



# ALP48

## Digital Command Microphone



**Programming Manual February 2009**

**Software Version 3.8**



Current  
Thinking



## Introduction

Voice Alarm (VA) systems are the quickest way to evacuate the public & staff from a building.

Following fire detection, automated messages control the flow of people in stairwells and corridors allowing an orderly evacuation without panic. These messages are supplemented by spoken messages from the fire service or management suite confirming the validity and need to leave the building. This positive confirmation speeds evacuation and avoids the "false alarm" mentality reducing the risk of death from fire.

## Suitability

Voice Alarm systems are recommended for all public buildings and multi story buildings over four floors by BS5588.

In public buildings it's not possible to fire drill the public, as they visit the premises infrequently, so systems such as Voice alarms save valuable time in evacuating the building.

The use of phased messages in multi-story buildings prevents over-crowding in stairwells and at exits, preventing secondary injuries. In phased evacuation, the floor in fire receives the evacuate message, and the floor above & below receive an alert message, preparing them for evacuation.

In more complex scenarios the use of multiple alert and evacuate messages can be beneficial, messages telling the evacuees they are going the right way, and messages asking people to make way for people leaving evacuated areas. These additional messages can dramatically speed up the evacuation especially in malls and large airport environments.

## Overview

For small and medium sized installations this self-contained voice alarm controller provides an ideal solution.

The basic controller has 4 monitored outputs, and the following inputs: 2 all call fire microphone ports, a data control port for networking & configuration, 2 four zone high priority microphone ports, 2 digital message slots (allowing four messages to be held in hardware), a six input fire alarm interface with common de-latch input (24V voltage inputs for connection to sounder circuits), 2 low priority zoned microphone ports, and three stereo music inputs.

The front panel LCD allow selection of volumes, music sources and configuration of all functions, as well as providing access to the 99 event log. In the event of processor failure the 2 fireman's inputs can access the whole system in line with EN60849 and BS5839 pt 8.

## Standards Compliance

The @udio Logistics ALP48 complies with all the relevant current Voice Alarm standards including BS5839 parts 1,4 & 8 and EN60849.

We are also monitoring the meetings of the EN54-16 committee to ensure we will comply when this is released.

Additionally the ALP48 complies with the EMC requirements of EN55103-1 and EN55103-2.



## Navigating the ALP48 Menus

All functions of the ALP48 can be configured using the front panel LCD and the three navigation Keys (LEFT, RIGHT, and ACCEPT), abbreviated to <L) for LEFT, [A] for ACCEPT and (R> for RIGHT.

When the ALP48 is powered up, it will always revert to the Root Menu.

### General Menu Format

When [A] is pressed for the first time from the root screen, the display will show as follows

```
ALP v3.8-User
Back
>View audio sources
View fault status
```

The top line shows the panel type with version number and the menu level. The next 3 lines show various menu options: the current option, the preceding option and the following option.

The first menu option will become the current menu option if <L) is pressed.

The second menu option will always be prefixed by a right chevron '>'. This indicates the current menu option. Pressing [A] will take you to this option.

The last menu option will become the current menu option if (R> is pressed.

When in a configuration menu, a variety of options may be displayed. Each option will either have a colon ':', or a chevron '>' followed by the value for that option, e.g.

```
Net address>1
```

The chevron will indicate which option is currently selected. Use the <L) and (R> buttons to toggle through the various values for that option. When the correct value is chosen, press [A] to move to the Next option.

Each configuration screen will have an option in the bottom right. By default, this option will be Next. The different values for this option are:

Next: moves cursor back to first option on this page, or to first option on next page if there is more than one page

Save: saves the new configuration, and moves back to the menu list.

Quit: discards any changes made, and moves back to the menu list.

### Inputting Text

All text input on the ALP48 uses the same technique. The text to be edited either begins with a right chevron '>', or is bracketed by chevrons '>' and '<'. The number of characters allowed depends upon the text being edited.

For example,

```
Edit fault text
Fire microphone 1
```



```
>Fault on fire mic 1
      :Next
```

When text entry is used, the current text for the entry is displayed, with the first character highlighted using an underscore, this is the character which is altered using <L> and (R> keys and follows the characters in this List:

```
ABCDEFGHIJKLMNOPQRSTUVWXYZ 0123456789+
abcdefghijklmnopqrstuvwxyz@?<>&#()+-=
```

Special characters appear at the end of each line in the list, '+' and '=', these are the insert and end of text markers respectively.

