Cygnus®

Cygnus Wireless Alarm

User Manual

VERSION INFORMATION

VERSION	DATE	COMMENTS
Issue 1	05.09.16	New issue
Issue 2	01.11.18	Issue Update

CONTENTS

1 HEALTH AND SAFETY

	Before you begin the installation, carry out a risk assessment of the site.
	Before you start work, always make sure that any relevant electrical supply is isolated.
	Always wear appropriate Personal Protective Equipment (PPE) when you carry out the installation work. Long sleeves are advised.
	
	Before you use any power tools: • Make sure they are PAT tested. • Visually check the tools for obvious damage.
	Take care when using power tools.
	Do not handle the PCB radio boards as this could result in an electro-static discharge damaging the board.

2 INTRODUCTION

The Cygnus Wireless Alarm System is a fire alarm system that comprises self-contained alarm units, placed wherever they are needed, connected by a network of wireless links. Each unit relays any message it hears to other nearby units, which means that an alarm raised at one unit quickly spreads to the whole system.

The dynamic nature of the wireless network allows up to 480 alarm units to be used across a wide area. It also means that they can be used in areas such as construction sites where radio reception can sometimes be difficult.

There are several types of alarm unit. Some detect heat or smoke, others have pushbuttons to raise a fire alarm or summon a first-aider and have sounders and/or lights to alert people nearby.

All alarm units contain a radio that operates on the licence-free 868MHz radio band. Internal batteries in the alarm units last approximately 1 year with normal use.

Although the Cygnus system can be used without one, the control panel allows you to monitor the network of alarm units for faulty units or low batteries, record a history log of all events, control various functions and cancel alarms. The control panel is mains powered with battery-backup and can interface to external equipment.

This manual describes the system and how to use it.

Note: Some sections may not be relevant to your system.

3 EQUIPMENT AND OPTIONS

This section details the available alarm units and optional control panel.

Note: The alarm units are powered by internal batteries unless otherwise noted. They should last for at least a year with normal use. External antennas are used on most units.

The following table shows the different options of the equipment:

DESCRIPTION	MODEL NUMBERS	
	868 MHz	434 MHz
Cygnus Control Panel	CYG1	CYG14-AUS/NZ
Cygnus Control Panel 32 Addresses	CYG6	CYG64-AUS/NZ
Cygnus Fire Alarm Call Point with Alkaline Battery Pack	CYG2	CYG24-AUS/NZ
Cygnus Fire Alarm Call Point with Lithium Battery Pack	CYG2L	CYG24L-AUS/NZ
Cygnus Fire Alarm Call Point with Alkaline Battery Pack & PIR Sensor	CYG2PIR	CYG24PIR-AUS/NZ
Cygnus Fire Alarm Call Point with Lithium Battery Pack & PIR Sensor	CYG2LPIR	CYG24LPIR-AUS/NZ
Cygnus Fire Alarm Call Point (85dB) with Alkaline Battery Pack	CYG2/85DB	CYG24/85DB-AUS/NZ
Cygnus Fire Alarm Call Point (85dB) with Lithium Battery Pack	CYG2/85DBL	CYG24/85DBL-AUS/NZ
Cygnus Fire Alarm Call Point (85dB) with Alkaline Battery Pack & PIR Sensor	CYG2/85DBPIR	CYG24/85DBPIR-AUS/NZ
Cygnus Fire Alarm Call Point (85dB) with Lithium Battery Pack & PIR Sensor	CYG2/85DBLPIR	CYG24/85DBLPIR-AUS/NZ
Cygnus Fire Alarm Call Point , First Aid Alert , Alkaline Battery	CYG2F	CYG2F4-AUS/NZ

DESCRIPTION	MODEL NUMBERS	
	868 MHz	434 MHz
Cygnus Fire Alarm Call Point , First Aid Alert , Lithium Battery	CYG2FL	CYG2F4L-AUS/NZ
Cygnus Fire Alarm Call Point , First Aid Alert , Alkaline Battery , PIR Sensor	CYG2FPIR	CYG2F4PIR-AUS/NZ
Cygnus Fire Alarm Call Point , First Aid Alert , Lithium Battery , PIR Sensor	CYG2FLPIR	CYG2F4LPIR-AUS/NZ
Cygnus Heat Detector with Lithium Battery Pack	CYG3L	CYG34L-AUS/NZ
Cygnus Heat Detector with Lithium Battery Pack & PIR Sensor	CYG3LPIR	CYG34LPIR-AUS/NZ
Cygnus Smoke Detector with Lithium Battery Pack	CYG4L	CYG44L-AUS/NZ
Cygnus Smoke Detector with Lithium Battery Pack & PIR Sensor	CYG4LPIR	CYG44LPIR-AUS/NZ
Cygnus First Aid Alert Call Point with Alkaline Battery Pack	CYG5	CYG54-AUS/NZ
Cygnus First Aid Alert Call Point with Lithium Battery Pack	CYG5L	CYG54L-AUS/NZ
Cygnus First Aid Alert Call Point with Alkaline Battery Pack & PIR Sensor	CYG5PIR	CYG54PIR-AUS/NZ
Cygnus First Aid Alert Call Point with Lithium Battery Pack & PIR Sensor	CYG5LPIR	CYG54LPIR-AUS/NZ
Cygnus Input/ Output Interface	CYGIOU	CYGIOU
Cygnus Detector Interface	CYGDI	-
Cygnus Repeater Unit	CYGRU	-

3.1 CYG1 / CYG6 Control Panels

Figure 4 1:
CYG1 Control Panel – 480 Addresses (Left)
CYG6 Base Panel – 32 Addresses (Right)

Power: Mains powered with battery-backup.

The power supply can be used with either 110 V or 230 V supplies.

Features:

- Displays and logs network events such as alarms and cancellations.
- Cancel alarms.
- Raises fire alarm (Evacuate Site).
- Pin control to enable/disable inputs.
- Monitors the network of units to check they are all operating normally, displaying problems such as low battery or network faults.
- Range of diagnostic tools to assist set-up and engineer servicing.
- Outputs for external equipment available.

3.2 CYG2 Fire Call Point with Sounder

Figure 3-1: CYG2 Fire Call Point with Sounder

Power: Battery powered

Features: Fire Evacuate button and sounder. Press the button to raise an alarm across the entire network.

Note: A fire alarm is cancelled:

- *By pressing and holding the button on any Fire Call Point for at least 5 seconds.*
- *At the control panel.*
- *Timing out after a programmable time (default 30 minutes).*

3.3 CYG3L Heat Detector

Figure 3-2: CYG3L Heat Detector

Power: Battery powered

Features: Raises fire alarm when the detector reaches its rated temperature.

Fitted with Apollo S65 AIR Heat Detector to EN54-5.

No external antenna is required.

Note: A detector is cancelled:

- *By pressing and holding the button on any Fire Call Point for at least 5 seconds.*
- *At the control panel.*
- *Timing out after a programmable time (default 30 minutes).*

3.4 CYG4L Smoke Detector

Figure 3-3: CYG4L Smoke Detector

Power: Battery powered

Features: Raises fire alarm when smoke is detected.
Fitted with Apollo S65 Optical Smoke Detector to EN54-7.
No external antenna is required.

Note: A detector is cancelled:

- *By pressing and holding the button on any Fire Call Point for at least 5 seconds.*
- *At the control panel.*
- *Timing out after a programmable time (default 30 minutes).*

3.5 CYG5 First Aid Call Point

Figure 3-4: CYG5 First Aid Call Point

Power: Battery powered

Features: First aid alert button and sounder. Press the button to sound a first aid alert across the entire network. The sounders operate for 1 second out of every 8 seconds.

Note: A first aid alert is cancelled:

- *By one press and release on the originating unit which cancels the originating unit, a further press of more than 5 seconds cancels the alert throughout the network.*
- *At the control panel.*
- *Timing out after a programmable time (default 30 minutes).*

3.6 CYG2F Fire and First Aid Call Point with Sounder

Figure 3-5: CYG2F Fire and First Aid Call Point with Sounder

Power: Battery powered

Features: Combines the features of the CYG2 Fire Call Point and CYG5 First Aid Call Point in a single unit.

Note: A fire alarm is cancelled:

- *By pressing and holding the button on any Fire Call Point for at least 5 seconds.*
- *At the control panel.*
- *Timing out after a programmable time (default 30 minutes).*

A first aid alert is cancelled:

- *By one press and release on the originating unit which cancels the originating unit, a further press of more than 5 seconds cancels the alert throughout the network.*
- *At the control panel.*
- *Timing out after a programmable time (default 30 minutes).*

4 CONTROL PANEL

Figure 4-1:
CYG1 Control Panel – 480 Addresses (Left)
CYG6 Base Panel – 32 Addresses (Right)

The control panel controls and monitors the Cygnus Alarm System network. The unit is normally in a monitoring state from switch-on, with the internal battery trickle charging.

Note: Leave the charger and the control panel switched on continuously.

If an event occurs on the network that requires attention, the unit sounds a buzzer and an LED flashes. The operator can then investigate the problem using the display and menus.

The control panel has the following features:

- Visual and audible alarm indication, view and cancel

- Visual and audible First Aid alert indication, view and cancel
- Interrogate network status
- Low battery indication, view and cancel
- Fault (module not responding) monitoring, indication, view and cancel
- View / clear history log
- Export logs (when connected to a PC)
- Raise / cancel fire alarms
- Control input activation permissions for alarm units in each zone
- Set PIR turn-on delay and duration of operation

The control panel is a wall-mounted, mains-powered unit with battery backup, which serves up to 32 alarm units in each of 15 zones (480 total) at one site. It has a backlit LCD display with a menu system and operating buttons, and also dedicated buttons and LED indicators for button features.

The control panel contains a radio module identical to the alarm units. The control panel and all alarm units on a site must be manufactured for the same frequency.

A second control panel may be fitted on a site, all controls and indications are fully replicated on each panel. Each control panel displays system alarms and messages, and can be used to sound the alarms and silence the system. The messages must all be cleared on each individual panel.

4.1 Events and Commands

Events are:

- Fire alarm raised
- First aid alert raised
- Tamper alarm raised
- PIR alarm raised
- Low battery at an alarm unit
- Low battery at the control panel
- Alarm unit fault (failure to confirm presence)

The control panel draws attention to events on the network (other than cancellation) with a buzzer and an LED on the panel. You can then use shortcut buttons or menu selections to display more information and take appropriate action.

The control panel can issue a number of commands to control the network of modules:

Evacuate Site:	Raises a fire alarm at all alarm units, equivalent to any of the units raising a manual fire alarm.
Silence System:	Cancels a fire alarm or tamper alarm (but not a first aid alert) at all alarm units.
Pin Control:	Enables or suppresses an input in a zone or site, including tamper and PIR pins.
Clear all fault alerts:	Clears all fault alerts
Cancel:	Cancel individual first aid alerts and low battery alerts.

4.2 Display and Buttons

The control panel has a backlit LCD display with a menu system and operating buttons, and also dedicated buttons and LED indicators for button features.

Its default (Home) display looks like this:

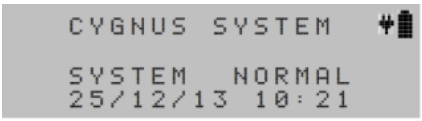

Figure 4-2: Home display

The two-pin plug symbol shows that the unit is charging, this should always remain on.

In some displays, an up or down arrow indicates more lines which can be accessed by pressing the corresponding arrow button.

- To light the display if the backlight has gone off, press the left or right arrow button. Press any button to light the display, but buttons also perform their normal function even when the backlight is off.
- If no button is pressed in a 30 second period, the unit reverts to the Home display.

