

SmartCell



Wireless Control Panel Programming Guide

Welcome

to SmartCell



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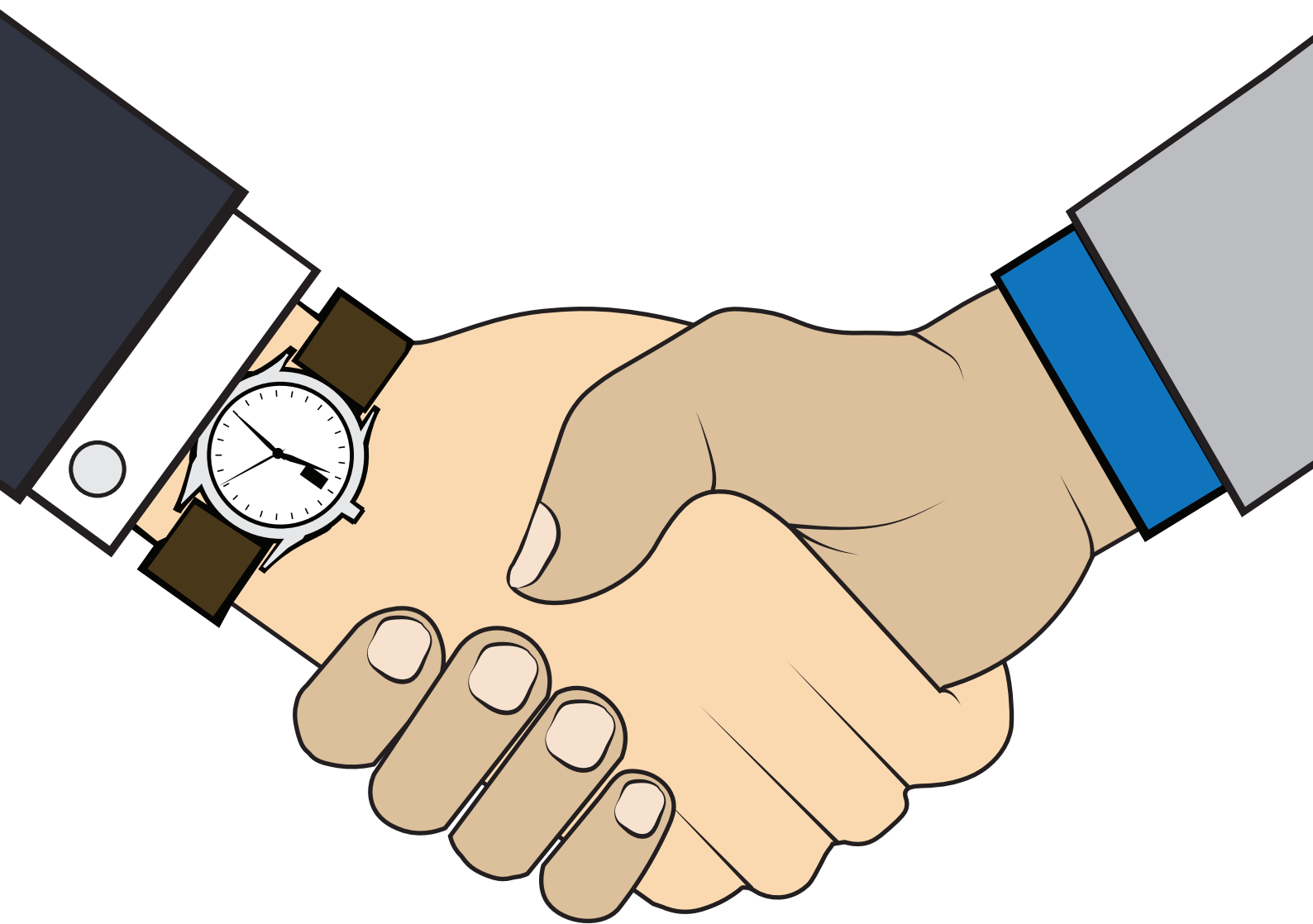
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Introduction





General warnings

The system should only be installed and programmed by a fully trained competent person.

The procedures outlined in this programming guide and associated instructions must be carefully followed.

All of the options detailed within this programming manual are available via the SmartCell configuration tool. See the configuration tool's inbuilt engineer manual for operational details.



Handling precautions

General: care should be taken when handling this wireless fire system. Avoid dropping any of the parts on to hard surfaces, as damage may occur to the case and internal circuitry.

ESD precautions: This wireless fire system includes components that are susceptible to damage from Electrostatic Discharge (ESD). Permanent damage may be caused to these components through routine handling if precautions are not observed. To reduce the risk of damage from ESD, the following precautions should be observed.

Minimise the handling of PCBs which contain static sensitive components.

Where handling is unavoidable, always ensure that you have taken adequate earthing precautions. An earthed wrist strap is recommended.

When storing or transporting a “loose” PCB, always use a container, which has been designed and manufactured with ESD protective properties.

Avoid placing static sensitive devices on any surfaces, which may increase the risk of a static discharge



Packaging

Products should be kept in their packaging until they are due to be installed, to minimise the risk of damage. Retain all packaging until the installation activities have been completed. Should any product be found to be surplus to requirements, or require returning to your supplier, the original packaging should be used.



PIN numbers

It is advised that you change the default PIN immediately on first installation and consider changing frequently to prevent unauthorised access.

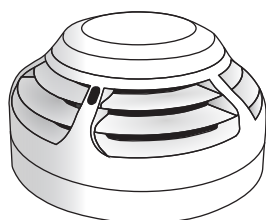
Equipment familiarisation

It is important to establish which devices have been supplied for the installation. Examples of each of the systems products are shown below:

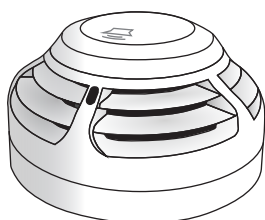


Wireless control panel

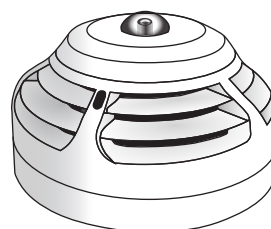
Wireless fire devices



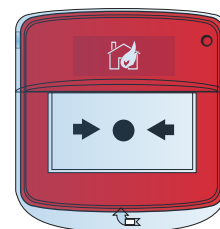
Wireless dual smoke /
heat detector



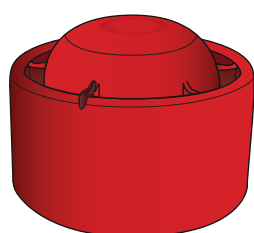
Wireless dual smoke /
heat detector &
combined sounder



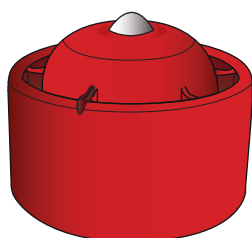
Wireless dual smoke /
heat detector & combined
sounder beacon



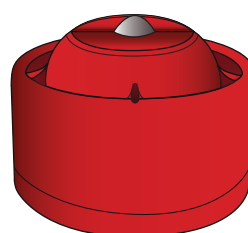
Wireless manual
fire call point



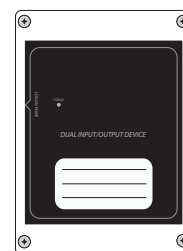
Wireless
sounder



Wireless sounder &
ceiling beacon

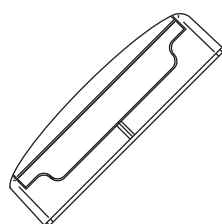


Wireless sounder &
wall beacon

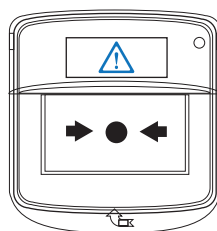


Wireless input /
output device

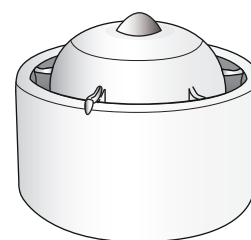
Wireless information devices



Wireless contact transmitter
& input device



Wireless information
manual call point



Wireless information
sounder & visual indicator

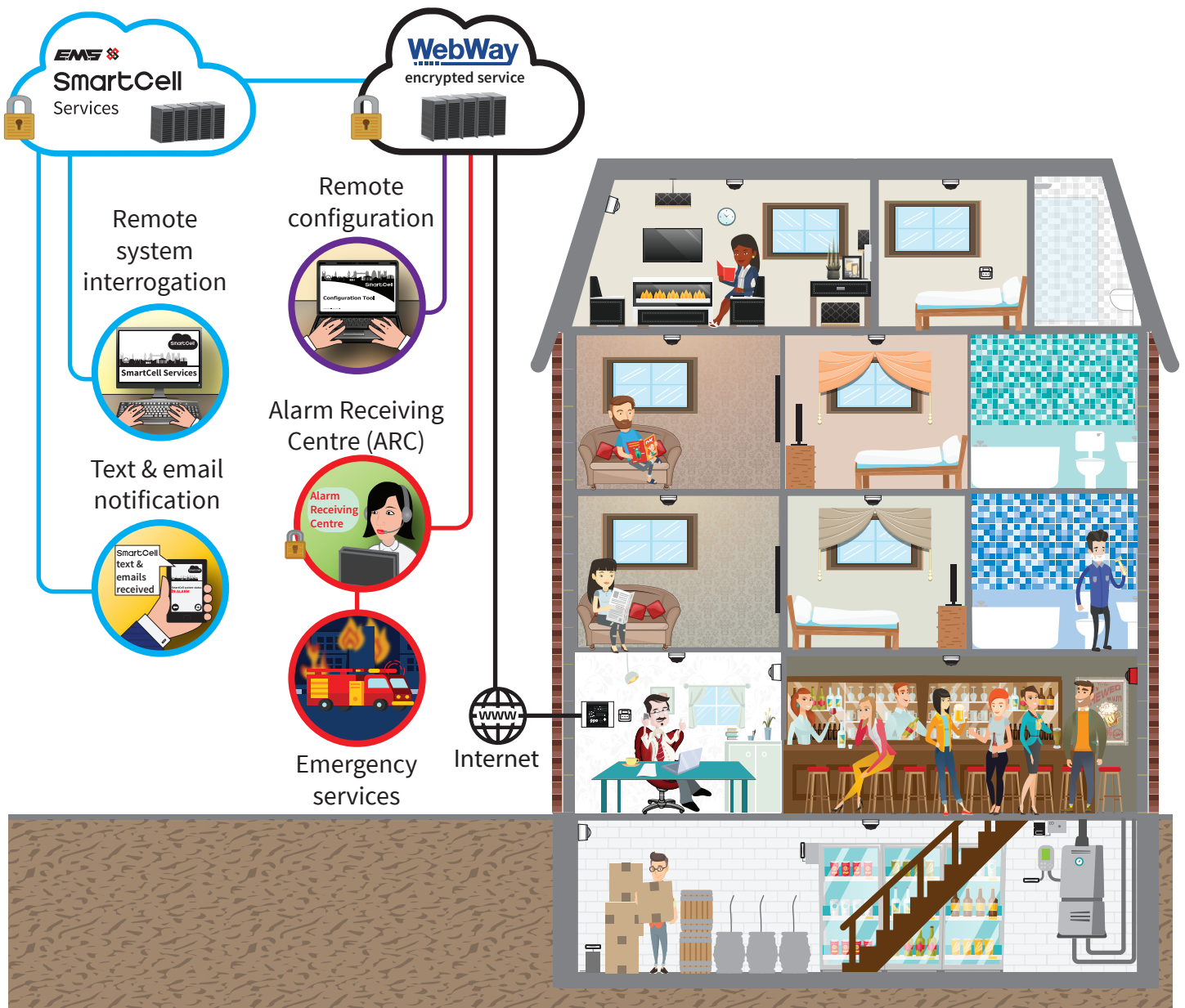
System overview

SmartCell has been designed as a complete wireless fire detection system to protect life and property.

In the event of a fire alarm, the system detects the presence of a fire, raises the alarm and indicates the location of the fire zone text and indication, along with an individual text description.

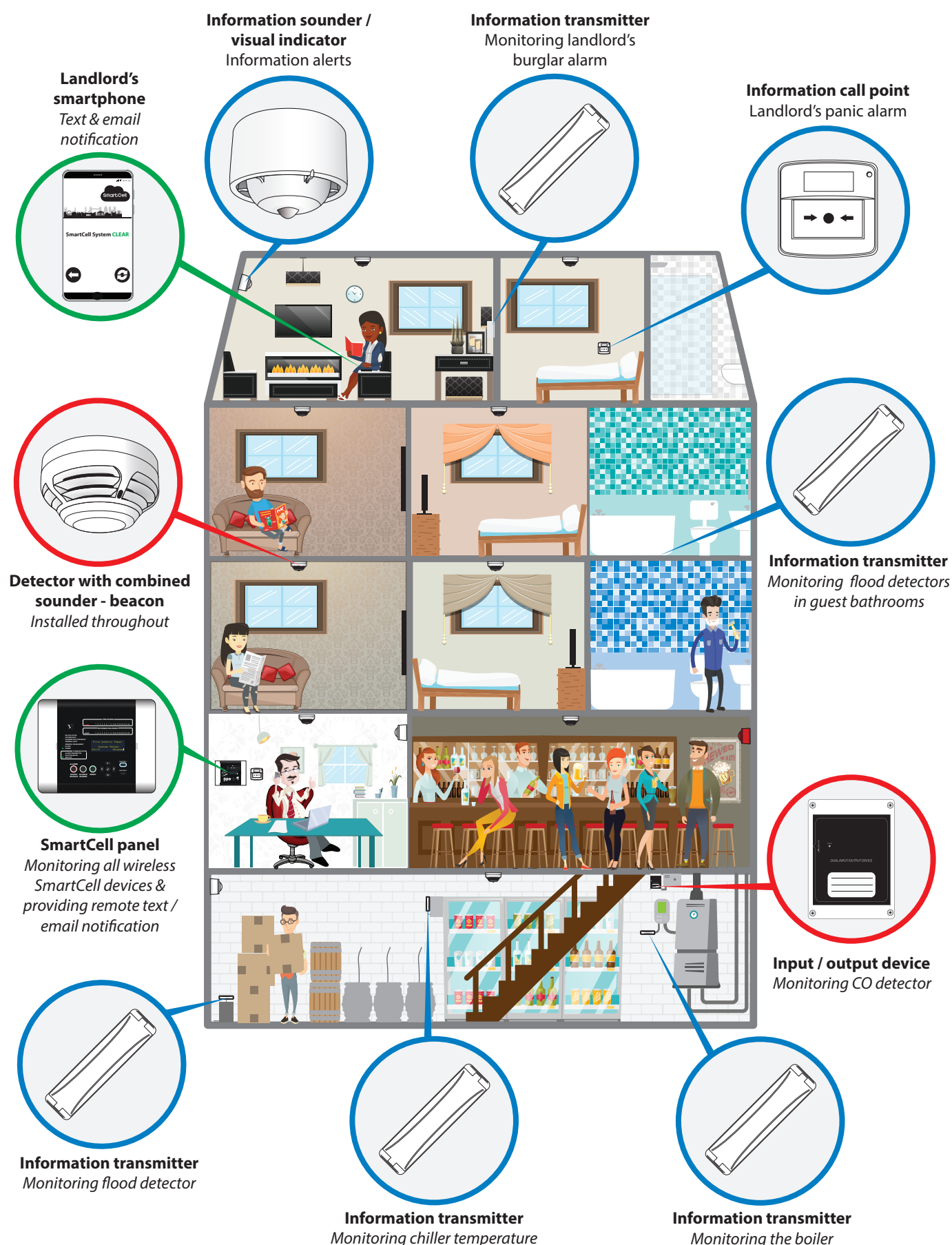
Additionally SmartCell is connected to the internet and provides a whole host of other benefits including SMS and email notification upon fire and fault events, the ability to configure systems remotely and a whole host of remote diagnosis options are also available.

Benefits don't stop there, since SmartCell also accommodates separate information zones, which allows third party peripherals to be monitored via information input devices, providing maximum flexibility to the user and designer.



Example SmartCell system

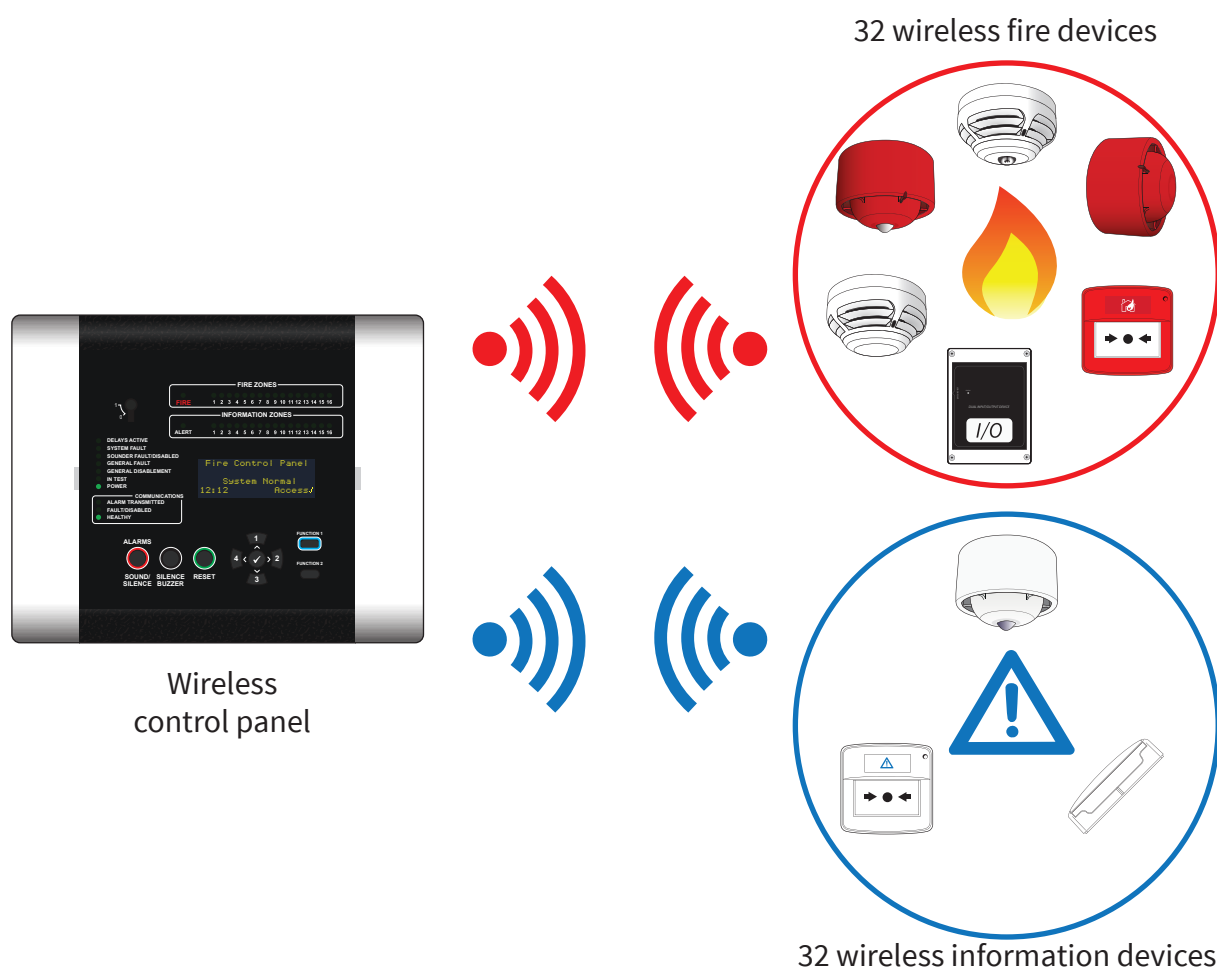
A typical SmartCell system is shown below, including various examples of information device applications.



SmartCell system capacities

Equipment	Maximum capacities
Wireless control panel	Up to 64 wireless devices consisting of: 32 fire devices and 32 information devices 48* fire zones and 48* information zones

* Zones 1 to 16 have zonal indication, whilst zones 17 to 48 are additional 'software zones' that have no associated LED indication but can be used to accommodate comprehensive programming if necessary.



Note: newly added devices will be defaulted to zone 0 and should be allocated to zones accordingly, to ensure correct functionality. Delays, coincidence and zonal operations in zone 0 do not apply, however disablements of devices can still be undertaken.

Consequently:

- If a detector in zone 0 enters an alarm state, all output devices will be activated regardless of zone, delays or coincidence settings.
- If any zone (including but not limited to zone 0) enters an alarm condition, any outputs and alarm devices allocated to zone 0 will activate regardless of delays or coincidence settings.

System design

All installation work should be carried out in accordance with the system design.

Wireless control panel

230 VAC and 24 VDC powered wireless control panels are available.

Communication between devices and the control panel is bidirectional and operates in the European harmonised 868 MHz frequency band. The wireless control panel's features are detailed in the 'Controls and Displays' section.

The control panel has two resistor monitored inputs. Two relay outputs are also available; one for fire and one for fault. Refer to the 'Wireless Control Panel Installation Guide' (TSD120) for further details.

A communications module is also fitted allowing remote programming, diagnostics and system upgrades. Information can also be passed directly to an Alarm Receiving Centre (ARC).

Wireless dual smoke and heat detectors

Detectors are available as standalone devices and alternatively with integrated sounders or integrated sounder and beacons. Their fire detection can be configured for smoke, heat or dual smoke and heat.

Available sensitivities are listed below. When configuring as dual detectors, one smoke and one heat sensitivity is selected. If either of these settings is reached, the detector will send an alarm condition to the control panel. The detectors are programmable via the control panel.

Smoke sensitivities	Heat sensitivities
Normal	58 ° c static (A2S)
Normal + AVF *	58 ° c rate of rise (A2R)
	72 ° c static (BS)
	72 ° c rate of rise (BR)

































* Alarm Verification Feature (AVF). Upon receipt of a fire alarm condition, the control panel waits to check that the device remains alarm, before acting on the event.

Wireless fire sounders and beacons

Sounders can be set to high or low volume, whilst sounder or beacons can also be independently enabled or disabled. The default fire sounder tone is tone 5.

Sounders have 31 tones available, that can be played at the control panel for verification.

Available tones are shown overleaf:

TONE	TONE TYPE	TONE DESCRIPTION / APPLICATION
1.		970Hz
2.		800Hz/970Hz at 2Hz
3.		800Hz - 970Hz at 1Hz
4.		970Hz 1s OFF / 1s ON
5.		970Hz, 0.5s / 630Hz at 1 Hz **Default fire tone**
6.		554Hz, 0.1s / 440Hz, 0.4s (AFNOR NF S 32 001)
7.		500 - 1200Hz, 3.5s / 0.5s OFF (NEN 2575:2000 Dutch slow whoop)
8.		420Hz 0.6s ON / 0.6s OFF (Australia AS1670 Alert tone)
9.		1000 - 2500Hz, 0.5s/ 0.5s OFF x 3/1.5s OFF (AS1670 Evacuation)
10.		550Hz / 440Hz at 0.5Hz
11.		970Hz, 0.5s ON / 0.5s OFF x 3 / 1.5s OFF (ISO 8201)
12.		2850Hz, 0.5s ON / 0.5s OFF x 3 / 1.5s OFF (ISO 8201)
13.		1200Hz - 500Hz at 1Hz (DIN 33 404)
14.		400Hz
15.		550Hz, 0.7s / 1000Hz, 0.33s
16.		1500Hz - 2700Hz at 3Hz
17.		750Hz
18.		2400Hz
19.		660Hz
20.		660Hz 1.8s ON / 1.8s OFF
21.		660Hz 0.15s ON / 0.15s OFF
22.		510Hz, 0.2s / 610Hz, 0.2s
23.		800 / 1000Hz 0.5s each (1Hz)
24.		250Hz - 1200Hz at 12Hz
25.		500Hz - 1200Hz at 0.33Hz
26.		2400Hz - 2900Hz at 9Hz **Default information tone**
27.		2400Hz - 2900Hz at 3Hz
28.		500 - 1200Hz, 0.5s/ 0.5s OFF x 3/1.5s OFF (AS1670 Evacuation)
29.		800Hz - 970Hz at 9Hz
30.		800Hz - 970Hz at 3Hz
31.		800Hz, 0.25s ON / 1s OFF
32.		500Hz - 1200Hz, 3.75s / 0.25s OFF (AS2220)

Note: Tones 1, 4, 5 and 7 are EN54-3 approved tones.

