	ON	Repeating Bong	Pre Announce
ON	ON	ON	OFF	Repeating Bong	Ding Dong
OFF	OFF	ON	ON	Repeating Bong	Repeating Bing
OFF	ON	OFF	ON	Repeating Bong	CANCEL
OFF	ON	ON	OFF	Repeating Bing	Pre Announce
ON	ON	OFF	OFF	Repeating Bing	Ding Dong
ON	OFF	ON	OFF	Repeating Bing	Repeating Bong
ON	OFF	OFF	ON	Repeating Bing	CANCEL

2.2 CONNECTING AUDIO SOURCES

Begin by connecting the audio sources. (see Fig 2.2a).

- 1 - Use a dual RCA lead to connect the **INPUT 1** on the A 4480A to the audio output sockets of the source eg: tuner.
- 2 - Use a dual RCA lead to connect the **INPUT 2** on the A 4480A to the audio output sockets of the source eg: DVD player.

If more audio sources are required, connect them to inputs 3-8 on the A 4480A.

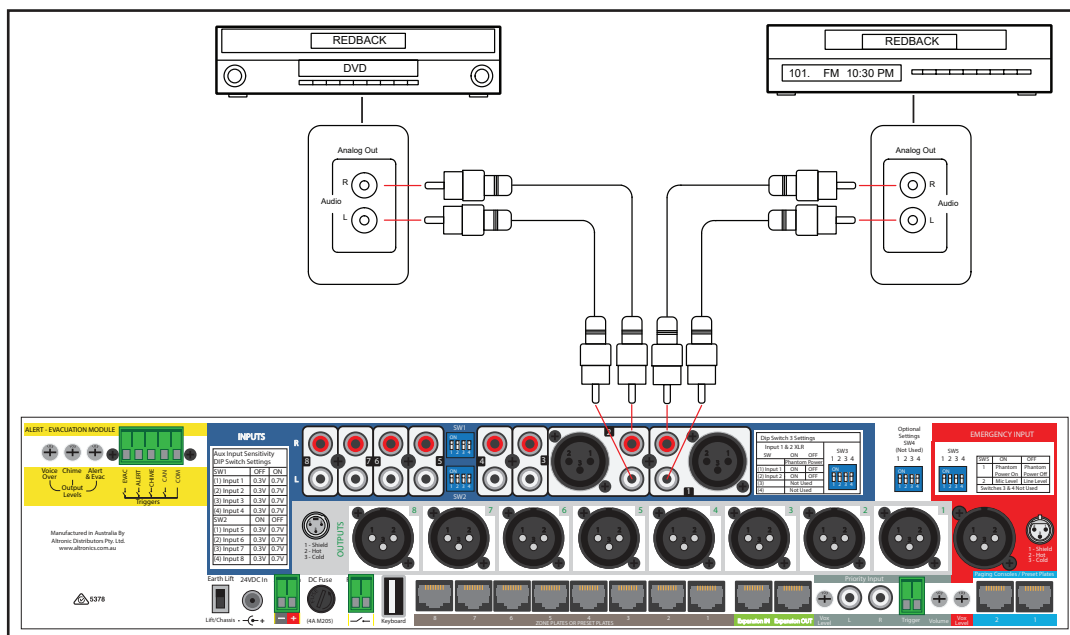


Fig 2.2a

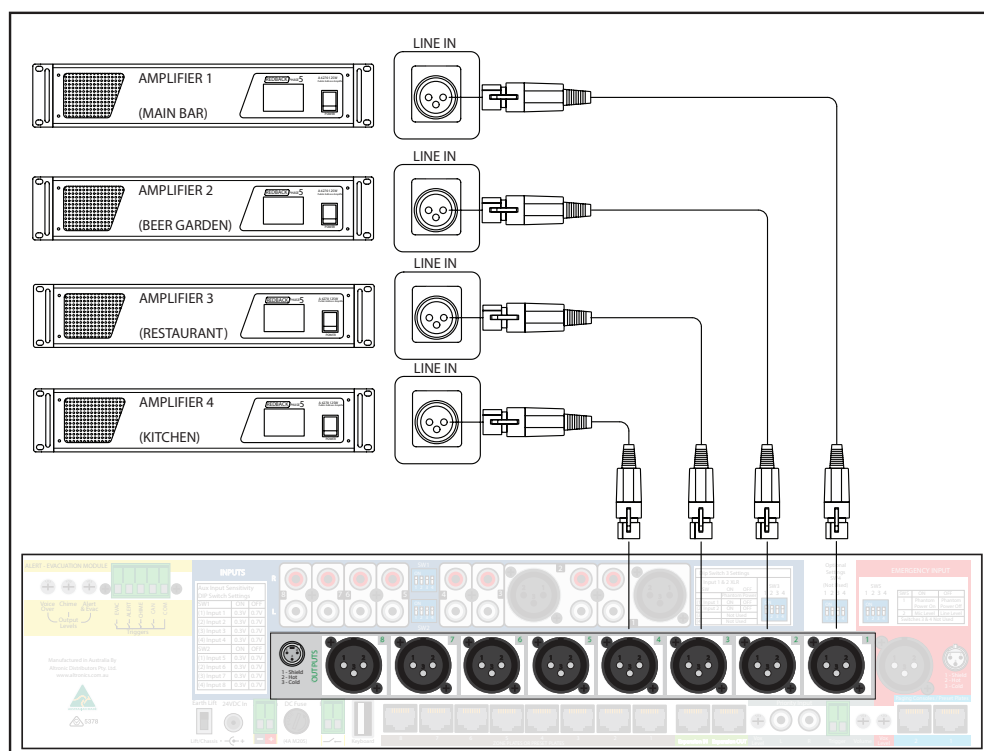
2.3 CONNECTING OUTPUTS

The output sources are next to be connected. (see Fig 2.3A)

- 1 - Use a balanced XLR lead to connect **OUTPUT 1** on the A 4480A to the line input socket of the zone 1 amplifier. In this example, zone 1 is labelled as "main bar".
- 2 - Use a balanced XLR lead to connect **OUTPUT 2** on the A 4480A to the line input socket of the zone 2 amplifier. In this example, zone 2 is labelled as "beer garden".
- 3 - Use a balanced XLR lead to connect **OUTPUT 3** on the A 4480A to the line input socket of the zone 3 amplifier. In this example, zone 3 is labelled as "restaurant".
- 4 - Use a balanced XLR lead to connect **OUTPUT 4** on the A 4480A to the line input socket of the zone 4 amplifier. In this example, zone 4 is labelled as "kitchen".

If more output zones are required, connect them to outputs 5 to 8 on the rear of the A 4480A.

Fig 2.3A



2.4 CONNECTING POWER

Next, connect power to the unit. (see Fig 2.4A)

The A 4480A can be powered from either a 24V DC rated source or mains rated 220-240V AC @ 50Hz.

24V DC can be supplied via a 2 way pluggable terminal. The supply would need to be able to deliver a continuous 24V DC @ 2A. It is not recommended that the unit is continually powered in this manner. Rather the unit should be run of 220-240V AC via the supplied 3 pin mains lead. The 24V DC input should be connected to a backup supply which switches on in the event of mains power failure.

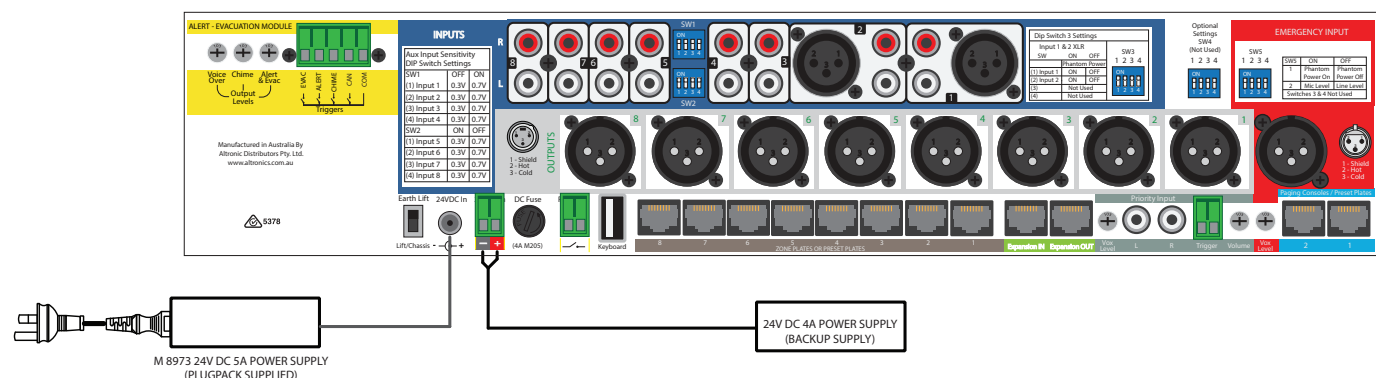


Fig 2.4A

2.5 CONFIGURING THE INPUTS TO OUTPUTS/ZONES

Once the unit is switched on the title screen with the software version will momentarily appear. The unit will then go into a self check mode and search for any externally connected wall plates & paging consoles. Once the check is complete, the main screen appears. Before commencing any programming, ensure the A 4480A is unlocked. To unlock, press "confirm" and "cancel" buttons at the same time. The main screen is shown below in Fig 2.5A. The left side of the screen shows the output zones 1-8, while the input sources are displayed on the top of the screen.

There is also a local audio and paging console option shown which will not be discussed in this quick setup section. This will be covered in section 3.

Zone 1 refers to the zone 1 output which in our example was the main bar. Zone 2 refers to the beer garden and so on. To make these easier to remember the zone names can be labelled via the use of a keyboard. However this will not be covered here. Please refer to section 4.2 for more details.

The inputs work in the same manner. Input 1 in our example was the tuner and input 2 was the DVD player. Once again these can also be labelled.