Use the **Home** button to return to the Home display, and the **Back/Cancel** button to return to the previous display (like the Back button on a browser).

4.3 Event Logging

The control panel maintains a History List (log) of events as they occur. The log can be viewed later where you can consult details of fire alarms or first aid alerts raised and cancelled (on the network or by the control panel), as well as other events connected with system maintenance. See Section 7.7 for 'Viewing Event History'.

5 INSTALLATION

5.1 Control Panel

The control panel is intended to be wall-mounted. It has an external mains charger which should be mounted adjacent to it, and needs a dedicated power point as it will operate continuously.

Mount the control panel at a height where an operator can conveniently view the display and press the buttons.

Note *Like all wireless equipment, mounting in or close to metal structures may reduce the achievable range.*

The panel has a mounting bracket on each corner. Figure 5-1 shows the dimensions of the control panel and its four mounting brackets.

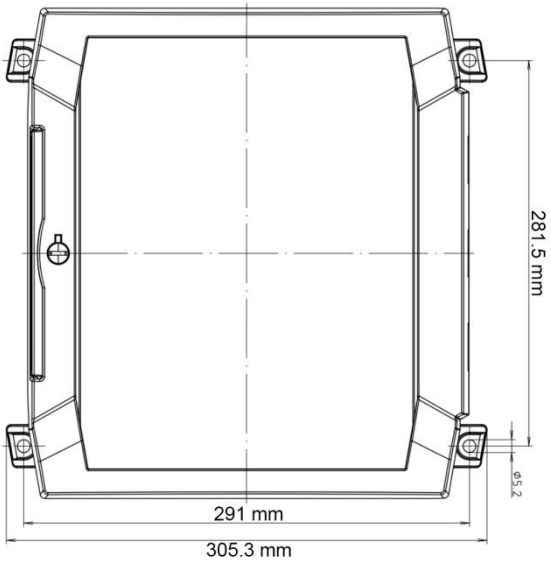

Figure 5-1: Control panel mounting details

Mark the positions of the mounting bracket holes, drill and prepare the holes and secure the control panel with a screw through each mounting bracket.

Note: The fixings used must be strong enough to bear the weight of the unit plus any force which may be applied to it, for example when opening the door.

Close and secure the door.

Fix the trickle charger adjacent to the unit and its power point. Connect it to the unit and the power point.

Connect the power now or before setting up.

6 SETTING UP

The Cygnus Wireless Alarm units can be pre-programmed by your supplier to suit your requirements.

Screw the alarm unit to the wall in their intended location. The mounting brackets are at each corner of the unit.

Hint: *The units can be labelled or marked with a zone and unit number before installation. It is recommended that you keep a record of each alarm device location.*

When an alarm unit is powered up on site it immediately becomes part of the network and begins receiving and transmitting messages.

6.1 Power

Ensure that the mains charger to the control panel is connected and switched on to charge the internal battery. Leave the charger switched on continuously so that the unit can manage charging of the internal battery.

To switch the unit on, operate the key switch adjacent to the power input.

Note: *The unit is designed to operate continuously. It should only be switched off if it is out of service.*

6.2 Wireless Network Settings

The control panel contains a radio module identical to those in the alarm units. It does not need to be configured for use in a control panel rather than an alarm unit, because it automatically detects the control panel and enters a special mode, with the address

Zone = 0, Unit = 0

The radio frequency of a module is fixed at manufacture, and the control panel is supplied with a radio module to match the rest of the network.

The site address is programmed using the GUI.

6.3 Settings

When the system is first used, set the following:

- the time and date (used when logging events) (sections 6.5 and 6.6)
- a password may be set to protect sensitive settings (section 6.7)

In normal use, the control panel displays the screen in Figure 6-1

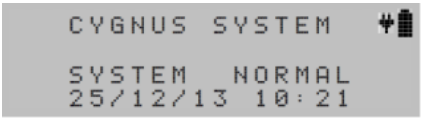

Figure 6-1: Home display

Note: If the system has lost the time and date completely (because it has been left unpowered for an extended period), the date and time 01/01/13 00:00 will flash until either the time or date is set.

6.4 Accessing the Settings Menu

1. From the Home display, press the Menu button (Figure 6-2).

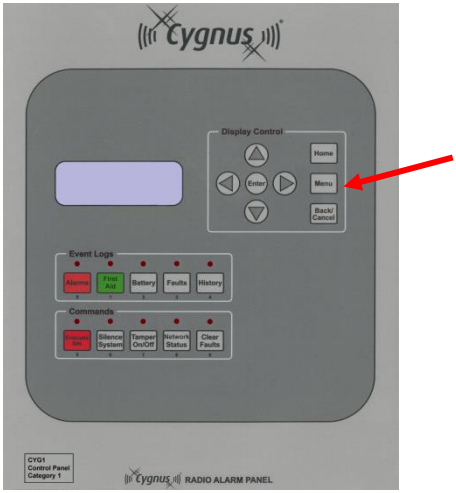

Figure 6-2: Control Panel showing the Menu button

The Main Menu displays:

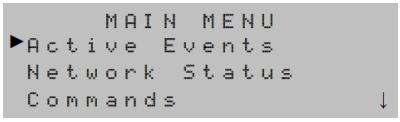

Figure 6-3: Main Menu display

2. Press the down arrow button until the arrow points to Settings:

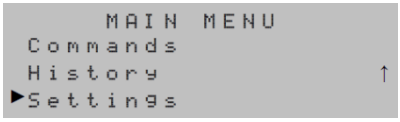

Figure 6-4: Main Menu display – Settings

3. Press the **Enter** button to enter the Settings menu:

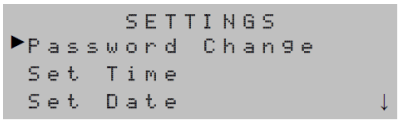

Figure 6-5: Settings Menu display

6.5 Setting the Time

1. To set the time, press the down arrow button once so that the arrow points to Set Time, then press Enter.
2. The display shows the Set Time menu:

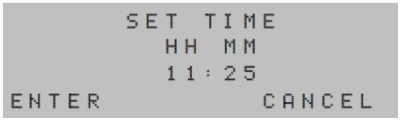

Figure 6-6: Set Time display

3. Press the left and right arrow buttons to select hours or minutes, which flash when selected.
4. Press the up and down arrow buttons to increase or decrease the value.
5. Press Enter to accept the time setting and return to the Settings menu.

Note *You cannot use the number buttons to enter hours or minutes.*

6.6 Setting the Date

1. To set the date, press the down arrow button once so that the arrow points to Set Date, then press Enter.
2. The display shows the Set Date menu:

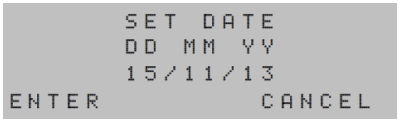

Figure 6-7: Set Date display

3. Press the left and right arrow buttons to select hours or minutes, which flash when selected.
4. Press the up and down arrow buttons to increase or decrease the value.
5. Press Enter to accept the time setting and return to the Settings menu.

Note *You cannot use the number buttons to enter dates.*

6. Press **Cancel** or **Menu** to return to the Main Menu, or press **Home** to return to the Home display.

6.7 Setting the Password

The password is a four-digit number. The default password as the system is delivered is 1234.

1. From the Settings menu:

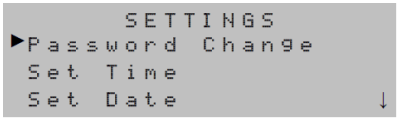

Figure 6-8: Settings display – Password Change

2. Press the up and down arrow buttons if necessary until the arrow points to Password Change and press **Enter**.

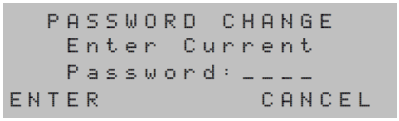

Figure 6-9: Password Change display – current password

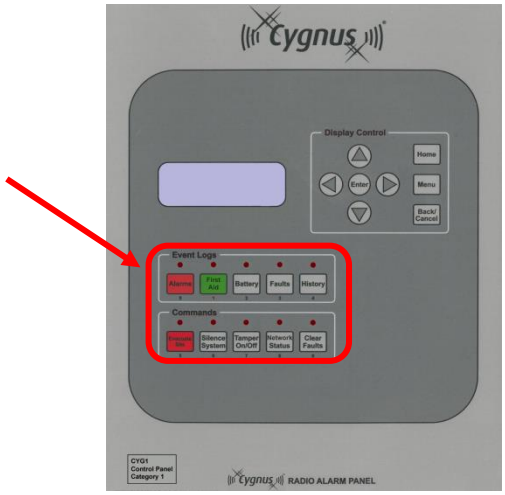

Figure 6-10: Control Panel showing the numbered buttons

3. Use the numbered buttons shown in Figure 6-10 (also used for other commands) to enter the current password, which is shown as asterisks on the display. Then press **Enter**.

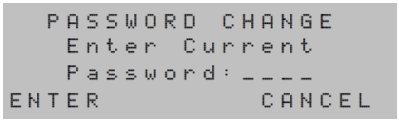

Figure 6-11: Password Change display – current password

4. Use the numbered buttons shown in Figure 6-10 to enter the new password, which is shown as asterisks on the display. Then press **Enter**.

Note *If you make a mistake when you enter the password you must press* ***Back/Cancel*** *to return to the Settings Menu to start again. You cannot backspace.*

5. The system confirms that the password has been changed:

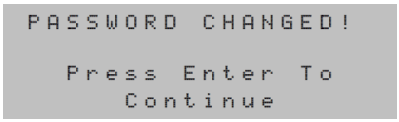

Figure 6-12: Password Change display – current password

6. Press Enter to return to the Settings Menu.
7. Press Cancel or Menu to return to the Main Menu, or press Home to return to the Home display.

Note: *If a password is forgotten once it has been set, it must be reset by entering the master password, enter the Password Change Menu, then enter 2, 3, 1, 2.*

6.8 Input Pin Control

6.8.1 Description

It is possible to turn on or off certain features of the system using the Pin Control command of the control panel. The control panel is able to enable or inhibit each configurable input of alarm units in the system (Tamper, PIR, Fire Call Point, First Aid Call Point, Heat Detector, Smoke Detector).

Note: *Control of the inputs is done on a per zone or a whole site basis.*

6.8.2 Controlling an input

1. From the Commands Menu, select Pin Control (Menu > Commands > Enter > Pin Control > Enter).

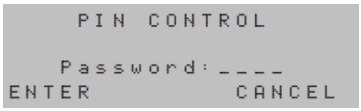

Figure 6-13: PIN control password entry display

2. Use the numbered buttons to enter the password (default 1234), then press **Enter**.
3. Use the up and down arrow buttons to select the input you want to control. Press **Enter**.

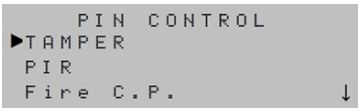

Figure 6-14: Select the input to be controlled

4. Use the up and down arrow buttons to choose whether to perform the action on the entire site or a specific zone.

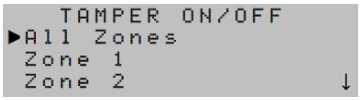

Figure 6-15: Tamper On/Off display – zone selection

5. Use the left and right arrow buttons to select ON or OFF. Press **Enter**.

   Note: The selection is in square brackets, for example, [OFF] means the input is off.

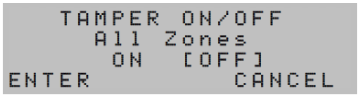

Figure 6-16: Tamper On/Off display

6.8.3 Enable/Disable Periods

The amount of time an input can be enabled or disabled for is fixed (with the exception of the PIR). The table below describes how long an action will last for after it is actioned at the control panel.