Note: Default sounder operation is global. Alternative operation, such as zonal and two stage, plus sounder and output delays are also available, via the SmartCell configuration tool.

Input / output devices

Input / output devices have two resistor monitored fire inputs and two fire relay outputs. Both fire relay outputs are rated 1 A at 30 VDC.

The device's two relay outputs are programmable. Upon a fire condition, both outputs will automatically change state. The outputs can be independently programmed to return to their normal state upon either, when the control panel's 'Silence' button is pressed, or when the control panel's 'Reset' button is pressed.

Note: input / output devices can also be added to the system as information devices.

Information devices

Information devices are also available, providing separate information alert events. The information will be displayed on the screen and the panel's buzzer will sound.

Typical applications include the monitoring of; doors (opening/closing), a loss of power to your fridge and an alarm condition on your intruder system. Refer to the 'Example SmartCell system' section for more example applications.

Information contact transmitter & input device

This device offers a wired input connection for monitoring non-fire devices. The device also has a magnetic reed switch, allowing the monitoring of windows or doors.

Information call point

This device's operation mirrors the fire call point, for an information alert and is typically used as a panic alarm.

Information sounder with visual indicator

This device offers additional audio and visual notification of an information alert event.

Information sounders can be set to high or low volume, whilst sounder or visual indicators can also be independently enabled or disabled.

Information sounders have 31 tones available, that can be played at the control panel for verification.

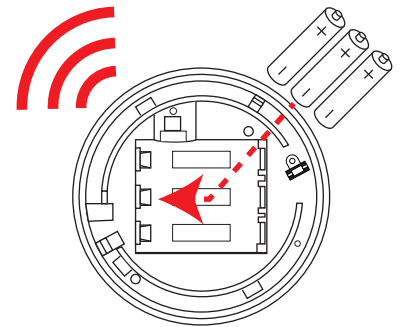
The default Information sounder tone is Tone 26.

Device log on methods

Wireless devices can be programmed to the wireless control panel in three ways, for maximum flexibility. They are as follows:

Method 1 ‘at control panel’

This method is accessed at the control panel and involves powering the device at the control panel, by inserting the device’s batteries. Devices can therefore be added to the system, prior to installing them into location.

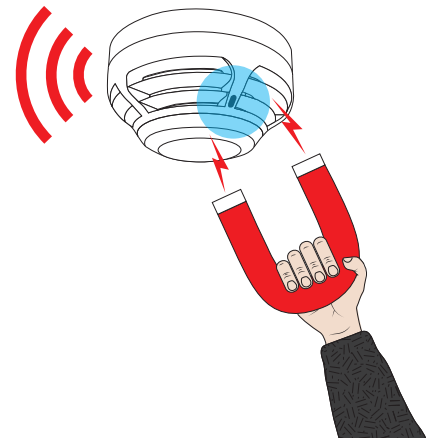


Method 2 ‘at device location’

This method is accessed at the control panel and involves applying the supplied magnet to the device. Devices can therefore be added to the system, with device batteries already fitted. E.g. when fitted in its final device location.

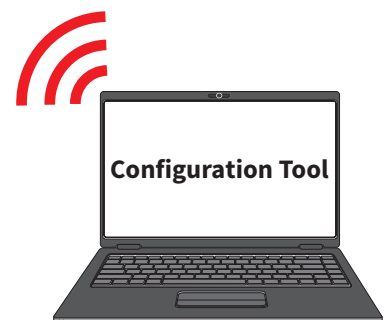
The magnet must be held in place (on the device log on point) for 4 seconds. The device’s LED will flash by way of confirmation.

Refer to the ‘Device log on points’ section for details on each device’s log on point.



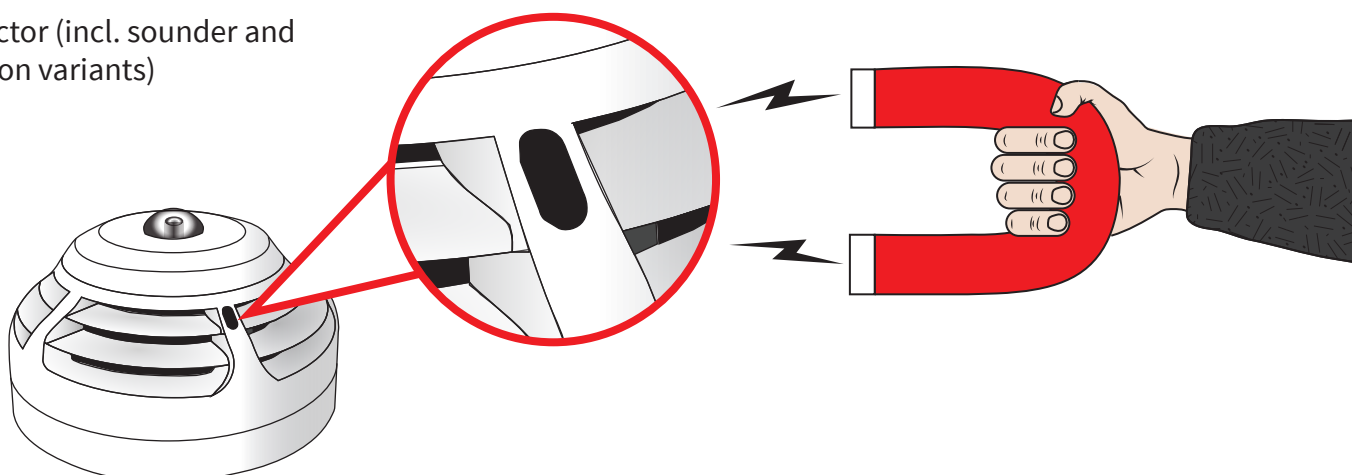
Method 3 via the SmartCell configuration tool

This method allows devices to be programmed on a PC or Laptop and can be achieved locally with a USB cable, or remotely if the SmartCell control panel is connected to SmartCell services.

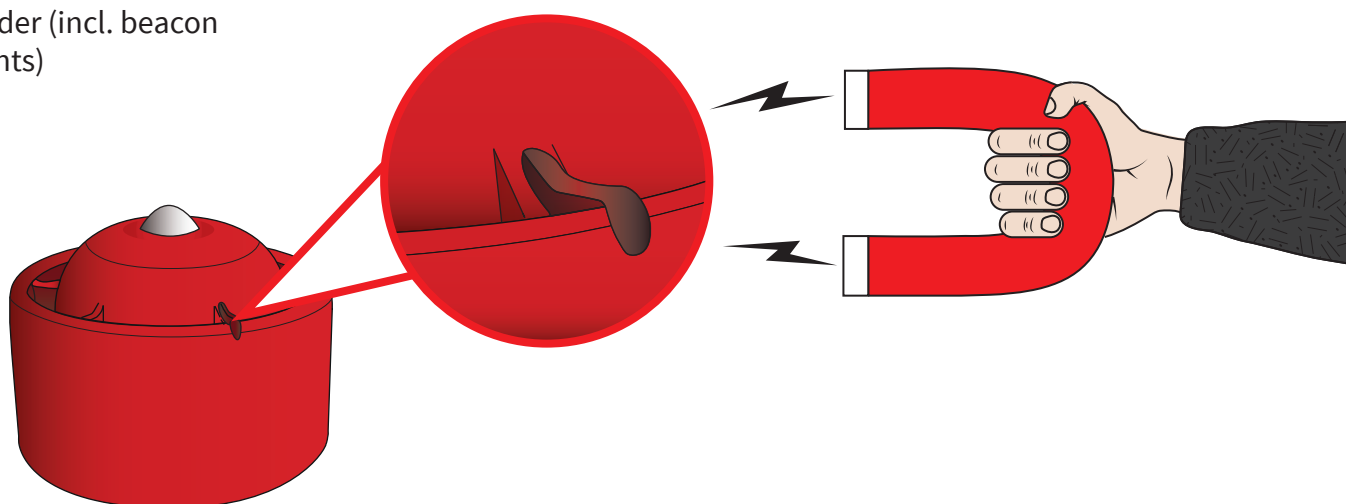


Device log on points

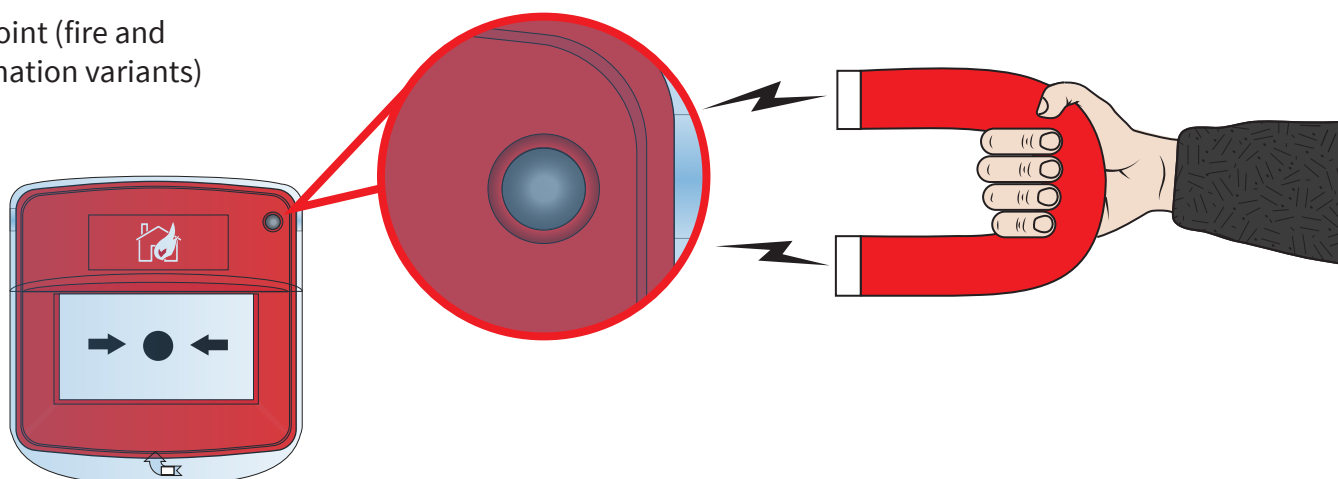
Detector (incl. sounder and beacon variants)



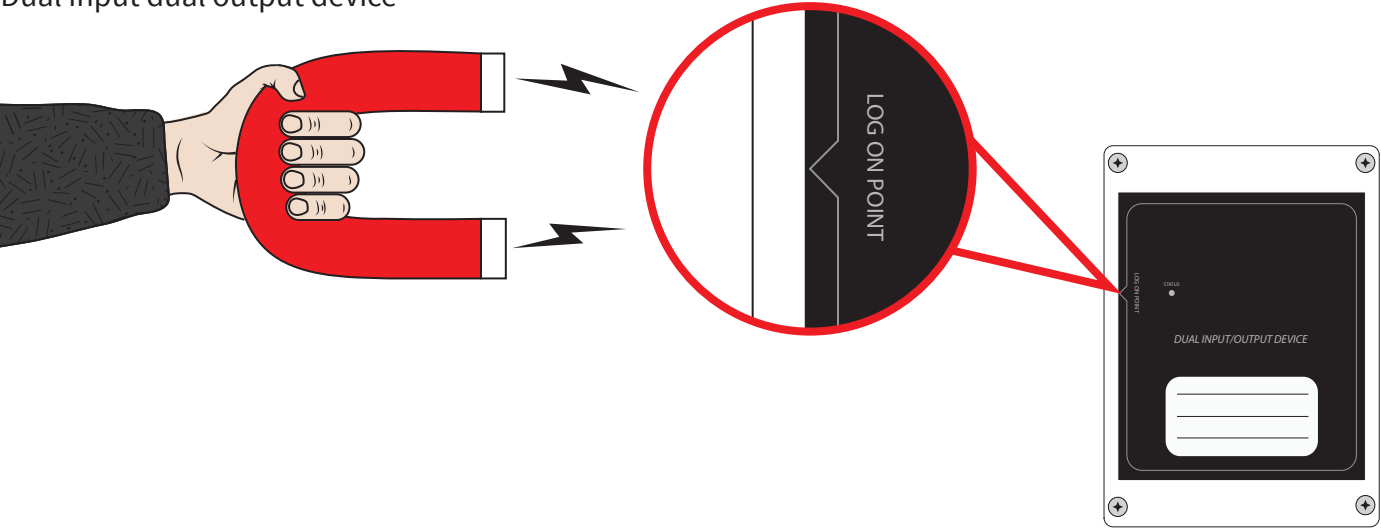
Sounder (incl. beacon variants)



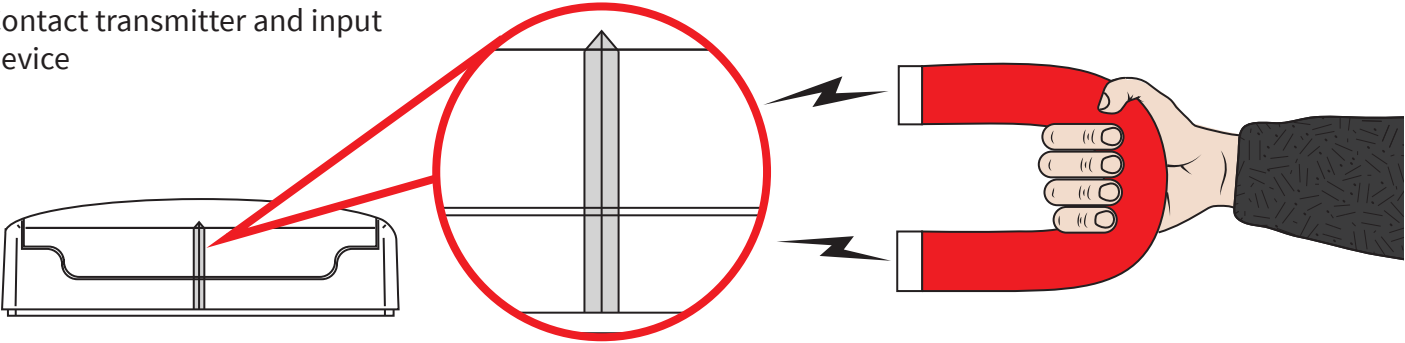
Call Point (fire and information variants)



Dual input dual output device

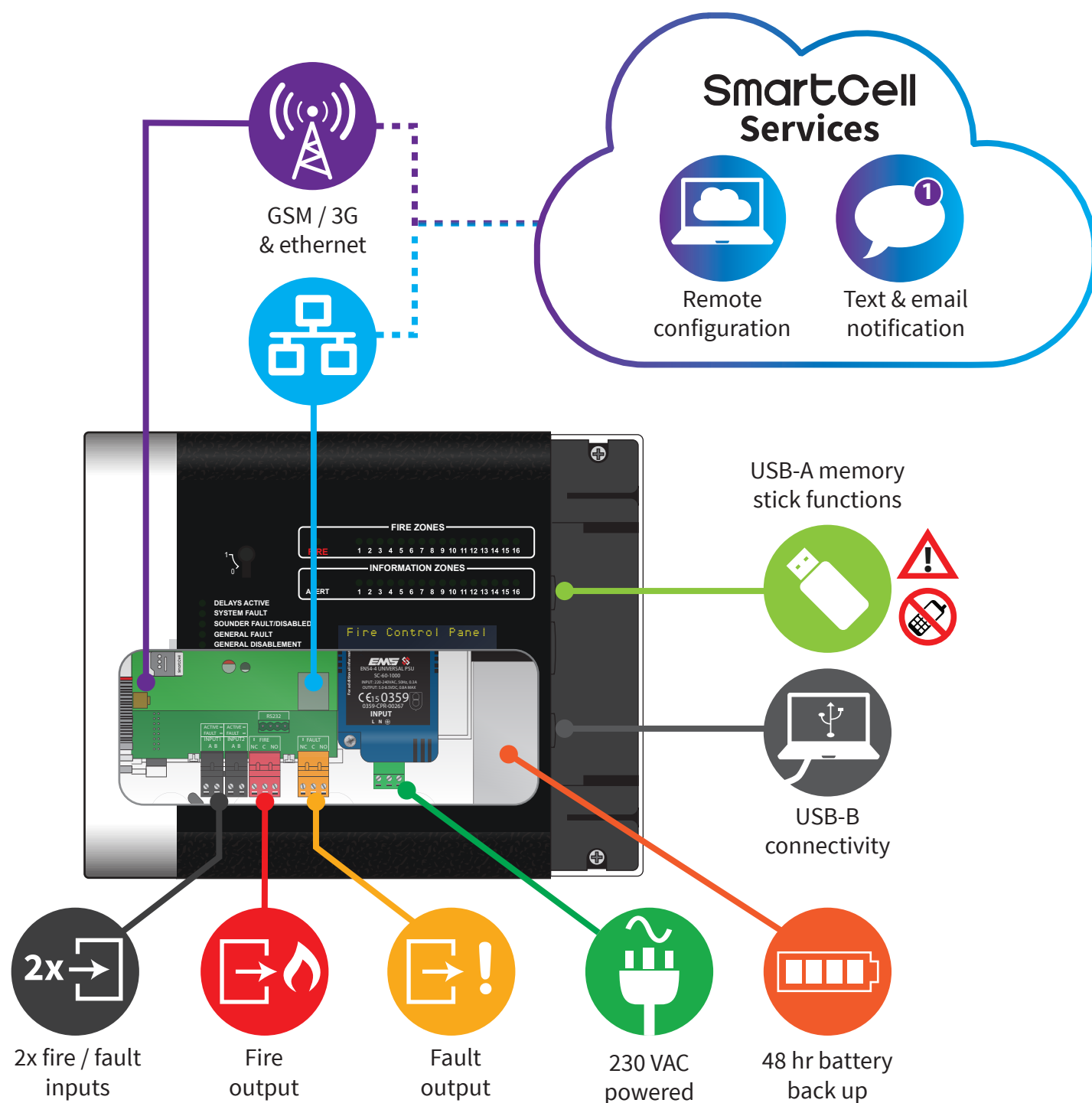


Contact transmitter and input device



Control panel connections

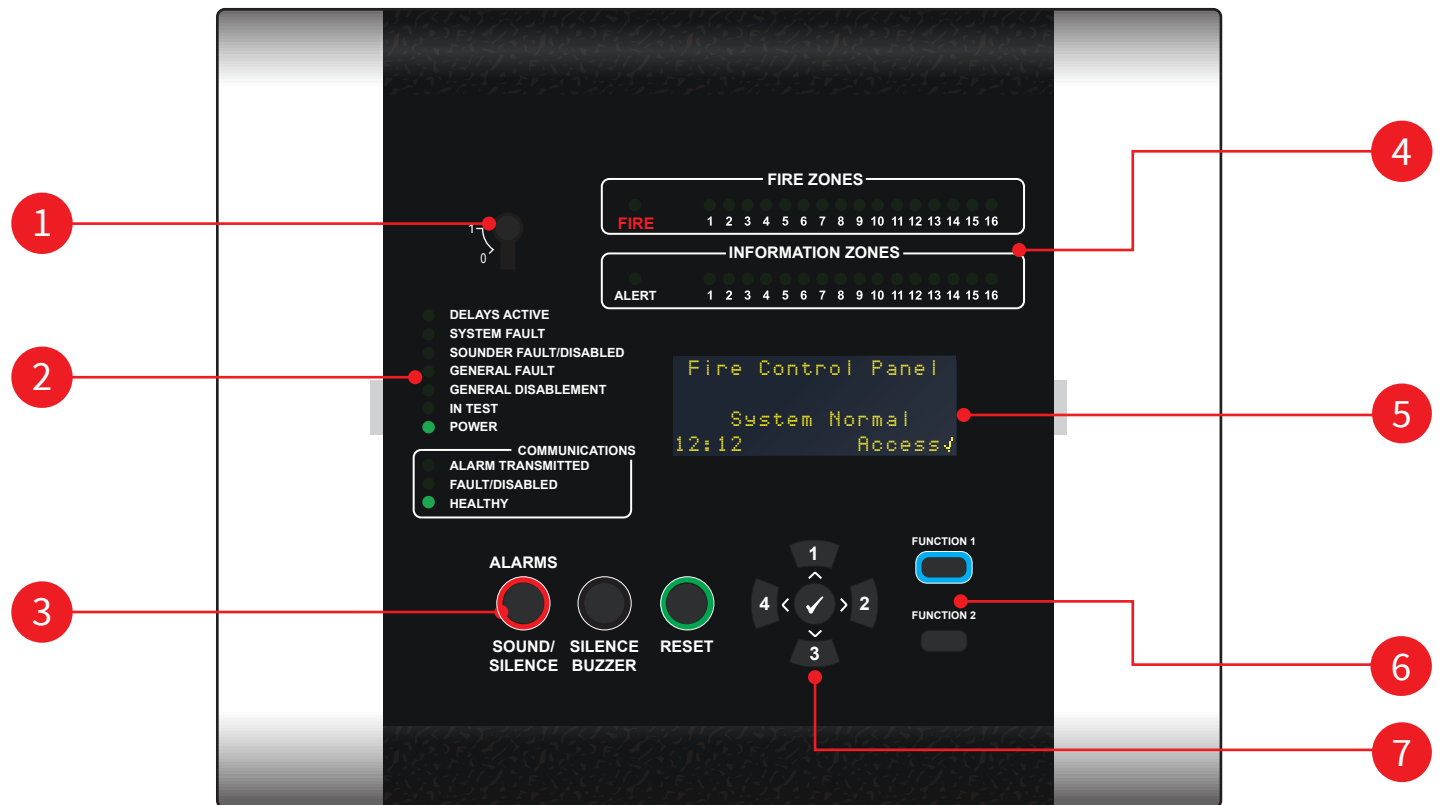
The wireless control panel has a number of connections, as detailed below:



Control panel fascia

The wireless control panel provides status information via the display, zone lamps and status lamps. The control panel's functions are achieved via the entry of a user access code.

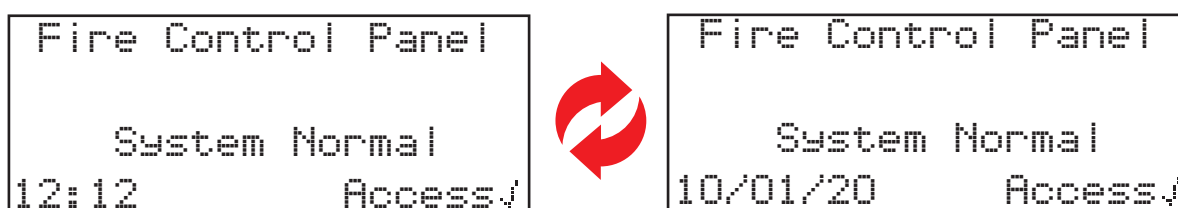
The panel's features are shown below.