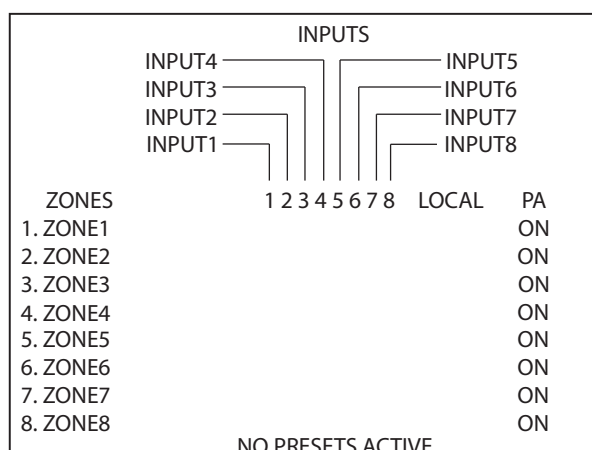


Fig 2.5A

2.5.1 Routing audio to a zone

In our example we have 2 input sources and 4 zones. Selecting which zone receives which audio is very simple. The buttons on the left side of the LCD are the zone selection buttons.(see Fig 2.5B)

Zone Selection Buttons

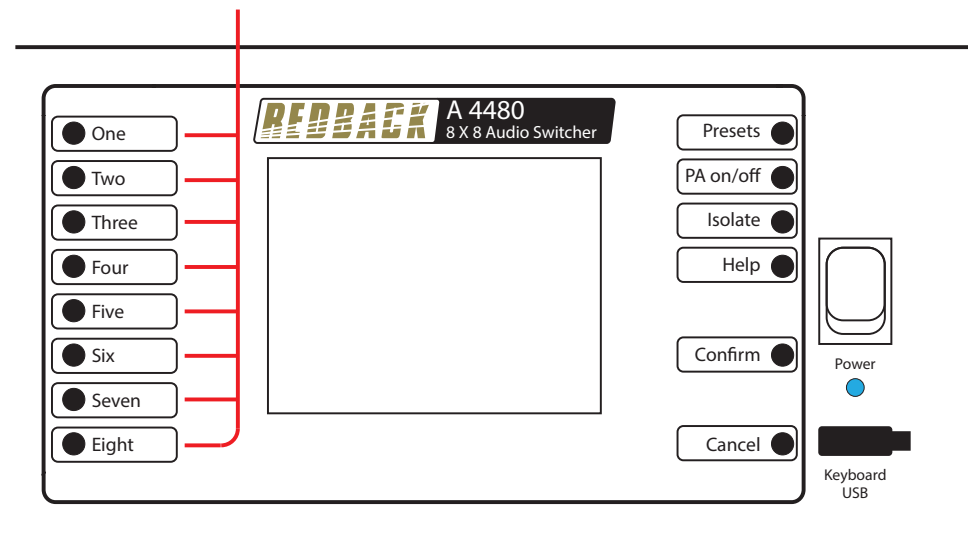


Fig 2.5B

For each zone there are 8 possible inputs to select and the off position which is the default. Each time one of these zone selection buttons is pressed the next input source is routed to that particular zone. This is displayed on the screen by an " ". For instance in our example we want to route the DVD player (input 2) to the main bar (zone 1). Pressing zone selection button 1 twice will move the " " 2 positions from the off position to input 2, thus routing the DVD player to zone 1. Continuing to press the zone 1 button will move the " " through all the inputs and then to the off position where the " " will no longer be visible.

By pressing the zone 2 selection button twice we can also route the DVD player to zone 2 and so on.

In the example below in Fig 2.5C (input 2) is routed to the main bar (zone 1), the beer garden (zone 2) and the restaurant (zone 3). While the tuner (input 1) is routed to the kitchen (zone 4).

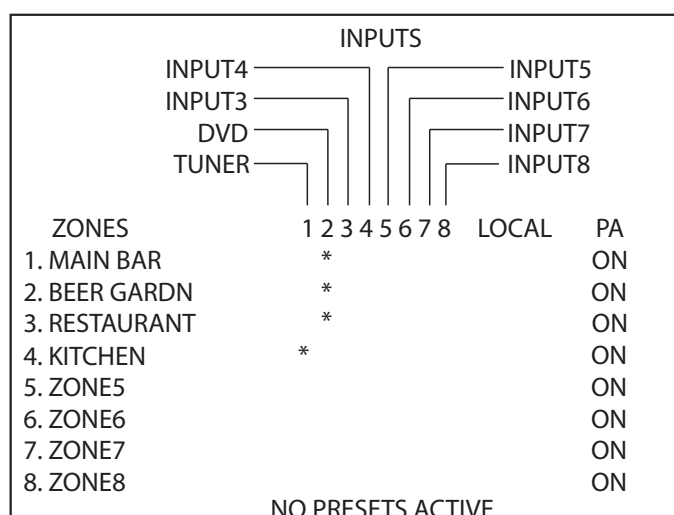


Fig 2.5C

2.6 ADJUSTING THE BASS, TREBLE AND INPUT VOLUMES

The system is now setup and ready to run.

The eight audio inputs all have separate bass, treble and volume controls, which are accessible on the front panel as shown in Fig 2.6A. These tamper proof controls need to be adjusted with a screwdriver and set to your desired levels. A signal present LED on each input provides instant feedback on the presence of audio from the input sources. A perspex cover is provided which can be screwed on to the front panel which covers these bass,treble and input volume pots to prevent tampering.

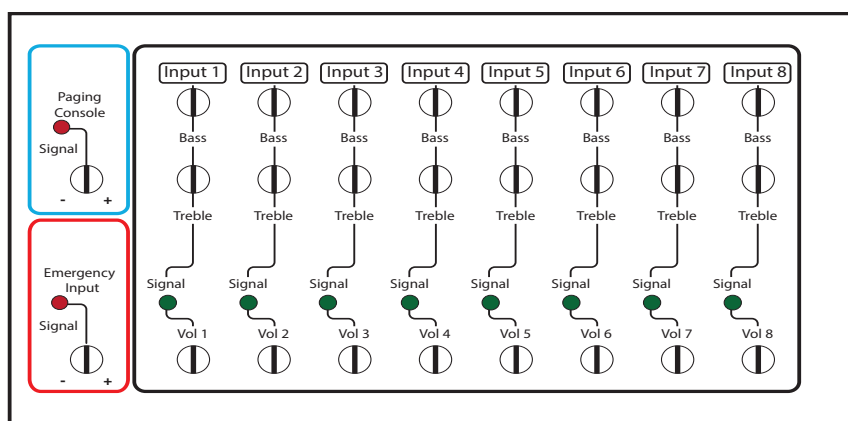


Fig 2.6A

2.7 ADJUSTING THE PAGING CONSOLE AND EMERGENCY INPUT VOLUMES

The emergency microphone and paging microphone controls are also shown in Fig 2.6a. The signal present leds indicate when a signal is present and the volume adjusts the audio level from these two microphones.

2.8 ADJUSTING THE ZONE VOLUMES

The 8 zones also each have volume controls which can be set to the desired levels on the front of the unit (see Fig 2.7A)

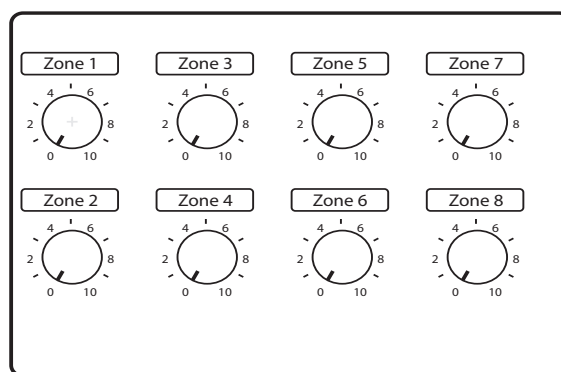


Fig 2.7A

3.0 LOCAL AUDIO & PAGING CONSOLE OPTIONS

3.1 LOCAL AUDIO CONFIGURATION

The local audio configuration on the LCD indicates zones that have a local audio source connected via the A 4478 local audio wall plate and the A 4491/92 zone wall plate (see section 5.2 and 5.4 for connection details).

If a local audio source is detected on a zone wall plate it is displayed on the LCD via an asterisk (*) in the local section. For example, if zone 1 had an A 4478 fitted with a live audio source connected, the system would detect the presence and display an "*" in zone 1 as shown in fig 3.1A. This automatically overrides any input source selected via the front panel.

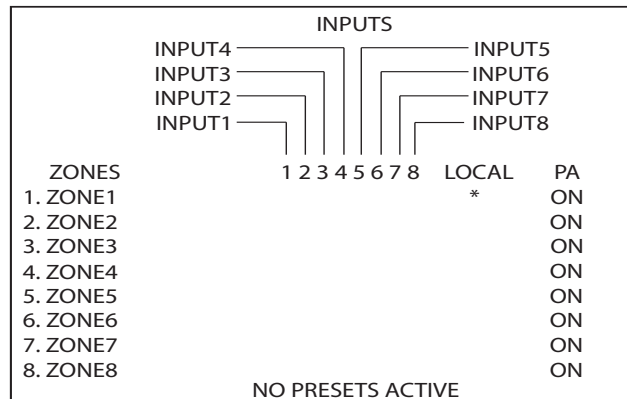


Fig 3.1A

3.2 PAGING CONSOLE CONFIGURATION

The paging console configuration on the LCD is used to display which zones are currently accessible by the paging consoles. All output zones can be programmed to be "locked out" from paging. If a zone is locked out, general paging will not be routed to that zone. However emergency paging will override locked out zones and page all output zones. An example may be an output zone such as a carpark. General paging may not be required but emergency paging would still be required.

3.3 CONFIGURING THE PAGING CONSOLE LOCKOUT ON THE LCD

To configure a zone to be locked out from general paging return to the main screen, if not already there. Press the PA on/off button. The screen shown below in fig 3.1B should appear.

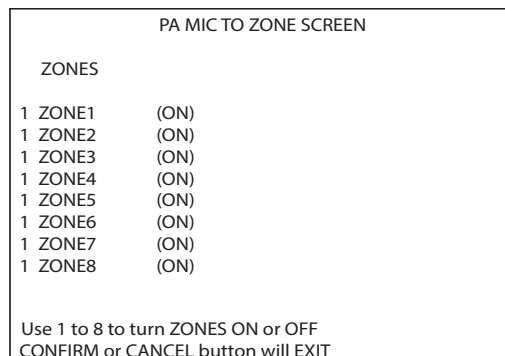


Fig 3.1B

To lock a zone out from the general paging, use the buttons labelled 1-8 left of the LCD. Pressing button 1 will toggle zone 1 ON or OFF depending on its current status. Pressing button 2 will toggle zone 2 ON or OFF etc. If the zone is left in the OFF state, paging to this zone will now be locked out. Note: this lock out will be overridden by emergency paging.

3.4 CONFIGURING THE PROGRAM ISOLATE ON THE LCD

The A 4480A can be setup to isolate selected input sources from a zone, so these inputs are isolated or BLOCKED for that zone. Examples might include music being isolated or blocked to the "car park" or common areas.

To isolate an input from a zone, press the isolate button on the front of the A 4480A. The screen shown in Fig3.1C will appear. In this example input 1 is isolated from zone1 as indicated by the letter "I". To isolate the inputs use the buttons 1-8 on the left of the screen to select the zone and then continue to press the selected number to scroll through the inputs. A circle on the screen indicates the cursor position. Once in position, press the isolate button and the cursor will change to an "I". The corresponding input is now isolated from that zone. Pressing the isolate button again will turn off the isolate.

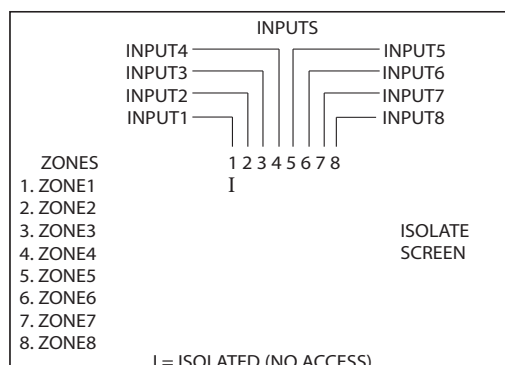


Fig 3.1C

4.0 EMERGENCY OVERRIDES & PRIORITIES

4.1 PRIORITIES

There are 5 levels of priority in the A 4480A.

Level 1 The **emergency microphone** is a hard wired microphone which connects to the 3 pin XLR connection as shown in the full connection diagram. This has top priority and will override all other inputs. The gain of this microphone is set by the screwdriver adjust controls on the front of the A 4480A. A signal presence LED indicates signal being received from the microphone.