ALARM / ALERT	DEFAULT STATE AFTER POWER APPLIED	ALARM PIN ENABLE TIMEOUT	ALARM PIN DISABLE TIMEOUT
Tamper First Aid Call Point	Enabled	Immediate	2 hours / indefinitely
Fire Call Point Heat Detector Smoke Detector	Enabled	Immediate	8 hours / indefinitely
PIR	Disabled	5/10/15/30/45 minutes to activation	6/9/12/24/48 hours to deactivation

7 OPERATION

7.1 Raising and Cancelling Alarms

This system supports the following alarms:

- Fire alarms — These warn everyone that they should evacuate the site (section 7.2).
- First aid alerts — These summon First Aiders in the case of a medical emergency (section 7.4).

7.2 Fire Alarms

This covers CYG2, CYG2F, CYG3L, CYG4L.

Alarm units raise fire alarms in response to a fire call point button being pressed, a smoke sensor being activated or a heat sensor being activated, depending on how they are configured. A fire alarm:

- sets off audible and visible signals at the originating alarm unit
- sets off an audible signal at every other alarm unit on the site
- reports the event to the control panel.

There can only be one fire alarm on the system at any one time.

Note: If the zone sounder disable function is used, each zone may have a fire activation but each event must be cancelled separately.

7.2.1 Summary

Fire Alarm sound: The alarm is a continuous loud note to tell you to follow the fire instructions.

To raise the alarm: **In case of fire, press the button at a Fire Call Point (CYG2, CYG2F or press the Evacuate button on the control panel).**

Note: The alarm can also be raised automatically by a smoke detector (CYG3L) or heat detector (CYG4L).

To cancel the alarm: The alarm automatically stops after 30 minutes (unless it has been configured differently).

To cancel the alarm manually, hold the button down for more than 5 seconds at any Fire Call Point.

Note: You must wait at least 5 seconds after raising the alarm before you can cancel it.

7.2.2 What Happens when a Fire Alarm is Raised

When a fire alarm is raised, the control panel sounds its buzzer and flashes the LED above the Alarms button:

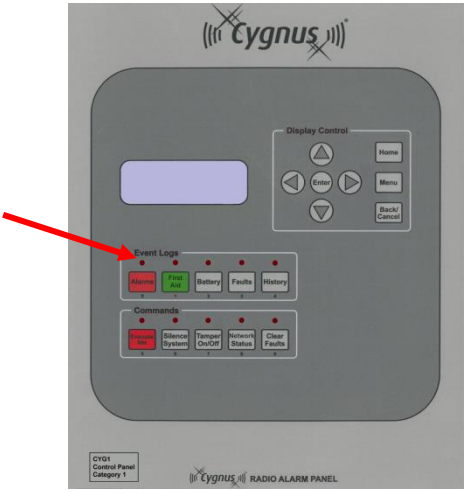

Figure 7-1: Control Panel showing the Alarms LED

Provided that the display is showing the Home display, it changes to show an Alarm notification with either the address or location of the unit which raised it:

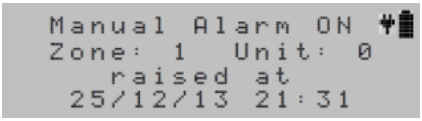

Figure 7-2: Alarm display

Note: The display or the unit address or location depends on how the unit is programmed.

If you return to the Home display, it shows an abbreviated notification:

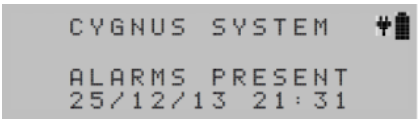

Figure 7-3: Home display showing alarms

The backlight comes on and stays on as long as the notification is displayed. The notification is displayed until you press any button (rather than reverting to the Home display after 30s as happens in all other cases).

7.2.3 Raise a Fire Alarm at the Control Panel

You can raise a fire alarm at the control panel as well as a Fire Call Point.

1. Press the red **Evacuate Site** button (Figure 7-4).

    i. You can also use the menu system (Menu > Commands > Enter > Evacuate > Enter).

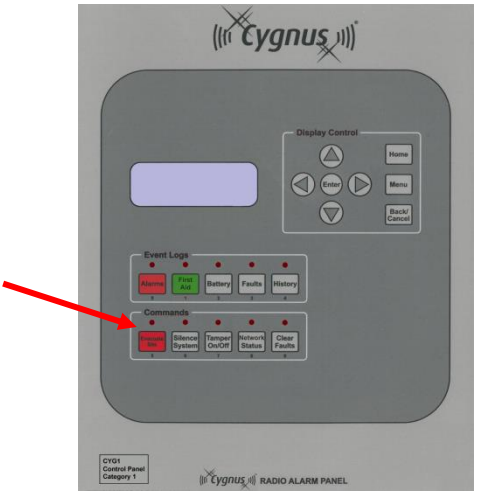

Figure 7-4: Control Panel showing the Evacuate Site button

Note: The Evacuate Site alarm operates all sounders on all zones, irrespective of delays.

ii. A confirmation box displays.

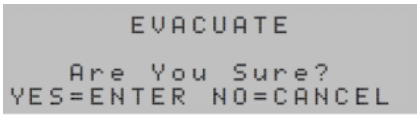

Figure 7-5: Evacuation confirmation display

2. Press the **Enter** button to raise the alarm across the network. You see the display in Figure 7-6.

*iii. Note: Press **Cancel** if you do not want to set the alarm.*

Figure 7-6: Evacuation display

3. Press **Home** to return the Home display.

7.2.4 View Active Fire Details

Only one fire alarm can be active in the system at any one time.

To see the details of an active (not yet cancelled) fire alarm, press the Alarms shortcut button below the flashing led. The list also includes PIR and Tamper alarms. The zone and unit number of the originating alarm unit are displayed in the format ZZ-UU, followed by the time and date of the event.

Note: The display or the unit address or location depends on how the control panel is programmed.

1. Go to the Alarms screen (Menu > Active Events > Enter > Alarms):

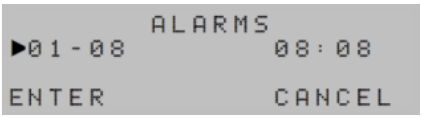

Figure 7-7: Alarms display

2. Press the up and down arrow buttons to increase or decrease the value, then press **Enter** to see the details of the selected event:

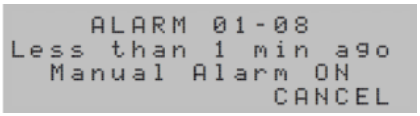

Figure 7-8: Alarm details

The screen in Figure 7-8 shows the Zone (01), Unit (08), time of event and type of event (evacuation, call point, sensor alarm, tamper alarm or PIR alarm).

Press **Back/Cancel** to return to the list of alarms. Select other alarms if required.

Note: This does not cancel (silence) the alarm.

7.2.5 Cancel a Fire Alarm at the Control Panel

Note *Any alarm unit with a Manual Fire Call Point can cancel a fire alarm, no matter where it originated.*

To cancel a fire alarm at the control panel:

1. Press the **Silence System** button (Figure 7-9).

   You can also use the menu system (Menu > Commands > Enter > Silence > Enter).

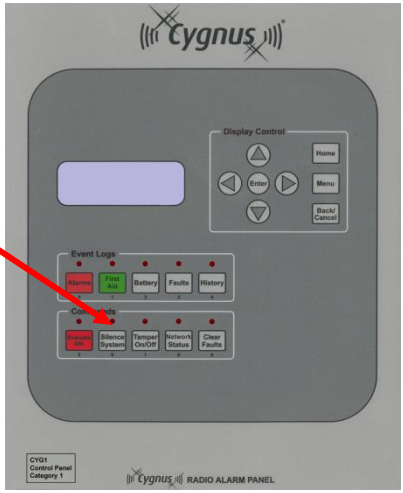

Figure 7-9: Control Panel showing the Silence System button

The screen in Figure 7-10 asks for the password:

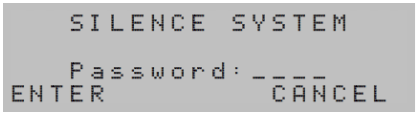

Figure 7-10: Silence System display

2. Use the numbered buttons (shown in Figure 7-11) to enter the password (default 1234), then press **Enter**.

Note: The digits are shown as asterisks on the display.

*Note: If you make a mistake when you enter the password you must press **Back/Cancel** and press the Silence System button again. You cannot backspace.*

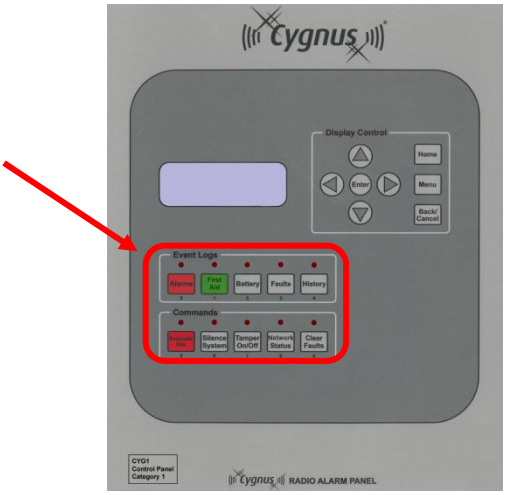

Figure 7-11: Control Panel showing the numbered buttons

3. Sounders are silenced across the network, the LED above the Alarms button is turned off and the display in Figure 7-12 is shown briefly before returning to the Home screen.

Figure 7-12: Silence Alarms screen

4. The details of the fire alarm are removed from the active list and the details of fire alarm and cancellation are retained in the history list (section 7.7).

Note *Cancellation of a fire alarm (either from a Fire Call Point or using the Silence System function of the control panel) will also clear any Tamper and PIR alarms.*

7.3 Sounder Delay Function

If alarms are programmed with a sounder delay, only the originator unit sounds. An alarm is shown on the control panel as CALL POINT and when the delay period has run, all sounders operate as normal.

If it is required to operate all the sounders during the delay period, either the same or any other call point can be pressed and all alarms will sound.

7.4 First Aid Alerts

This covers CYG2F, CYG5.

Alarm units raise first aid alerts when a First Aid Call Point button is pressed.

Note *A first aid alert cannot be raised at the control panel.*

A first aid alert:

- sets off intermittent audible and visible signals at the originating alarm unit.
- sets off an intermittent audible signal at every other alarm unit on the site.
- reports the event to the control panel.

Note: *Each alarm unit can raise an individual first aid alert.*

7.4.1 Summary

First Aid Alert sound: The alarm is a series of brief loud bursts from the sounder (1 second on / 8 seconds off) to request the help of a First Aider in an emergency.

To raise the alarm: **In case of and accident, press the button at a First Aid Alert Point.**

To cancel the alarm: The alarm automatically stops after 30 minutes (unless your supplier has set it to a different time).

To cancel the alarm manually, press and release the first aid button. This silences the originating unit. Release and hold down for more than 5 seconds to silence all other units. The alert must also be cleared at the panel.

Note: You must cancel the alarm at the originating unit and not any other unit

Note: You must wait at least 5 seconds after raising the alarm before you can cancel it.