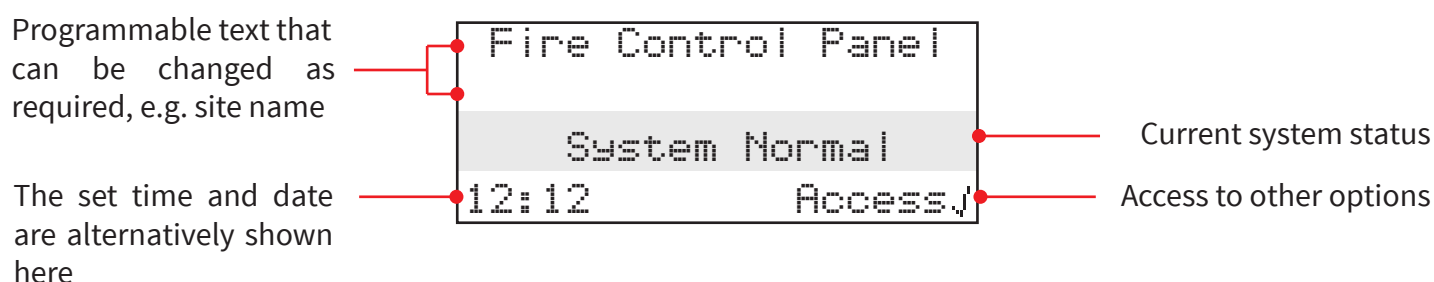
- 1 Enable key switch
- 2 Status LEDs
- 3 Control buttons
- 4 Fire & Information zone LEDs
- 5 80 character OLED display
- 6 Function buttons
- 7 Navigation & confirmation buttons

Control panel display

Once the wireless control panel has been fully installed and powered up, the panel will show the following alternating default 'System Normal' displays.



This is described in full below.



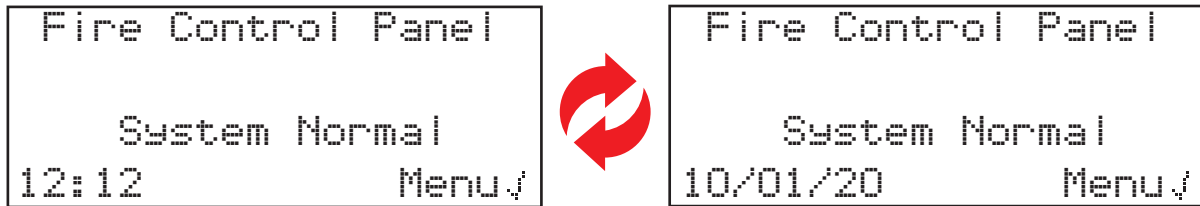
Entry to the menu and then into the required menu options can be achieved by entering a valid access code and using the control panel's navigation buttons. It is also possible to enter the access level 2 menus via the enable key switch. Note: the enable key switch is an option which is available dependant upon the panel type. Exiting from a menu option is achieved automatically via a time-out period, by pressing the button or by selecting the logout menu option.

Access level 1 entry


No valid access code is required for access level 1. It is only possible to view events and silence the buzzer at this level. The 'SOUND/SILENCE' and 'RESET' buttons are not active. To view events on the control panel the button can be pressed to select the type of event to be viewed i.e. faults, disablements, zones in test etc. and then the and buttons can be used to scroll through these events.

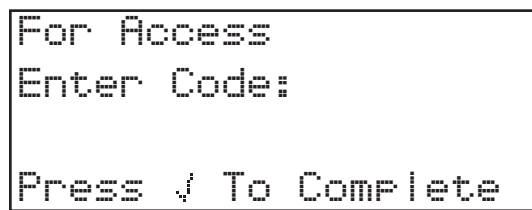
Access level 2 entry






If an enable keyswitch is utilised on the control panel, turning the key will enable access level 2 functionality. This will enable all of the control buttons and allow access to the user menus without an access code being required. The display will indicate this by showing that the menu is available as shown below.

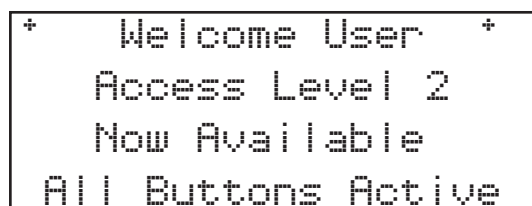


If a key switch is not present, a valid user access code is required for access level 2. Once entered, a full user menu access structure is available at this level. This is detailed in the 'Wireless Control Panel User Guide' (TSD113). The 'SOUND/SILENCE', 'SILENCE BUZZER' and 'RESET' buttons are all immediately active once a valid access level 2 access code has been entered.

To enter access level 2 via a access code, press the  button. The display will change to show:




Press the relevant numbered arrows to enter the access level 2 access code required (1= , 2= , 3= , 4= ). Access level 2 default access code is 2222. On completion of the last number entered press the  button. The display will change to briefly show the display below, then the relevant menus options will be available. During this display all buttons are immediately active.








Access level 3 entry

A valid user access code is required for access level 3. Once entered the full service menu access structure is available at this level. This is shown and detailed fully in this programming manual. The sound, silence and reset buttons are immediately active once a valid access level 3 access code has been entered.

To enter access level 3 press the  button. The display will change to show:

```
For Access
Enter Code:

Press ✓ To Complete
```

Press the relevant numbered arrows to enter the access level 3 access code required (1= , 2= , 3= , 4= ). Access level 3 default access code is 333333. On completion of the last number entered, press the  button. The display will change to briefly show the display below, then the relevant menu options will be available. During this display all buttons are immediately active.

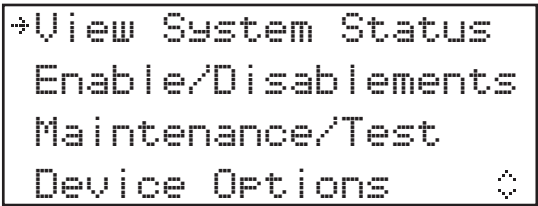
```
* Welcome Service *
  Access Level 3
  Now Available
  All Buttons Active
```

Note: it is possible to enter the access level 3 menu options whilst in the access level 2 user menus. By selecting the access level 3 option and entering the correct access 3 entry code additional menus will be available.

Note: all access level 2 options are available in access level 3.

Example menu display

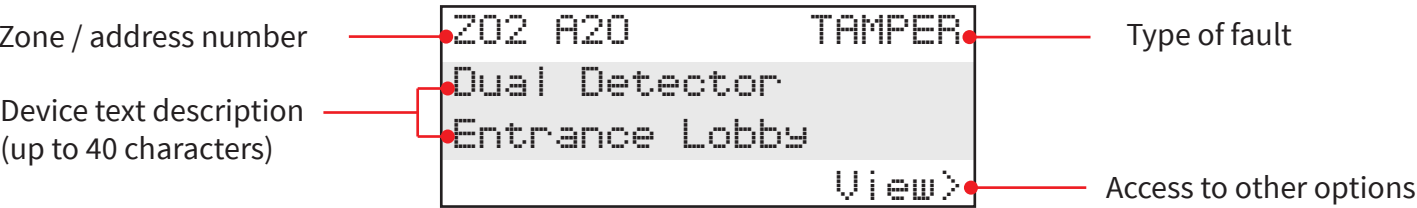
An example display is shown below:



The menus can be navigated by pressing the and buttons until the desired option to be entered has the arrow (→) adjacent to it. Pressing the button enters this option.

Exiting from a menu option is achieved automatically after two minutes, or by pressing the button.

Fault event display

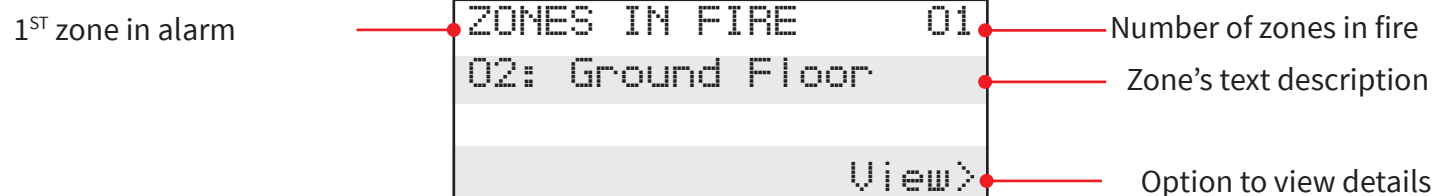


To view any additional fault events on the panel, press the button. Then use the and buttons to scroll through the fault events.

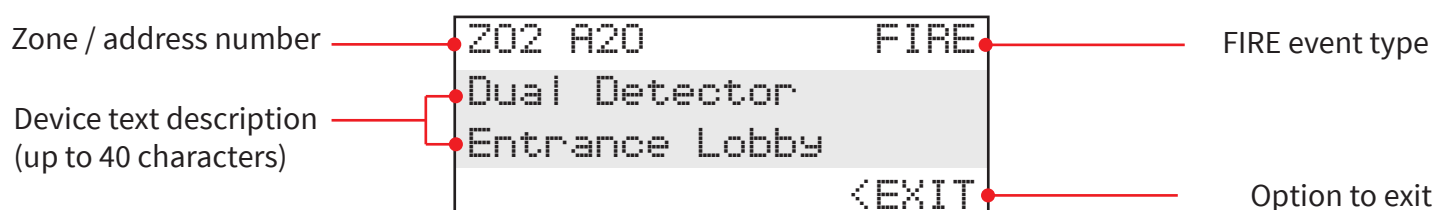
To view any other system status events on the control panel, press the button to select the type of system status event that requires viewing. The type of system events will be shown in the bottom right hand corner of the display. The and buttons can then be used to scroll through these events.

Fire alarm event display

It is possible to programme the control panel with a sixteen character zone text description, as well as an Individual forty character device text description. The example display below shows a single fire alarm event with a zone description.

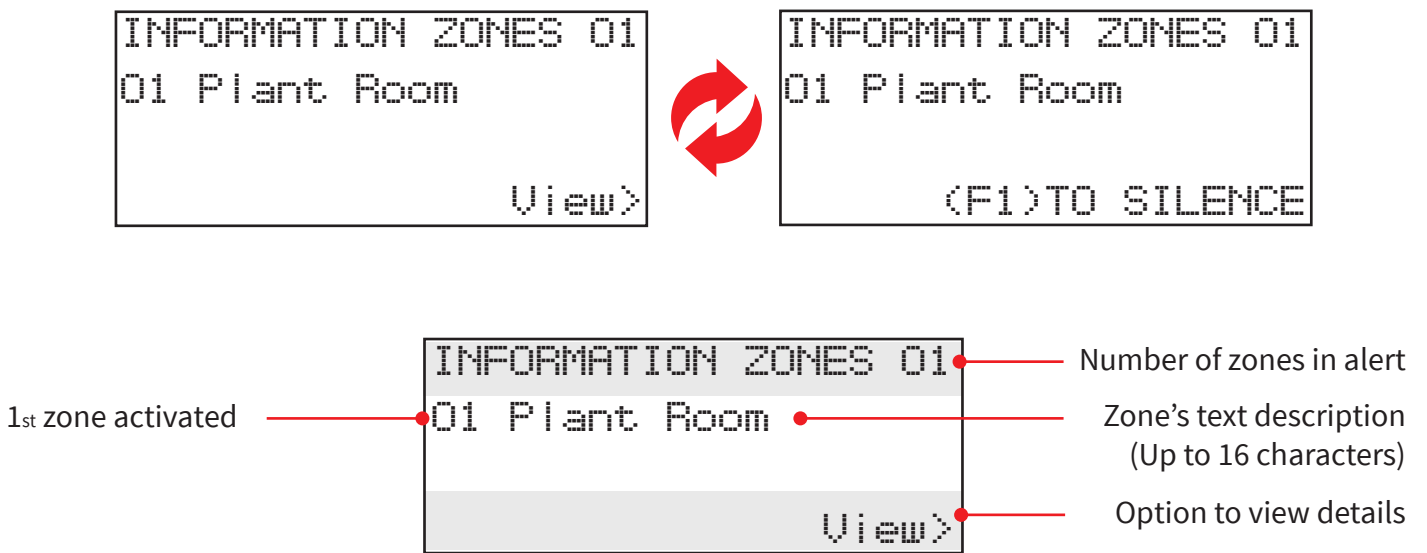


Pressing the **2** button, will allow the individual device information, as shown below.



Information alert display

It is also possible to programme the control panel's information zones with a sixteen character zone text description, as well as an Individual forty character device text description. The example display below shows a information alert with a zone description, where the 'View>' and '(F1)TO SILENCE' options will alternate in the bottom right hand corner.

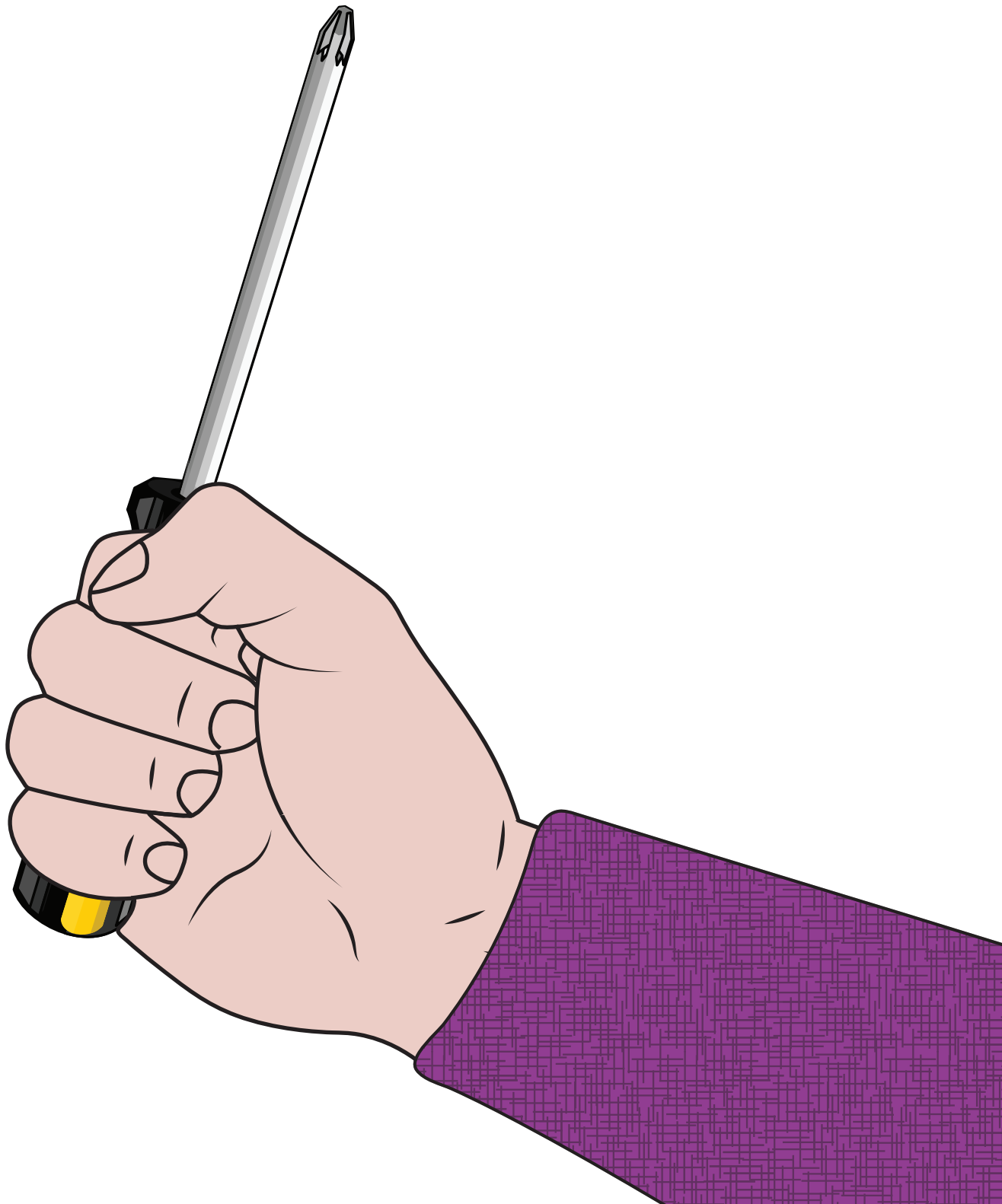


The SmartCell control panel's buzzer will also sound, together with the information sounders.

The control panel buzzer can be silenced by pressing the 'SILENCE BUZZER' button.

The information sounders are silenced by pressing the 'Function 1' (F1) button.

System Setup



System setup introduction

This system setup section will show you how to set up a complete SmartCell system, with default global sounder and output operation. The 'at control panel' (via power-up) method of adding devices to the control panel will be used. For advanced programming, refer to the 'Panel Menus' section of this document.

Important system setup notes



The installation must conform to applicable local installation codes and should only be installed by a fully trained competent person.



Always select an appropriate device type for the application as per local codes of practice, or as advised by a qualified professional.



The procedures outlined in this installation guide must be carefully followed.



SmartCell devices contain electronics that may be susceptible to damage from Electro Static Discharge (ESD). Take appropriate precautions when handling electronic boards.

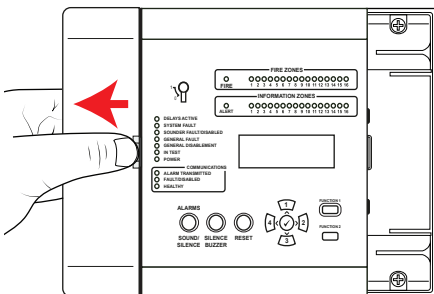


To ensure correct operation, products must be used within the specified environmental operating conditions.

Side cover removal

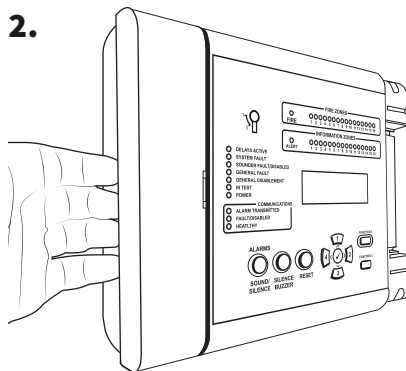
The following steps illustrate how to remove the side covers:

1.



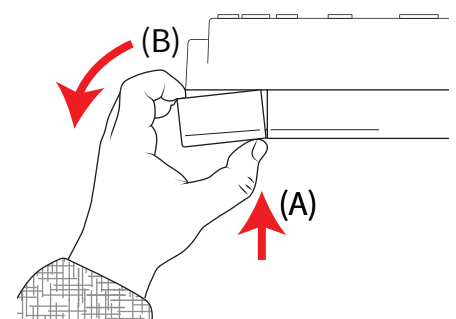
Slide the side cover sideways, creating a gap as shown.

2.



Position your fingers behind the cover's protruding edge.

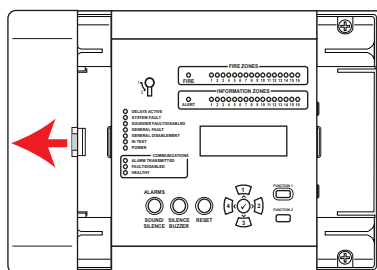
3.



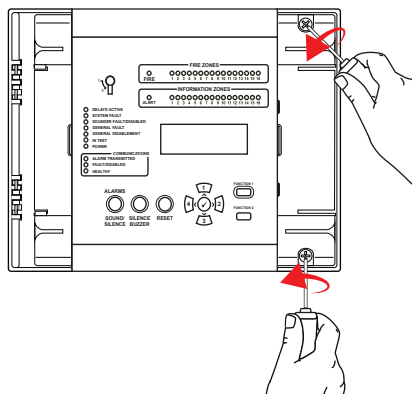
Press the cover's releasing clip with your thumb (A), and simultaneously rotate the side panel anti-clockwise (B), as viewed overhead to remove the cover.

Open panel

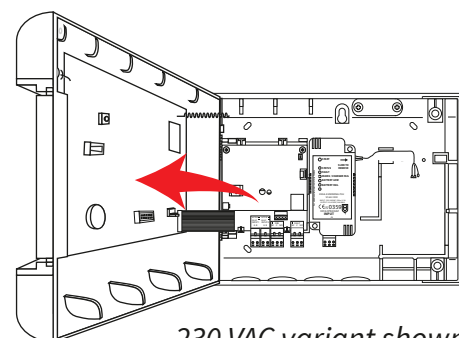
1. Unclip side panel.



2. Loosen screws.



3. Open door.

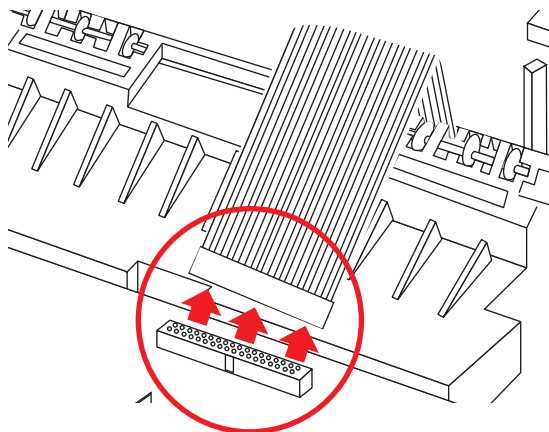


Refer to the 'Side cover removal' section for details.

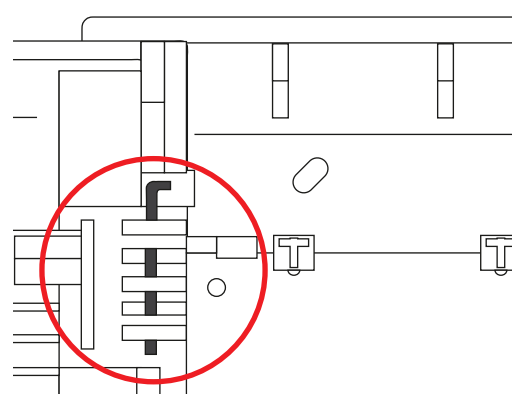
Optional door removal

Disconnect the ribbon cable, then turn and release the door hinges.

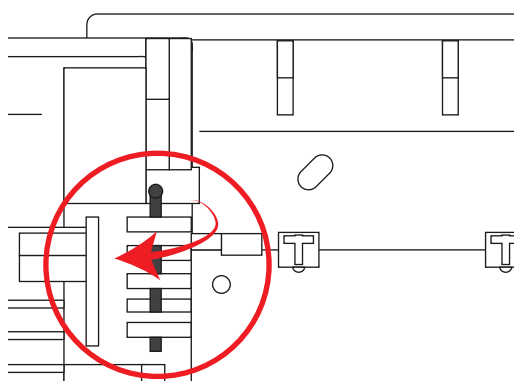
1.



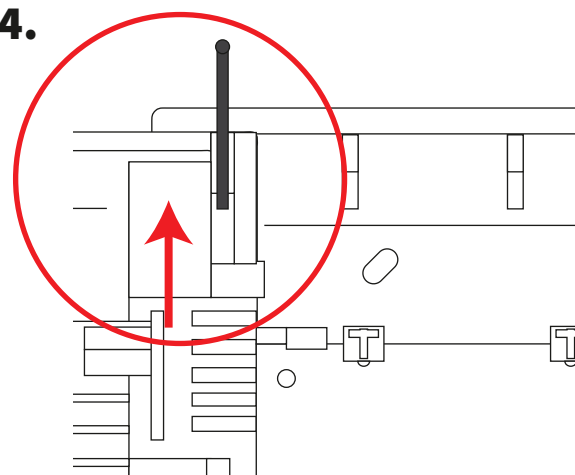
2.



3.