Press [A] to accept the current character and moves to the next character.

```
Edit fault text
Fire microphone 1
>Fault on fire mic 1
      :Next
```

When the last character is entered, or [A] is pressed on the end of text '=' character, the Next option banner is selected.

If the '=' (end of text) character is used to terminate text entry, the character position containing this character is filled with a space, and all characters to the right of the end of text character are replaced with spaces.

Pressing [A] on the '+' (insert) character will shift the text from the current location onwards to the right by 1 space, and put a SPACE character at the current location.

If [A] is pressed on the Next option, the cursor goes back to editing text position 1.

If <L> or (R> is pressed on next, the options will scroll through Next, Save, and Quit.



## Root Menu

The root display shows the version number of the firmware on the panel (ALP v3.8), the Site name (which defaults to @udio Logistics), and a banner indicating the general status of the system. The date & time shown are the current date & time, pressing tick takes you to the User Access Menu.

### Root Menu (No Faults)

When the system has no faults, the banner shows `System Healthy`.

```
ALP v3.8
@udio Logistics
- System Healthy -
08:35:00      18102109
```

### Root Menu (Faults)

When the system is in fault, the health banner shows `System in Fault`.

```
ALP v3.8
@udio Logistics
- System in Fault -
08:35:00      18102109
```

Press [A] to enter the user level menu. The user level menu will allow you to view the fault status and the audio output status of the network. You can also log in as either a manager or an engineer to gain access to the configuration functions.



## User Level Menu

For the user menu, the following menu items are available. (Some items may not be shown depending on system configuration and status. These will be described in the appropriate section.)

```
ALP v3.8-User
Back
>View audio sources
View fault status
Accept faults
Log in
```

### Accept faults

If the buzzer is sounding, pressing [A] will accept the fault and silence the buzzer. When the buzzer is silenced, it will emit a single beep once every 15 seconds to indicate the system is still in fault.

This menu option is only shown when the buzzer is sounding in a cadence, and `Mute Buzzer` is enabled in the `Setup` menu described later.

### View audio sources

This is a diagnostic display showing the current audio routing of all configured DCA4s on the network. Each page shows up to 4 DCAs.

Press (R>) to scroll forward through the pages;  
Press (<L) to scroll backward through the pages;  
Press [A] to exit this menu.

Each line will show the address number for that DCA4 along with the audio input for all 4 outputs. Each audio input has a 3 letter designation. If this DCA4 is not detected on the network, then `Not detected` will be shown on this line.

```
1: BGM BGM BGM BGM
2: - - - -
3: Not detected
4: Evc Alt Alt Alt
```

### Audio input designation

Each audio input has a specific 3 letter designation. The only configurable designations are for the 6 messages (see later).

' - ' No audio input  
'FM ' Fire microphone  
'Dat' Data microphone  
'Hi ' High priority microphone  
'Tst' Default for Message 1 on Store 1, configurable  
'Sec' Default for Message 2 on Store 1, configurable  
'Evc' Default for Message 3 on Store 1, configurable  
'Clr' Default for Message 1 on Store 2, configurable  
'Stf' Default for Message 2 on Store 2, configurable



- 'Alt' Default for Message 3 on Store 2, configurable
- 'Lo ' ; Low priority microphone
- 'BGM' Background music

### View fault status

This menu will show all the faults in the event log. It will filter out all other events, showing faults only.

The display will show the following information:

The top line shows the event number and the total number of events. If this fault occurred on a remote unit, it will display the address of this unit.

The second line shows the fault status, i.e. fault occurred or fault cleared.

The third line shows the type of fault.

The fourth line shows the time and date the fault occurred.

```
Event 11/30-Node 2
Fault occurred
Unit not detected
09:03:13      18102109
```

- Press (R> to scroll forward through the faults, if there is more than one;
- Press <L) to scroll backward through the faults, if there is more than one;
- Press [A] to exit this menu.

This menu option is only shown if the `Faults` option is enabled in the `Setup` menu described later.

### Login

This allows you to enter a PIN number to gain access to either Management (level 3) or engineer (level 4) menu items, the PIN for each level is different, and can be changed with the correct access level.