7.4.2 What Happens when a First Aid Alert is Raised

When a first aid alert is raised, an intermittent audible warning is sounded at all alarm units in the network, and the control panel sounds its buzzer and flashes the LED above the First Aid button:

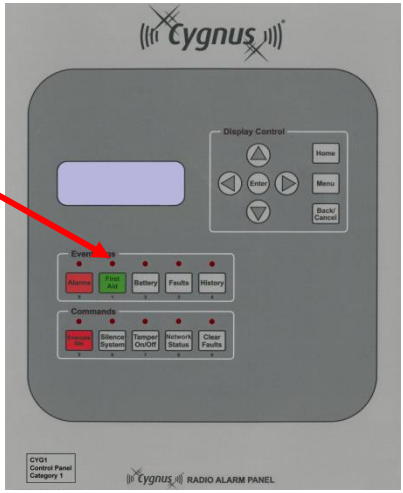

Figure 7-13: Control Panel showing the First Aid LED

Provided that the display is showing the Home display, it changes to show an Alert notification with the address of the unit which raised it:

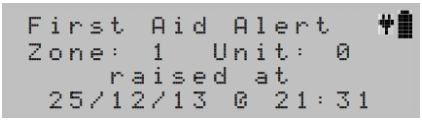

Figure 7-14: First Aid Alert display

If you return to the Home display, it shows an abbreviated notification:

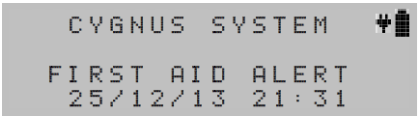

Figure 7-15: Home display showing alerts

The backlight comes on and stays on as long as the notification is displayed. The notification is displayed until you press any button (rather than reverting to the Home display after 30s as happens in all other cases).

7.4.3 View Active First Aid Alerts

To see the details of an active first aid alerts:

1. Press the **First Aid** button below the flashing LED.

   You can also use the menu system (Menu > Active Events > Enter > First Aid > Enter).
2. The zone and unit number of the originating alarm unit are displayed in the format ZZ-UU, followed by the time and date of the event.

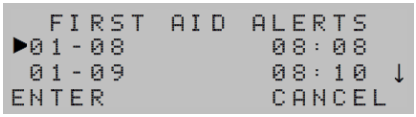

Figure 7-16: First Aid Alerts display

3. Use the up and down arrow buttons to see all the alerts and select a particular alert. Press **Enter** to display the details of that alert:

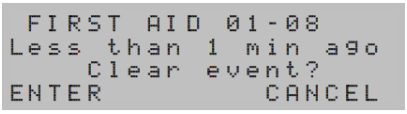

Figure 7-17: First Aid Alerts details

The screen in Figure 7-17 shows the Zone (01), Unit (08) and the time of event.

4. Press **Back/Cancel** to return to the list of alerts. This does not cancel (silence) the alert.
5. Select and view other alerts if required.

7.4.4 Cancel a First Aid Alert at the Control Panel

Each alarm unit can silence its own sounder, but only the originating unit or the control panel can cancel the first aid alert.

When a cancellation message is received, the details of the corresponding first aid alert are removed from the Active list, but the details of both the first aid alert and the cancellation are retained in the History list (Section 7.7).

When there are no active first aid alerts, the control panel turns off the LED above the First Aid button.

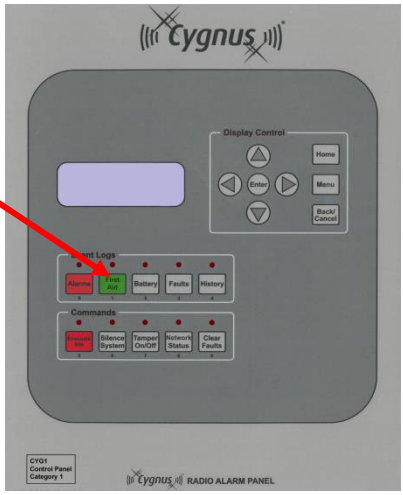

Figure 7-18: Control Panel showing the First Aid button

To cancel a first aid alert at the control panel:

1. Press the **First Aid** button to list the alert.

You can also use the menu system (Menu > Active Events > Enter > First Aid > Enter).
The screen in Figure 7-19 displays:

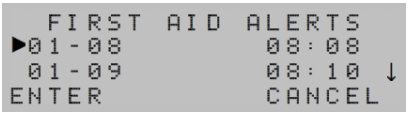

Figure 7-19: First Aid Alerts display

2. Use the up and down arrow buttons to select the alert to be cancelled. Press **Enter** to see the details of the selected event.

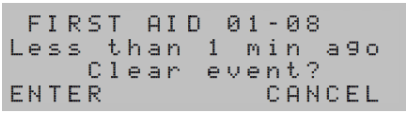

Figure 7-20: First Aid Alerts display

3. Press **Enter** to cancel the alert and return to the list of active first aid alerts

   *Note: Press **Cancel** to return to the Home screen **without** cancelling the alert.*

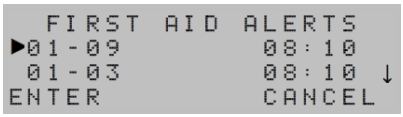

Figure 7-21: First Aid Alerts display

4. When all first aid alerts have been cleared, the sounders are silenced across the network and the display shows 'Event Cleared'.

7.5 Tamper Alarms

Note *Tamper alarm is an optional feature which may be selected on a per-unit basis when an alarm unit is programmed. It is not possible to use the control panel to find out whether this option is selected on an alarm unit.*

The tamper alarm on an alarm unit is raised if the enclosure is opened. It can be used to monitor whether a unit is removed, or opened and also to check external switches on extinguisher cabinets.

To avoid a false alarm when an authorised person opens the enclosure, the tamper alarm can be turned off (disabled) either for one zone or all zones of a system.

The tamper alarm can be turned on (enabled) again manually, otherwise it is automatically turned on again after two hours.

7.5.1 Turn Tamper Alarm On and Off

To switch the tamper alarm off for one or all zones:

1. Press the **Tamper On/Off** button (Figure 7-22).

   You can also use the menu system (Menu > Commands > Enter > Pin Control > Enter).

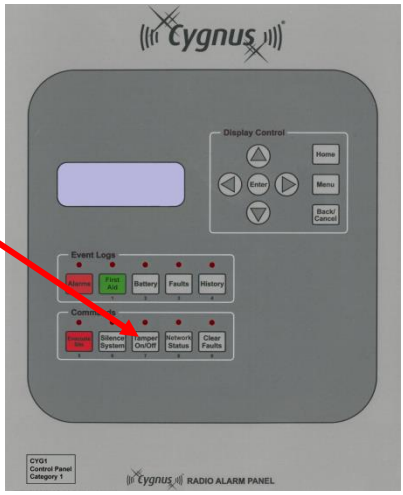

Figure 7-22: Control Panel showing the Tamper Alarm button

2. Follow the instructions in section 6.8.
3. If you switch tamper alarms OFF, the screen in Figure 7-23 displays before it returns to the zone list after a few seconds.

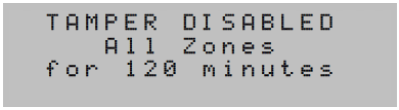

Figure 7-23: Tamper Off display

7.5.2 What Happens when a Tamper Alarm is Raised

If an alarm unit is configured to raise a tamper alarm, it sets off an audible alarm at the originating unit only. It can only be cancelled by the control panel.

Note *The control panel can disable the tamper alarm at every alarm unit in a zone for a period if required, for example while batteries are changed.*

When tamper alarm is raised, the control panel sounds its buzzer and flashes the LED above the Alarms button.

Provided that the display is showing the Home display, it changes to show an alert notification with the address of the unit which raised it:

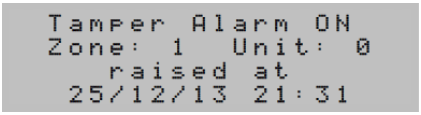

Figure 7-24: Tamper Alarm display

If you return to the Home display, it shows an abbreviated notification:

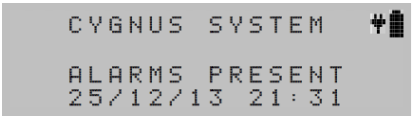

Figure 7-25: Home display showing alarms

The backlight comes on and stays on as long as the notification is displayed. The notification is displayed until you press any button (rather than reverting to the Home display after 30s as happens in all other cases).

7.5.3 View Active Tamper Alarms

To see the list of active alarms:

Note *The list also includes PIR and tamper alarms. The zone and unit number of the originating alarm unit are displayed in the format ZZ-UU, followed by the time and date of the event.*

1. Press the **Alarms** button below the flashing LED.

   You can also use the menu system (Menu > Active Events > Enter > Alarms > Enter):

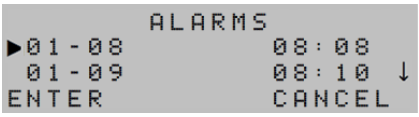

Figure 7-26: Alarms display

2. Press the up and down arrow buttons to increase or decrease the value, then press **Enter** to see the details of the selected event:

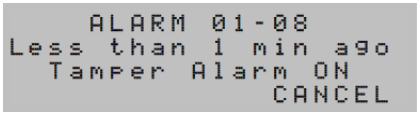

Figure 7-27: Alarm details

The screen in Figure 7-8 shows the Zone (01), Unit (08), time of event and type of event (evacuation, call point, sensor alarm, tamper alarm or PIR alarm).

3. Press **Back/Cancel** to return to the list of alarms. Select other alarms if required.

Note: This does not cancel (silence) the alarm.

7.5.4 Cancel a Tamper Alarm

To cancel a tamper alarm at the control panel:

1. Press the **Silence System** button (Figure 7-9).

You can also use the menu system (Menu > Commands > Enter > Silence > Enter).

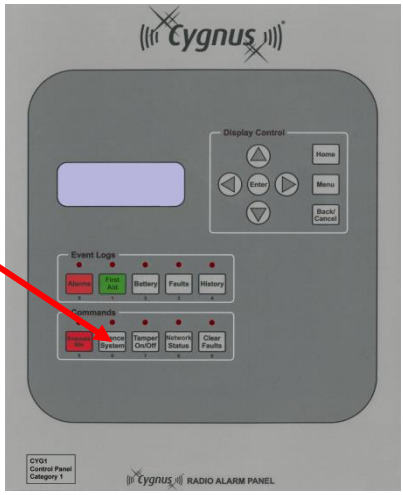

Figure 7-28: Control Panel showing the Silence System button

The screen in Figure 7-10 asks for the password:

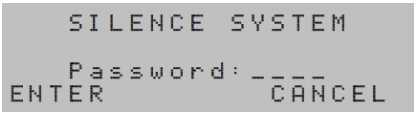

Figure 7-29: Silence System display

2. Use the numbered buttons (shown in Figure 7-11) to enter the password (default 1234), then press **Enter**.

   Note: The digits are shown as asterisks on the display.
   *Note: If you make a mistake when you enter the password you must press **Back/Cancel** and press the **Silence System** button again. You cannot backspace.*

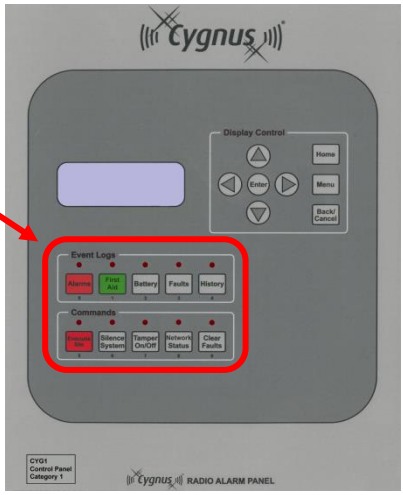

Figure 7-30: Control Panel showing the numbered buttons

3. Sounders are silenced across the network, the LED above the Alarms button is turned off and the display in Figure 7-12 is shown briefly before returning to the Home screen.

Figure 7-31: Silence Alarms screen

4. The details of the tamper alarm are removed from the active list and the details of tamper alarm and cancellation are retained in the history list (section 7.7).