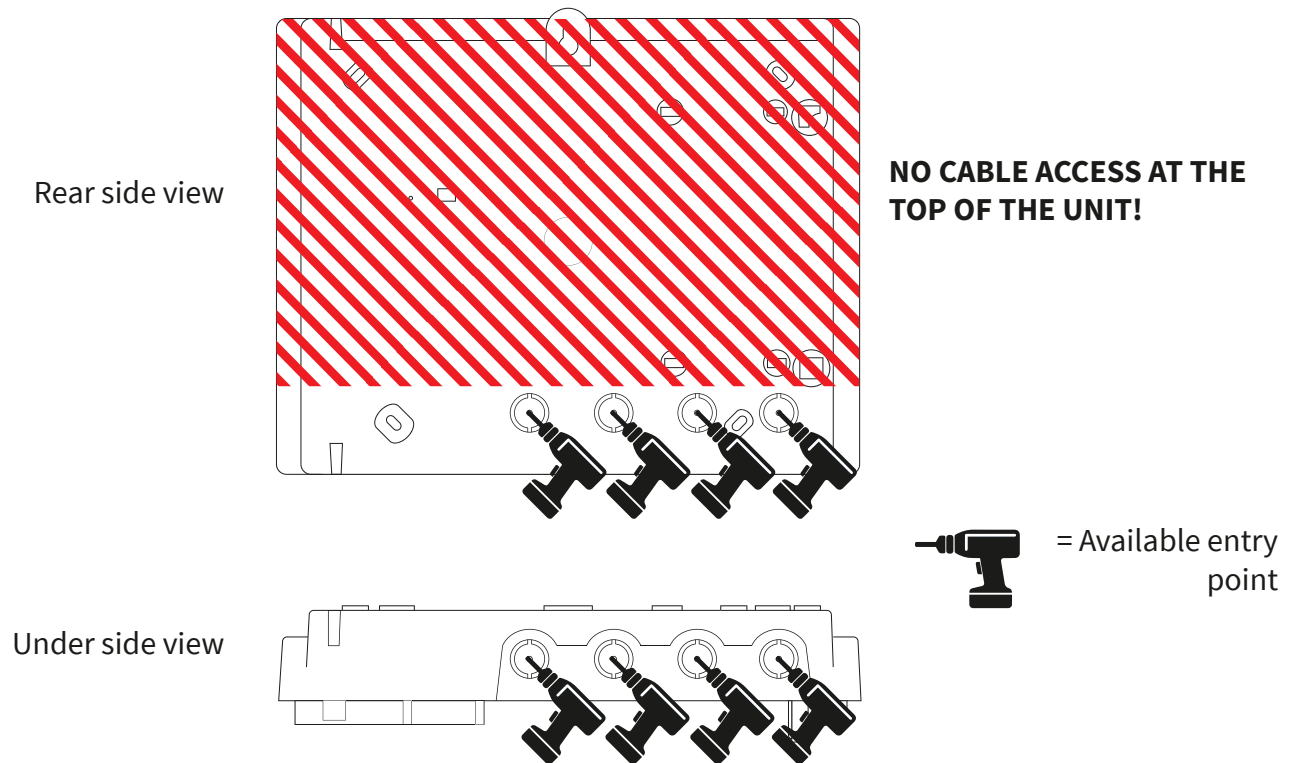


4.

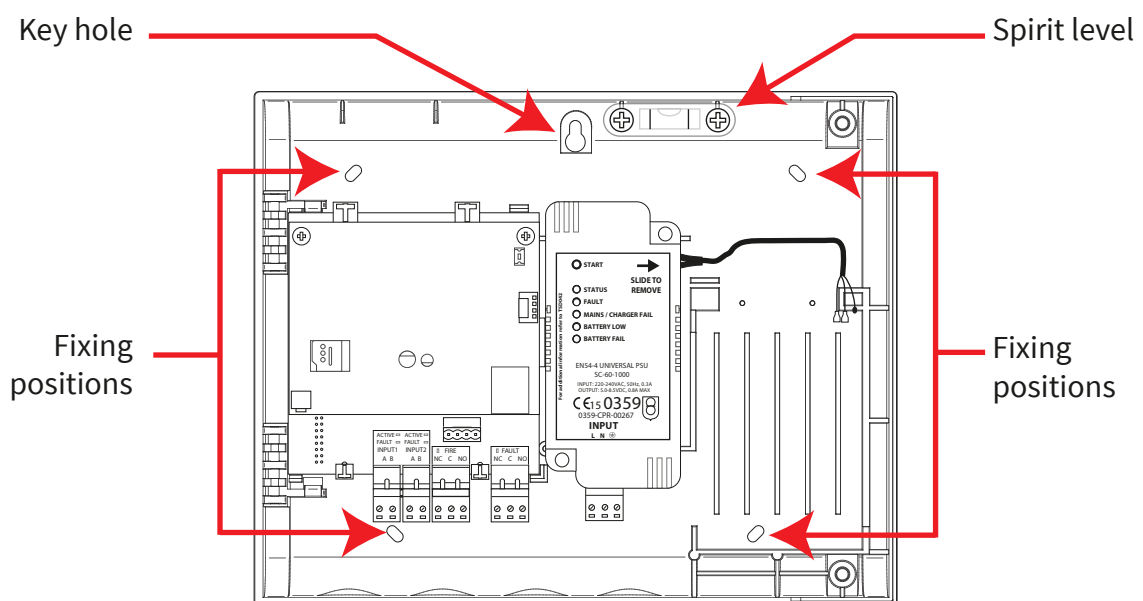


Cable entry

Select cable entry points as required, before fitting to the wall.



Fix panel to wall



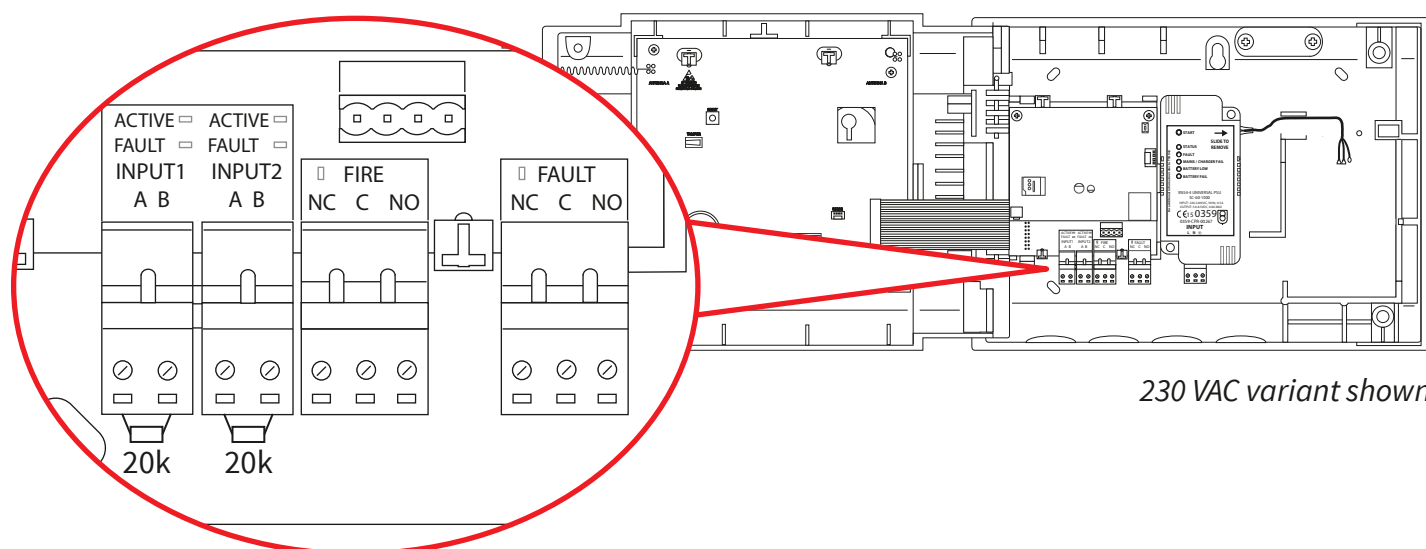
Note: the supplied back box mounting template can be used to drill the fixing positions.

Panel wiring



Note: full details on panel wiring can be found in the 'SmartCell Control Panel Installation Guide' (TSD120).

Input and output connections:

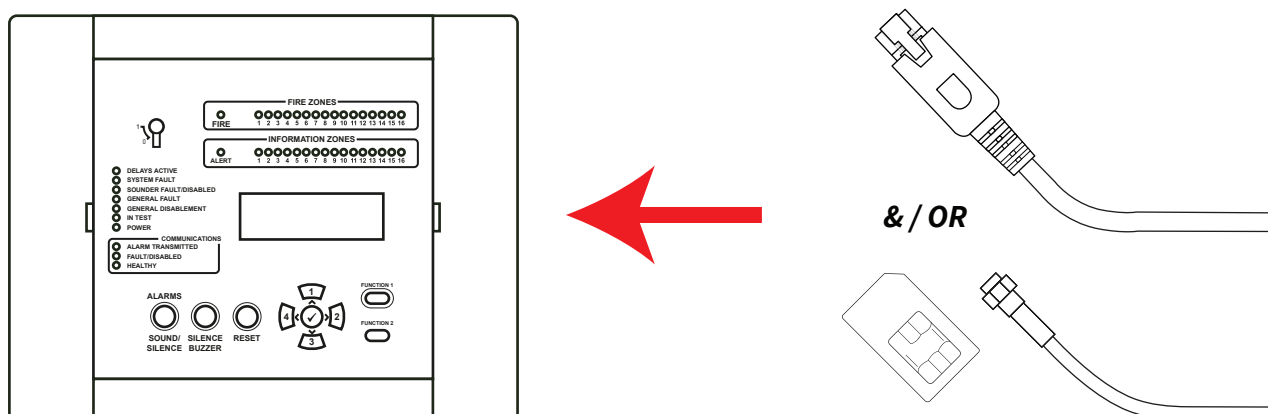


There are two inputs (black connectors), one fire output (red connector) and one fault output (orange connector) available. Connect as required.

Internet connectivity*:

The panel can be internet connected, for communication with an Alarm Receiving Centre (ARC), or to SmartCell services.

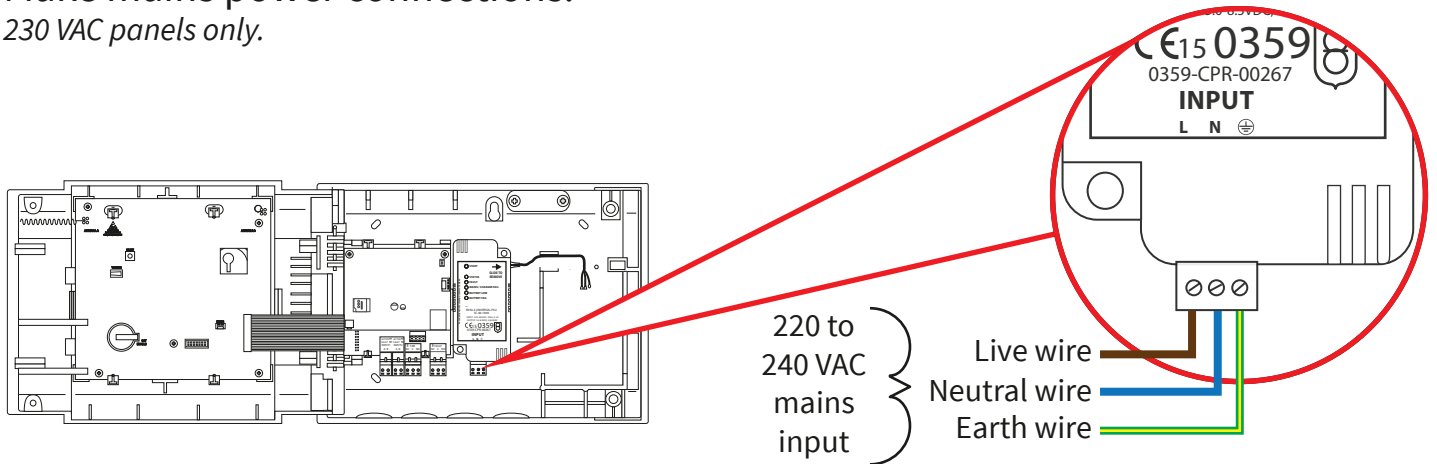
Make ethernet and/or 3G connections as necessary:



*** Requires communications module**

Make mains power connections:

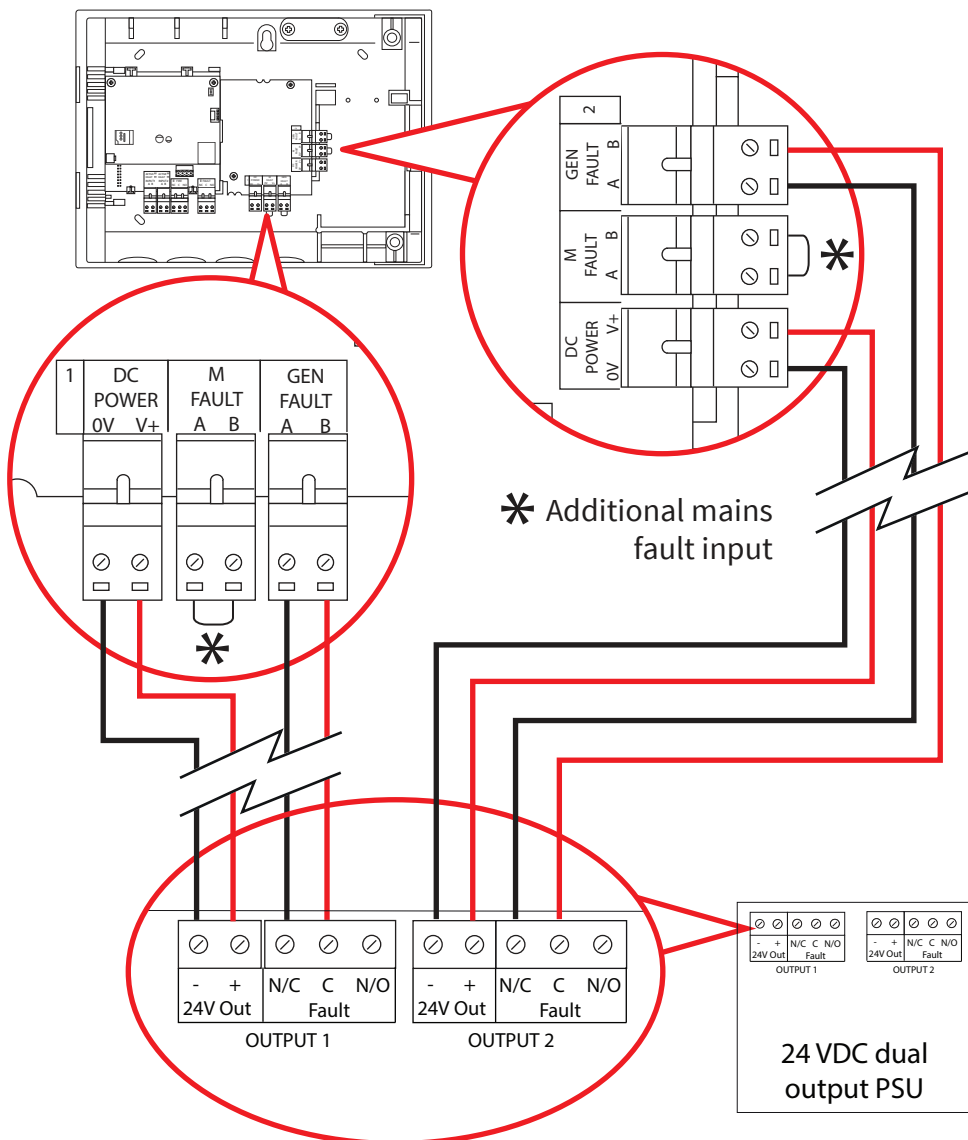
230 VAC panels only.



Make 24 VDC power connections:

24 VDC panels only.

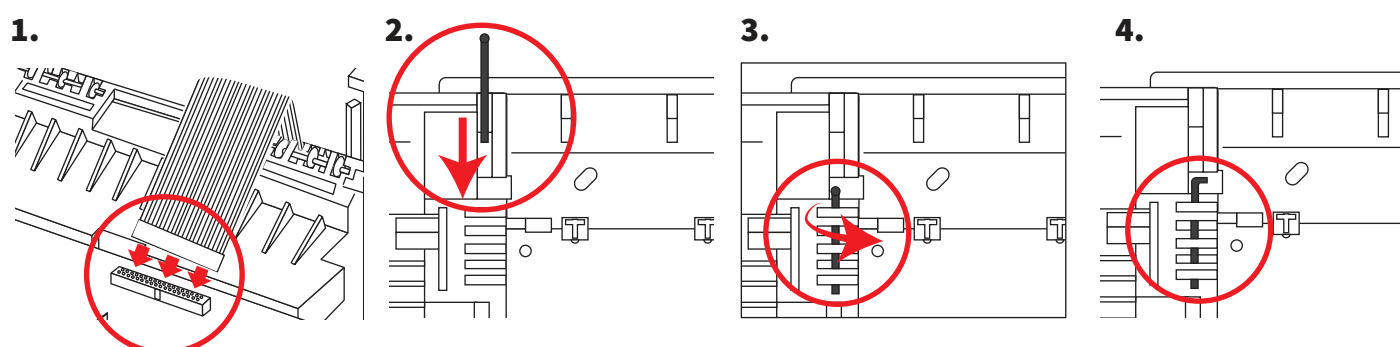
The 24 VDC SmartCell control panel is designed to be powered from 2x 24 VDC power sources, to meet country specific requirements.



- Connect both power inputs.
- There are also general fault inputs (GEN FAULT) and mains fault (M FAULT) available.
- The fault inputs are voltage free.
- If a fault input (GEN FAULT or M FAULT) is not being used, leave the link as factory fitted.

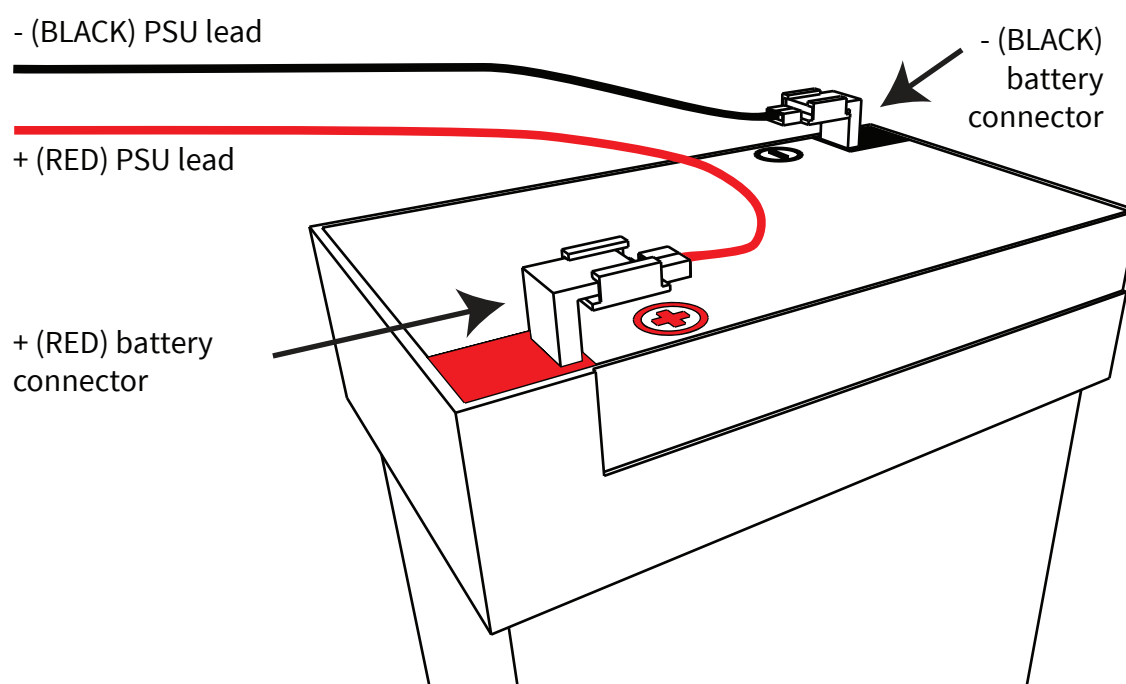
Re-fit door

Re-connect the ribbon cable and re-fit the door hinges.

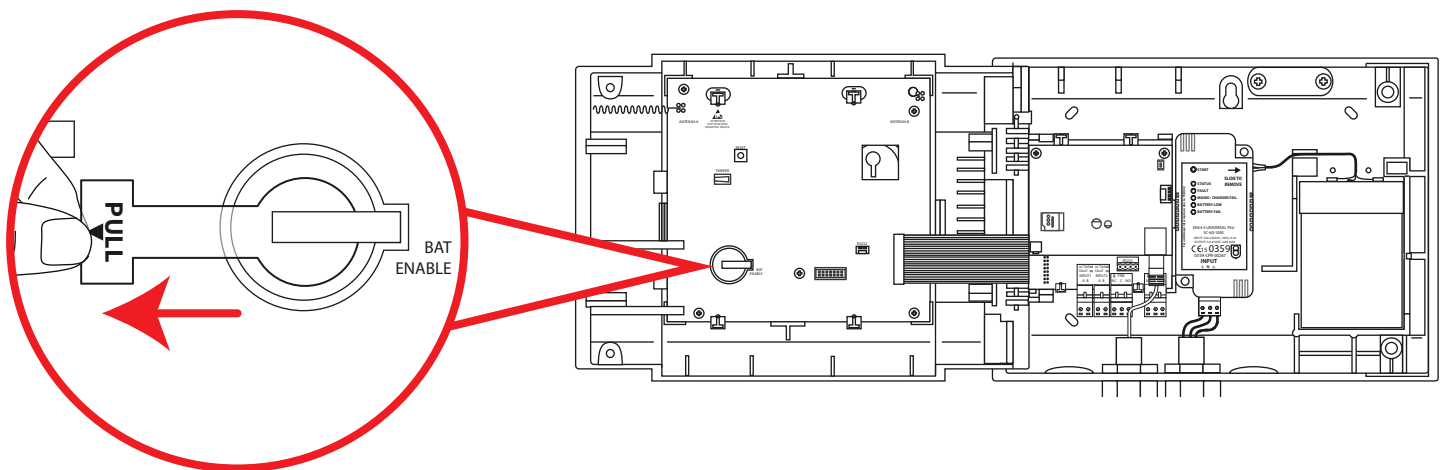


Connect backup battery

230 VAC panels only.

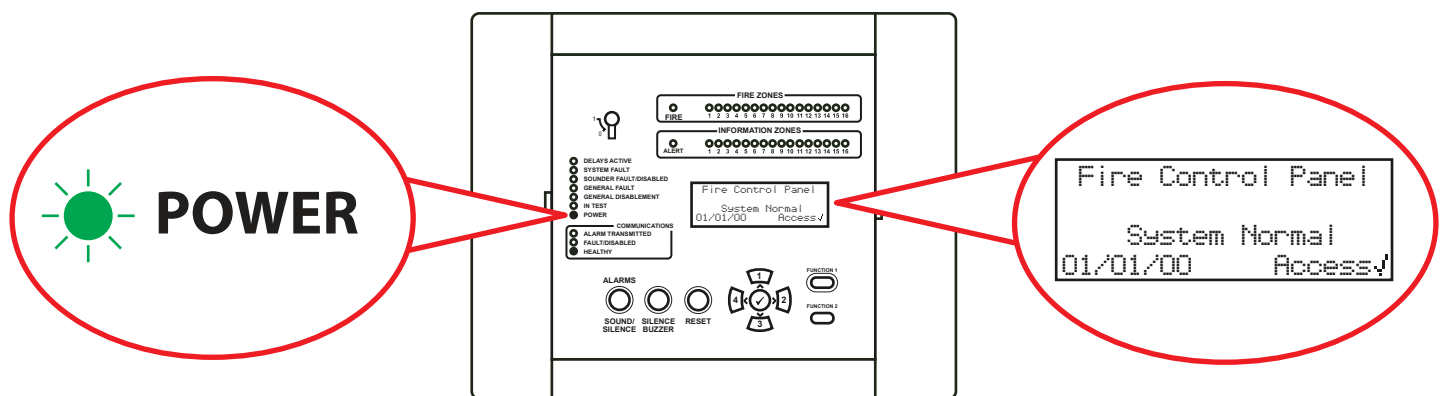


Remove 3 V battery tab.