<L) & (R> alter the selected value, [A] moves to the next digit.

```
Enter PIN to log in
-0***-
```

An incorrect PIN will show an error message. Pressing any key will return you to the User menu with Log in selected.

### Back

This menu will return the user back to the previous menu level. In this case, it will return the user back to the root menu.



## Manager Level Menu

If the manager PIN has been entered the display below is shown, if the Engineer PIN is entered, the Engineering menu is displayed, this is described later.

The manager functions are a subset of the engineer functions. It allows you to:

- View the audio status and the fault/event log
- Specify which options to show in the user menu
- Determine behaviour of buzzer
- Change the microphone volume
- Set the time and date

```
ALP v3.8-Manager
  Change manager PIN
>Log off
  View audio sources
  View fault status
  Accept faults
  Setup
  View event log
  Set volume
  Set date & time
```

### Log off

This menu will take you back to the root menu. You will have to log back in to regain access to any of the manager or engineer functions.

### View audio sources

This menu shows the audio input sources for the network. It is described in detail above.

### View fault status

This menu shows the faults only in the event log. It is described in detail above, except that this menu is always shown.

### Accept faults

If the buzzer is sounding, pressing [A] will accept the fault and silence the buzzer. When the buzzer is silenced, it will emit a single beep once every 15 seconds to indicate the system is still in fault.

This option is only shown if the buzzer is sounding.

### Setup

This menu allows you change the behaviour of the buzzer and controls which menu options are available at the User level.





```
Setup
Buzzer>Yes
Mute buzzer:Yes
Faults:Yes      :Next
```

#### Buzzer

This option enables or disables the buzzer. If set to yes, the buzzer will sound whenever a fault occurs. If set to know, the buzzer will remain muted when a fault occurs. All other indicators will still function on fault.

#### Mute buzzer

If this option is enabled, then faults can be accepted from the User level menu.

#### Faults

If this option is enabled, then faults in the event log can be viewed from the User level menu.

If any of these options are changed, it will place a `Dflt access changed` entry into the event log.

### **View event log**

In this menu, the display shows the Event fault log, the date and time of the event. If more than one event exists, <L) and (R> scroll through the events. All events are shown. There will always be at least one event in the log; the date and time of the last log clearance (engineering level operation). The log holds up to the last 99 events.

```
Event 1/1
Log cleared
10:42:19      18102109
```

If a fault has existed but has gone away, the fault buzzer will be sounding and the log will look like this:

```
Event 1/5
Manager logged on
10:45:22      18102109
```

```
Event 2/5
Fault cleared
Microphone fault
10:44:45      18102109
```

```
Event 3/5
Fault occurred
Microphone fault
10:44:42      18102109
```



The sequence of events is:

- At 10:44:42, a microphone fault occurred.
- At 10:44:45, the microphone fault cleared
- At 10:45:22, a user logged on with managerial privileges.

The following items are always noted in the event log:

- Faults occurred
- Faults cleared
- Configuration changed
- Manager or engineer logged in
- Manager or engineer logged off
- System initialised: this only occurs on unit power up
- System reboot requested
- Log cleared

As a result, an audit trail is shown on the status of the esystem, and any changes made to the configuration.

Each menu option that adds an entry into the event log will be detailed in that menu entry.

### Set volume

This menu allows the user to change the volume settings for the microphone, and sets the priority at which the microphone is to be used on the system.

```
Set volume controls
Vol> 0      Bass: 0
Mid: 0      Treb: 0
Lvl:Page           :Next
```

**Vol** changes the microphone volume between 0db to -31db. The volume can also be muted.

**Bass** changes the microphone bass level between +16db to -16db.

**Mid** changes the microphone mid level between +16db to -16db.

**Treb** changes the microphone treble level between +16db to -16db.

**Lvl** changes the priority of the microphone:

**Page** level will override all non-emergency pages and messages, but any emergency page or message will still play.

**Emer** level will override all other audio except a dedicated fire microphone.

Note: if any key switch is defined as **Emergency**, this will override the **Lvl** setting here. Configuring key switches is an engineer function, and will be described later.

Any changes to the volume settings are always stored in the event log.