   Note *Cancellation of a tamper alarm also clears any fire and PIR alarms.*

7.6 PIR Alarms

Note *PIR Alarm is an optional feature which may be selected on a per-unit basis when an alarm unit is programmed. It is not possible to use the control panel to find out whether this option is selected on an alarm unit.*

The PIR Alarm on an alarm unit is raised if the sensor is activated. To avoid a false alarm when an authorised person opens the enclosure, the PIR Alarm can be turned on either for one zone or all zones of a system for a period of 12 hours (default), after which it automatically turns off.

7.6.1 Turn PIR Alarm On and Off

To switch the PIR Alarm off for one or all zones:

1. From the Commands Menu, select Pin Control (Menu > Commands > Enter > Pin Control > Enter).
2. Follow the instructions in section 6.8.
3. Use the up and down arrow buttons to select the time to delay enabling the sounder. Press **Enter**.

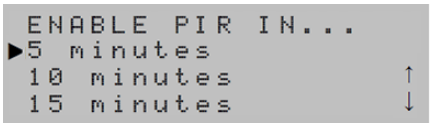

Figure 7-32: PIR enable delay

4. Use the up and down arrow buttons to select the time that the PIR sensor will be enabled for. Press **Enter**.

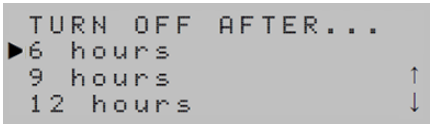

Figure 7-33: PIR enable time

5. When the start time and duration of the action have been entered, a confirmation screen displays:

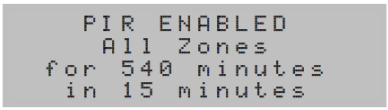

Figure 7-34: PIR confirmation display

Note: Disabling the PIR sensor does not require the same procedure: this action always happens immediately and indefinitely.

7.6.2 What Happens when a PIR Alarm is Raised

If an alarm unit is configured to raise a PIR Alarm when the PIR sensor is activated, it sets off an audible alarm across the network only. It can only be cancelled by the control panel.

Note The control panel can disable the PIR Alarm at every alarm unit in a zone for a period if required.

When PIR Alarm is raised, the control panel sounds its buzzer and flashes the LED above the Alarms button.

Provided that the display is showing the Home display, it changes to show a PIR Alert notification with the address of the unit which raised it:

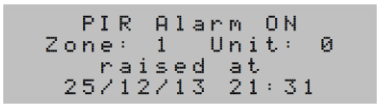

Figure 7-35: PIR Alarm display

If you return to the Home display, it shows an abbreviated notification:

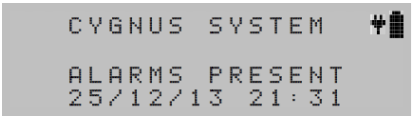

Figure 7-36: Home display showing alarms

The backlight comes on and stays on as long as the notification is displayed. The notification is displayed until you press any button (rather than reverting to the Home display after 30s as happens in all other cases).

7.6.3 View Active PIR Alarms

To see the list of active alarms:

Note *The zone and unit number of the originating alarm unit are displayed in the format ZZ-UU, followed by the time and date of the event.*

1. Press the **Alarms** button below the flashing LED.

   You can also use the menu system (Menu > Active Events > Enter > Alarms > Enter):

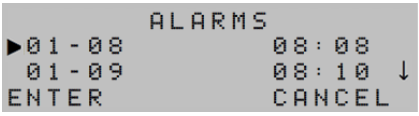

Figure 7-37: Alarms display

2. Press the up and down arrow buttons to increase or decrease the value, then press **Enter** to see the details of the selected event:

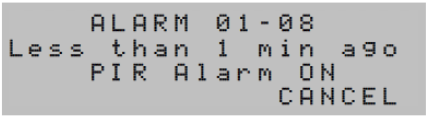

Figure 7-38: Alarm details

The screen in Figure 7-8 shows the Zone (01), Unit (08), time of event and type of event (evacuation, call point, sensor alarm, tamper alarm or PIR alarm).

3. Press **Back/Cancel** to return to the list of alarms. Select other alarms if required.

   Note: This does not cancel (silence) the alarm.

7.6.4 Cancel a PIR Alarm

To cancel a PIR alarm at the control panel:

1. Press the **Silence System** button (Figure 7-39).

   You can also use the menu system (Menu > Commands > Enter > Silence > Enter).

Figure 7-39: Control Panel showing the Silence System button

The screen in Figure 7-10 asks for the password:

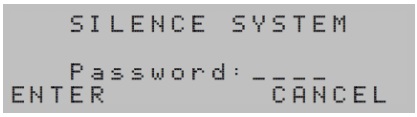

Figure 7-40: Silence System display

2. Use the numbered buttons (shown in Figure 7-30) to enter the password (default 1234), then press **Enter**.

   Note: The digits are shown as asterisks on the display.
   *Note: If you make a mistake when you enter the password you must press **Back/Cancel** and press the **Silence System** button again. You cannot backspace.*

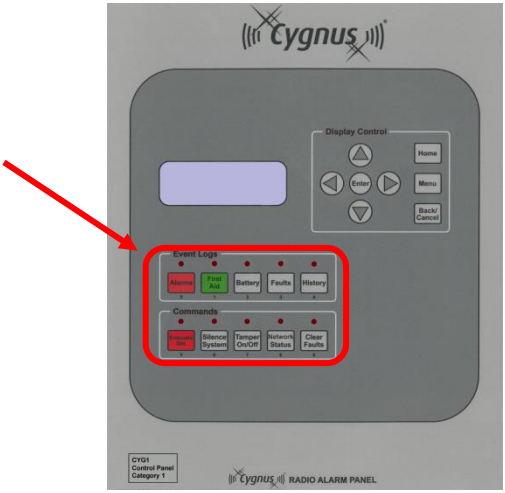

Figure 7-41: Control Panel showing the numbered buttons

3. Sounders are silenced across the network, the LED above the Alarms button is turned off and the display in Figure 7-12 is shown briefly before returning to the Home screen.

Figure 7-42: Silence Alarms screen

Note *Cancellation of a PIR alarm also clears an active fire alarm.*

7.7 Viewing Event History

Every event which the network reports to the control panel, and every command which the control panel issues to the network, is recorded in an Event History list, with its type, time and date. This means that alarms which have now been cancelled can still be seen, as can the details of when and by which unit it was cancelled.

Note: Regular reports of alarm unit presence ('heartbeat') are not stored in the history.

The History List includes alarms, alerts, and system information. Routine network checks ('heartbeats') are not recorded.

To view the Event History list:

1. Press the **History** button (Figure 7-43).

   You can also use the menu system (Menu > History > Enter).

Figure 7-43: Control Panel showing the History button

2. The screen in Figure 7-19 displays:

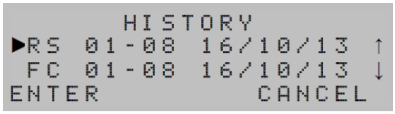

Figure 7-44: History display

3. Each event is represented by one line, giving the type code, zone unit and date.

   Event type codes are as follows:

   AL Alarm (Fire or Tamper)

   BL Battery Low

   BO Battery OK (or Battery Alert cleared)

   CL Alarm Notification Cleared

   FU Faulty Unit (unresponsive for 18 hours)

FC	Fault Cleared
FR	First Aid Alert
PD	Pin Disabled
PE	Pin Enabled
PW	Password Changed
RS	Request for Status
SD	Panel Shutdown (control panel battery removed or too low)
SI	Alarm Cancelled (Silenced) (Fire or Tamper cancellation)

4. Use the up and down arrow buttons to see the list and select the event of interest. Press **Enter** to see the details:

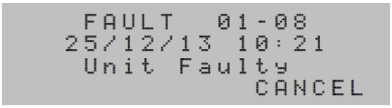

Figure 7-45: Fault display

The display shows details corresponding to the type of report (including the name of the pin in the case of PD and PE).

5. Press **Back/Cancel** to select and view more events in the same way if you wish.

Note: The History list can store more than 22,000 events. When History memory is full, the oldest event is discarded to make room for the newest event.

8 MAINTENANCE

The control panel can help you to maintain and fault-find the system.

Note: Depending on your agreement, your supplier may carry out these tasks.

8.1 Low Battery Alerts

Alarm units run on self-contained batteries which periodically need to be replaced. The unit monitors the battery, and gives a warning when it estimates that it has about 15 days' life left.

The control panel is mains powered, but contains a rechargeable standby battery giving one to two weeks of life. It also monitors battery state.

When an alarm unit or the control panel reports that its batteries are low, the control panel sounds its buzzer and flashes the LED above the Battery button (Figure 8-1).

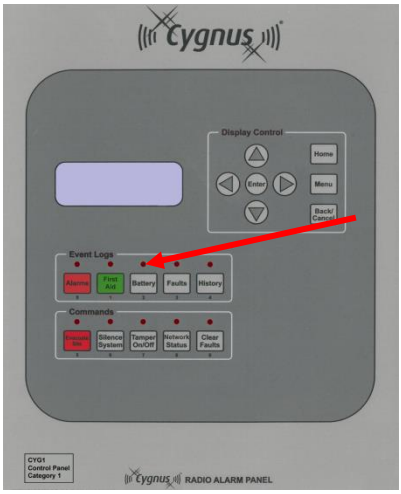

Figure 8-1: Control Panel showing the Battery LED

If the Home screen is displayed, it changes to show there is a low battery alert (Figure 8-2).

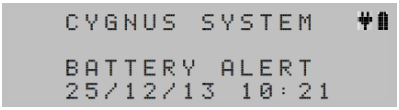

Figure 8-2: Battery Alert

8.1.1 View Low Battery Alerts

To see the list of active low battery alerts:

1. Press the **Battery** button below the flashing LED.

   You can also use the menu system (Menu > Active Events > Enter > Battery > Enter).

   Note: The zone and unit number of the originating unit(s) are displayed in the format ZZ-UU, followed by the time and date of the event.

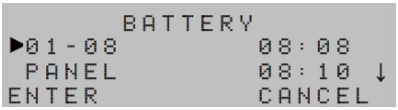

Figure 8-3: Battery Alerts Display

2. Use the up and down arrow buttons to see all the alerts and select a particular alert. Press **Enter** to display the details of that alert.

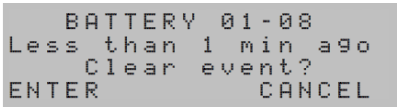

Figure 8-4: Battery Display

The screen in Figure 8-4 shows the Zone (01), Unit (08) and the time of event.

3. Press **Back/Cancel** to return to the list of alerts. Select other alerts if required.

Note: This does not cancel (silence) the alert.

Note: Once the battery on a unit has been replaced, the unit will eventually send a battery OK message to the control panel which will remove that battery low report from the list automatically.

8.1.2 Battery Replacement

The following procedure must be followed when changing Cygnus battery packs in order to reset the internal fuel gauge of the module, failure to do so will lead to recurring battery faults being displayed on the control panel.

1. Open the front of the alarm case
2. Remove 9 pin connector for PCB
3. Insert battery reset connector and fit new battery pack, the alarm sounder will beep once and a battery ok message will be received by the control panel.

8.1.3 Cancel Low Battery Alerts

To cancel a low battery alert from the control panel:

1. Press the **Battery** button.

   You can also use the menu system (Menu > Commands > Enter > Battery > Enter).

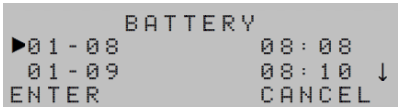

Figure 8-5: Battery Display

2. Use the up and down arrow buttons to select the alert to be cancelled. Press **Enter** to display the details of that alert.