Level 2 The **A 4481 paging console** (optional) has an emergency paging function which will override all other inputs except the emergency microphone. See section 5.1 for details. The gain of this microphone is set by the screw driver adjust controls on the front of the A 4480A. A signal presence LED indicates signal being received from the microphone.

The **priority input** operates on the same priority level as the A 4481 paging consoles. (See section 5.2 for details) The priority input and the paging consoles work on a First In Best Dressed basis.

Level 3 The **alert/evacuation tones** provide the next level of priority and will override all inputs except the emergency paging microphone, the paging consoles (if fitted) when used in emergency paging mode and the priority input.

Level 4 The A 4481 paging console when operating in standard paging mode has the next level or priority and will override all local zone inputs and line inputs.

Level 5 The A 4478 local input wallplate (optional) will override audio routed to the same zone the A 4478 is connected to.

Input audio sources 1-8 have the lowest priority and will not override anything.

4.2 PRIORITY INPUT

The priority input can be triggered via a closing contact or a vox operated audio input. This makes it useful for applications such as telephone paging or the playing of the ODE in RSL clubs when used in conjunction with a timer.

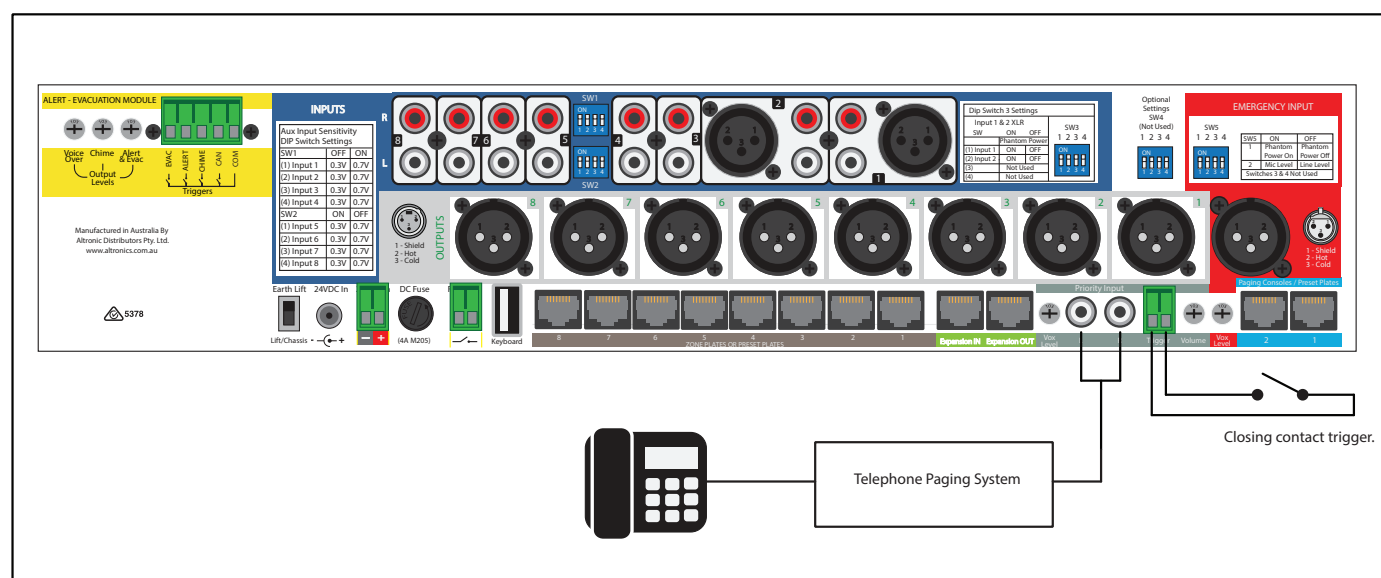


Fig 4.2A

The priority or All Call input operates on the same priority level as the A 4481 paging consoles. They all work on a First In Best Dressed basis. This will over-ride all other inputs except the emergency microphone. The output level of the priority input can be adjusted via the trimpot on the rear of the A 4480A. The audio input has a trimpot adjustable vox input sensitivity.

4.3 LABELLING OF INPUT SOURCES, ZONES & PRESETS

The input audio sources and the output zones can all be labelled using a USB keyboard. Audio source examples might include CD Player, Radio, etc. Output zone examples might include Beer Garden, Foyer, Conf. Room etc. A maximum of ten characters is available for each label.

4.3.1 How to label input sources and zones via USB keyboard

Plug a standard USB keyboard into the USB socket on either the front or rear of the A 4480A. The keyboard will be automatically detected and navigate the user to the label input screen.

There are 3 options available, labelling the input sources, labelling the output zones and labelling the presets. All labels have a maximum of 10 characters consisting of the numbers 0-9 and the letters a-z. To use capital letters hold down the shift key when typing.

To label the input sources

Press the letter "i" on the keyboard. This will navigate the user to the "label inputs screen". Press the numbers 1-8 on the keyboard to select the input to label. Type in the label required and press return. Press escape to exit back to the main label input screen.

To label the output zones

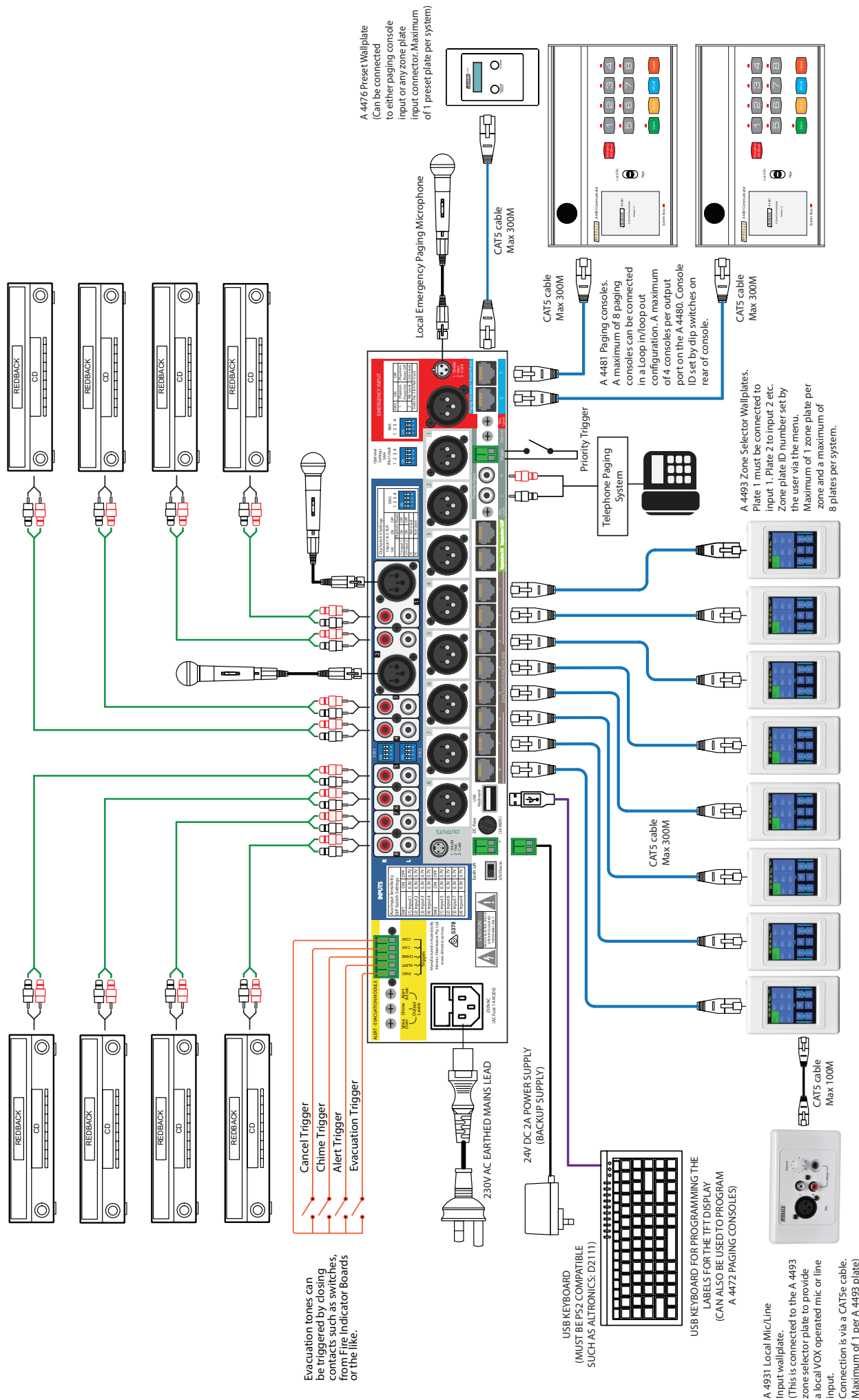
Press the letter "z" on the keyboard. This will navigate the user to the "label zones screen". Press the numbers 1-8 on the keyboard to select the zone to label. Type in the label required and press return. Press escape to exit back to the main label input screen.