### Set date & time

This menu allows the user to change the date and time, not only on the ALP, but on every unit on the network, thus synchronising the time.



```
Set date and time
Date: >18102109
Time: 12:15:36
:Next
```

Use the <L) and (R> buttons to alter the currently selected element of the date or time. Press [A] to move to the next element.

Saving the date and time places a `Date + time changed` entry into the log, and updates the date/time on every unit on the network.

### Change manager PIN

This menu allows the user to change the manager PIN.

```
Set manager PIN
New PIN 0***
Repeat PIN ****
:Next
```

The currently selected digit is shown as a digit, and not an asterisk. Use the <L) and (R> buttons to scroll through the digits. Press [A] to move to the next digit.

Once you have entered the 4 digits for the PIN, the cursor will move to the first digit of the Repeat PIN. Re-enter the same 4 digits.

Once the PIN has been entered twice, if `Save` is selected, it will check the 2 PINs. If they are the same, the manager PIN will be updated and a `Manager PIN changed` entry will be placed into the event log.

If they are different, a warning message will be displayed. Press any key to return to the change manager PIN menu.



## Engineer Level Menu

The engineering level menu allows access to all configuration and status displays. It allows all items to be configured.

To enter the Engineering level, the user must log in using the valid Engineering PIN.

```
ALP v3.8-Engineer
System reboot
>Log off
View audio sources
View fault status
Accept faults
Setup
View event log
Set volume
Set date & time
Change manager PIN
Change engineer PIN
Button config
Set key switch
Message settings
Event log settings
Edit fault text
Monitor DCA4 fault
Edit site name
Network settings
Panel LED test
```

All menu options from Log off to Change manager PIN are detailed in the Manager Level menu above.

### Change engineer PIN

This menu allows the user to change the engineer PIN.

```
Set engineer PIN
New PIN 0***
Repeat PIN *****
:Next
```

The currently selected digit is shown as a digit, and not an asterisk. Use the <L> and <R> buttons to scroll through the digits. Press [A] to move to the next digit.

Once you have entered the 4 digits for the PIN, the cursor will move to the first digit of the Repeat PIN. Re-enter the same 4 digits.

Once the PIN has been entered twice, if Save is selected, it will check the 2 PINs. If they are the same, the engineer PIN will be updated and a `Engin'r PIN changed` entry will be placed into the event log.





If they are different, a warning message will be displayed. Press any key to return to the change engineer PIN menu.

## Button config

This menu allows the user to configure the panel buttons. As each button can have one of multiple functions, it is necessary to first determine which function the button is to have.

A submenu is displayed of the different button functions.

```
Button 1
Back
>Configure zone
Configure message
Special function
```

## Button number

To configure a panel button, first that panel button MUST be pressed. The button number will be displayed on the top line, and the button LED will show green, indicating that that is the button to be configured.

Once the correct panel button has been selected, use the <L) and (R> navigation buttons to scroll through this menu to select which function this panel button is to perform.

## Configure zone

This menu assigns this button to be a zone select button. All configured DCA4s are shown in a list.

```
Button 1           Next
1| 1>Y 2:N 3:N 4:N
2| 1:N 2:N 3:N 4:N
3| 1:N 2:N 3:N 4:N
```

Each DCA4 is shown with 4 audio outputs. The network address of the DCA4 is shown down the left side. The output number is shown across the line.

For example, 1| 1>Y 2:N 3:N 4:N means that this line refers to DCA4 address 1. The cursor is on output 1, and it is set to be included in this zone. Outputs 2, 3 and 4 are not to be included in this zone.

To include a DCA4 output in the zone select list, press either <L) or (R> to toggle the option for that output to Y. To deselect that output from the zone select list, toggle the option to N. A DCA4 will only show in this menu if it has been configured in the network setup (see later for details).

Press [A] to scroll through the outputs. The cursor scrolls from output 4 of the current DCA4 to output 1 of the next DCA4. If on output 4 of the bottom DCA4, the cursor scrolls to Next. Each page shows up to 3 DCA4s. If there are more than 3 DCA4s on the system, then this menu has multiple pages. To get to the next page, press [A] on Next.



Pressing `Save` will save all outputs set to `Y` as part of this zone, so when this zone is pressed during normal operation, it selects these outputs for audio.

When the new button configuration is saved, a `Btn config changed` entry is added to the event log.