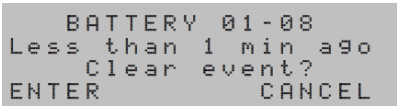

Figure 8-6: Battery Alert details

3. Press **Enter** to cancel the alert to return to the list of active Battery Alerts.

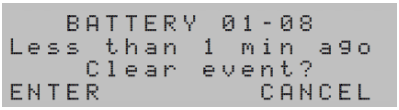

Figure 8-7: Battery Display

4. This cancellation is recorded in the History Log as Battery OK (code BO). If the unit sends another Battery Low message, it will cause another battery low alert to appear in the active list and the History List.

8.2 Fault Alerts

Alarm units report their presence on the network when they are first switched on and every six hours during normal operation.

The control panel maintains a list of alarm units which it usually hears, and raises a fault alert if a unit fails to report three times in a row – that is, 18 hours after the unit was last heard.

Note: Allowing two failures to report prevents false alarms because of short-term radio interference or another unit attempting to transmit at the same time.

The list of units and register of reports is not visible to the user. Fault alerts are cleared either manually from the control panel, or automatically when the 'faulty' unit reports its presence again.

When an alarm unit is deemed faulty, the control panel sounds its buzzer and flashes the LED above the Faults button (Figure 8-8).

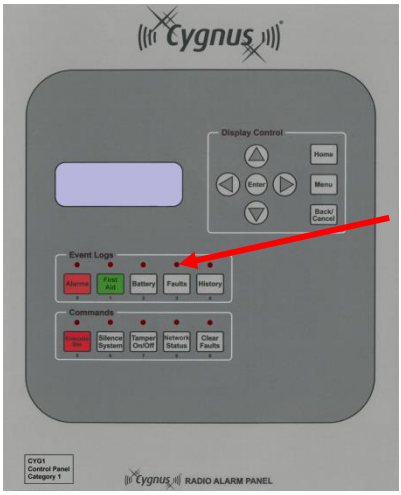

Figure 8-8: Control Panel showing the Fault LED

If the Home screen is displayed, it changes to show there is a fault alert (Figure 8-2).

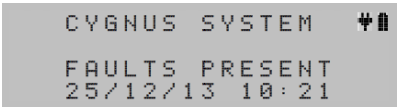

Figure 8-9: Fault Alert

8.2.1 View Unit Fault Alerts

To see the fault(s):

1. Press the **Faults** button below the LED.

   You can also use the menu system (Menu > Active Events > Enter > Faults > Enter):

   Note: The zone and unit number of the originating unit(s) are displayed in the format ZZ-UU, followed by the time and date of the event.

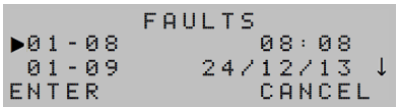

Figure 8-10: Fault Alerts Display

2. Use the up and down arrow buttons to see the list and select a particular unit. Press **Enter** to display the details of the faulty unit.

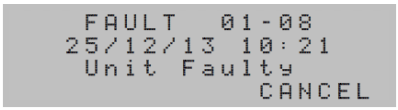

Figure 8-11: Faults Display

The screen in Figure 8-11 shows the Zone (01), Unit (08) and the time of event.

3. Press **Back/Cancel** to return to the list of units failing to report. Select and view other Alerts if required.

8.2.2 Clear Unit Fault Alerts

To clear all fault alerts, and remove any unit still listed as faulty from the control panel's list of units on the network):

1. Press the **Clear Faults** button (Figure 8-12).

   You can also use the menu system (Menu > Commands > Enter > Clear Faults > Enter).

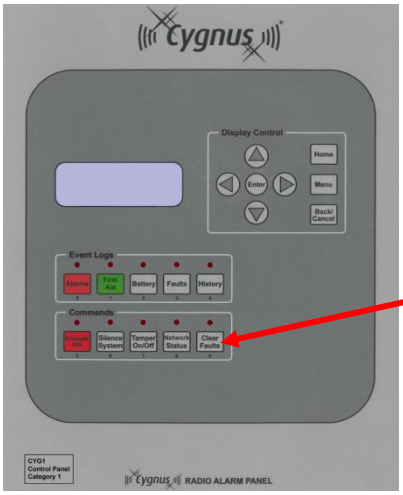

Figure 8-12: Control Panel showing the Clear Faults button

2. The screen in Figure 8-13 displays.

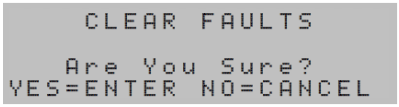

Figure 8-13: Clear Faults screen

3. Press **Enter** to clear all fault alerts across the network. The screen in Figure 8-14 displays, before returning to the Home display after a few seconds.

Figure 8-14: Faults Cleared Display

8.3 Network Inspection

It is possible to interrogate any alarm unit to find out what signal strength it is receiving (the strongest signal from the surrounding units), its battery type and level, and its internal temperature.

It is also possible to see the makeup of the whole network in terms of zones and units using a separate menu option.

8.3.1 Alarm Unit Status

To see an alarm unit's status:

1. Go to the Commands menu and select Read Status: Menu > Commands > Enter > Read Status > Enter.

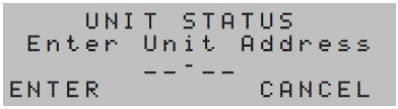

Figure 8-15: Select Unit Status

2. Use the number buttons to enter a zone from 1 to 15 and a unit from 0 to 31.

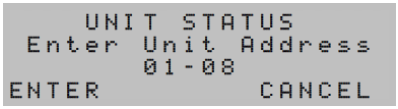

Figure 8-16: Unit Status Selected

3. Press **Enter** to view the unit status.

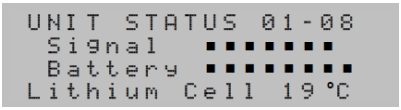

Figure 8-17: Unit Status Display

The display shows the zone, unit, signal strength, battery level, battery type and internal temperature.

4. Press **Back/Cancel** to return to the previous display. Select and view more units in the same way if required.

8.3.2 Network Status

To see the status of the network:

1. Press the **Network Status** button.

   You can also use the menu system (Menu > Network Status > Enter).

Figure 8-18: Control Panel showing the Network Status button

2. The screen in Figure 8-19 displays, listing the site number, the total number of alarm units, and a list of zones with the number of units each contains.

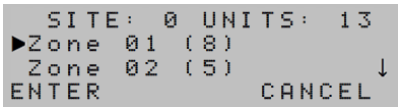

Figure 8-19: Network Status display – site information

3. Use the up and down arrow buttons to move between zones. Press **Enter** to see a list of units in that zone.

   Note: If the zone is currently being refreshed, you will see a message to that effect instead of.

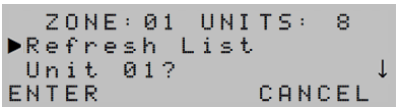

Figure 8-20: Network Status display showing number of units

4. Refresh the list (section 8.3.3).

   Note: A question mark by a unit indicates that it has failed to respond to one or more routine heartbeat collections within its zone, or explicit list refresh requests. (A fault status is not caused until it has failed to respond within 18 hours).

   A unit should appear in this list approximately five minutes after being turned on, since switching on causes information for the zone to be updated.
5. Use the up and down arrow buttons to move between units. Press **Enter** to bring up a sub-menu for actions on that current unit.

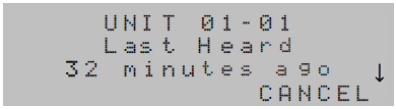

Figure 8-21: Network Status display showing unit details

6. You can perform a Read Status request for the unit by selecting the Read Status command in the unit.

   To do this, use the menu system (Menu > Settings > Commands > Read Status), then enter the zone and unit number that you want to see.

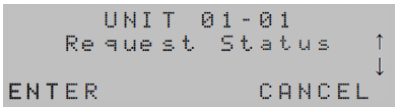

Figure 8-22: Network Status display – request status

Note: Alternatively select the Forget Unit command to remove the unit from the Network Status list entirely. This function should be used when a unit has been removed from the site to avoid the panel raising it as a faulty unit. If the unit still exists on the site, it will reappear in the Network Status list within 6 hours.

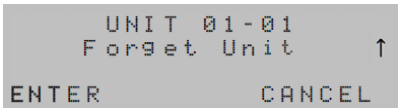

Figure 8-23: Network Status display – forget unit

7. At any point, the **Back/Cancel** button takes you back to the previous display.
8. If you ask to see the list of units in an unused zone, an alternative display is shown:

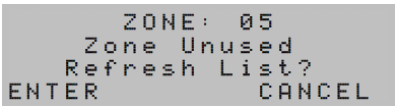

Figure 8-24: Network Status display – request status

9. Refresh the list (section 8.3.3).

8.3.3 Refresh the Network List

To refresh the network list:

1. Select the Refresh List option, either at the top of the list of units, or from the Zone Unused display:

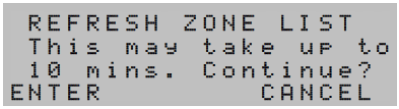

Figure 8-25: Network Status display – refresh zone list

2. Press **Enter** to continue, you see this display:

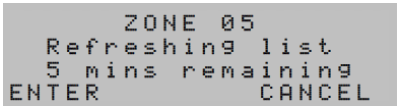

Figure 8-26: Network Status display – refreshing zone list

The time estimate is how long the control panel will wait until it gives up waiting for a zone to respond. A zone will typically take about 10 minutes to respond.
You can only refresh one zone list at a time. If you attempt to refresh a zone list when another zone list is being updated, you see this display:

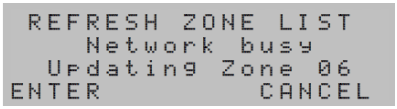

Figure 8-27: Network Status display – updating zone

Note: Zone list refreshes are carried out automatically (known as a 'heartbeat') approximately every six hours.

Note: It takes about 150 minutes to refresh all 15 zones manually assuming the system is fault free and all readings are within the range of the control panel.

8.3.4 Clear Event Logs

Issuing this command permanently deletes the following information:

- Active events (alarms, alerts, battery low, faults)
- Event history
- Network status

To clear event logs:

1. Select the Clear Event Logs option: Menu > Settings > Enter > Clear Event Logs > Enter.
2. The display in Figure 8-28 displays:

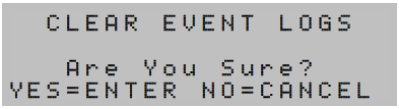

Figure 8-28: Clear event logs

3. Press **Enter** to clear all event logs. You see the display in Figure 8-29 before returning to the Home display after a few seconds:

Figure 8-29: Event logs cleared

8.3.5 System Diagnostics

Front Panel Test

This feature lights all the LEDs on the panel briefly in rotation, to test them.

1. Select LED Test: Menu > Settings > Enter > LED Test > Enter.
2. The display flashes and displays:

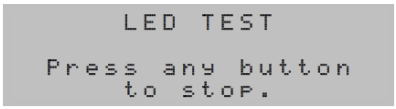

Figure 8-30: LED test

*Note: Pressing the **Back/Cancel** button avoids bringing up unwanted functions which might otherwise be selected.*

Alarm Unit Test

1. Select Alarm Unit Test: Menu > Settings > Enter > Diagnostics > Enter > Alarm Unit Test. Press Left Arrow Button to turn on, or Right Arrow Button to turn off.
2. If not turned off manually, the alarm will automatically turn off after 2 hours.