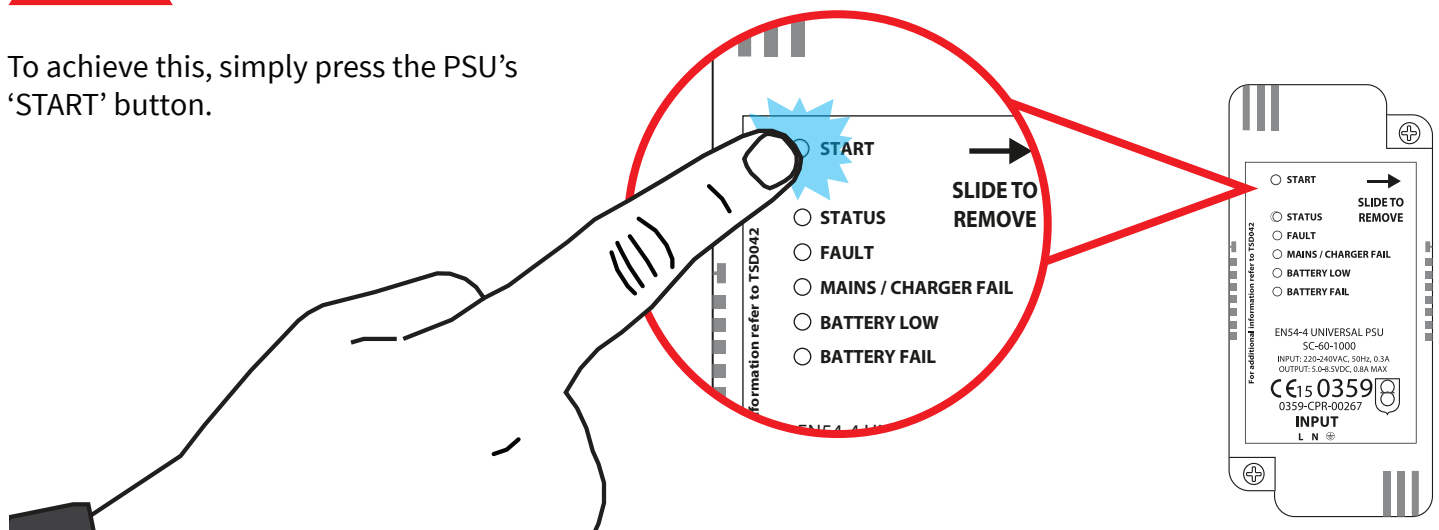
Apply power

The power supply to the control panel can now be switched on.




Note: If mains supply is unavailable at this point, the control panel can be temporarily powered by the back-up battery.

To achieve this, simply press the PSU's 'START' button.




Set time & date

From access level 3 (refer to the 'Access Level 3' section for details), press the  button until the screen displays:


```

→Panel Information
  Language Select
  Factory Access
  Reports
  
```

Press the  button and the screen will display:


```

→Edit Users
  Panel Options
  System Options
  Communications
  
```

Press the  button once. The screen will display:

```

  Edit Users
→Panel Options
  System Options
  Communication
  
```

Press the  button and the screen will display:


```

→Set Time & Date
  Lamp/Buzzer Test
  Panel Buzzer
  Front Screen Text
  
```


Press the  button and the screen will display:

```

→??:??          TIME
  ??/??/??      DATE
  DD/MM/YY      FORMAT
  Press √ To Select
  
```






To change the time, press the  button and the screen will display:

```

→ :??          TIME

  Edit √ To Select
  
```

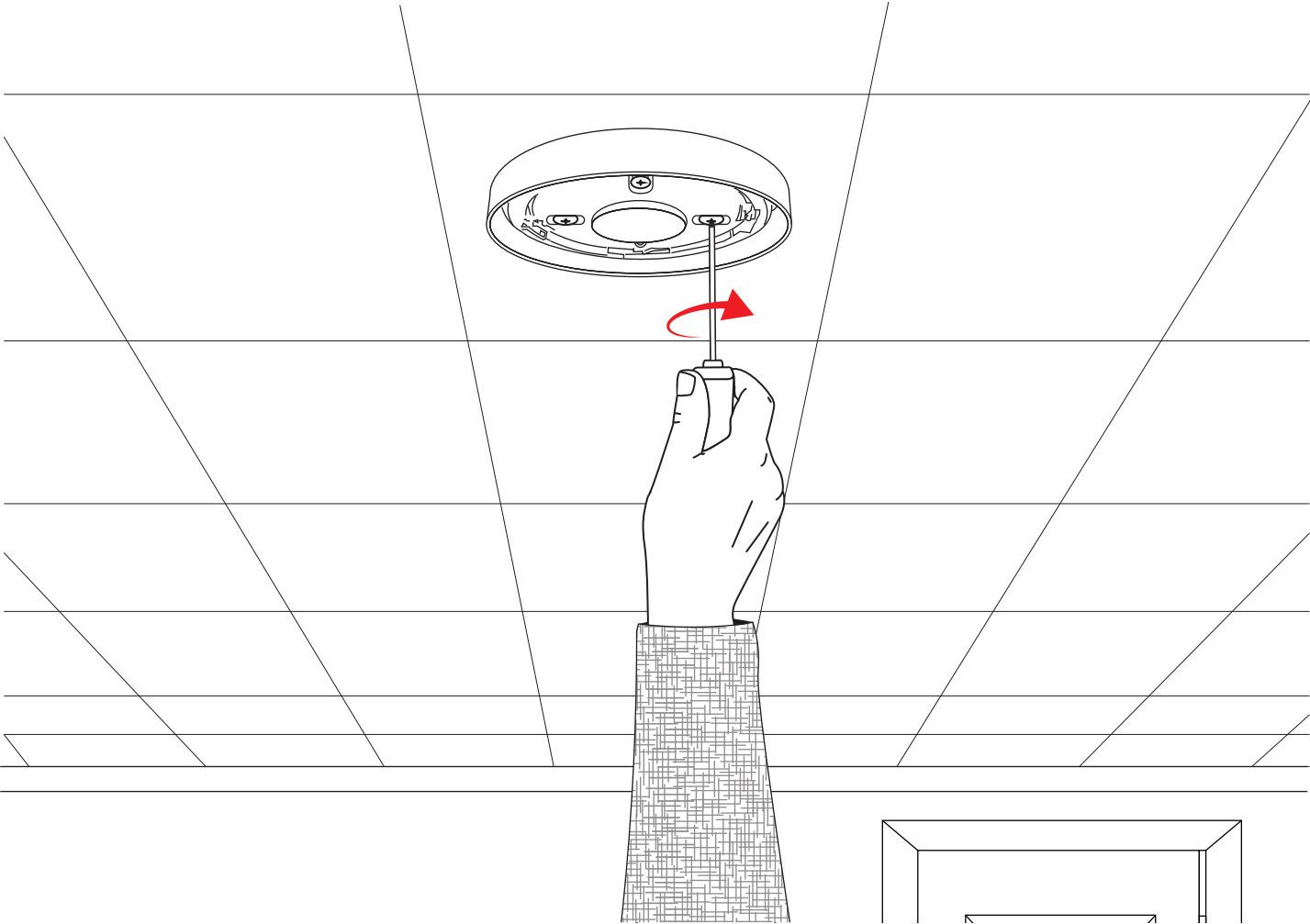
The following buttons are required to set the time:

Button(s)	Action
 	Increases and decreases the selected value.
 	Moves the cursor between the hour and minute selections.
	Saves the changes and returns to the previous screen.



Note: the same process is used for changing the date.

Install devices



Note: Refer to the associated device installation guide for full details.

Add devices to system

From access level 3 (refer to the 'Access Level 3' section for details), press the **3** button until the screen displays:

```
View System Status
Enable/Disablesments
Maintenance/Test
→Device Options  ⏏
```

Press the **✓** button and the screen will display:

```
→Add New Device
Remove Device
Edit Settinas
Device Zone Text  ⏏
```

Press the **✓** button and the screen will display*:

```
→At Control Panel
At Device Location
Configure Devices  ⏏
```

Press the **✓** button and the screen will display:

```
Insert Batteries
Into Device
NOW
```

Insert the device's batteries and the screen will change to show:

```
FIRE Type ?
Sounder Detector
ID:001234
√Add                <Exit
```

Check that the device ident on-screen matches the device ident shown on the barcode label. Press **✓** to confirm, or **4** to cancel. If accepted, the screen will display:

```
New FIRE
Device Added
ID:001234
Zone 00  Address 01
```

Followed by:


*Either continue adding new devices (by inserting batteries, or press **4** until the front screen is displayed.*


```
Add Another
Device ?


√Continue          <Exit
```



* Refer to the 'Panel menus' section for alternative programming methods.


Device attributes



From access level 3 (refer to the 'Access Level 3' section for details), press the  button until the screen displays:


Press the  button and the screen will display:

Press the  button until the screen displays:

Press the  button and the screen will display:
Note: press  to change the type.

Press the  button and the screen will display:

Press the  button until the device to configure is shown. Press the  button and the screen will display:

Press the  button and the screen will display:

Available options for each device type are shown overleaf.

```
View System Status
Enable/Disablesments
Maintenance/Test
→Device Options  ⏏
```

```
→Add New Device
Remove Device
Edit Settings
Device Zone Text  ⏏
```


```
Add New Device
Remove Device
→Edit Settings
Device Zone Text  ⏏
```

```
→Fire Devices
Information Devices
Panel I/O Devices
⏏
```

```
A01          ID:001234
Sounder Detector
ID:001234
Devices⏏      Change>
```


```
A03          ID:001236
Sounder Detector
Beacon ID:001236
Devices⏏      Change>
```


```
→Text Description
Zone Details - Z00
Detection-      Dual
Smoke Sens- Normal⏏
```



Menu Selection	Available options
Text Description	Refer to the 'Device location text' section overleaf for details.
Zone Details	Device zone allocation. The default zone is 0. It is however recommended that devices are allocated to zones. Zone 0 devices are not included in disablements and will always operate as default.
Detection	Detection selection of 'Dual' (smoke & heat), 'Smoke Only' or 'Heat Only'.
Smoke Sen	Smoke sensitivity selection of; 'Normal*†' and 'Normal + AVF'. (The AVF option allows additional verification of the alarm condition before reporting).
Heat Sen	Heat sensitivity selection of; '58 °C Static*†', '58 °C Rate Of Rise*', '72 °C Static*', '72 °C Rate Of Rise*'. † Default dual sensitivities
Signal Path	In this software version, only direct control panel communication is permitted.
Sound Volume	Allows device sounder levels of; 'High' or 'Low'.
Self Sound	When enabled, the device will sound upon local alarm detection, whilst wireless communication with the control panel is lost.
Audio/Visual 	Allows device sounder and beacon selection of; sounder & beacon, sounder only and beacon only.
O/P 1 OFF	Choose to switch the device's 'Output 1' off, when either the 'silence' or 'reset' button is pressed.
O/P 2 OFF	Choose to switch the device's 'Output 2' off, when either the 'silence' or 'reset' button is pressed.



* EN54 approved sensitivities † Default dual sensitivities


Device location text



From access level 3 (refer to the 'Access Level 3' section for details), press the  button until the screen displays:

Press the  button and the screen will display:


Press the  button until the screen displays:

Press the  button and the screen will display:
Note: press  to change the type.

Press the  button and the screen will display the first device logged on to the system:

Press the  button to scroll through the devices until the required device is shown. Press the  button:

Press the  button and the screen will display:

Press the  button and the screen will display:

Refer to the 'Text entry' section overleaf.

```
View System Status
Enable/Disablesments
Maintenance/Test
→Device Options  ↵
```

```
→Add New Device
Remove Device
Edit Settinas
Device Zone Text  ↵
```

```
Add New Device
Remove Device
→Edit Settinas
Device Zone Text  ↵
```

```
→Fire Devices
Information Devices
Panel I/O Devices
↵
```

```
A01 ID:001234
Sounder Detector
ID:001234
Devices↵ Change>
```










```
→Text Description
Zone Details - Z00
Detection- Dual
Smoke Sens- Normal↵
```

```
■Dual Detector
ID:001234


F1 ABC F2 Delete
```

Text entry


The following buttons will be required to enter new text descriptions:

Button	Action
	Moves the selected character through the alphabet (forwards), one character at a time.
	Moves the selected character through the alphabet (backwards), one character at a time.
	Moves the cursor (selected character) left, one character at a time.
	Moves the cursor (selected character) right, one character at a time.
FUNCTION 1 	Used to toggle character entry format between; upper case, lower case and number.
FUNCTION 2 	Provides a delete function; press for single character deletion, or press and hold to delete all text.
	Exits from the current screen. The user is asked whether to save the changes (() button for yes and () button for no).


Zone text

From access level 3 (refer to the 'Access Level 3' section for details), press the  button until the screen displays:


```
View System Status
Enable/Disablesments
Maintenance/Test
→Device Options  ⏏
```

Press the  button and the screen will display:


```
→Add New Device
Remove Device
Edit Settinas
Device Zone Text  ⏏
```

Press the  button until the screen displays:


```
Add New Device
Remove Device
Edit Settinas
→Device Zone Text  ⏏
```

Press the  button and the screen will display:


```
→Fire Zones
Information Zones
⏏
```

Press the  button and the screen will display:

```
→00:Zone 00
01:Zone 01
02:Zone 02
Edit ⏏ ✓ To Enter
```

Press the  button until the → is alongside to zone to be re-text:

```
00:Zone 00
→01:Zone 01
02:Zone 02
Edit ⏏ ✓ To Enter
```


Press the  button and the screen will display:

```
█one 01


F1 ABC  F2 Delete
```

Refer to the 'Text entry' section.


Sounder tones

To change the fire or information tone, from access level 3 (refer to the 'Access level 3' section for details), press the  button until the screen displays:


```
+Panel Information
  Language Select
  Factory Access
  Reports
```

Press the  button and the screen will display:


```
+Edit Users
  Panel Options
  System Options
  Communication
```

Press the  button until the screen displays:


```
Edit Users
  Panel Options
+System Options
  Communication
```

Press the  button and the screen will display:



```
+Healthy Indicator
  Default Tone Select
  Resound Options
  Sounder Duration
```

Press the  button once. The screen will display:




```
Healthy Indicator
+Default Tone Select
  Resound Options
  Sounder Duration
```

Press the  button and the screen will display the currently selected tones:

```
+Fire Tone - 05
  Info Tone - 26
```

Press  to change the tone type if req. Press the  button and the screen will display:

```
970Hz - 630Hz, @1Hz
  05
Tone◇ 05 Play >
To Select
```

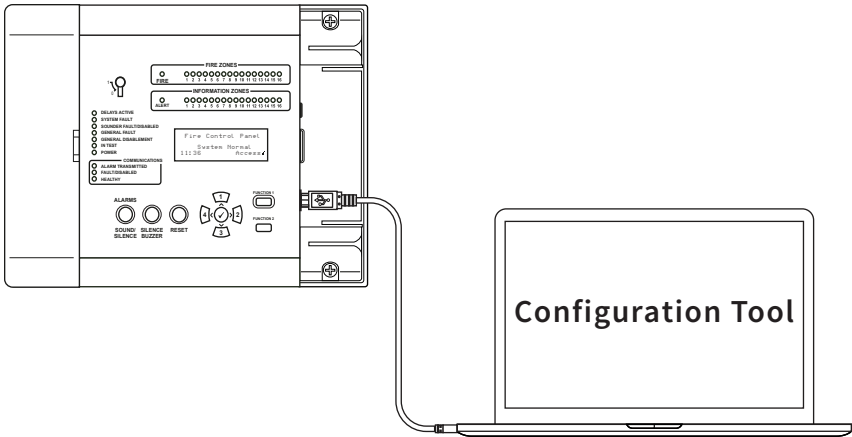
Press the  and  buttons to view the available tones and press the  button to select the required tone:

```
800Hz - 970Hz, @1Hz
  03
Tone◇ 03 Play >
To Select
```

Set outputs


Default sounder operation is global. Any fire signal, in any zone, will cause all of the system's fire sounders to sound.


Alternative operation, such as zonal and two stage, plus sounder and output delays are also available, via the SmartCell configuration tool.




SmartCell Services configuration

If connection to SmartCell Services is required, ethernet and/or 3G connections must be made as highlighted in the 'Panel wiring' section. With the required connections made and mains power present, the internal communications card must be switched on by following the steps below:

From access level 3 (refer to the 'Access Level 3' section for details), press the  button until the screen displays:

Press the  button and the screen will display:

Press the  button until the screen displays:

```

+Panel Information
  Language Select
  Factory Access
  Reports


```

- Edit Users
 - Panel Options
 - System Options
 - Communication

```

Edit Users
Panel Options
System Options
+Communication

```

Press the  button and the screen will display:


```

+Read/Write USB
  Remote Access
  
```

Press the  button and the screen will display:

```


  Read/Write USB
+Remote Access
  
```

Press the  button and the screen will display:

```

+Remote Access  OFF
  
```


✓ Continue Change >

Press the  button and the screen will display:

```

  Using Remote Access
    May Incur Costs
  
```


< Cancel Confirm >

Press the  button and the screen will display:

```

For Access Enter
Activation Code:
  
```


Press ✓ To Complete

Enter the engineer PIN code (default '333333'), then press the  button to confirm. The screen will display:

```

+Remote Access  ON
  
```

✓Continue Change >

Press the  button and the screen will display:


```

+Internal Comms
  Account Settings
  
```

Press the  button and the screen will display:


```

+View Status
  Edit Options
  
```


Press the  button and the screen will display:

```


  View Status
+Edit Options
  
```

Press the  button and the screen will display:


```
→Module In Use      NO
Press √ To Select ↻
```

Press the  button and the screen will display:



```
Module In Use ?
→NO
YES
Press √ To Select ↻
```

Press the  button and the screen will display:

```
Module In Use ?
NO
→YES
Press √ To Select ↻
```


Press the  button and the screen will display:

```
→Module In Use      YES
ARC Enable          NO
Services            YES
Press √ To Select ↻
```

Press the  button to scroll through the list and press the  button to change any options that are currently set as no, to yes. Applicable options are shown:

```
→Module In Use      YES
ARC Enable          YES
Services            YES
Remote Config       YES
IP Port Used        YES
GPRS Used           YES
Stats               YES ↻
```


Note: Refer to the 'Panel information' section for full details of the above options.

Once complete, press the  button and the screen will display:

```
View Status
→Edit Options
↻
```


Press the  button and the screen will display:

```
→View Status
Edit Options
↻
```


Press the  button and the screen will display:

```

→Module In Use  YES
Module Status   OK
ARC Enable      YES
Services        YES ↵
  
```

Press the  button to scroll through the list to check the status of the 'IP Status' and the 'GPRS Status' are as required, prior to account creation.


```

Module In Use  YES
Module Status   OK
ARC Enable      YES
Services        YES
Remote Config   YES
IP Port Used    YES
IP Status       OK
GPRS Used       YES
GPRS Status     OK
GPRS Signal     GOOD
Stats           YES ↵
  
```

Once complete, press the  button and the screen will display:


```

→View Status
Edit Options
                               ↵
  
```

Press the  button and the screen will display:


```

→Internal Comms
Account Settings
                               ↵
  
```

Press the  button and the screen will display:


```

Internal Comms
→Account Settings
                               ↵
  
```

Press the  button and the screen will display:


```

→Create Account
View Settings
Edit Settings
                               ↵
  
```


Press the  button and the screen will display:

```


Create Account
View Settings
→Edit Settings
                               ↵
  
```


Press the  button and the screen will display:

→ IP Address -	IP
IP Ports -	IP
IP Address -	GPRS
IP Ports -	GPRS

Press the  button until the screen displays:

Panel IP Address
Panel Type
→ VAR Code

Press the  button and the screen will display:

Enter your three digit VAR code, followed by the  button.
Note: your VAR code is available from your distributor.

ABC


Edit ✓ To Enter

Once complete, the screen will display:

Panel IP Address
Panel Type
+VAR Code

Press the **4** button and the screen will display:

Create Account
View Settings
→ Edit Settings

Press the  button until the screen displays:

→ Create Account
View Settings
Edit Settings

Press the button and the screen will display:

Creating Account

VAR002222

■■■


Followed by confirmation of successful account creation.

Note: this may take up to 10 minutes to complete.


```
Creating Account  
Creation Succeeded  
VAR002222
```

The newly created account will now be live and visible within SmartCell Services.

Device signal levels

From access level 3 (refer to the 'Access Level 3' section for details), press the  button until the screen displays:



```
View System Status
Enable/Disablements
→Maintenance/Test
Device Options  ⏏
```

Press the  button and the screen will display:


```
→Test Zones
Zone Walk Test
Test Event Listing
Sounder.O/P Test  ⏏
```

Press the  button until the screen displays:


```
→Device Signal List
Device Battery List
Maintenance Date
Edit Service Code  ⏏
```

Press the  button and the screen will display:
Note: press  to change the type.

```
→Fire Devices
Information Devices
⏏
```

Press the  button and the screen will display:

```
→Good Signal      08
Low Signal        00
No Signal         00
More>
```

Pressing the  button will provide more information on the category highlighted:

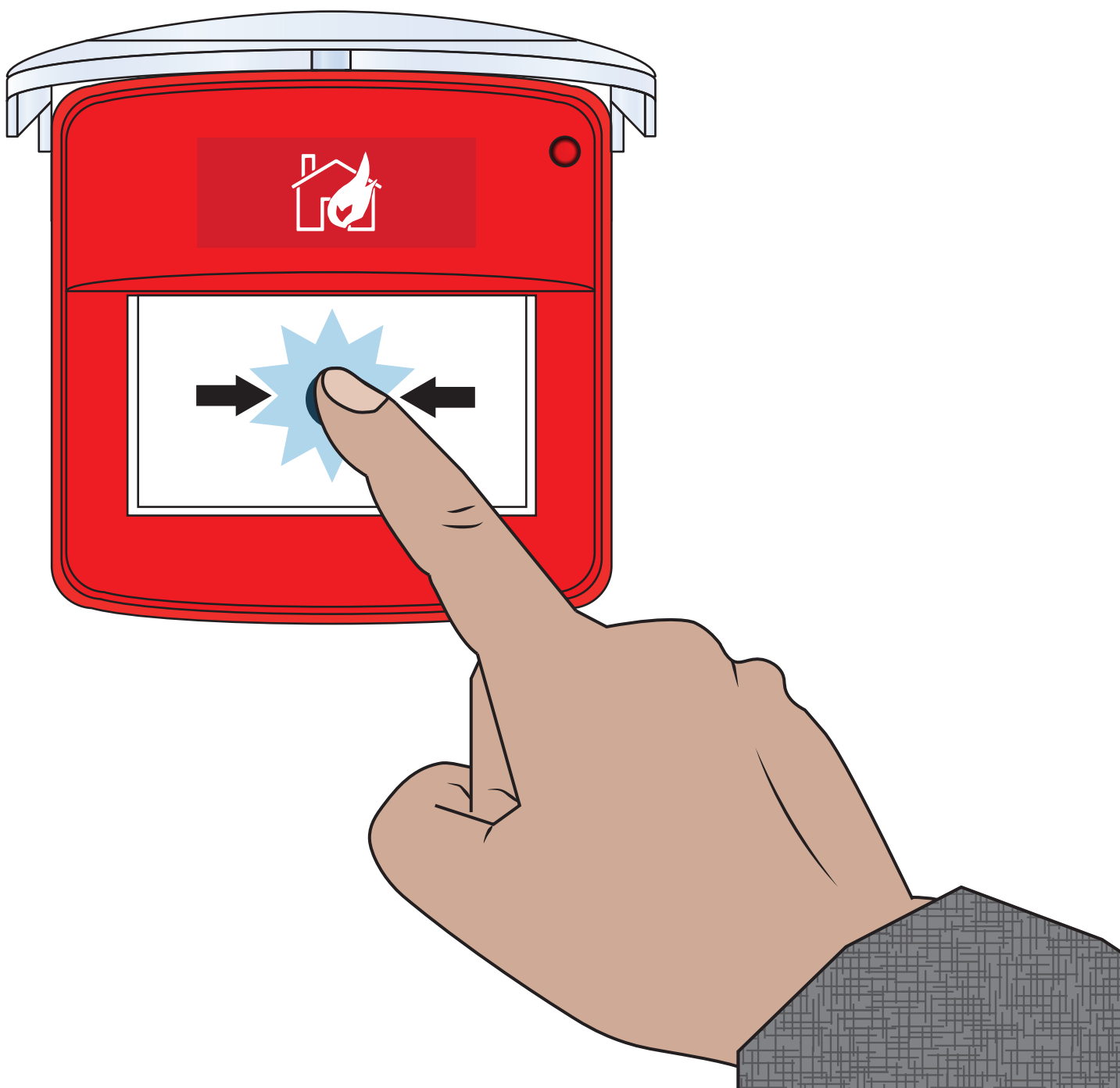
```
Z01 A08          80dB
Dual Detector
First Floor Landina
GOOD Signal      █
```



Note: It is important that all devices have 'GOOD' signal levels to ensure the maximum robustness of wireless signalling.