### Configure message

This menu assigns the button as a message button. During normal operation, a message button triggers the assigned message to play to the selected zones.

```
Message button 9
Assign message>Tst

:Next
```

To assign a message to this button, toggle through the messages using `<L` and `>R` when the cursor is on `Assign message`. Each message is shown as a 3 letter descriptor. These descriptors are configurable through the `Message settings` menu (described later) if the default descriptors need changing. The above example states that when button 9 is pressed, play the test message to all selected zones.

When the new button configuration is saved, a `Btn config changed` entry is added to the event log.

### Special functions

This menu assigns a button to a special function.

```
Function button 10
Reset message>No
Silence buzzer>No
Select BGM>Yes :Next
```

Only 1 special function can be assigned to a button. If you toggle a function to `Yes`, and another function was already on `Yes`, then that other function will automatically switch to `No`, leaving the current function on `Yes`.

When the new button configuration is saved, a `Btn config changed` entry is added to the event log.

If this button is saved with all functions set to `No`, it disables this button and has no effect when pressed.

#### Reset message

This function will assign this button as a message reset button.

Some messages are latching messages, i.e. that they will continue to repeat until stopped from an external source. A reset message button will stop the message repeat for the selected zones only.

For example, an alert message is playing in zones 1, 2 and 3. You wish to stop the alert message in zone 1 only. You select zone 1 (LED should now be flashing green and orange to indicate it is selected and an alert message is playing). You



then press the message reset button. When the alert message reaches the end, it will stop playing in zone 1 only. It will still repeat in zones 2 and 3.

To stop a message from playing in all zones, then all zones must be selected then the message reset button pressed.

#### Silence buzzer

This function will assign this button as a silence buzzer button.

This function will assign this button as a silence buzzer button. This button will behave the same as selecting `Accept Faults` from the menu, as described above. The buzzer will be silenced except for a single beep once every 15 seconds as long as there are faults current.

#### Select BGM

This function will assign this button as a Music button.

A button assigned as a music button toggles the ALP48 music zone select mode. When pressed, the display will change to indicate you have entered music select mode.

```
*BGM zone selection*
Press zone button to
Set or clear music
Press music to exit
```

When you see this display, the zone button LEDs will light to show which zones are set for music.

If the zone LED is off, then there is no music in that zone. Pressing that zone button will enable music for all outputs in that zone. The zone LED will light indicating music is now enabled in that zone.

Conversely, you can turn music off in a zone by pressing a zone button with its LED lit.

When the user has finished selecting the music zones, press the music button again to exit this mode and return the paging panel back to its normal mode.

#### **Set key switch**

This menu assigns a function to a key switch. There are 4 key switches. Each are be individually configured.

```
Set key switch
Key switch ID>1
Function:Reset
:Next
```

Use <L) and (R> on the `Key switch ID` to the select the correct key switch.

Use <L) and (R> on `Function` to select the desired function. The three functions are: `Reset`, `Protect` and `Emergency`.



Use <L> and (R> on `Next` to scroll through the options: `Next`, `Exec` and `Quit`.  
`Next` will move cursor to Key switch ID.  
`Exec` will accept the new configuration for this key switch, and depending on the function, it may display more configuration screens. This will be explained below.  
`Quit` will move back to Engineering level menu without making any changes.  
Changing the key switch functionality will add a `Key switch changed` entry to the event log.

#### Reset

This function stops all latching messages currently playing when the key switch is activated.

When saving this function, it will return you back to the Engineering level menu.

#### Protect

This function protects selected panel buttons. These protected buttons will only be enabled if the key switch is activated.

A new display is shown when `Exec` is pressed.

```
Key switch 1 protect
Ensure LED is lit
to protect button
                >Save
```

To protect a panel button, press it. Its LED should light indicating that button is to be protected.

Repeat the process until all buttons that require protecting are lit.

The cursor will default to `Save`. Use <L> or (R> to toggle this between `Save` and `Quit`. Press [A] to accept the selected choice.

`Save` will store this new protected buttons and move back to the Engineering level menu.

`Quit` will discard all changes and move back to the Engineering level menu.

#### Emergency

This function is the same as `Protect` as detailed above, but with one extra proviso:

When the key switch is activated, all paging from this microphone will be at EMERGENCY level;

When the key switch is off, all paging from this microphone will be at PAGING level.