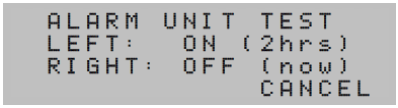

Figure 8-31: Alarm unit test

3. Press the **Cancel** button for no change.

8.3.6 System Information

To find out information about the control panel:

1. Select System Info: Menu > Settings > Enter > System Info > Enter.
2. The display shows the version of software in the control panel itself (not its internal radio module):

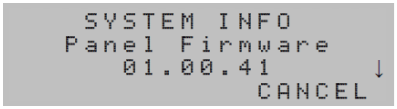

Figure 8-32: System Information – panel firmware

3. Press the down button once to see the serial number of the control panel module:

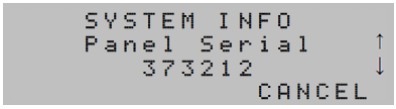

Figure 8-33: System Information – panel serial

4. Press the down button again to see the version of software in the control panel radio module:

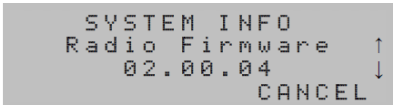

Figure 8-34: System Information – radio firmware

5. Press the down button again to see the serial number of the radio module:

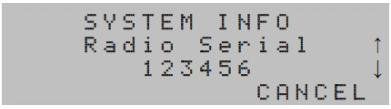

Figure 8-35: System Information – radio serial

6. Press the down button again to see the Site Address (single digit 0-3) or Site Key (string of 3-19 alphanumeric characters):

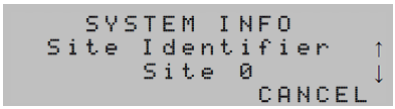

Figure 8-36: System Information – site identifier

7. Press the down button again to see the version of the membrane button panel:

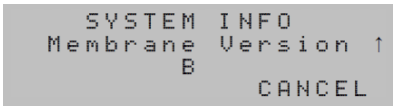

Figure 8-37: System Information – membrane version

8. Press the down button again to see the Pager Group ID. This will either show a 7-digit Pager Group ID or Disabled (Group ID = 0000000):

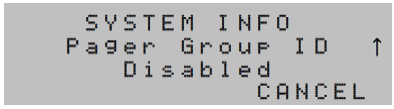

Figure 8-38: System Information – pager group ID

9. Press **Back/Cancel** to return to the Settings menu.

8.3.7 Power Failure

If the mains power fails, the unit continues to operate normally for one to two weeks on its battery. When the battery is exhausted (or is disconnected), the unit ceases to operate, but holds its configuration indefinitely. This state is called hibernation.

Note: Switching off with the key switch is equivalent to disconnecting the battery.

During hibernation, time and date are maintained for 30 minutes maximum.

When the unit is powered again by the charger unit, or the battery is reconnected, it will continue to operate as it did before the power failure.

Note: Switching on with the key switch is equivalent to reconnecting the battery. The time and date may need to be reset, and will flash in the display if this is the case. See section 6.5 for setting instructions.

If, when the unit is switched on again, it finds that the supply voltage is too low to operate correctly, it will light the display and all LEDs if possible, but will not otherwise function. The unit must be switched off, and switched on again with adequate power (i.e. the charger reconnected and working) so that the supply comes up normally.

9 CONTROL PANEL HARDWARE

This section of the manual gives an overall view of the control panel hardware, with detailed information about the connections to the control panel module.

9.1 Parts and Construction

The control panel is housed in a wall-mounting, IP65-protected enclosure with an internal aluminium panel, containing the following parts:

- Radio module
- Control panel module
- LCD display
- Membrane panel (button pad) with LED indicators
- Fuse holder
- Buzzer
- Power connector
- Key switch
- Interconnection cables and connectors
- TNC antenna connector
- Sealed lead-acid backup battery
- Mounting hardware

9.2 Annotated Views

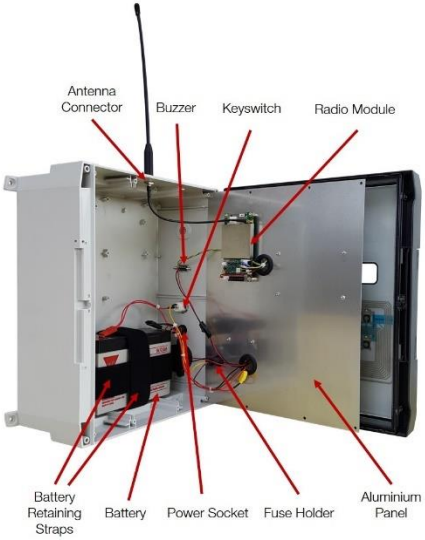

Figure 9-1: Control Panel Layout – under panel

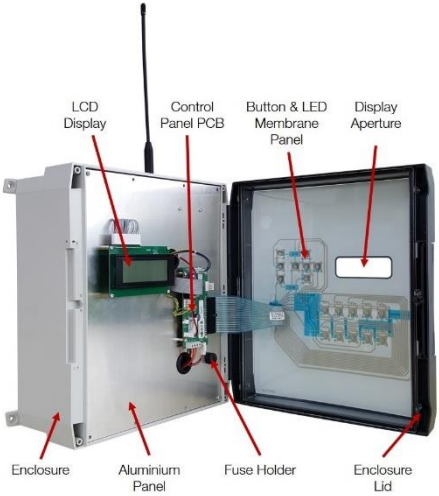

Figure 9-2: Control Panel Layout – above panel

9.3 Interconnections

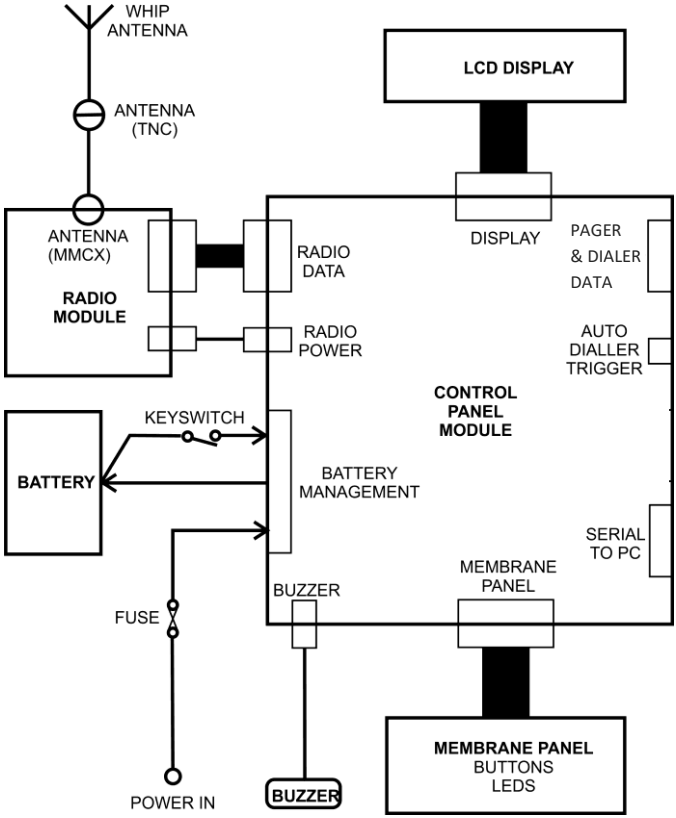

Figure 9-3: Block Diagram Showing Interconnections

9.4 Connections

9.4.1 Radio module

Refer to manual reference 1890 1260 for details.

9.4.2 Control Panel Module

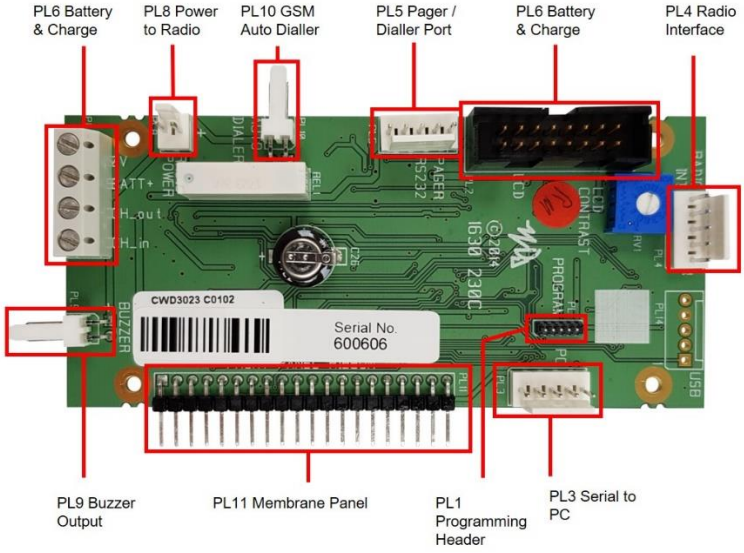

Figure 9-4: Locations and Functions of Control Panel Module Connectors

10 CONFIGURATION USING THE GUI

Most configuration can be done using the control panel's display and menus. However, using a computer and supplied Graphical User Interface (GUI) software, it is possible to configure all features including those which cannot be set using the menus and buttons.

10.1 Wired Connection to a Local PC

A local computer is connected to an internal connector (Figure 10-3) via a special adaptor lead, available from your supplier. The GUI communicates with the module using proprietary AT commands.

To make the connection,

1. Switch the unit off using the key switch.
2. Open the door at the front of the control panel.

   The main control panel PCB is mounted on a panel just inside the unit, as shown in Figure 10-1:

Figure 10-1: Control Panel PCB located in Control Panel

3. Identify PL3 on the PCB:

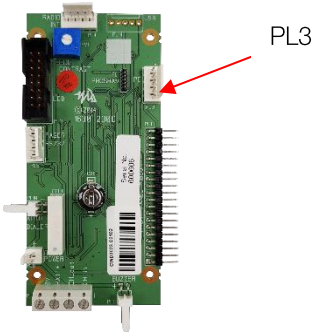

Figure 10-2: PL3, the configuration data connection

Connections are as follows

Note: This port is not true RS232, but inverted, TTL-level RS232. For this reason, a special adaptor is needed rather than a passive serial cable. This adaptor is the same one as is used for programming radio PCBs.

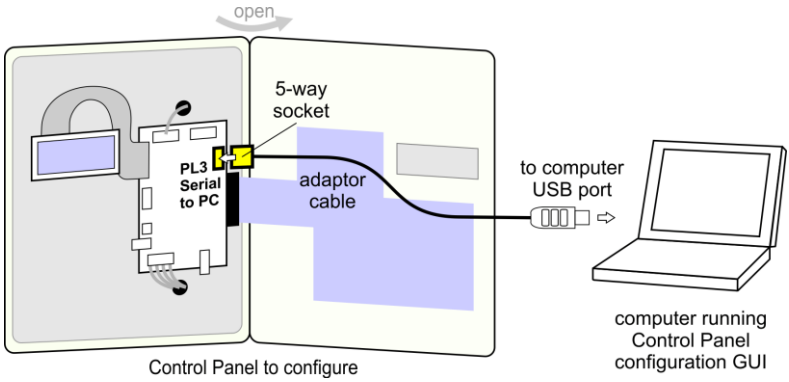

Figure 10-3: Configuration connection

4. Connect one end of the adaptor to PL3, and the other to the computer.

10.2 Control Panel Configuration

1. If you have not yet installed the control panel GUI software on the computer, do so now.
2. Run the GUI software.

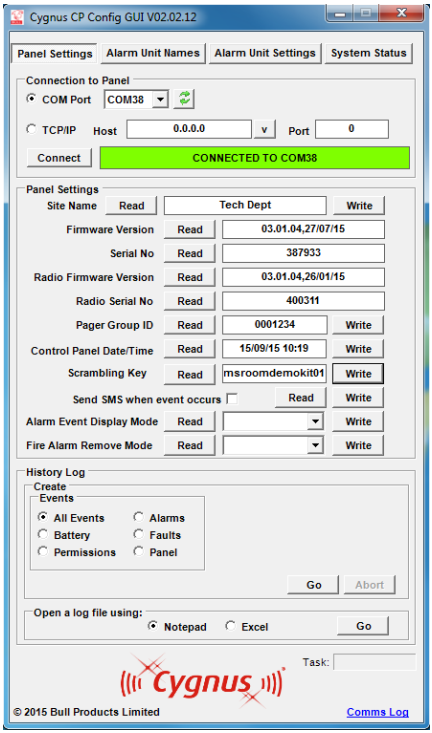

Figure 10-4: Control Panel GUI Panel Settings tab

10.2.1 Connection to Control Panel

On the Panel Settings tab, select the connection to the control panel:

- For a local connection, select COM Port, select a real or virtual COM port from the drop-down list, then click the Connect button. The text box shows the port by means of which the computer is connected to the panel.