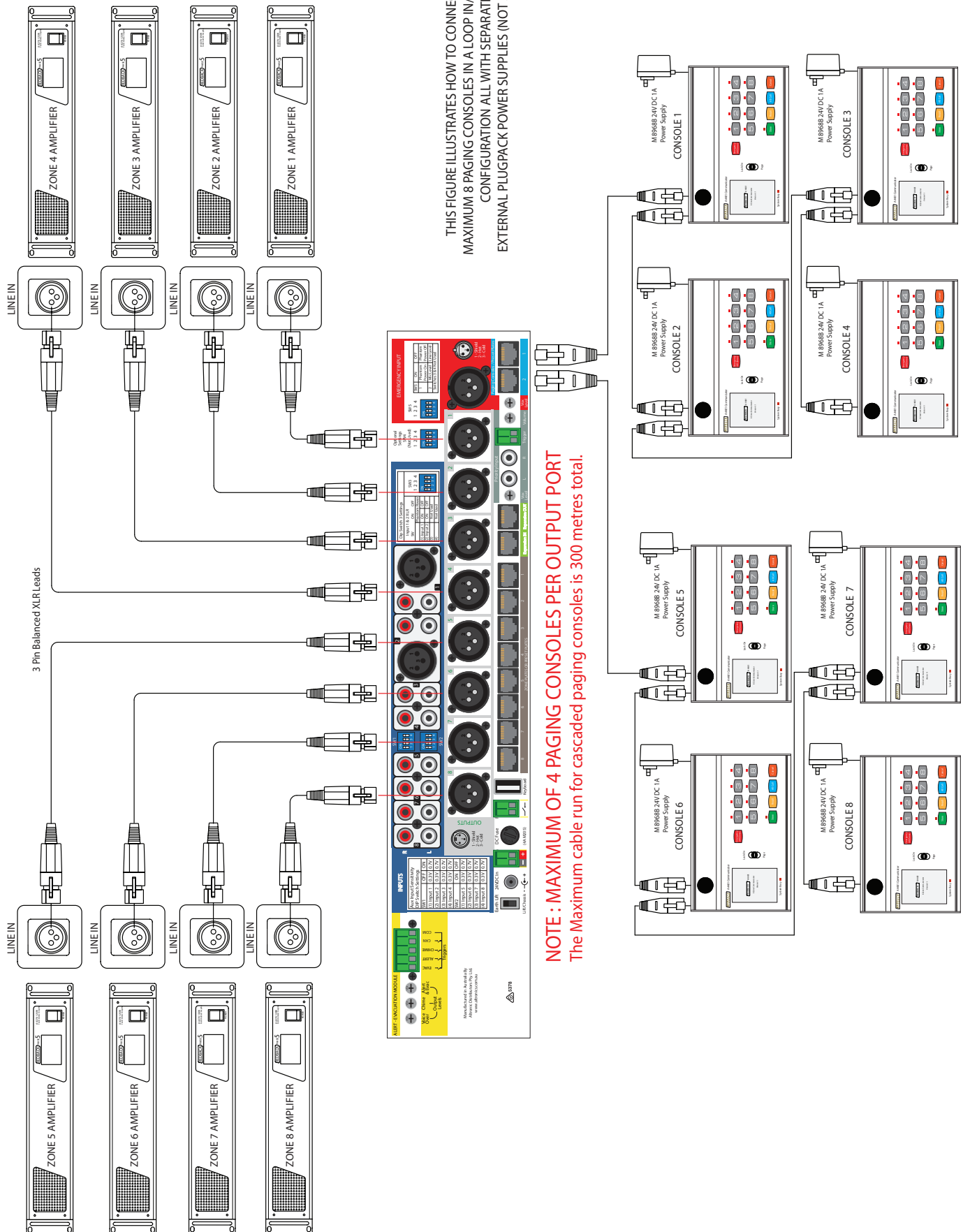
To label the presets

Press the letter "p" on the keyboard. This will navigate the user to the "label presets screen". Press the numbers 1-4 on the keyboard to select the preset to label. Type in the label required and press return. Press escape to exit back to the main label input screen.

Press escape on the keyboard or the confirm or cancel buttons on the front of the A 4480A to exit the labelling menu.

Once the label input screen is exited the unit will perform a system update. This will update all connected wall plates and paging consoles with the new labels. Should you make a mistake or wish to re-label a source, zone or preset, repeat the steps above. Once in the respective labelling screen, the original name may be overwritten.





THIS FIGURE ILLUSTRATES HOW TO CONNECT THE
MAXIMUM 8 PAGING CONSOLES IN A LOOP IN/LOOP OUT
CONFIGURATION ALL WITH SEPARATE
EXTERNAL PLUGPACK POWER SUPPLIES (NOT SUPPLIED)

4.4 PRESETS

The configurations of the input/output matrix can be saved into memory as presets which can be called up at any time. There are 4 user defined presets, a default preset and last setting preset. Before commencing preset programming, ensure the A 4480A is unlocked. To unlock, press "confirm" and "cancel" buttons at the same time.

4.4.1 User defined presets (1-4)

The A 4480A has 4 user defined presets which the user programs to save frequently used configurations. The user defined presets can be labelled via the use of a USB keyboard. This is covered in section 4.2. For instance you may set up the matrix for a wedding. Labelling a preset as "Wedding" would provide an easily recognisable label to be recalled for any wedding functions. Presets numbered 1-4 can be labelled but preset 5 which is the default preset cannot.

4.4.2 Default preset

The default preset is designed to be used as the "fall back" setting. For example, if the staff have been making changes to the unit and you need to return it to its standard setting, then the default setting could be used. This might be used as your everyday setup eg: the unit may be setup in a bar which caters to functions. The 4 presets may be all used for 1- "Tues Bingo", 2- "Sat Night", 3- "Weddings", 4- "Band night" and a preset is required for the usual everyday setting of the venue. The default setting could be set to this everyday configuration.

4.4.3 Last setting preset

The "last setting" preset or "previous" preset is an automatically saved preset which saves the current configuration before loading a preset i.e. any time a preset is loaded, the settings before it was loaded will be saved into the "last setting" preset. This is particularly useful if the user wants to return to the setup before a preset was loaded, eg: maybe Tuesday night is Bingo night and this has been saved into one of the 4 user defined presets. Before the bingo begins the venue could be setup in any sort of configuration, which is not necessarily going to be known.

Tuesday night comes around and the Bingo preset would be loaded for the bingo. Without the "last setting" preset the previous setup would be lost. The bingo night comes and goes and the previous setup can now be loaded by selecting the "previous" preset in the preset screen.

4.4.4 Setting up a user defined preset

To set up a user defined preset, configure the audio sources and output zones as per section 2.5. Once you are satisfied with your selections, press the "preset" button. The "preset save and retrieve" screen will be displayed. To save the preset, hold down one of the buttons numbered 1 to 5 for 2-3 seconds until the unit confirms your selection. Remember, presets 1-4 are user defined (these can be custom labelled), whilst preset 5 is the initial default setting.

4.4.4 Retrieving/loading a preset

To retrieve a preset from the main screen. Press the preset button and then one of the buttons numbered 1 to 6. Presets 1 to 4 being "user defined", 5 being "default" and 6 being "last setting". Once the preset is loaded the label will appear on the LCD in the lower left corner.

Presets may also be loaded remotely via the A 4476 wall plate. For more details see section 5.4.

4.4.5 Modifying a preset

If you wish to change the configuration of a preset, firstly load the preset you wish to change (as per 4.3.4). Modify any source & output zone selections you require. Once you are satisfied with your selections, press the "preset" button. The "preset save and retrieve" screen will be displayed. To save the new settings, hold down one of the preset buttons (1 to 5) for 2-3 seconds until the unit confirms your selection. Any settings previously stored in the selected preset will be overwritten with the new settings.

4.5 BUTTON LOCKOUT FEATURE

The buttons on the front of the unit can be locked out to stop tampering. To activate or de-activate this feature hold down the "confirm" and "cancel" buttons simultaneously. Please note: When a preset is selected the unit will automatically enable the button lockout feature. Preset button is not affected by the button lockout feature.

4.6 MASTER RESET FUNCTION

To reset all settings to factory default plug in a USB keyboard. Press "R" on the keyboard, this will navigate to the "reset" screen. The screen will prompt you with "Are you sure you wish to erase ALL settings?". Select "Y" for Yes, "N" for No. This will erase all settings, including input labels, zone labels, input source settings and presets.

5.0 PERIPHERAL CONNECTIONS

5.1 A 4481 PAGING CONSOLE

The A 4481 paging console is an extremely flexible addition to the A 4480A audio switcher.

The consoles can be used for multi zone paging with the facility to store and recall multiple zones to a single button. The recall functions can also be labelled via a USB keyboard which can be plugged into the rear of the unit. (see section 5.1.4) The labels will then be displayed on the highly functional and attractive LCD. An example might be a label "sales".

An emergency paging over-ride facility is accessed by a combination of an illuminated push button switch and a PTT (push to talk) switch. This combination removes the possibility of accidentally activating the emergency over-ride facility. When activated, emergency paging will be forced through to all zones regardless of any zones which were set to be locked out.

A maximum of 8 paging consoles can be connected to the A 4480A at the same time. These work on a "first in, best dressed" arrangement. The consoles can be cascaded together or wired back to the A 4480A (see section 5.1.3 to 5.1.5 for details).

Each unit must be assigned an ID number through DIP switch settings on the rear of the unit.

A pre-announcement chime is available at the paging console and through the PA system. Both of these are set by DIP switches on the rear of the unit.

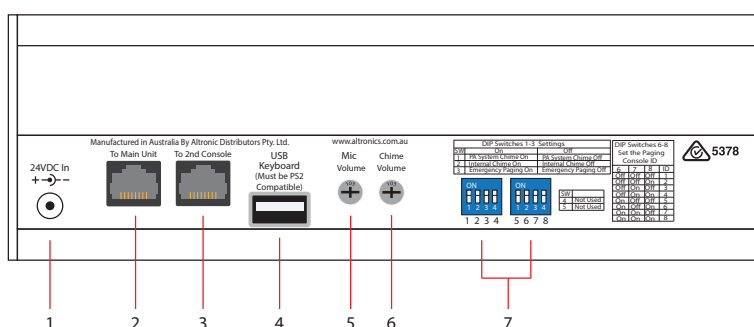


Fig 5.1A

- 1 24V DC connector**
2.1mm DC jack (centre pin positive).
- 2 RJ45 connector**
For connection back to the A 4480A.
- 3 Cascade paging connector**
Secondary RJ45 socket for cascading a second console.
- 4 USB keyboard input.**
Use the keyboard to record labels for saved store functions.
- 5 Microphone volume**
Use this volume to adjust the microphone level.
- 6 Chime volume**
Use this volume to adjust the chime level.
- 7 DIP switch options**
These switches set the chime and emergency paging on or off and also assign a location number to the console.



5.1.1 Features

- Multi zone paging.
- Zone lock out facility.
- Recall multiple zones with a single button press.
- Keyboard entry labelling of recall zones.
- LCD for indicating zone selections.
- Pre-announcement chime.
- Emergency override paging to all zones.

5.1.2 DIP Switch Settings

A series of DIP switches which are accessed on the rear of the unit provide a number of options.

DIP switch 1 sets the PA system chime on or off.

DIP switch 2 sets the internal chime on or off.

DIP switch 3 sets the emergency paging on or off

DIP switches 4&5 are not used.

DIP switches 6-8 select the ID number for the console.

Table 5.1a shows the ID settings.

A maximum number of 8 consoles can be connected to the A 4480A audio switcher.

DIP Switches 6-8 Set the Paging Console ID			
6	7	8	ID
Off	Off	Off	1
Off	Off	On	2
Off	On	Off	3
Off	On	On	4
On	Off	Off	5
On	Off	On	6
On	On	Off	7
On	On	On	8