This key switch functionality overrides the level of the microphone set in the `Set Volumes` menu (as detailed above).

### **Message settings**

This menu set the details for the pre-recorded messages that will be used. A submenu will be displayed that allows each message to be configured.



```
ALP v3.8-Engineer
Back
>Messages available
DVA 1 message 1
DVA 1 message 2
DVA 1 message 3
DVA 2 message 1
DVA 2 message 2
DVA 2 message 3
```

Use <L) and (R> to scroll up and down the table. Use [A] to enter that menu.

#### Back

This menu option will return you back to the Engineer level menu.

#### Messages available

This is an obsolete function that is no longer used. It has no effect on the operation of the ALP48.

#### DVA 1 message 1

This menu allows the user to give a 3 letter designation, and to designate this message as an alert or an evacuate message.

```
DVA 1 message 1
Text >Tst<
Alert:No      Evac:No
              :Next
```

The message designation can be changed by changing the text, as described in the inputting text section above.

If **ALert** is set to **Yes**, then when the ALP48 sees an output playing this message, it will light the zone LED yellow for any zone that has this output configured as part of that zone.

If **Evac** is set to **Yes**, then when the ALP48 sees an output playing this message, it will light the zone LED red for any zone that has this output configured as part of that zone.

When this configuration is saved, a **DVA1 Ms91 name ch9d** entry is added to the event log.

#### Other messages

All messages are handled as described in DVA 1 message 1, except each configuration is specific to the message chosen.

The entry added to the event log details which message configuration has been changed, e.g. **DVA1 Ms92 name ch9d** relates to **DVA 1 message 2**.

### **Event log settings**

This menu allows the user to clear the event log.





```
Event log
Clear log>No

:Next
```

To clear the log, change the option for Clear Log to Yes, then toggle the Next option to Exec and press [A].

When the log is cleared, all entries are deleted and the event log will have one entry in it.

```
Event 1/1

Log cleared
16:09:43 18102109
```

Once the log has been cleared, it also resets all fault indicators. This allows any current faults to be re-established, and thus added to the event log.

### Edit fault text

This menu allows the user to configure the fault text for some faults, mainly faults reported by the DCA4.

```
Edit fault text
Back
>Fire microphone 1
Fire microphone 2

HP microphone 1
HP microphone 2
LP microphone 1
LP microphone 2
Data microphone
AC power supply
Battery power
Message store 1
Message store 2
Zone 1 amplifier
Zone 2 amplifier
Zone 3 amplifier
Zone 4 amplifier
Zone 1 cable
Zone 2 cable
Zone 3 cable
Zone 4 cable
Next service date
```

Each menu option displays a screen that allows you to alter the fault text for that fault.





```
Edit fault text
Fire microphone 1
>Fault on fire mic 1
      :Next
```

All fault text is 19 characters long. See the Inputting text section above for details on how to change the fault text.

When the fault text is saved, then that text will be displayed in the event log whenever a fault of that nature occurs.

When the text for a fault is changed, an entry is added to the event log.

#### Fault texts

Fire microphone 1: this text is displayed whenever a DCA4 reports a fault on fire microphone 1.

Event entry on change: Firemic1 text chgd

Fire microphone 2: this text is displayed whenever a DCA4 reports a fault on fire microphone 2.

Event entry on change: Firemic2 text chgd

HP microphone 1: this text is displayed whenever a DCA4 reports a fault on high priority microphone 1.

Event entry on change: HPmic1 text changed

HP microphone 2: this text is displayed whenever a DCA4 reports a fault on high priority microphone 2.

Event entry on change: HPmic2 text changed

LP microphone 1: this text is displayed whenever a DCA4 reports a fault on low priority microphone 1.

Event entry on change: LPmic1 text changed

LP microphone 2: this text is displayed whenever a DCA4 reports a fault on low priority microphone 2.

Event entry on change: LPmic2 text changed

Data microphone: this text is displayed whenever a DCA4 reports a fault on the data microphone.

Event entry on change: Datamic text chngd

AC power supply: this text is displayed whenever a DCA4 reports a fault on the AC power supply.

Event entry on change: AC power text chgd

Battery power: this text is displayed whenever a DCA4 reports a fault on the battery power supply.