10.2.2 Panel Settings

1. Use the **Read** buttons to find out the site name, firmware version, serial number (of the control panel PCB) and the radio serial number as required.
2. If you intend to use paging, click the **Read** button to find out the existing pager group ID, and type any new value (see Paging Transmitter documentation) into the text box. Set it by clicking the **Write** button.
3. To see the current date and time held by the control panel, click the **Read** button. To change it, type the new value in the format dd/MM/yy hh:mm into the text box and click the **Write** button.
4. If you are using a site key, click the **Read** button to find out the existing value. To change it, type the new value into the Scrambling Key text box (3-19 alphanumeric characters) and click the **Write** button. It must be the same for all units in the network.

   If you are not using a site key, insert 0 (zero) into the text box. The site address itself is set using the menu system. Click the **Write** button.
5. To configure the panel to display the name of the units when an event occurs, set the “Alarm Event Display Mode” to Name string: and click **Write**.
6. Use the “Fire Alarm Remove Mode” to select if the control panels clears ‘all’ alarm events or just a ‘single’ event at the time. When using a system with multiple zones where the sounder is active just within its own zone, it is recommended to use the option “Single Item”.

10.2.3 History Log

The Cygnus Control Panel has a History function, which logs all events which occur in the system and can display them singly on the LCD display under the control of front panel buttons. The GUI can transfer this log to disk in a standard format (CSV) so a user can view the list on a PC. The file is best viewed in a spreadsheet program such as Microsoft Office Excel but can also be opened using any text editor or word processor. Once saved to disk, the history log can be archived, analysed or attached to an email.

Filters

By default, all events are selected (All Events option). To select just one kind of event, select one of the Events options instead.

To select events recorded at any date or time, select the Date/Time Full option. To limit the selection to events during a certain period, select Partial, and type in a start date in the format dd/MM/yy, and the number of days to include.

Download

Finally, click **Go** to save the file.

The control panel has the capacity to store approximately 22,000 events. It will therefore take up to a maximum of 10 minutes for the control panel to transfer the complete event log to the PC when event log is at full capacity.

Log Format

History log file entries are in the form below:

```
<<Start Of File>>
BRIEF,DEVICE,EVENT,DATE/TIME
TE **-** 01/06/14,ALL ZONES,Tamper Enabled,08:38 01/06/14,
PW PANEL 01/06/14,CONTROL PANEL,Password Changed,08:39
01/06/14,
FR 01-00 01/06/14,Room 100,First Aid Alert,08:39 01/06/14,
CL 01-00 01/06/14,Room 100,First Aid Cleared,08:39 01/06/14,
AL 01-00 03/06/14,Room 100,Tamper Alarm ON,13:34 03/06/14,
SI PANEL 03/06/14,CONTROL PANEL,System Silenced,13:34
03/06/14,
```

```
AL 01-00 04/06/14,Room 100,Manual Alarm ON,19:43 04/06/14,
SI PANEL 04/06/14,CONTROL PANEL,System Silenced,19:44
04/06/14,
FR 01-00 05/06/14,Room 100,First Aid Alert,08:47 05/06/14,
CL 01-00 05/06/14,Room 100,First Aid Cleared,08:47 05/06/14,

AL 01-00 06/06/14,Room 100,Manual Alarm ON,11:45 06/06/14,
SI 08-31 06/06/14,Room 832,Manual Alarm OFF,11:59 06/06/14,
AL 01-00 06/06/14,Room 100,Manual Alarm ON,12:00 06/06/14,
SI 08-31 06/06/14,Room 832,Manual Alarm OFF,12:00 06/06/14,
AL 01-00 06/06/14,Room 100,Manual Alarm ON,12:01 06/06/14,
AL 01-00 06/06/14,Room 100,Manual Alarm ON,12:02 06/06/14,
BL 08-31 06/06/14,Room 832,Unit Battery Low,12:03 06/06/14,
AL 01-00 06/06/14,Room 100,Manual Alarm ON,12:03 06/06/14,
SI 08-31 06/06/14,Room 832,Manual Alarm OFF,12:03 06/06/14,
AL 01-00 06/06/14,Room 100,Manual Alarm ON,12:04 06/06/14,

SI 08-31 06/06/14,Room 832,Manual Alarm OFF,12:04 06/06/14,
SD PANEL 09/06/14,CONTROL PANEL,Panel Shutdown,15:49 09/06/14,

<<End Of File>>
```

Opening the File

For convenience, the GUI will open the latest file either in Notepad (plain text) or Excel (spreadsheet) format, by selecting the required viewer and clicking **Go**.

10.2.4 Alarm Unit Names

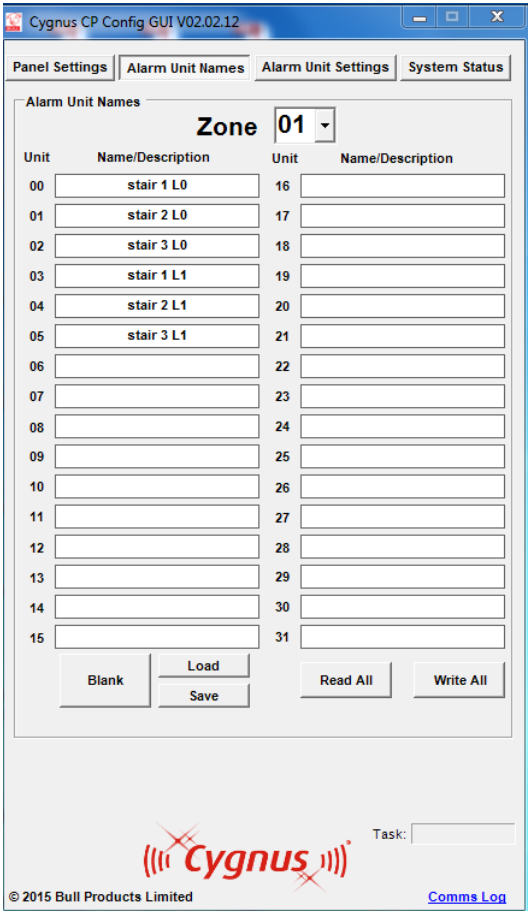

Figure 10-5: Control Panel GUI alarm unit Names tab

The Alarm Unit Names tab allows you to give a name to each alarm unit in the system.

Note: These names are known only to the control panel, which associates them with zone and unit addresses, not to the units themselves.

1. Select the Zone 1 to 15 to work on from the Zone drop-down.
2. To see the names presently associated with the units in this zone, click Read All.
3. To erase all the names displayed, click Blank.
4. You can save a named file containing all the unit names on the computer's disk by clicking Save, and retrieve those names (for example, to another zone) by clicking Load.
5. Any or all names can be edited in the GUI.
6. Names are only saved to the control panel when you click the Write All button.
7. To work on another zone, select it from the Zone drop-down.

10.3 Auto Dialler

The GSM Auto Dialler provides an effective solution to all your fire, first aid and intruder notifications.

Once triggered the GSM text communicator automatically sends a text message to one of 9 designated, pre-programmed telephone numbers, providing a fast and reliable warning.

10.3.1 Setting up the Auto Dialler

1. Insert the SIM card at the back of the unit
2. Connect the Auto Dialler to the Control Panel using the 9-pin lead provided which inserts into the RS232 serial port on the side of the panel.

   Wait for the solid blue light before proceeding with the next step.
3. Download ***GSM Dialer*** app from play store

4. Open the app once it has been installed
5. Select *Add a new Dialler Configuration*
6. Select the image on the left that has no buttons or display
7. Once you have read and checked the 4 points select the ***Next*** button
8. Now fill in the Dialler details.

   The Dialler number is the SIM Card number.
   The password should remain as 1234
   Then press the ***Next*** Button
9. Now enter up to 9 telephone numbers of site personnel. Number 1 will be the first number the dialler will contact, and Number 9 will be the last. (You do not need to have to use 9 numbers). Once the numbers have been entered select ***Next***
10. At this step, please do not enter message lines as the Auto Dialler has been setup to pull script from the control panel. Select ***Next***.
11. Now select those numbers to be called on each trigger/test call,

    Trigger 1 – Fire call
    Trigger 2 – First Aid call
    Trigger 3 – PIR call
    Trigger 4 – Tamper call
    Then select ***Next***.
12. At this step, select SMS for receiving messages. We cannot guarantee that all entered phone numbers will be called. Select ***Next***.
13. Select ***Save & Send*** once you're happy with the Final Choice Settings. The App will then start sending out pre-programming messages. Note: if you would like to have notifications of the credit left on the SIM card, select SMS forwarding.

11 SPECIFICATIONS

All available units are listed in Section 3 on page 7.

Note: The dimensions of the 434 MHz AUS/NZ versions are the same as the equivalent standard models. Refer to the list of units in Section 3.

11.1 Physical Specifications

Dimensions (H x W x D):	
Control panel CYG1:	320 x 285 x 135 mm
Control panel CYG6:	320 x 285 x 110 mm
All other units:	265 x 170 x 90 mm
Weight:	
Control panel CYG1:	4.68 kg (10.3 lbs)
Control panels CYG6:	2.95 kg (6.5 lbs)
CYG2/85DB, CYG5:	1.64 kg (3.6 lbs)
All other units:	1.72 kg (3.38 lbs)
Environment:	
IP65:	CYG2, CYG2/85DB, CYG2F, CYG5, CYGDI, CYGIOU
Mounting:	Mountable to construction stands
Noise level:	
CYG2, CYG2F:	120 dB
All other units (except CYGDI and CYGIOU):	85 dB

11.2 Electrical Specifications

Power:

Control panels CYG1, CYG6:	Control panel 230 Vac mains with battery backup
All other units:	Battery power pack, expected life >1 year

Battery:

Control panels CYG1, CYG6:	6 V rechargeable battery (lead-acid)
CYG2, CYG2/85DB, CYG2F, CYG5, CYGDI, CYGIOU:	Alkaline power pack as standard (0.84 kg)
CYG3L, CYG4:	Lithium power pack as standard
CYG2, CYG2/85DB, CYG2F, CYG5:	Lithium power pack available on request
Available with PIR sensor:	CYG2, CYG2/85DB, CYG2F, CYG3L, CYG4, CYG5

11.3 Communications

Wireless Network:

868 MHz low power licence-free, Category 1

434 MHz (Australia/New Zealand models – see Section 3)

Channel spacing:	25 kW

Aerial type:

CYG3L, CYG4L:	Internal mounted
All other units:	External mounted. Aerial height: 230 mm
Transmitter duty cycle i.e. alarm is triggered:	~200ms TX packet over the air on event

System check:	Automatic 6-hourly network and unit check, alerts for low battery or communications problems
Record keeping:	All events logged to history list

TECHNICAL SUPPORT: 01432 371170

We have a policy of continual improvement and enhancement. Consequently, the design and specification of this equipment may change without notice.

All units come with a 12-month warranty.

12 INDEX

Notes

Manufactured and Distributed by:

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BULL
securing your safety

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