Table 5.1A

5.1.3 Connecting the paging consoles

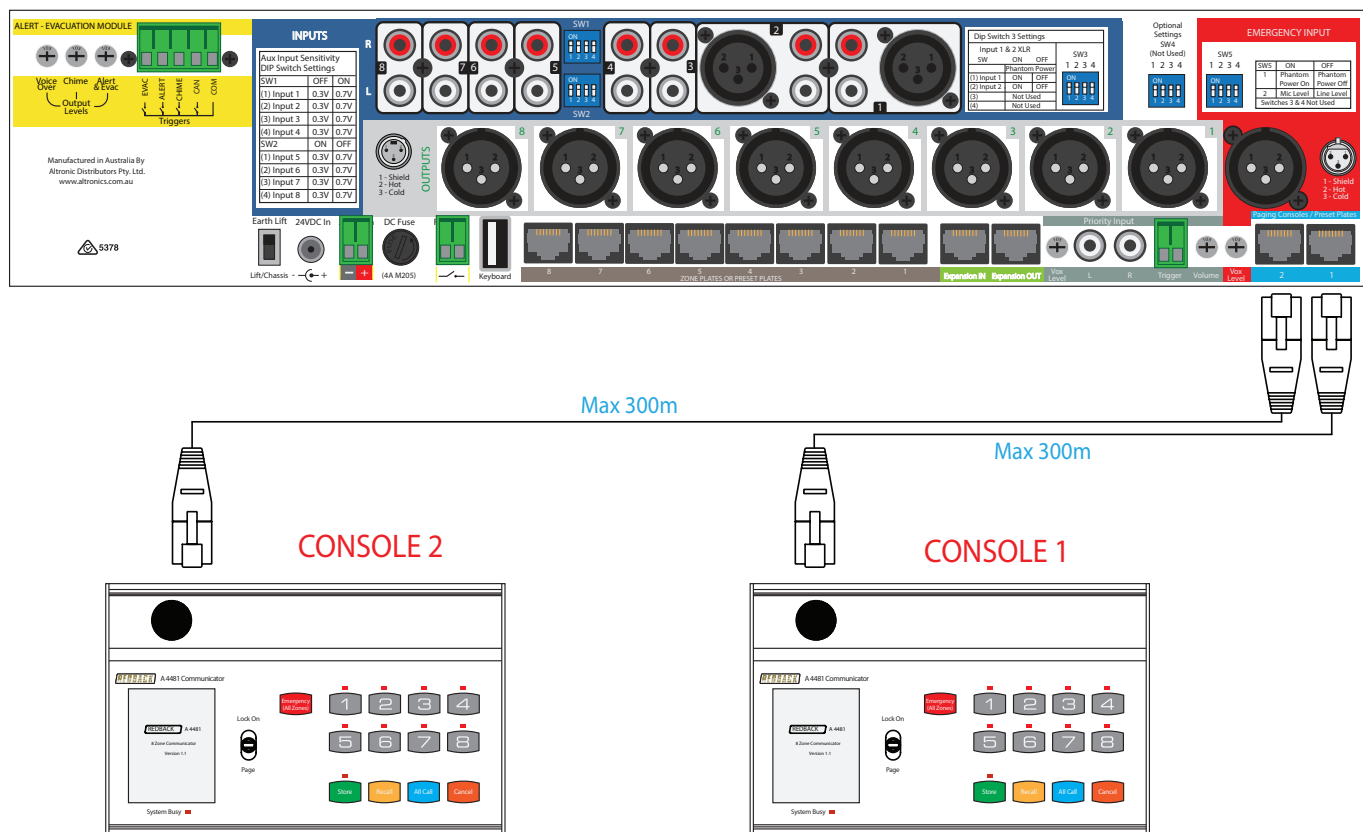


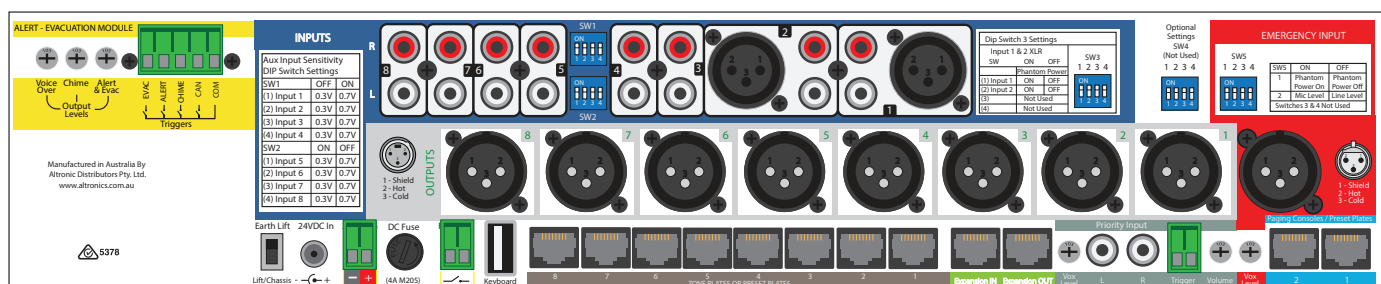
Fig 5.1B

The consoles are connected to the A 4480A via standard Cat5e cabling as shown in Fig 5.1B. The maximum distance between the A 4480A and a paging console is 300m. Note that each paging console must be assigned an ID number before operation (see section 5.1.2 DIP switch settings).

A maximum of eight consoles can be connected at one time but only used in certain configurations. There are two RJ45 ports on the back of the A 4480A which can be used to connect the A 4481 paging consoles. Each port can accommodate a maximum of 4 paging consoles. Fig 5.1B shows how to connect one paging console per RJ45 port.

5.1.4 Cascading the paging consoles

If more than 2 paging consoles are required the consoles can be cascaded together with the addition of external power supplies. Fig 5.1C shows how to connect six paging consoles at once. In this fig consoles 1-4 are connected to Port 1 and consoles 5-6 are connected to Port 2. This could also be configured for 3 consoles per port. Please note: A maximum of 4 paging consoles can be connected per RJ45 port on the A 4480A. Each additional paging console has a dedicated power supply and the total cat5 cable run can be no longer than 300m. I.e the maximum length of cable (after all paging consoles have been cascaded) to the furthest paging console is 300 metres.



NOTE : MAXIMUM OF 4 PAGING CONSOLES PER OUTPUT PORT
The Maximum cable run for cascaded paging consoles is 300 metres total.

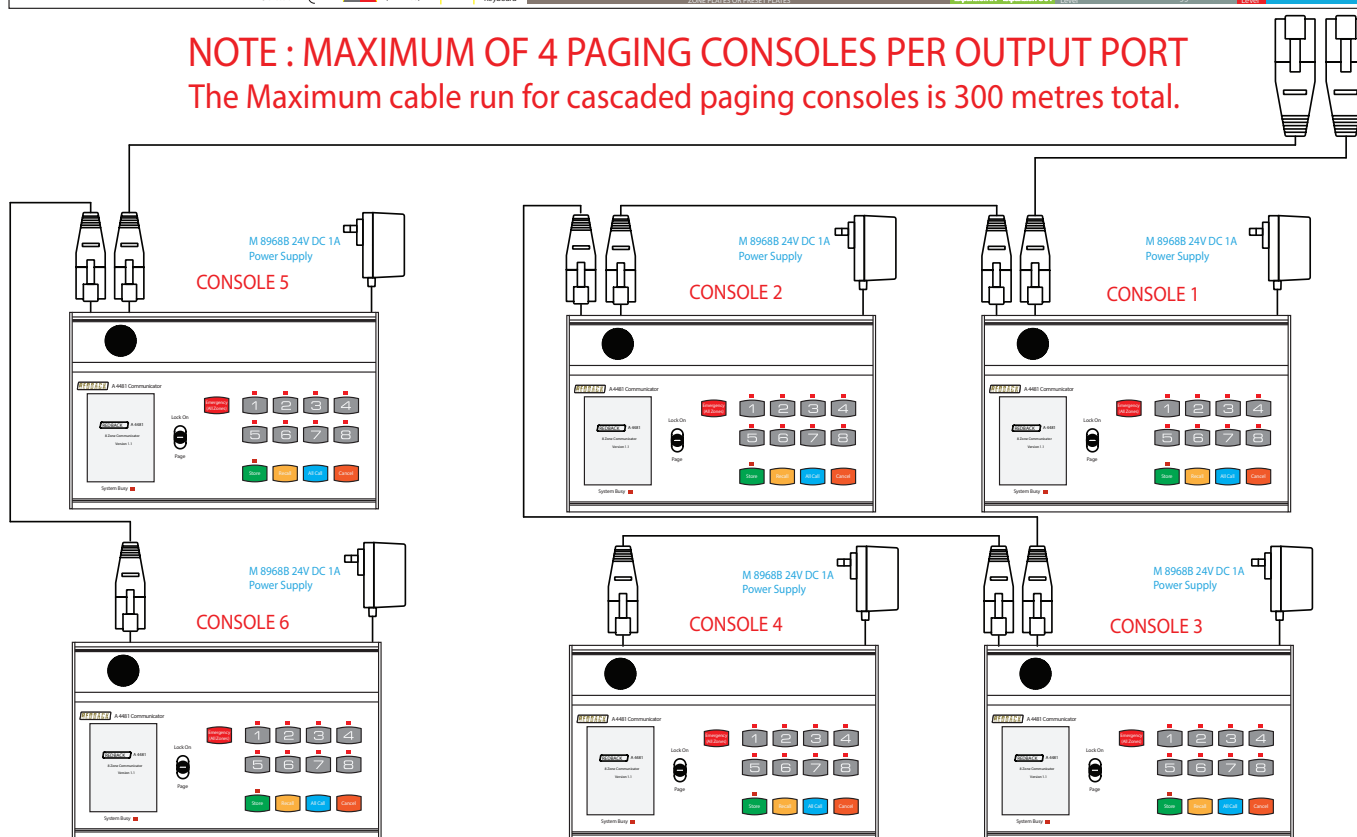
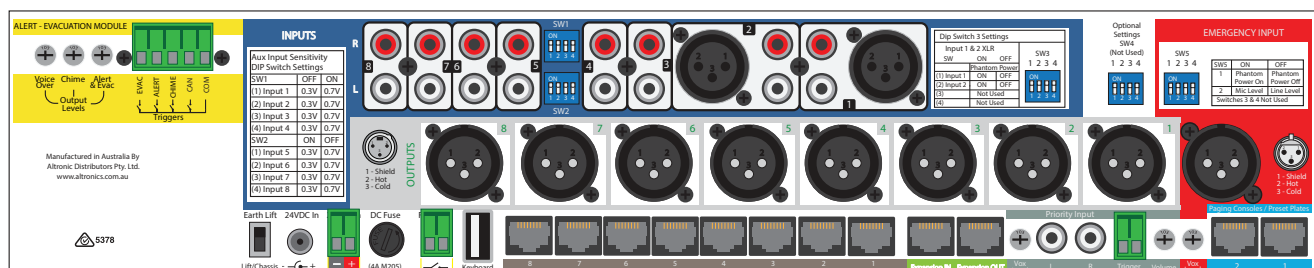


Fig 5.1C

5.1.5 Cascading the paging consoles with 8 zone wallplates and a preset plate.

The situation may arise where all 8 zone wall plates, a preset wallplate and two or more paging consoles are required. In this case the configuration shown in Fig 5.1D may be used. In this figure four paging consoles have been connected in cascade to RJ45 port 2. This is the maximum number of paging consoles allowed in this configuration. The A 4476 preset wallplate may be connected to either paging console input or any zone wallplate input. Note that each paging console must be assigned an ID number before operation (see 5.1.2 DIP switch 4). In cascade operation, each A 4481 paging console must be powered by individual 24V DC power supplies (Altronics part: M 9391A).



NOTE : MAXIMUM OF 4 PAGING CONSOLES
The Maximum cable run for cascaded paging consoles is 300 metres total.