Event entry on change: Batt power text chgd

Message store 1: this text is displayed whenever a DCA4 reports a fault on message store 1.

Event entry on change: Store 1 text chngd





Message store 2: this text is displayed whenever a DCA4 reports a fault on message store 2.

Event entry on change: `Store 2 text chgd`

Zone 1 amplifier: this text is displayed whenever a DCA4 reports a fault on the amplifier attached to output 1.

Event entry on change: `Zone1 amp text chgd`

Zone 2 amplifier: this text is displayed whenever a DCA4 reports a fault on the amplifier attached to output 2.

Event entry on change: `Zone2 amp text chgd`

Zone 3 amplifier: this text is displayed whenever a DCA4 reports a fault on the amplifier attached to output 3.

Event entry on change: `Zone3 amp text chgd`

Zone 4 amplifier: this text is displayed whenever a DCA4 reports a fault on the amplifier attached to output 4.

Event entry on change: `Zone4 amp text chgd`

Zone 1 cable: this text is displayed whenever a DCA4 reports a fault on the amplifier cable attached to output 1.

Event entry on change: `Zone1 cable text chd`

Zone 2 cable: this text is displayed whenever a DCA4 reports a fault on the amplifier cable attached to output 2.

Event entry on change: `Zone2 cable text chd`

Zone 3 cable: this text is displayed whenever a DCA4 reports a fault on the amplifier cable attached to output 3.

Event entry on change: `Zone3 cable text chd`

Zone 4 cable: this text is displayed whenever a DCA4 reports a fault on the amplifier cable attached to output 4.

Event entry on change: `Zone4 cable text chd`

Next service date: this text is displayed whenever a DCA4 reports that its next service date has passed.

Event entry on change: `Service text chgd`

### **Monitor DCA4 fault**

This menu enables the ALP48 to monitor all DCA4s for specific faults. This enables the ALP48 to only show the specified faults in the fault log. To enable monitoring for that fault, toggle the value to Y.

As there are 10 DCA4 faults that can be monitored, the display is split into 3 pages. To move to the next page, press [A] when the cursor is on Next.

The ALP48 receives regular status reports from the DCA4, including all faults current on that DCA4. If the DCA4 reports a fault, and the appropriate monitoring is enabled, then that fault is added to the event log.



If the fault monitoring information is saved, a `Fault monitor chngd` entry is added to the event log.

#### Page 1

This page sets the monitoring for both fire microphones (`FMic1` and `FMic2`) and both high priority microphones (`HPMic1` and `HPMic2`).

```
Monitor DCA4 fault
FMic1 >N FMic2 :N
HPMic1 :N HPMic2 :N
                :Next
```

#### Page 2

This page set the monitoring for both low priority microphones (`LPMic1` and `LPMic2`), all outputs (`Zones`) and the power supplies (`Power`).

```
Monitor DCA4 fault
LPMic1 >N LPMic2 :N
Zones  :N Power  :N
                :Next
```

#### Page 3

This page set the monitoring for both message stores (`Message`) and for the presence of the DCA4 itself (`Present`).

```
Monitor DCA4 fault
Message>N Present:N
                :Next
```

### **Edit site name**

This menu enables you to change the site name for the ALP48. The site name appears on the second line of the root menu.

The site name can contain up to 20 characters. Details on how to change the text is described in the Inputting Text section above.

Note: unlike other inputting text options, there is no chevron '>' indicating start of text, as the text occupies the entirety of the line. As usual, the character being edited will be underlined.

```
Edit site name
@udio Logistics
                :Next
```

Saving the site name will add a `Site name changed` entry to the event log.



## Network settings

This menu allows the user to enter details of the network. The network can contain up to 20 DCA4s and 6 ALP48s. Each unit on the network MUST have a UNIQUE address.

On entering this menu, there is a submenu, with options for configuring the network details for this ALP48, as well as informing the ALP48 which other DCA4s and ALP48s are on the network. It is important to set all the network details, including which other units are present, as there is no automatic network configuration, thus the ALP48 does not know what is on the network, or what settings to set.

```
Network settings
Back
>Network config
DCA4 addresses
Other addresses
```

## Back

This menu takes you back to the Engineering level menu.