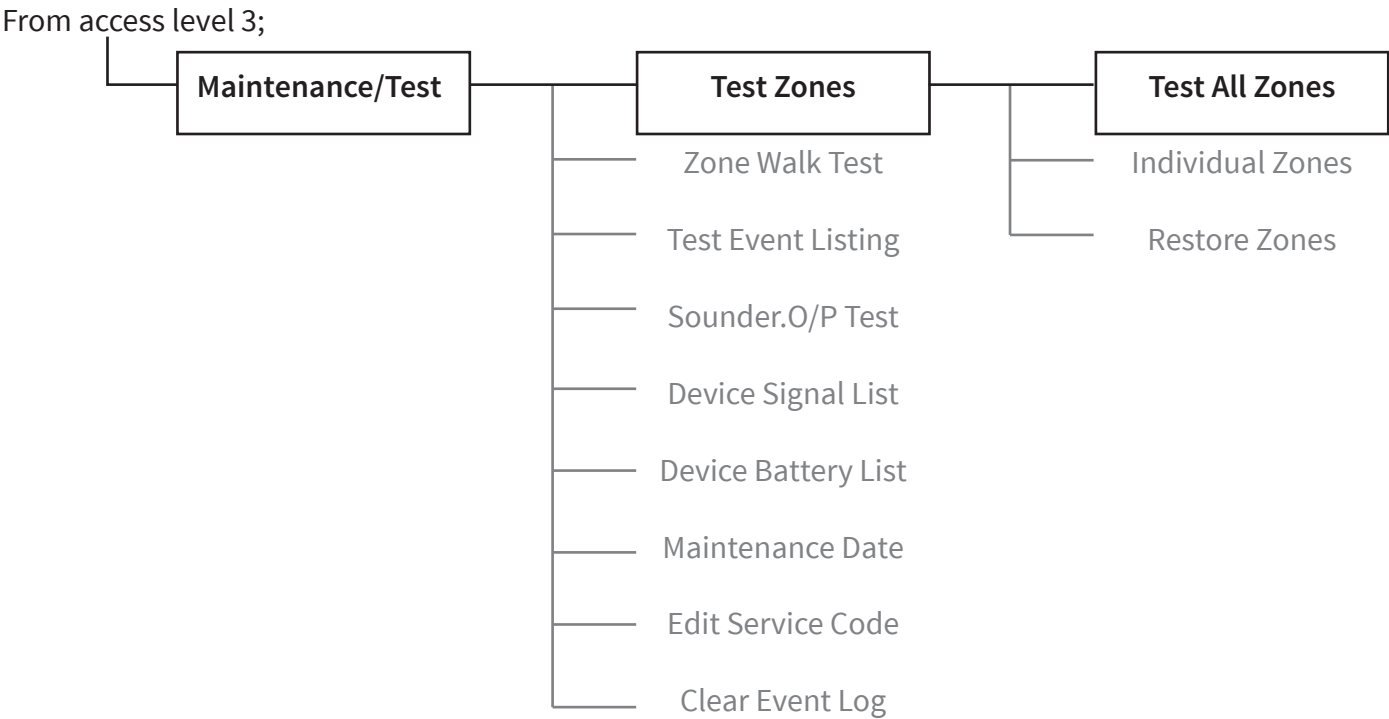
If a device does not achieve a good signal level, refer to the 'How to improve device signal levels' section for additional guidance.

System testing

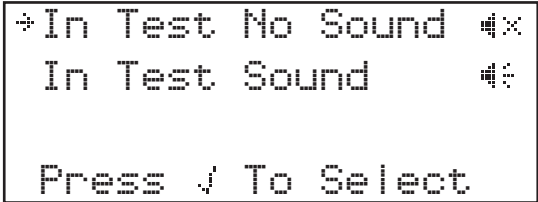


This section shows how to test the system, without sounders operating. Also included, are device signal and battery tests, to ensure they are operating within the correct parameters. This section can be used as a guide. Local fire alarm maintenance procedures should be followed, to comply with relevant standards. Note: alternative methods of device testing are available. Refer to the ‘Maintenance/test’ section for details.

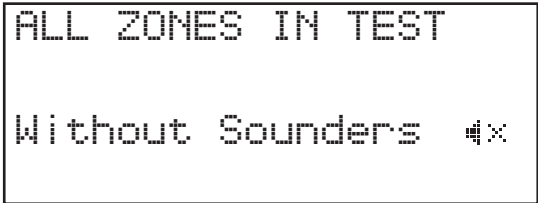
Set all zones to test (without sounder operation)



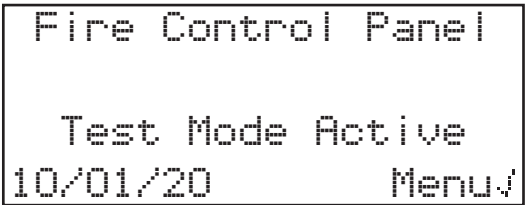
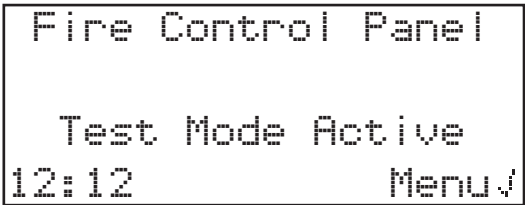
With the ➡ on the top line as shown:



Press the ✓ button to confirm. The display will momentarily change to show:

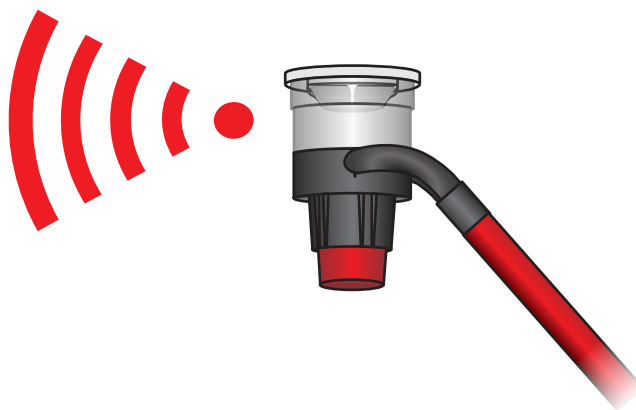


Press the 4 button until the menu is exited. The front screen will alternate between time and date views.

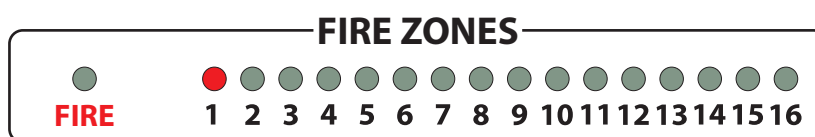


The control panel also shows the ‘IN TEST’ lamp illuminated.

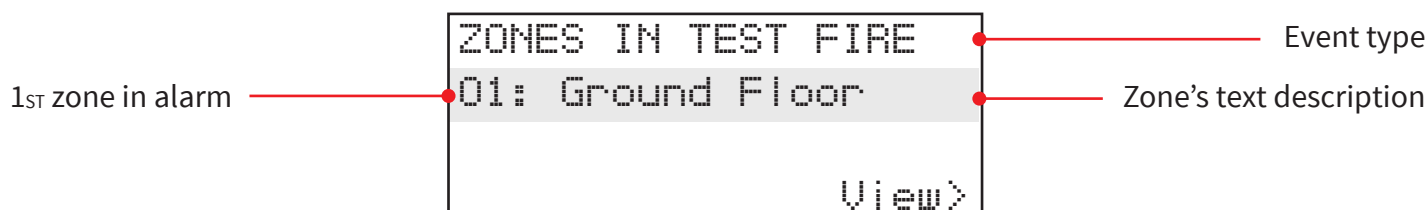
Activate devices



Upon alarm activation, the relevant 'Fire Zones' lamps will illuminate. An alarm activation within zone 1 is shown below:

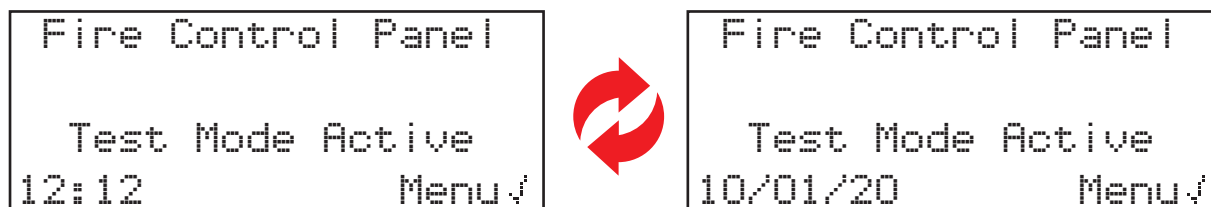


The display will show a test fire event. An alarm activation within zone 1 is shown below:

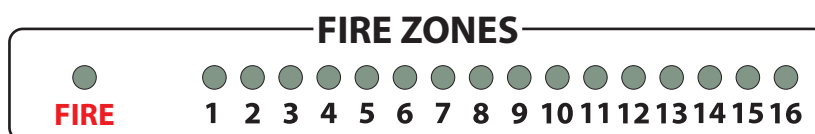


Check panel

After 5 seconds of indicating a the test fire event, the display will revert to front screen text, showing the 'Test Mode Active' is still configured:




The 'Fire' and relevant 'Fire Zones' lamps will also extinguish:




The control panel's fire tone will also stop.

View events

From the ‘View System Status’ menu, press the  button when adjacent to ‘Event History’. As shown below;

→Event History	
Fire Alarms	000
Fire Zones	000
Information	000 

When entered, the display will change:


→Fire Only	001
Info Only	000
Fault Only	001
All Events	002 

Press the  button with the ‘Fire’ event type highlighted. An example display of a ‘TEST FIRE’ alarm is shown:

Zone & device address


Device’s text description


Time & date

Z01 A20	TEST FIRE	
Dual Detector		
First Floor Landings		
11:15 10/01/20		

Event type

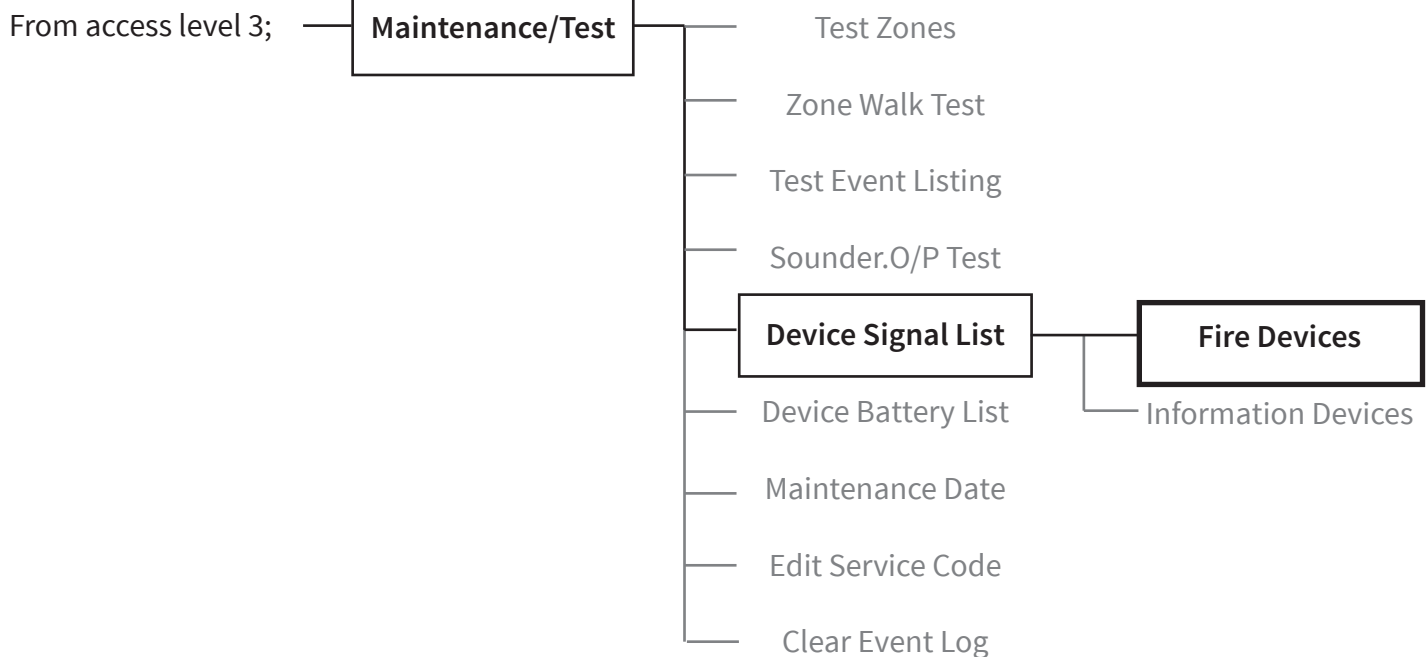
Option to scroll is only available whilst more than one event is present

Press the  and  buttons to scroll through the available events.

Press the  button to return to previous menu.


Check signal levels

To check the signals for all the devices on the system.



The display will update shortly after. An example display is shown below:

→ Good Signal	10	•	Ten devices with good signal
Low Signal	01	•	One device with low signal
No Signal	01	•	One device with no signal
More>			

To view individual devices within specific signal level categories, press the  button, whilst the arrow (→) is adjacent to the category to be viewed. Three example displays are shown below:

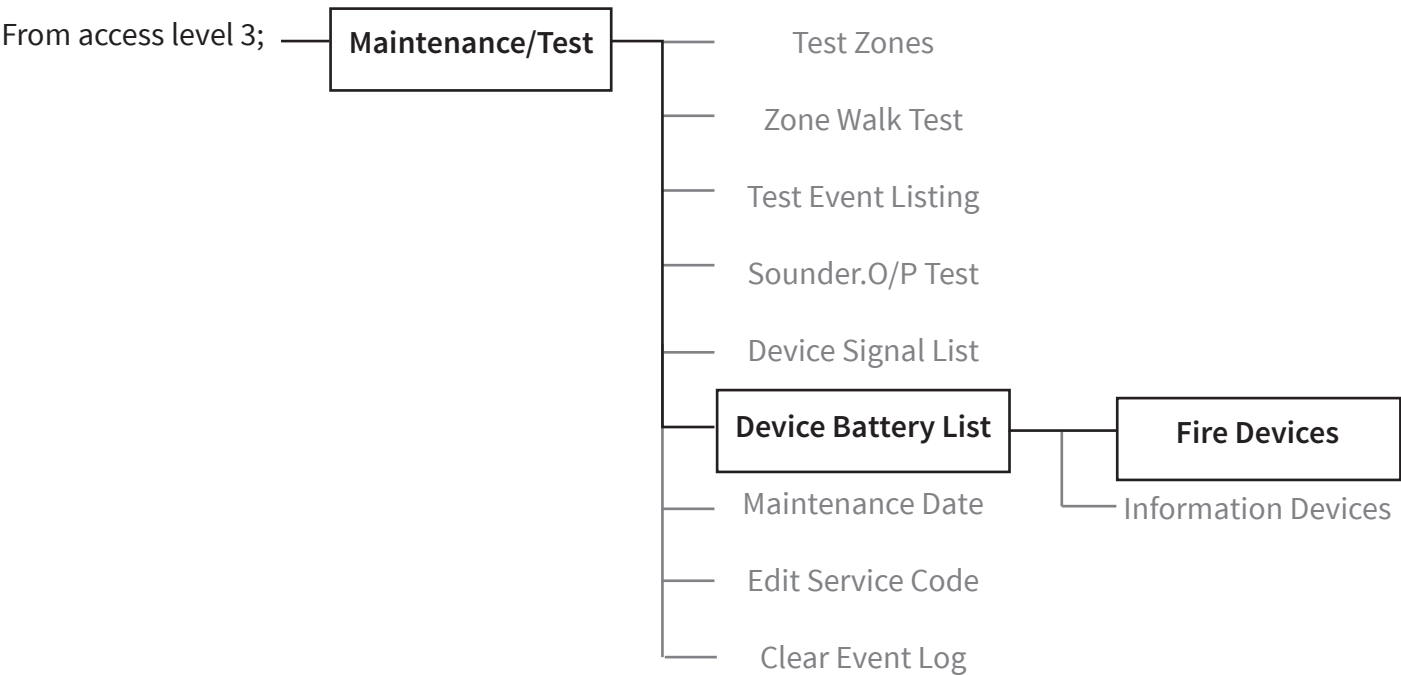
```
Z01 A20          30dB
Dual Detector
First Floor Landine
GOOD Signal  [signal bars]  ☺
```

```
Z01 A25          10dB
Dual Detector
Basement Area
LOW Signal  [signal bars]  ☺
```

```
Z01 A22          0dB
Dual Detector
Reception
NO Signal  [signal bars]  ☺
```

Check battery levels




To check the batteries for all the devices on the system.



The display will update shortly after. *An example display is shown below:*

→ Battery Ok	10	• Ten devices with 'Battery Ok'
Battery Low	01	• One device with 'Battery Low'
Battery Missing	01	• One device with a 'Battery Missing'
More>		

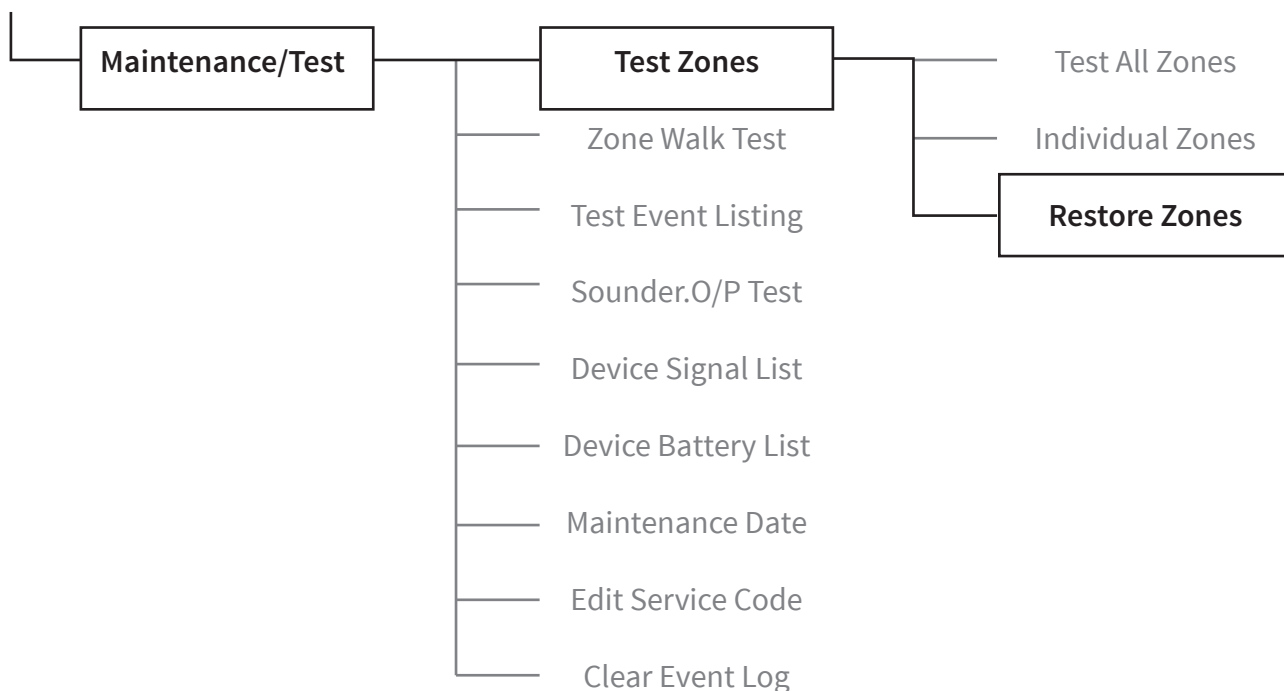
To view individual devices within specific battery level categories, press the **2** button, whilst the arrow (→) is adjacent to the category to be viewed. Example displays are shown below;

Z01 A20	Dual Detector	First Floor Landing	BATTERY OK		◊
Z01 A25	Dual Detector	Basement Area	BATTERY LOW		◊
Z01 A22	Dual Detector	Reception	BATT MISSING		◊

Return system to normal

To return all zones to a normal state and re-enable sounder operation.