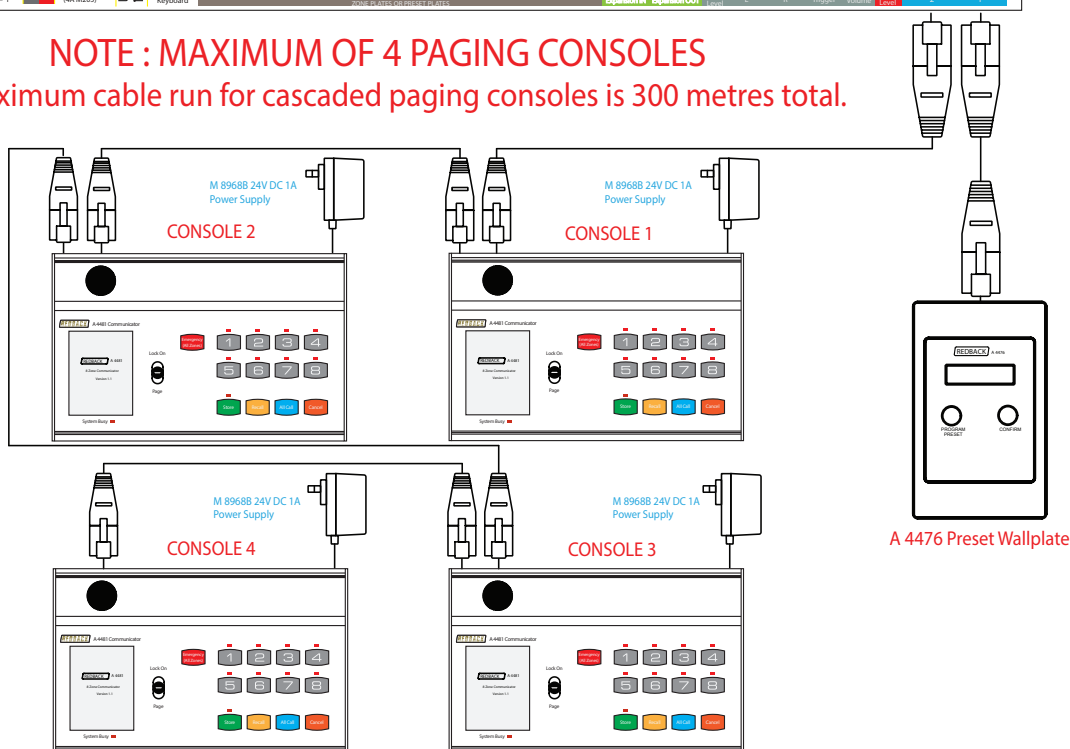


Fig 5.1D

5.1.6 Multi-zone paging

Paging is achieved by pressing the numbered button of the zone required. The button will illuminate. Hold down the page switch and speak into the microphone. Note: a zone with a fast flashing LED has general paging blocked. To page to multiple zones, press the buttons for the desired zones. Multiple buttons will illuminate. Hold down the page switch and speak into the microphone.

5.1.7 Zone lock out

General paging can be blocked to any zones either at the A 4480A main unit or via the paging consoles. To block paging to a zone from the A 4481, hold down the desired zone button until a message on the LCD indicates the zone is blocked out. Release the button to resume. To unlock the zone, repeat the procedure.

5.1.8 Store & recall groups of zones

Two function keys labelled store and recall may be used to program groups of zones into a single number recall, just as your telephone might have a “quick dial” memory function.

To store a group of zones

First press the store button on the paging console. Then select the zones you wish to group together. Once the desired zones are selected, press store again. You can now assign a group number using the numbered buttons (1 to 8). If you have previously stored a group of zones in the memory, these buttons will illuminate. Press store to complete the process.

Note that you may select one of the previously stored group numbers, however this will overwrite the existing stored zone selections.

The screen will now prompt you to label your stored group of zones. This allows quick visual feedback to the user when selecting groups of zones, examples of labels might include: All W/house, Bar&Lobby, Sales&Yard etc. Plug in a standard USB PS2 compatible keyboard (Altronics D 2111) into the rear of the A 4481 paging console and type in your desired label. The maximum label length is 10 characters. Press backspace to delete letters. Hold down the shift key for capital letters. Press return (enter) when finished.

If a zone label is not required, press cancel to complete the process of storing a group of zones.

Note: if the keyboard is not operational, it may need to be unplugged and connected again.

To recall zones

Press the recall button. Any buttons which are programmed with groups of zones will illuminate. If any of these groups were given a label then these will show on the LCD.

Select one of the illuminated buttons to recall. The zones stored in this group will then illuminate automatically.

Hold down the page (PTT) switch and speak into the microphone. Press cancel when finished or the unit will time out automatically after ~15 seconds.

5.1.9 Emergency Override

The A 4481 is fitted with an emergency paging override which routes paging to all zones even those which are blocked. To initiate the emergency paging press the red emergency paging button. The LCD will display the image shown below and all the zone buttons will illuminate to show that all zones will be paged.



Fig 5.1E

At this stage paging override hasn't been activated. To activate emergency paging hold down the page (PTT) switch and speak into the microphone. If the pre-announcement chime DIP switch is set on the chime will sound. The LCD will display the image shown below.



Fig 5.1F

5.1.10 Paging Console Busy

If the system has two A 4481 paging consoles connected there will be times when both units may be needed at the same time. If one of the paging consoles is in use the second console will be notified and the busy LED will illuminate and the LCD will display the image shown below.

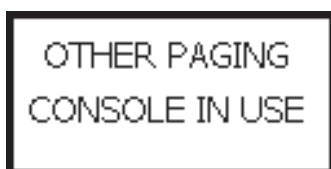


Fig 5.1G

5.2 A 4493 MUSIC SOURCE SELECTOR WALL PLATE

The A 4493 wall plate allows remote selection of the A 4480A's zone's input audio source and volume level. In addition, when connected to the A 4931 local zone input wallplate, it allows the use of a local signal source, such as a wired mic, radio mic or aux source such as a mobile device, which VOX mutes the selected input from the A 4480A. The LCD displays the zone name, the input sources and zone and local input volume levels.

Note: The volume controls only adjust the volume of the 8 aux input sources, plus the local input (when used).
General and emergency paging from the A 4480A Audio Switcher will override these volume settings.

5.2.1 Features

- Remote selection of input audio source
- Volume control of zone input
- Volume control of local input
- Mute function
- Zone Lockout
- Personal Identification Number (PIN) Menu Lockout Function
- 2 stage wall plate functionality Lockout
- Provision for input of local microphone or line level audio via A 4931 plate
- Cat5e connection to A 4480A
- Powered from the A 4480A

5.2.2 Menu Accessed Features

- Enable/Disable Local Input
- Clock Time Adjustment
- Backlight Timeout Adjustment
- Change Zone (Wall plate ID)
- Button actions adjustment
- Vox Sensitivity Level Adjustment
- Disable Input Sources
- Change Pin Number
- Lock/Unlock Screen



A 4493

A 4493 Connection Details

- 1 Backup battery (CR2032). This is used to backup the clock time if the power is removed.
- 2 Micro SD card socket (This is used for Firmware updates only). Micro SD card not supplied.
- 3 RJ45 connection. This is connected to the A 4480A.
- 4 RJ45 connection. This is connected to the A 4931 Local Input Wall Plate if used.

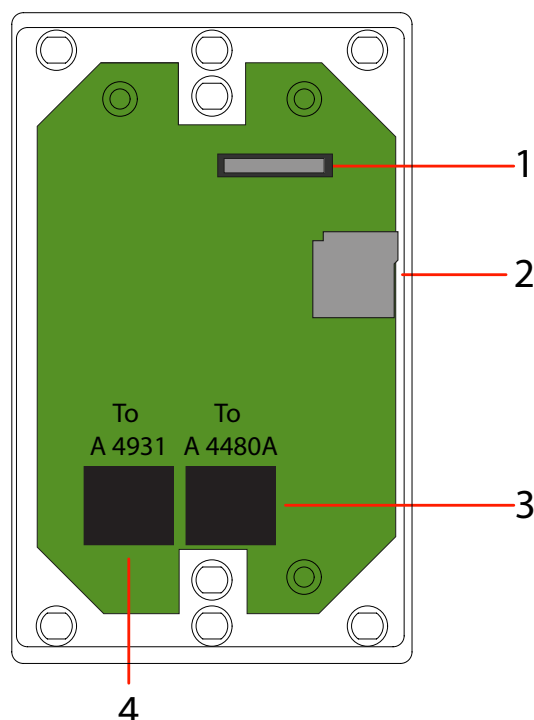


Fig 5.2 Rear of plate

5.2.3 Screen Layout Guide

Fig 5.3 shows the layout of the A 4493 LCD.

1 Zone Label

This is the actual zone ID for the wall plate. This is set by the user by accessing the "menu/ change zone" option. Each wall plate connected to the A 4480A must have a unique ID which corresponds to the number of the port on the rear of the A 4480A that the wall plate is connected to.

2 Local Input Button

Press this button to activate the local input. If an A 4931 local input wall plate is connected to the A 4493 wall plate then any audio from this plate will override the zone input. The button will change to red when active.

3 Local input volume up button

Press this button to increase the local input volume.

4 Local input volume indicator

The number signifies the actual local input volume level. This will display either a percent age figure or MIN when the volume is 0 or MAX when the volume is 100%.

5 Local input volume bar graph indicator

This bar provides a quick visual indicator of the local input volume.

6 Local input volume down button

Press this button to decrease the local input volume.

7 Sound indicator button

Press this button to mute/enable the sound. The button will change to red when the output is muted.

8 Menu button

Use this button to enter the Menu functions. The menu screen is explained in section 7.0

9 Zone volume down button

Press this button to decrease the zone volume.

10 Zone volume bar graph indicator

This bar provides a quick visual indicator of the zone volume.

11 Zone volume indicator

The number signifies the actual zone volume level. This will display either a percentage figure or MIN when the volume is 0 or MAX when the volume is 100%.

12 Zone volume up button

Press this button to increase the zone volume.

13 Zone Label

This is the label used to describe the room or location of the zone. Examples might be Alfresco, GYM, Bar etc. This label is loaded from the A 4480A on power up and is configured through the A 4480A with a USB keyboard.

14 Input selection buttons 1-8

Use these buttons to select the desired input source.

15 Clock display

This time and day display is local to this plate only and is set by accessing the "menu/change time" option (refer to section 7.0 for more details). This time needs to be set for each plate by the user and has no correlation to the A 4480A which has no time facility.

The time is backed up by the supplied CR2032 battery which needs to be inserted into the battery holder as shown in figure 1. Note the battery will backup the time for months only. Remove the battery if power is to be removed for long periods of time.

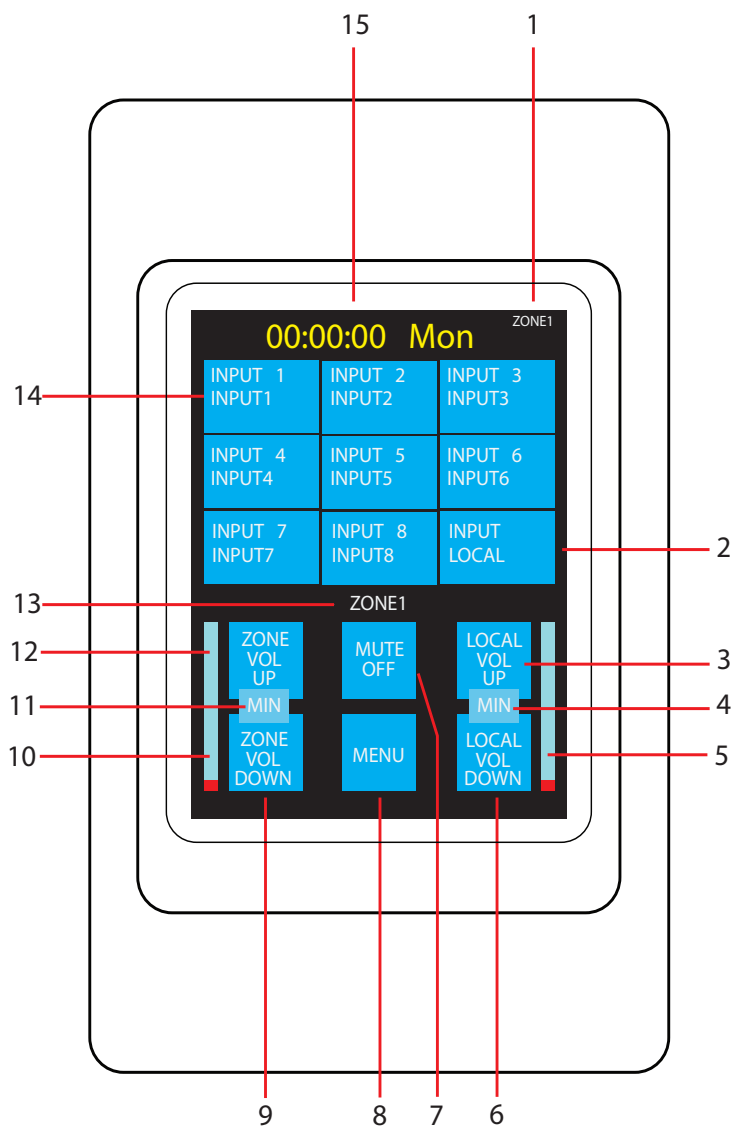


Fig 5.3

5.2.5 Navigating The Menu

The menu button provides access to a host of options which are listed below.