## Network config

This menu configures the network settings for the ALP48. There are network options for determining how the ALP48 connects to the network, its network address, and if it should generate a network fault if a fault is detected.

```
Network config
Present>Net out only
Net address:1
Faults:Yes
```

### Present

This option determines how the ALP48 connects to the network. The possible configurations are:

No: The ALP48 is not connected to the network. It will ignore all network traffic, and it will not report its status to the network.

Net in & out: The ALP48 is connected by both the network in and the network out ports.

Net in only: The ALP48 is connected by the network in port only.

Net out only: The ALP48 is connected by the network out port only.

Ring: The ALP48 is connect by both the network in and network out ports. Additionally, the whole network is in a ring configuration.

### Net address

This option sets the network address for this ALP48. This address MUST be unique. No other ALP48 can have this address. If there are multiple ALP48s with the same address, the network will be highly unstable, and will usually crash.



### Faults

If this option is set to `Yes`, it will record a network fault if the ALP48 does not receive any data packets on the network port set in the `Present` option.

If this option is set to `No`, it will not report a fault if the configured network port does not receive network data packets.

If the settings are saved, a `Net settings chngd` entry is added to the event log.

### **DCA4 addresses**

This menu option informs the ALP48 which DCA4s are present on the network. As there can be up to 20 DCA4s, there are 2 pages.

Page 1:

```
DCA4 addresses
1>Y  2:N  3:N  4:N
5:N  6:N  7:N  8:N
9:N 10:N           :Next
```

Page 2:

```
DCA4 addresses
11>Y 12:N 13:N 14:N
15:N 16:N 17:N 18:N
19:N 20:N           :Next
```

Press `<L>` or `<R>` to toggle between a DCA4 being present `'Y'` and not present `'N'` at that address.

Scroll between the addresses by pressing `[A]`.  
To switch pages, press `[A]` when on the `Next` option.

To save the addresses, toggle `Next` to `Save` then press `[A]`. This will add a `Net settings chngd` entry to the event log.

### **Other addresses**

This menu option informs the ALP48 which ALP48s are present on the network, including itself. There can be up to 6 ALP48s.

The local ALP48 is shown on this screen with a `'='` next to its address, instead of the usual `'>'` or `'='`. You can scroll through the addresses by pressing `[A]`, but you can never scroll to the local ALP48, as its address is set in the `Network Config` menu, and thus is always part of the network with that address.

### **Panel LED Test**

This menu option puts the panel into LED test mode. It will cycle the LEDs in a set sequence:

1. Lights all panel button LEDs green (selected mode)





2. Lights all panel button LEDs yellow (alert mode)
3. Lights all panel button LEDs red (evacuate mode)
4. Lights all central console LEDs (status LEDs)

It will cycle through the 4 steps, returning to step 1 after step 4. The screen will change to indicate which step it currently is performing.

```
Testing LEDs:
Selected

20:32:58      18102109
```

Each stage lasts for 1 second. During that stage, examine the LEDs for that stage to determine if they are lit and with the correct colour. Any discrepancies mean that the ALP48 is faulty.

### System reboot

This menu allows the user to reboot the ALP48 firmware. Rebooting will re-initialise the ALP48.

```
System reboot
This will force a
System reboot.
Are you sure? >No
```

The menu first asks if you are sure you wish to reboot. By default, the answer will be No.

Press <L> or (R> to toggle answer between No and Yes.  
Press [A] to accept the choice made.

If the choice is Yes, it will reboot the ALP48.

If the choice is No, it will return you to the Engineering level menu.

Rebooting the ALP48 will add a `Reboot requested` entry into the event log.



## Continuing Development

The features of the ALP48 are far reaching and represent the current leading edge in Voice Alarm Control Equipment, however we are mindful of the needs of our customers and their clients, so we have a policy of continual improvement. The ALP48 has been designed to be updateable using a secure programming adapter. An engineer who has been trained by Current Thinking should only do this.

While we subject all our software to a rigorous quality system we acknowledge that bugs may be present due to the number of possible permutations offered by the ALP48's flexibility. If you discover any bugs, or have additional requirements, please email [info@current-thinking.com](mailto:info@current-thinking.com)

Regular updates, hints and FAQs will be posted on the current thinking websites at:

[www.current-thinking.com](http://www.current-thinking.com)

or

[www.voice-alarm.net](http://www.voice-alarm.net)