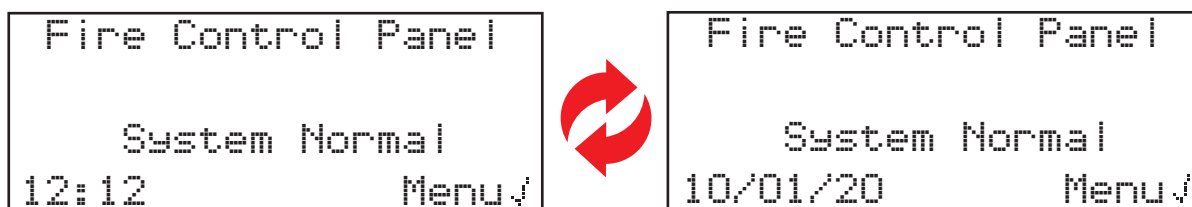
From access level 3;



With '→ Restore ALL' shown, press the  button to restore the zones. The display will momentarily change to show 'All Zones Restored' as shown:

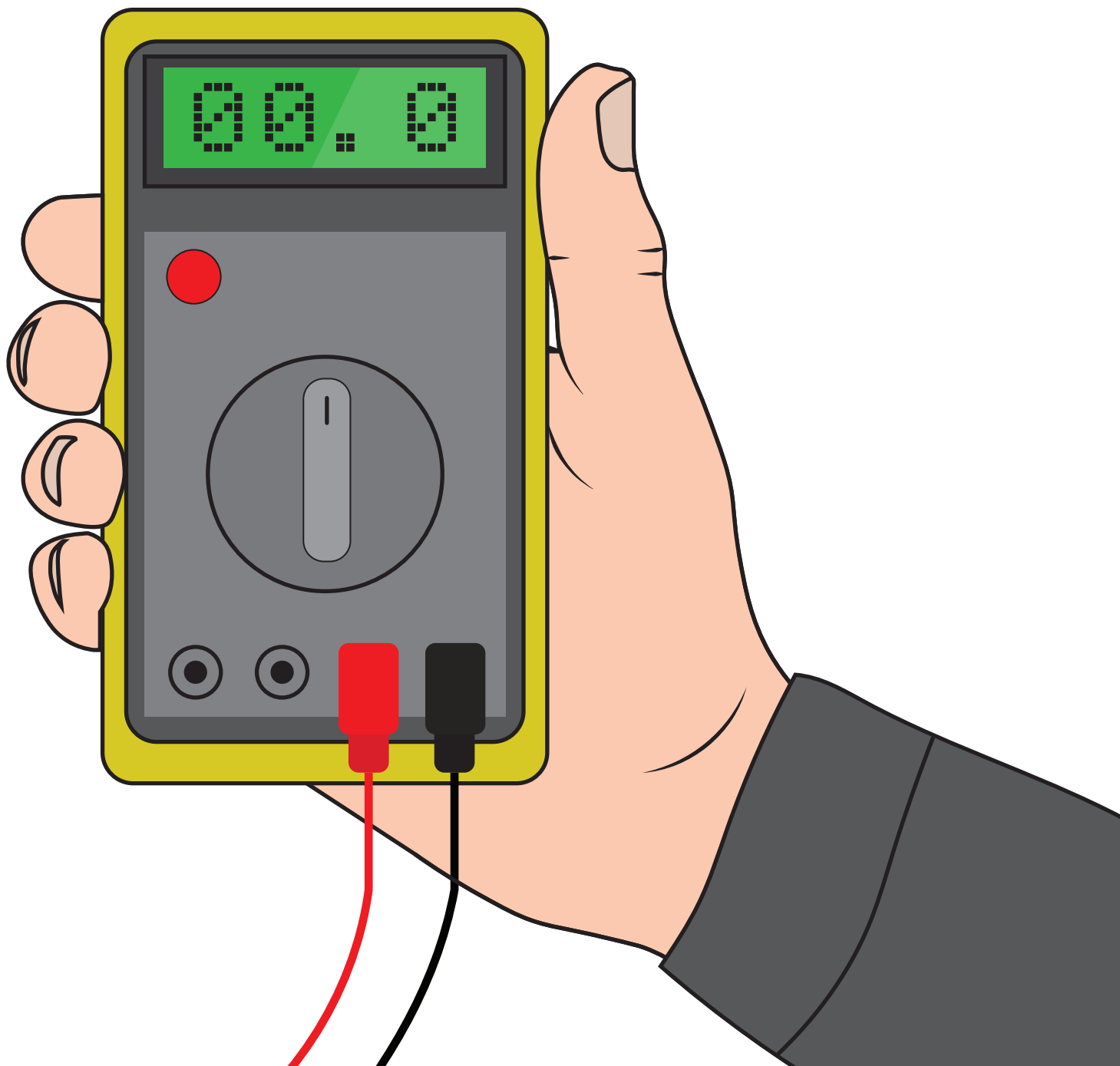
All Zones Restored

The display will then change back to the normal front display, alternating between time and date views:



The control panel's 'IN TEST' lamp will also extinguish.

Diagnostics



Fault rectification

Device type	Fault displayed	Rectification process
All device types	Battery Missing	Check all batteries are inserted correctly. Check voltage on batteries. Replace batteries if necessary or re-insert correctly.
Control panel	Mains Fail	Check the mains supply to the unit.
Detector	Head Fault	It is recommended that the detection device be replaced due to a fault with the head being reported.
Detector	Head Dirty	Clean with compressed air if necessary, as the device is reporting that the chamber is dirty. Check the device is in a clean environment and is free from smoke, dust and dirt.
All device types	Tamper	Check the device is assembled correctly.
Input/output	Open Circuit / Short Circuit	Check the 20 kΩ end of line resistor is in place and that connections are secure.
All device types	No Signal Fault	Check the devices location to ensure no visible cause can be seen. Check that the device is still powered and has been added to the system. (See the 'How to improve device signal levels' section for more information).
All device types	Battery Low	Replace all device batteries with specified batteries - see the associated device installation guide and replace within 30 days.
Control panel	Battery Supply Failure	Check the integrity of the battery and it's connection.
All device types	Low signal	Note: no fault will be indicated as communication is still taking place, albeit at a low signal level. Check the device's location to ensure there is no obvious cause. (See the 'How to improve device signal levels' section for more information).
All device types	Good signal	No action required.
Call point	Fire	Check the device's resettable element is correctly in place and that the yellow area is not being displayed. If shown, reset the device using the reset key.
Detector	Fire	Ensure that the environment in the device's location is free of smoke, residue and dust.

Signal level requirements

To ensure the signal levels for each device are at an acceptable level, the 'Device Signal List' menu should be checked. This menu will display the signal level in two formats. The first format is a system overview that will detail how many devices have a 'GOOD' or 'LOW' signal, or have 'NO SIGNAL'. This can be used as a guide, so if you have a system with ten devices and the overview shows ten 'GOOD' signal levels, then there is no need to view the devices individually. The second format allows you to view each individual device. A pictorial representation coupled with signal level text, is displayed for each device on the system. This is listed in address number order. If any devices are under the signal level requirements, check the 'How to improve device signal levels' section for guidance.

An example system with all devices showing acceptable signal levels is shown below:

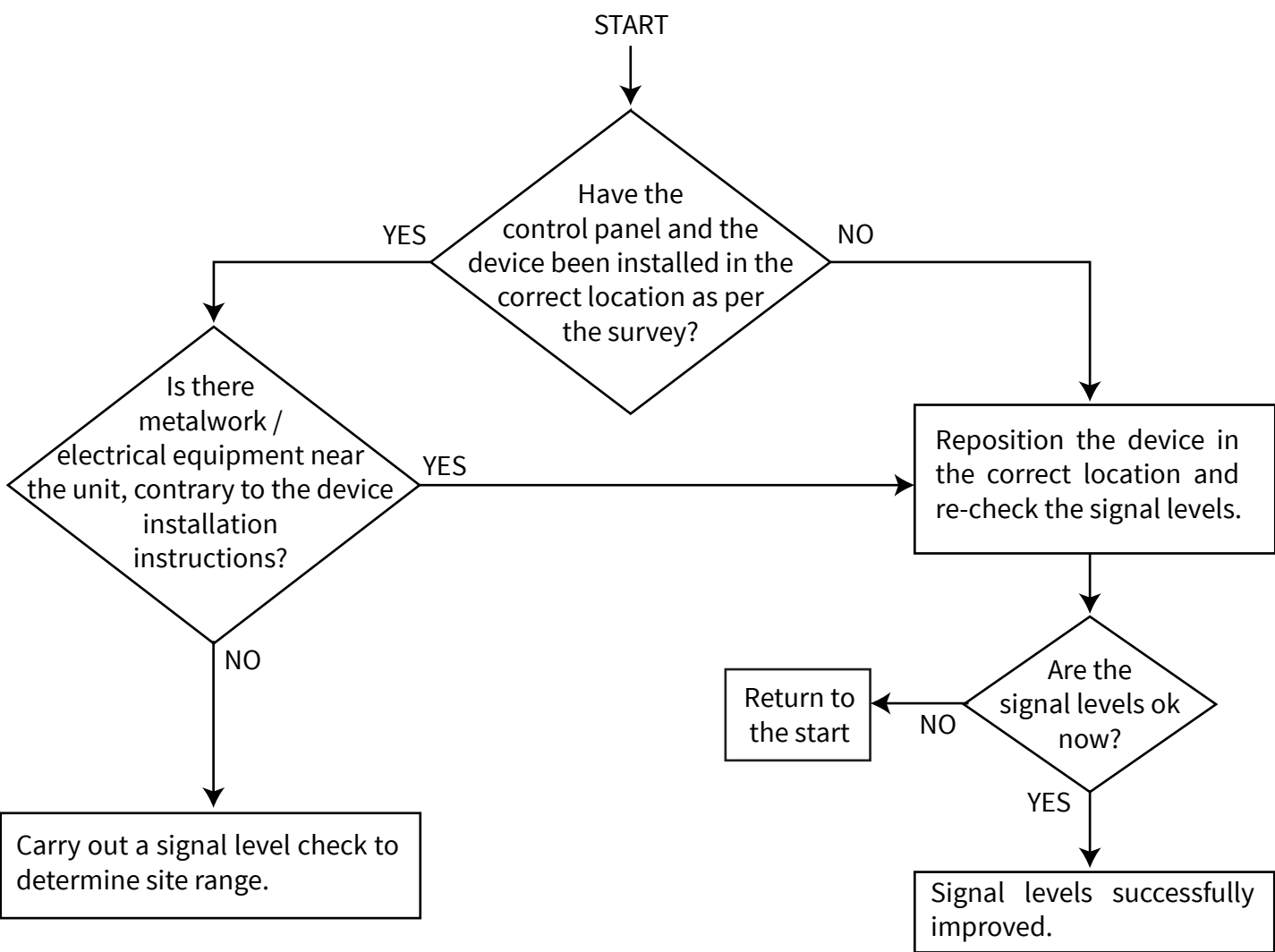
Wireless system setup	Device number	Shown on menu display	Acceptable level
Dual detector	Device 01	Z1 A01 GOOD	✓
Dual detector	Device 02	Z1 A02 GOOD	✓
Dual detector	Device 03	Z1 A03 GOOD	✓
Manual call point	Device 04	Z1 A04 GOOD	✓
Dual detector/ sounder	Device 05	Z2 A05 GOOD	✓
Dual detector/ sounder	Device 06	Z2 A06 GOOD	✓
Dual detector/ sounder	Device 07	Z3 A07 GOOD	✓
Manual call point	Device 08	Z4 A08 GOOD	✓
Manual call point	Device 09	Z4 A09 GOOD	✓
Dual detector	Device 10	Z4 A10 GOOD	✓
Dual detector	Device 11	Z4 A11 GOOD	✓
Dual detector/ sounder beacon	Device 12	Z4 A12 GOOD	✓
Sounder	Device 13	Z4 A13 GOOD	✓

An example system with devices showing both acceptable and unacceptable signal levels is shown below:

Wireless system setup	Device Number	Shown on Menu Display	Acceptable Level
Dual detector	Device 01	Z1 A01 NO SIGNAL	✗
Dual detector	Device 02	Z1 A02 LOW	✗
Dual detector	Device 03	Z1 A03 GOOD	✓
Manual call point	Device 04	Z1 A04 GOOD	✓
Dual detector/ sounder	Device 05	Z2 A05 LOW	✗
Dual detector/ sounder	Device 06	Z2 A06 LOW	✗
Dual detector/ sounder	Device 07	Z3 A07 GOOD	✓
Manual call point	Device 08	Z4 A08 NO SIGNAL	✗
Manual call point	Device 09	Z4 A09 GOOD	✓
Dual detector	Device 10	Z4 A10 GOOD	✓
Dual detector	Device 11	Z4 A11 GOOD	✓
Dual detector/ sounder beacon	Device 12	Z4 A12 GOOD	✓
Sounder	Device 13	Z4 A13 GOOD	✓

Meeting the acceptable signal levels shown ensures immunity to site attenuation (path loss) is met, as required in clause 4.2.1 and annexe B of EN54-25.

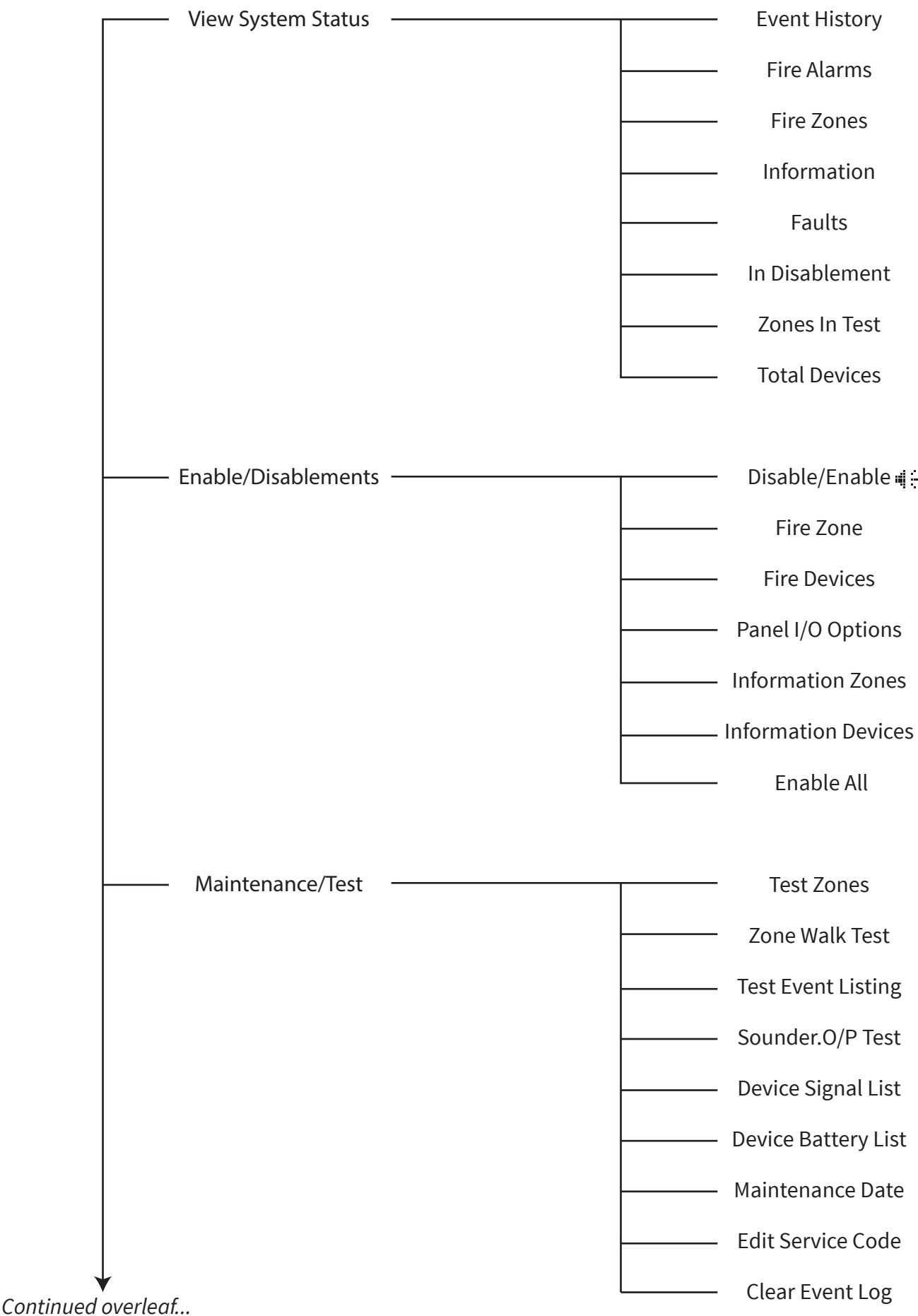
How to improve device signal levels

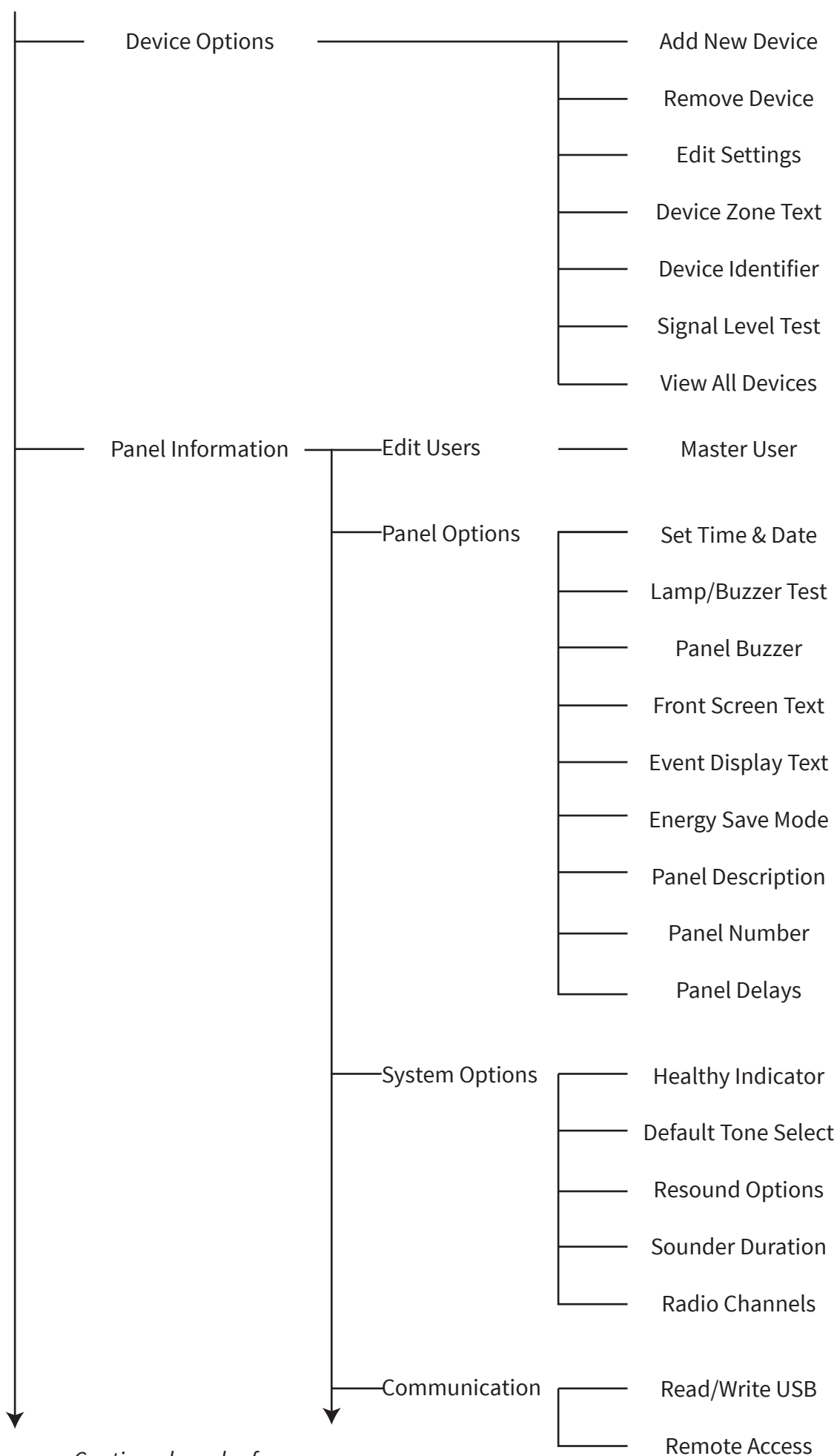


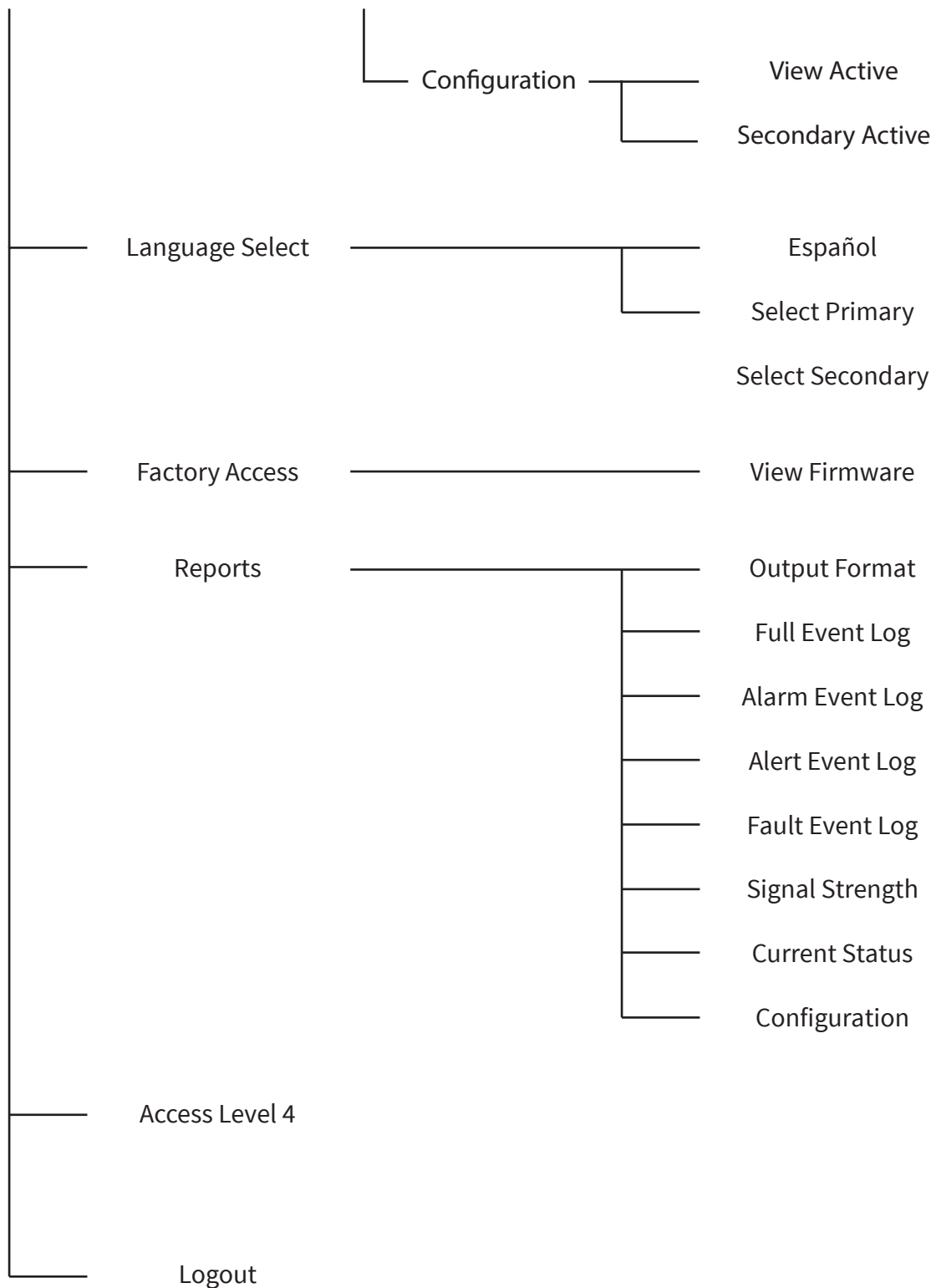
Panel menus



Access level 3 tree view



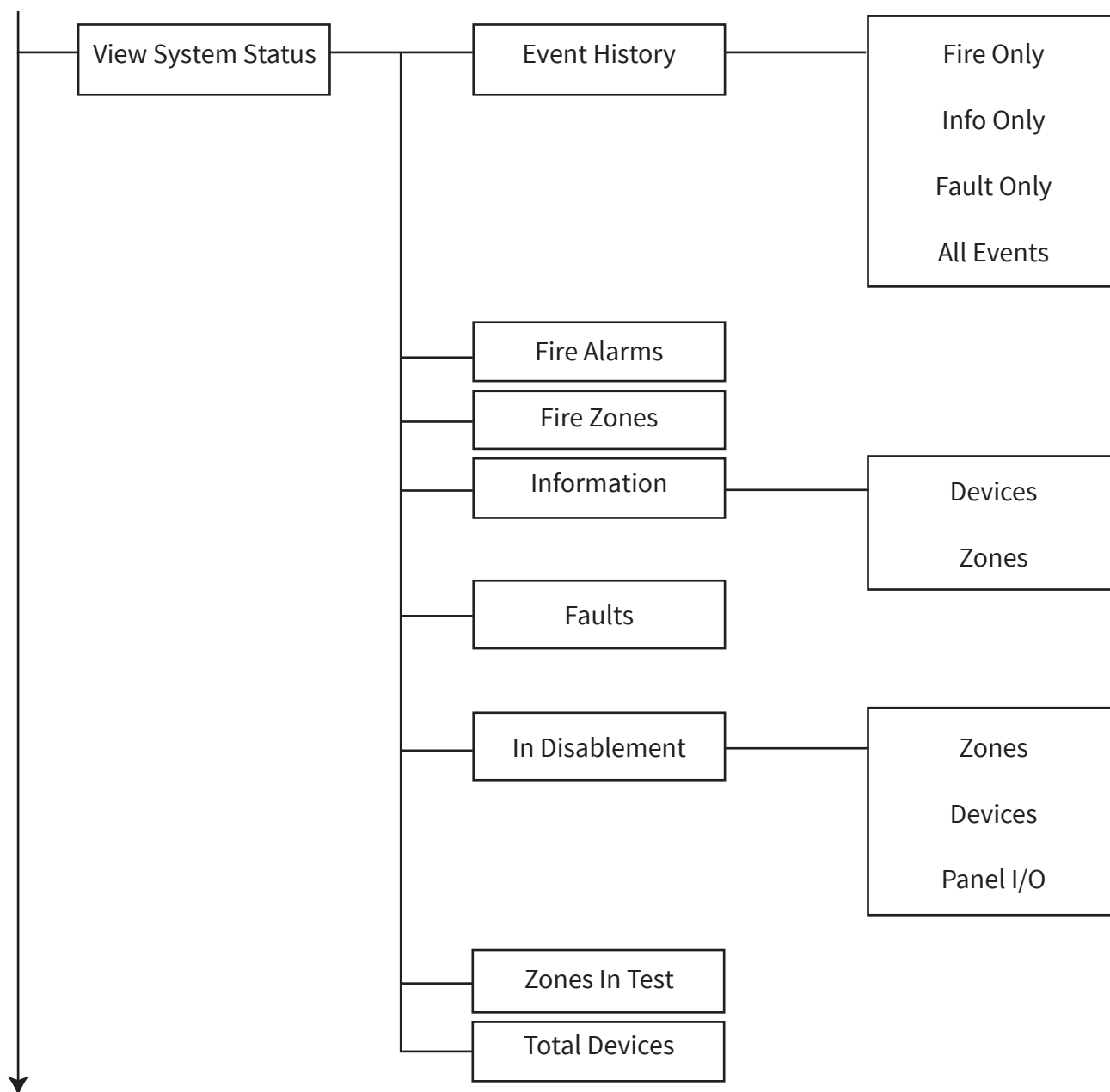






Access level 3 menu options

View system status

The view system status menu allows an access level 2 or 3 user to view the historical event log, along with viewing the status of individual devices on the system and current disablements/test states. This menu option is shown in detail below:






Event history

When entered, options are available to view filtered ‘Fire’, or ‘Information’ events only or alternatively, ‘All Events’ can be viewed. A total number of events for each option is also indicated. When the event option is entered, the display will show the latest event first. The events can then be scrolled through by using the  and  buttons. Each log entry records the event type, the device’s zone (at the time of the event), the device address (text description if allocated) and time and date at which the event occurred. The event log is a scrolling log, shown in chronological order and will automatically overwrite the oldest events when the 1000 event capacity is reached. The log can however be cleared using an access level 3 code and entering the relevant menu if required. Note: the default access level 3 code is 333333.