Note : Access to the Menu can be restricted to only be available with a Personal Identification Number (PIN). This can be activated by setting DIP Switch 1 to "ON" (See DIP settings).

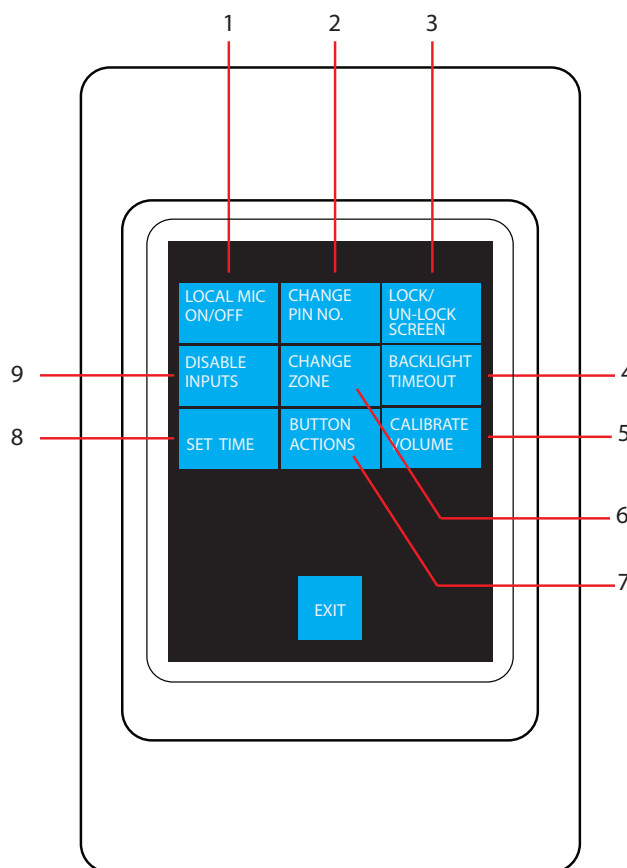


Fig 5.4 A 4493 Menu Screen

1) Local Mic On/Off

The local input from the optional A 4478/79 wall plate can be enabled/disabled. Press the button and follow the prompts to disable/hide the local input button and volume controls. Once hidden the local input icons will be greyed out. They are no longer accessible from the main screen. To enable/show the local input press the button and follow the prompts.

2) Change Pin Number

When DIP switch 1 is set to "ON" or if the plate is locked, a Personal Identification Number (PIN) is required to access the Menu function.

The pin number can be changed by pressing this button and following the prompts.

3) Change Zone (Wall plate ID)

Use this option to set the wall plate ID. This must be set to match the RJ45 port connection on the rear of the A 4480A.

4) Backlight Timeout

The time the backlight remains on after the screen has been touched can be adjusted. The time can be adjusted between 0 and 600

seconds. Setting the time to zero keeps the

backlight on continually. Set the time to 1 sec and the backlight will turn off after 1 sec etc.

5) Lock/Unlock Screen

There are two levels of user lockout available.

The first level locks the inputs so that the input source cannot be changed by pressing the input buttons on the LCD.

Note : The volume and mute buttons are still accessible at this lockout level.

The second level locks out the entire wall plate so that none of the buttons function.

Press the Lock/Unlock Screen button and follow the prompts. Note: To unlock the plate after locking the first level, the user will have to proceed to the Lock Entire plate function and then have access to the Unlock function.

6) Disable Inputs

By using this function any of the eight input sources can be disabled, so that they are not available to the zone. Press the Disable Inputs button and then highlight the zones to be disabled. Once the inputs are disabled the buttons will be greyed out on the LCD.

7) Vox Delay

The amount of time the VOX delay is active can be adjusted from 0 to 30 seconds in 1 sec increments. Press the VOX Delay button and follow the prompts.

8) Vox Sensitivity Level

The vox sensitivity of the local input can be set here. The VOX sensitivity can be set between 1 and 99 with 99 being the most sensitive. Press the VOX Sensitivity Level button and follow the prompts.

5.3 A 4931 LOCAL MICROPHONE/LINE INPUT WALL PLATES

The A 4931 local input wall plate provides a means of overriding the input to a zone with a local input source located in that zone. An example may be a mobile phone for background music or a microphone for speeches at a wedding function. The A 4931 local input plate has connections for a 3 pin XLR microphone, dual RCA line level input and a 3.5mm line level input for portable devices.

Fig 5.5 Front View of A 4931 Local Input Wall Plate



The A 4931 Local input plate has to be connected to the A 4493 Remote Source Selector plate for the zone. Each A 4493 remote plate can have a maximum of one A 4931 local input plate connected to it. Connection between the two plates is made via a Cat5e cable and is connected as shown in fig 5.6.

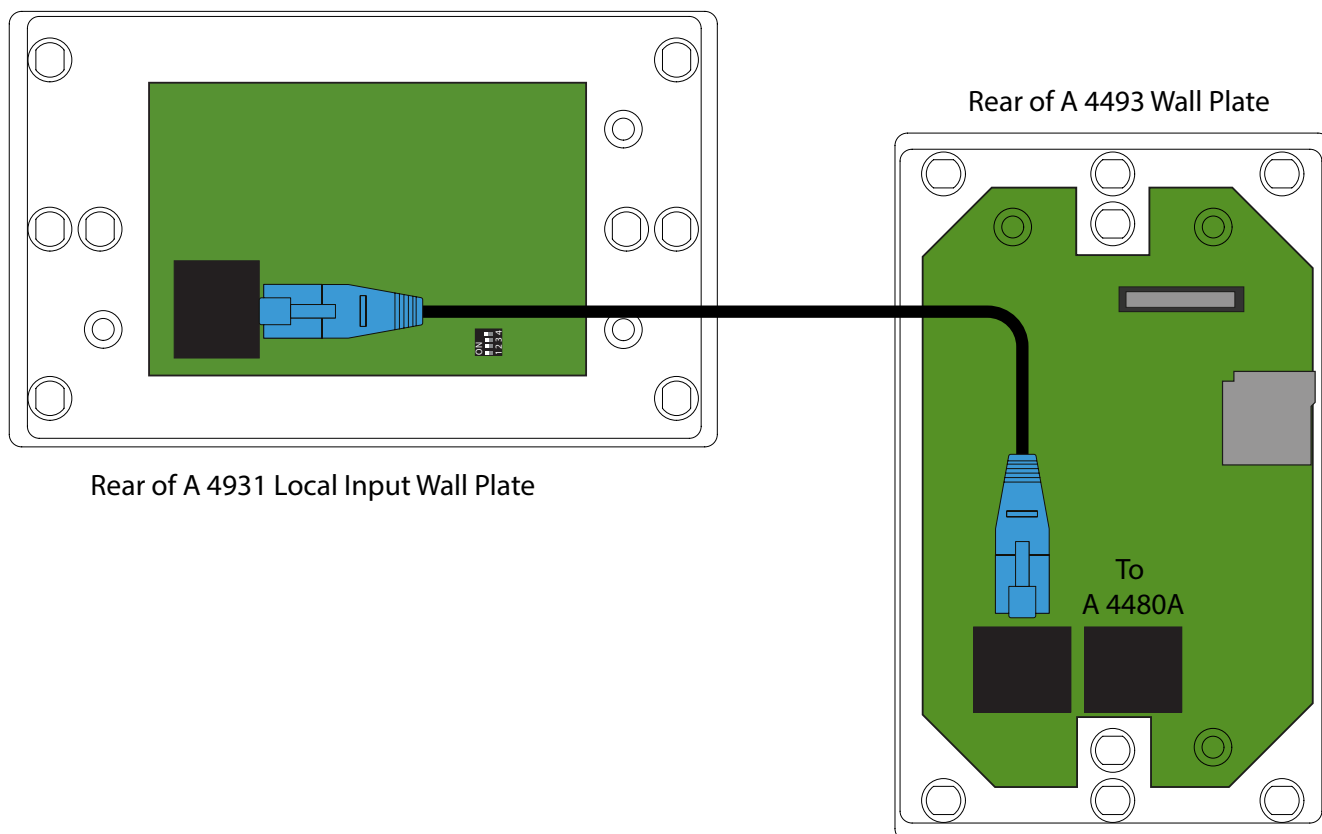


Fig 5.6 Connection of the A 4931 Local Input Wall Plate to the A 4493 Input Source Wall Plate

A 4931 DIP SWITCHES

The A 4931 has a set of DIP switches on the rear which determine how the VOX (voice operated switch) priority functions. The DIP switches are labelled 1) VOX BOTH, 2) VOX ENABLE, 3) VOX OUTPUT.

Dip switch 3 when set to ON, activates the VOX function. If this switch is in the OFF position the audio from the A 4931 will only override the A 4493 Input Source Wall Plate if the "Local Input" button has been selected on the A 4493 (see section 6.0 for details). In this mode the Mic and AUX/Music input from the A 4931 will be mixed - there is no priority.

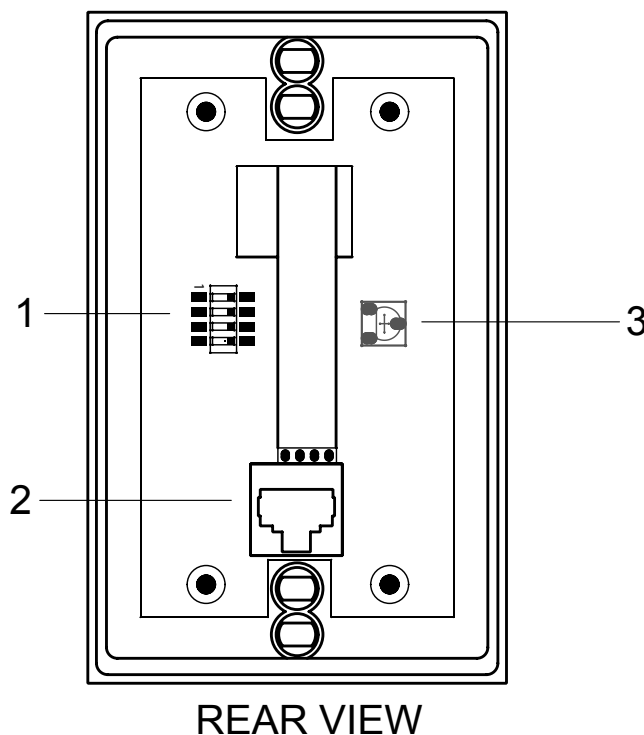
If DIP switch 3 is set to ON then the following VOX priorities result from DIP switches 1 and 2 without the need for the "Local Input" button to be selected on the A 4493 Input Source Wall Plate.

DIP Switch 1 set to ON: The Mic and AUX/Music input will mix together and either will activate the VOX circuit. The audio from the A 4931 will then override the A 4493 zone input audio source.

DIP Switch 2 set to ON: The Mic only will activate the VOX circuit and mute the AUX/Music input if used. The audio from the A 4931 will then override the A 4493 zone input audio source. 5.4

A 4476 PRESET SELECTOR WALL PLATE

The A 4476 wallplate is used to provide local access to presets programmed into the A 4480A. The presets are displayed on the LCD and can be cycled through by pressing the program preset button. The A 4476 may be connected to either paging console input or any zone wallplate input on the A 4480A.



A 4476 Connections

- 1 Dip Switch Settings**
Do not adjust. leave in default setting.
- 2 RJ45 Connection**
Cat5e provides power to the wallplate and routes preset information to the A 4480A
- 3 Do not adjust.**

5.4.1 Features

- Remote preset selection
- Cat5e connection
- LCD indicates presets available

5.4.2 DIP Switch Settings

In the current version of the A 4476, the DIP settings are not required for setup. Leave in default setting.

6.0 TROUBLE SHOOTING

6.1 SYMPTOMS AND REMEDIES

SYMPTOMS	REMEDIES
Signal presence leds all come on	Check internal fuses
Keyboard not detected	Remove & reinsert keyboard Turn A 4480A off and repeat setup
None of the buttons work	The unit may be locked. Hold down confirm & cancel buttons to unlock (and lock) the unit. See section 4.4.
Emergency Mic keeps triggering	Make sure the emergency mic is turned off when not in use.

6.1.1 Installation of replacement microprocessor card

There may come a time when software updates are required and this will require the replacement of the microprocessor card which is located inside the unit. The card can be replaced by observing the following procedure.

1. Remove power from the unit.
2. Remove the lid.
3. The microprocessor card is located on the main board as shown in fig 6.1A. Remove the board, taking care not to touch the microprocessor itself. Note: the board may be difficult to pull out.
4. Insert the new microprocessor card taking note of the orientation.
5. Send the replaced card back to your nearest Altronics branch.

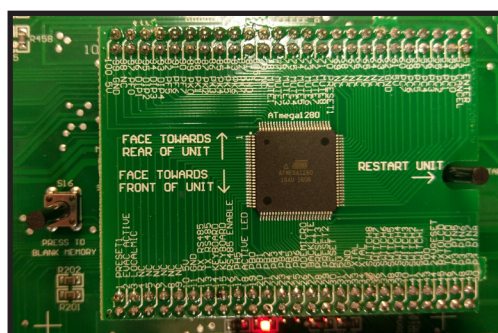


Fig 6.1A

6.1.2 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 6.1B. 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.

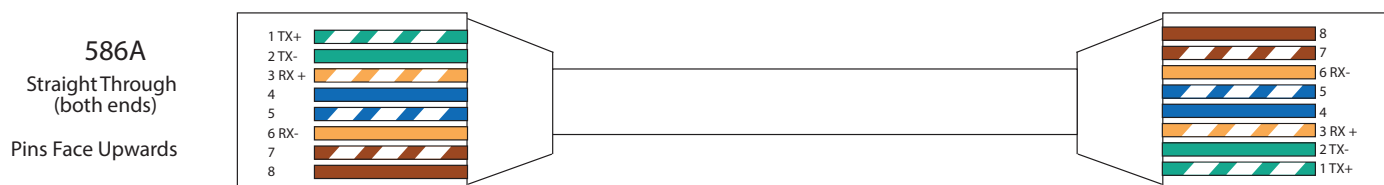


Fig 6.1B

7.0 HELP

7.1 HELP SCREENS

Pressing the help button on any screen will provide a quick guide to the selected option/screen. The following is a transcript of each help option available on the A 4480A.

7.1.1 Main Screen Help Page

This screen sets the input/output matrix. Labels on the left are the output zones. Labels on the top are the input sources. Pressing the zone buttons will change the input to that zone eg: pressing button 1 will change the input to zone 1. Continuing to press button 1 will cycle through all the inputs to the OFF position, then back to input 1 and so on.

The paging console settings shown on the right of the LCD are covered in the PA ON/OFF help page.

7.1.2 Preset Help Page

CREATE A PRESET

To create a preset, set your input to output configuration on the main screen. Press preset button to enter preset page. To save your settings into preset 1 hold button 1 on the left until told to let go. To save preset 2, repeat with button 2 etc.

LOAD A PRESET

To load a preset, press button 1 to load preset 1. Press button 2 to load preset 2.

LABEL A PRESET

To label a preset, exit this screen and plug in keyboard. Follow the prompts.

7.1.3 PA ON/OFF Help Page

The PA microphone can be disabled from a zone ie: paging will be blocked to that zone if it is set to OFF.

To toggle the PA ON or OFF to a zone, press the button number for the zone eg: if you want to toggle zone 1 ON or OFF, press button 1.

8.0 SPECIFICATIONS

A 4480A Control Unit

Wallplate / paging console inputs: RJ45 8P8C
Data transmission: Cat5e cabling max 300m
Front panel controls: Individual output level controls, input bass, treble & level controls, paging mic level control, emergency mic level control, zone selection buttons
Rear panel controls: Voiceover output level, chime output level, alert & evac output level, earth lift switch, emergency mic level, emergency mic vox level, priority output level, priority vox level
Auxiliary inputs (1-8): Dual stereo RCA's 0.3/0.7V
Microphone inputs (1-2): 3 pin XLR with phantom power
Outputs (1-8): 3 pin XLR balanced line
Emergency mic input: 3 pin XLR balanced line
Priority input: Dual stereo RCA's
Other inputs: USB keyboard (type A socket front & rear)
Power: 24V DC
Power connection (24V DC): 2.1mm DC socket / Euroblock terminal
Protection (DC): 4A M205
Dimensions: 482W x 152D x 88H mm
Weight: 4kg

A 4481 Paging Console

Output connection: 2 x RJ45 8P8C
Data transmission: Cat5e cabling max 300m
Front panel controls: Zone selection (1-8), store, recall, all call, cancel, emergency paging, PTT switch
Rear panel controls: Chime output level, mic output level
Other inputs: USB keyboard (type A)
Mic frequency response: 100Hz - 10kHz
Mic Sensitivity: -76dB ±3dB
Mic Polar pattern: Cardioid (unidirectional)
Power connection (24V DC): Euroblock terminal
Mic gooseneck: 325mm
Dimensions: 210W x 110D x 55H mm (excluding gooseneck)
Weight: 1.3kg

A 4493 Music Source Selector Wallplate

Output connection: RJ45 8P8C
Data transmission: Cat5e cabling max 300m
Front panel controls: Local input level control, zone source level control, source selector, confirm button
Wallplate: Altronics Dual Cover
Power: Powered by A 4480A over Cat5e cable.

A 4476 Preset Selector Wallplate

Output connection: RJ45 8P8C
Data transmission: Cat5e cabling max 300m
Front panel controls: Program preset, confirm button
Power: Powered by A 4480A over Cat5e cable.

A 4931 Local Mic/Line Input Wallplate

Inputs: 3 pin XLR balanced line, Dual stereo RCA's, 3.5mm stereo jack
Output connection: RJ45 8P8C
Power: Powered by A 4493 over Cat5e cable.

PRESET 3

		INPUTS									
ZONES		1	2	3	4	5	6	7	8	LOCAL	PAGING
1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PRESET 4

		INPUTS									
ZONES		1	2	3	4	5	6	7	8	LOCAL	PAGING
1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PRESET 5 DEFAULT

Note that preset 5 is always default. This preset cannot be renamed.

		INPUTS									
ZONES		1	2	3	4	5	6	7	8	LOCAL	PAGING
1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9.2 A 4481 Programming Sheet

Each A 4481 can store 8 groups of zones using the store & recall function. This permits quick selection of multiple paging zones.

Use the set up sheet below to select the groups of zones. Group names have a maximum of 10 characters. A PDF form version of this is available for download on the A 4481 product page at www.altronics.com.au.

ZONE NAMES

1 □□□□□□□□□□	2 □□□□□□□□□□	3 □□□□□□□□□□	4 □□□□□□□□□□
5 □□□□□□□□□□	6 □□□□□□□□□□	7 □□□□□□□□□□	8 □□□□□□□□□□

CONSOLE 1

RECALL 1 □□□□□□□□□□ 1 2 3 4 □ □ □ □ 5 6 7 8 □ □ □ □	RECALL 2 □□□□□□□□□□ 1 2 3 4 □ □ □ □ 5 6 7 8 □ □ □ □	RECALL 3 □□□□□□□□□□ 1 2 3 4 □ □ □ □ 5 6 7 8 □ □ □ □	RECALL 4 □□□□□□□□□□ 1 2 3 4 □ □ □ □ 5 6 7 8 □ □ □ □
RECALL 5 □□□□□□□□□□ 1 2 3 4 □ □ □ □ 5 6 7 8 □ □ □ □	RECALL 6 □□□□□□□□□□ 1 2 3 4 □ □ □ □ 5 6 7 8 □ □ □ □	RECALL 7 □□□□□□□□□□ 1 2 3 4 □ □ □ □ 5 6 7 8 □ □ □ □	RECALL 8 □□□□□□□□□□ 1 2 3 4 □ □ □ □ 5 6 7 8 □ □ □ □

CONSOLE 2

RECALL 1 □□□□□□□□□□ 1 2 3 4 □ □ □ □ 5 6 7 8 □ □ □ □	RECALL 2 □□□□□□□□□□ 1 2 3 4 □ □ □ □ 5 6 7 8 □ □ □ □	RECALL 3 □□□□□□□□□□ 1 2 3 4 □ □ □ □ 5 6 7 8 □ □ □ □	RECALL 4 □□□□□□□□□□ 1 2 3 4 □ □ □ □ 5 6 7 8 □ □ □ □
RECALL 5 □□□□□□□□□□ 1 2 3 4 □ □ □ □ 5 6 7 8 □ □ □ □	RECALL 6 □□□□□□□□□□ 1 2 3 4 □ □ □ □ 5 6 7 8 □ □ □ □	RECALL 7 □□□□□□□□□□ 1 2 3 4 □ □ □ □ 5 6 7 8 □ □ □ □	RECALL 8 □□□□□□□□□□ 1 2 3 4 □ □ □ □ 5 6 7 8 □ □ □ □

NOTE: Both microphones can be programmed with different recalls and labelling.

NOTES

This image shows a full page of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page, providing a template for handwriting practice or general note-taking. There are no margins, text, or other markings on the page.

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