The example below shows a historical event, logged for a 'TAMPER' fault on a device.

Zone & device address	Z01 A20	TAMPER	Event type
Device's text description	Dual Detector		
	First Floor Landings		
Time & date of the event	12:05 10/01/20		




Fire alarms

This menu displays the total number of fire alarms that are currently on the system. The total number is shown next to the fire alarm text. Pressing the  button details the individual devices in fire alarm. The devices in fire alarm condition can then be scrolled through, using the  and  buttons.




Fire zones

This menu displays the total number of fire zones that are currently in the fire condition on the system. Pressing the  button details the individual zones in fire alarm. The zones in fire alarm condition can then be scrolled through, using the  and  buttons.



Information

This menu displays the total number of information alerts that are currently on the system. The total number is shown next to the info alert text. Pressing the  button details the individual devices in an information alert condition. The devices in an alert condition can then be scrolled through, using the  and  buttons.



Faults

This menu displays the total number of faults that are currently on the system. The total number is shown next to the fault text. Pressing the  button will show individual devices in a fault condition. The devices which can be either information or fire devices can be scrolled through, using the  and  buttons. A fault description will be associated with any devices.



In disablement

This menu displays the total number of disablements that are currently on the system. When entered any devices, zones or groups that are currently disabled will be shown. Each option can be entered separately to view the disablements. If there are multiple disablements on the system these can be scrolled through, using the  and  buttons.

Zones in test

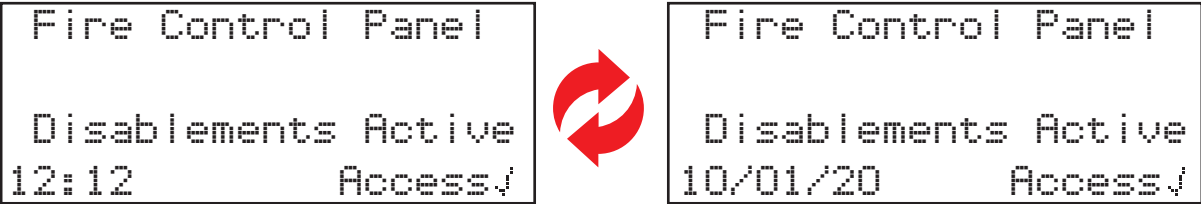
This menu displays the total number of zones in test. When entered any zones that are currently in the test state will be shown. If there are multiple zones in test on the system, they can be scrolled through using the  and  buttons.

Total devices

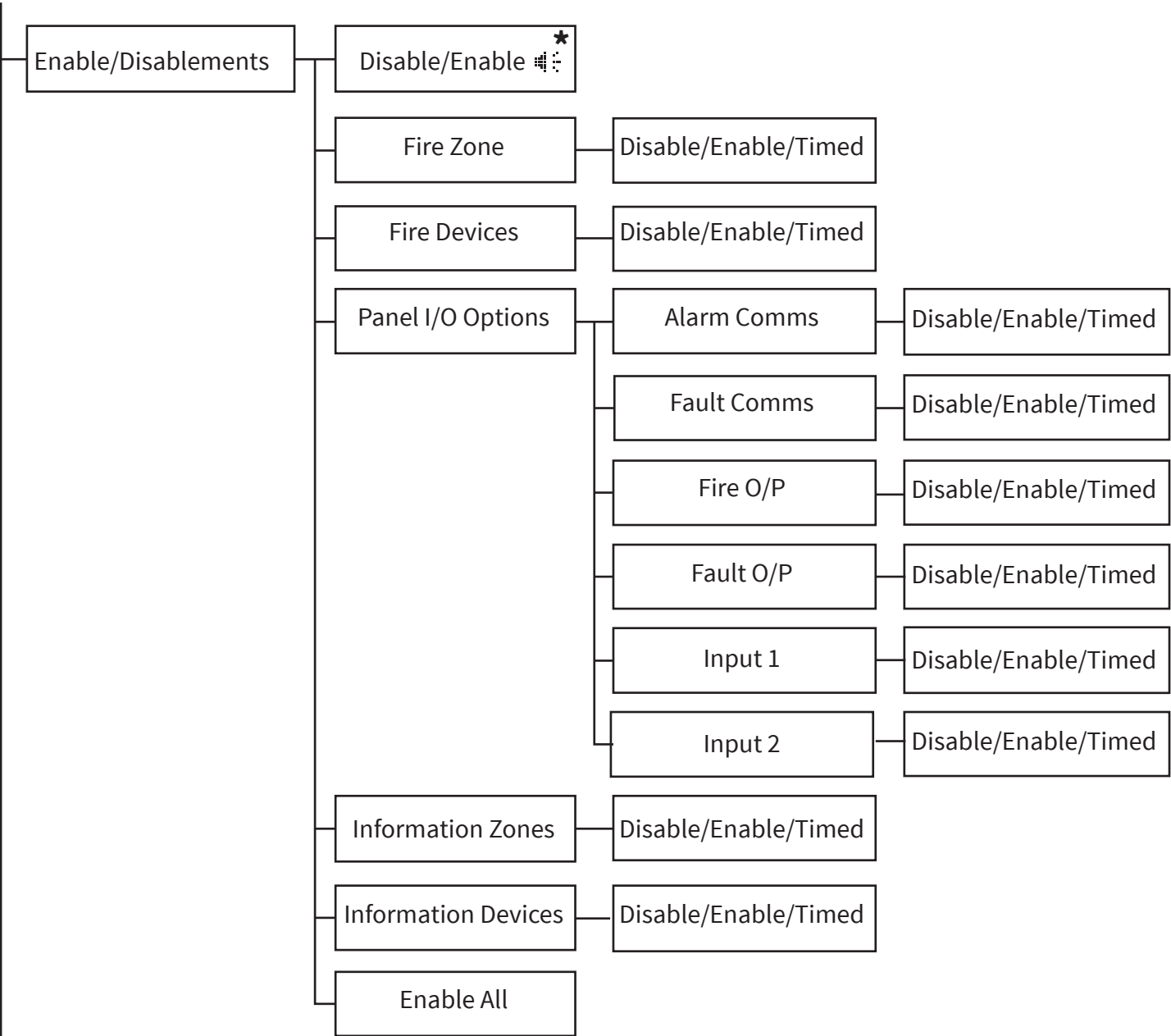
This menu displays the total number of devices on the system. When entered, the individual device details along with it's current status are shown. The device list starts at the lowest address fire and these can be scrolled through, using the  and  buttons. When all of the fire devices have been scrolled through, the list will subsequently show all of the information devices, again in address number order.

Enable/disablements

The 'Enable/Disablements' menu allows an access level 2 or 3 user to enable or disable devices, control panel outputs or zones on the system. The user has the ability to permanently disable the devices, panel outputs or zones on the system. Timed disablements are also permitted, programmable between 1-24 hours, in 1 hour steps. The control panel will indicate if the system has disablements via LED indication, accompanied by text on the front display as shown below:



This menu option is shown in detail below:



★ (Access level 3 access only)

Disable/enable

When entered, it is possible to disable and enable all sounders and output devices including the fire relay output and alarm communications.

When selected, the screen will display 'Disabling Active' and all alarm events will be displayed as normal. However the sounders, output devices and the panel's fire relay will NOT operate, whilst alarm communications will also not transmit.

When the menu is re-entered and the sounders are enabled, all sounders, output devices and the fire relay previously disabled will automatically will function as normal, as will the alarm communications.

Fire zone

When entered, it is possible to select individual zones fire zones that are in use on the system, ranging between 1-48. The zones can be disabled or enabled from this menu. The zones can also be disabled for a time period from this menu programmable between 1-24 hours in 1 hour steps. No fault or fire conditions will be displayed from any device that is associated to a disabled zone.

Fire devices

When entered, it is possible to select individual devices. The device can be disabled or enabled from this menu. The devices can also be disabled for a time period from this menu programmable between 1-24 hours in 1 hour steps. No fault or fire conditions will be displayed from any device that is currently disabled.

Please note; if disabled is selected and a dual device input device is being used i.e. Dual heat/smoke detection or a dual input/output device both elements will be disabled. It is possible to select one half of the detection/or input to be disabled. This is achieved by selecting the individual option which once selected will allow you to select which detection or input you require to disable.

Panel I/O options

When entered, it is possible to select to disable and enable the control panel's hardwired inputs and relay outputs, plus alarm and fault communication to the Alarm Receiving Centre (ARC). All options can also be disabled for a time period from this menu programmable between 1-24 hours in 1 hour steps.

Note: when disabling alarm and fault communication to the ARC (via the 'Alarm Comms' and 'Fault Comms' options), communication to SmartCell services will be unaffected.

Information zones

When entered, it is possible to select individual information zones that are in use on the system, ranging between 1-48. The zones can be disabled or enabled from this menu. The zones can also be disabled for a time period from this menu programmable between 1-24 hours in 1 hour steps. No fault or alert conditions will be displayed from any device that is associated to a disabled zone.

Information devices

When entered, it is possible to select individual devices. The device can be disabled or enabled from this menu. The devices can also be disabled for a time period from this menu programmable between 1-24 hours in 1 hour steps. No fault or alert conditions will be displayed from any device that is currently disabled.

Enable all

When entered, it is possible to enable all currently disabled devices and zones in one action.

Maintenance/test

The 'Maintenance/Test' menu allows an access level 2 user to use the 'Test Zones' menu option, to place all or individual zones into a test condition. The option is also available for the test condition to operate sounders, or for a silent test to be undertaken.

When using this feature with sounders enabled, upon a test alarm, the event will on the control panel, sounders will operate in that zone for 3 seconds and will subsequently automatically silence. See the 'Test Zones' section for full details.

The 'Maintenance/Test' menu will additionally provide an access level 3 user with a number of maintenance and test features.

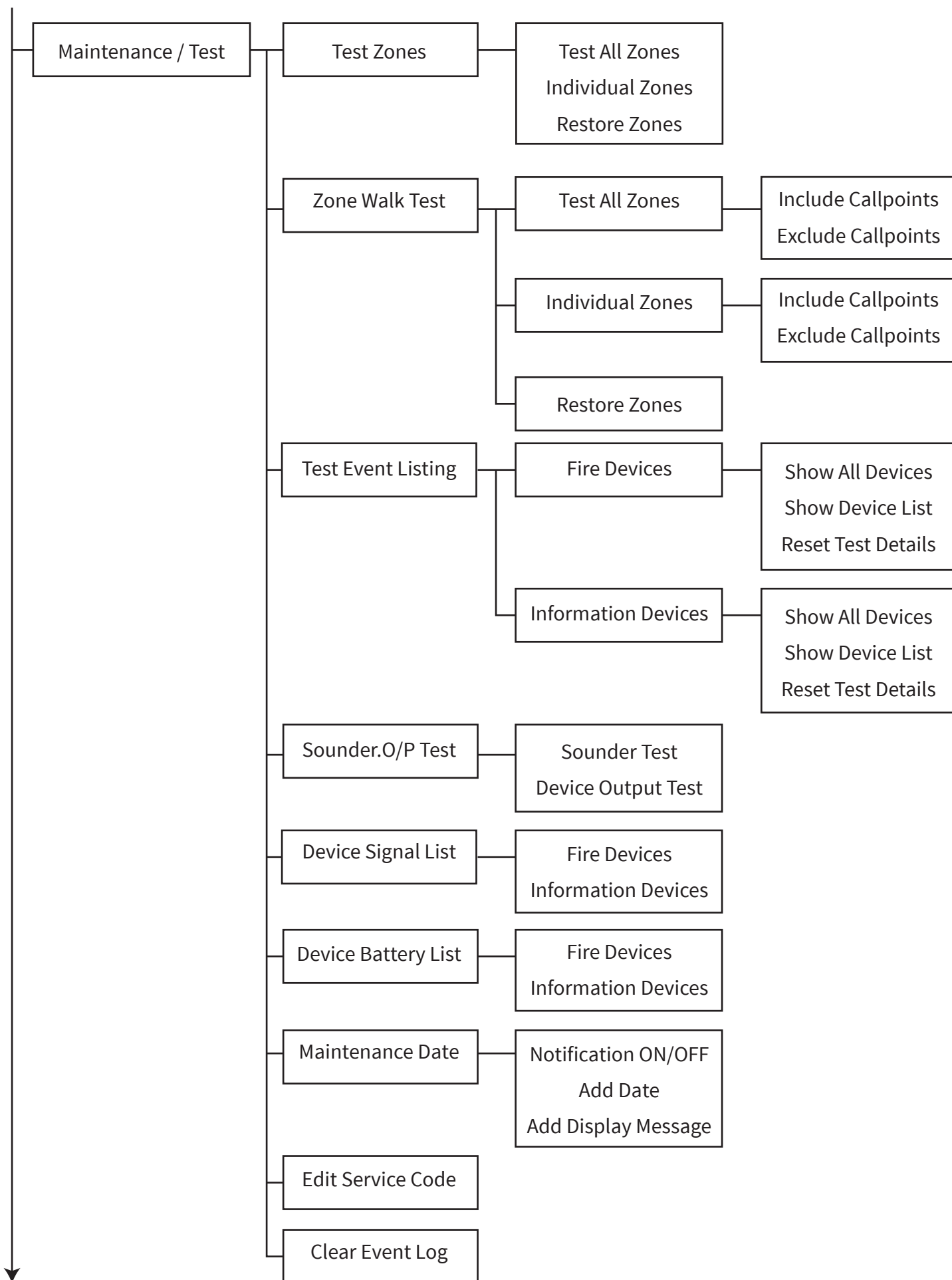
The 'Zone Walk Test' feature includes much of the same features of the 'Test Zones' feature, but includes the placing of detectors into a rapid test mode, for ease of testing. An option is also available to exclude call points from this feature, so that they operate as normal.

The 'Test Event Listing' feature supports the aforementioned test features, in providing details of all tested and untested devices in both an overall visual snapshot and also in a list view. Any devices that have been missed during testing can be easily identified.

Prior to commencing testing, the 'Test Event Listing' feature can be reset to clear previous records of device testing and to start afresh.

The 'Maintenance/Test' menu also allows device battery and signal strength listings to be viewed. A maintenance date can also be pre-programmed to automatically appear on the programmed date, to notify the user when a maintenance is due.

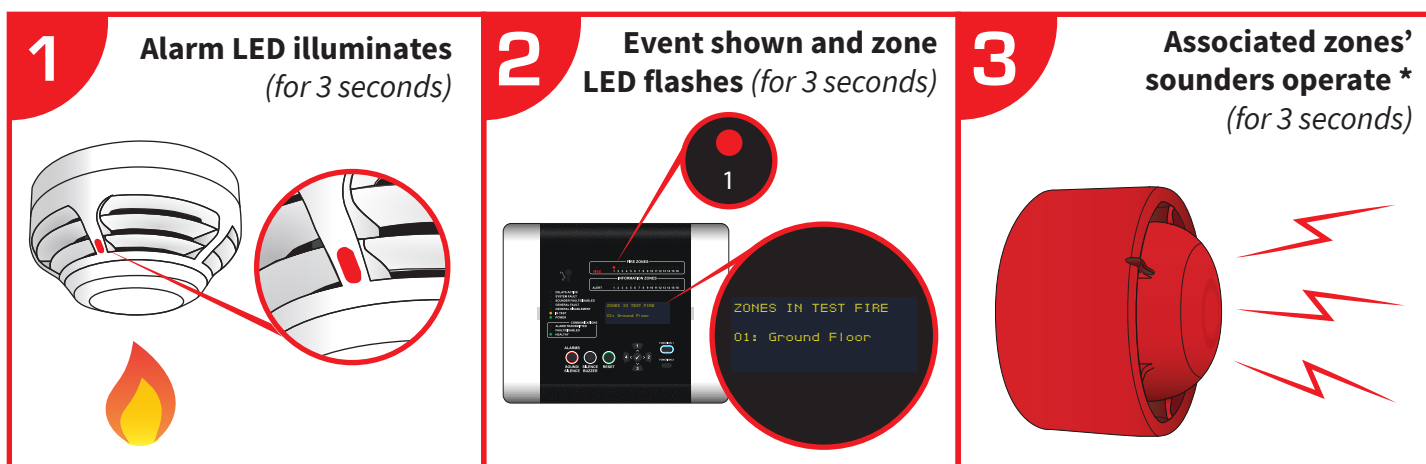
This menu option is shown in detail below:



Test zones

This menu allows an access level 2 or 3 user to select all, or individual zones on the system, to be placed into a test condition. The option is also available to include sounder operation, or to omit them, to allow a silent test to be undertaken.

With the given zone in the test mode condition, the following will occur upon receipt of a fire alarm condition within that zone:



* unless testing has been selected without sounders.

Each test alarm event will also now be present in the event log.

Note: In this mode, any device faults that are allocated to a zone which is in test will still be displayed as normal.

Test all zones

All fire zones are placed into test mode condition. Upon selection, the option will be available to include sounders or to perform a silent test.

Individual zones

Zones can be individually placed into test mode. Options available are fire zones 1-48 and information zones 1-48 that are in use on the system. Upon each zone's selection, the option will be available to include sounders or to perform a silent test within the given zone.

Restore zones

All zones are restored to normal operation.

Zone walk test mode

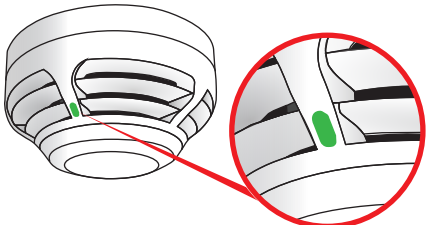
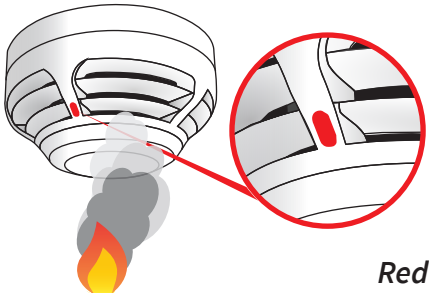

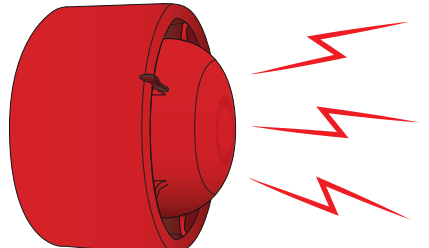
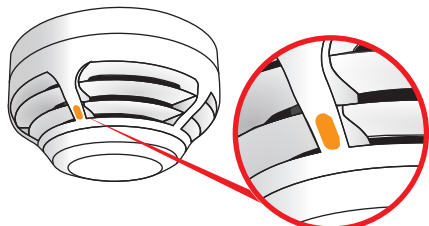
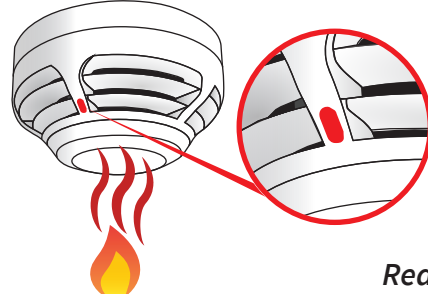
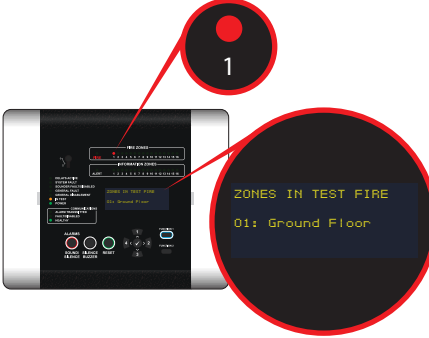
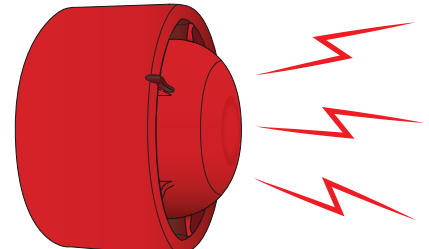
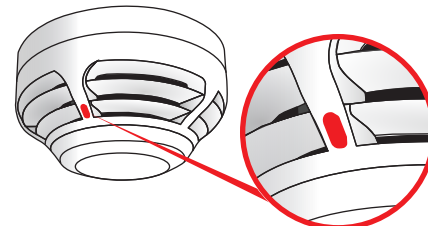
This menu allows an access level 3 user to select all, or individual zones on the system, to be placed into a zone walk test mode condition. An option is also available to exclude call points from this feature, so that they operate as normal.

Upon selection of this mode, detectors will be placed into a rapid test mode, for ease of testing. This rapid test mode of operation is selected for a 10 minute time period which re-starts each time a test alarm is received. Should this timer expire then the panel zones will remain in the test condition, however the rapid test mode and LED operation for the devices will cease.

Device LED operation whilst in the zone walk test mode condition, is as follows:

Device type	Initial LED sequence	LED sequence upon activation(s)
Call point	Green (continuous loop)	Red (solid light) 'when device is in alarm Red (continuous loop) 'when device is reset
Dual detector	Green - amber (continuous loop)	Upon smoke test only: Red (solid light) 'when device is in alarm <i>followed by</i> Amber (continuous loop) 'heat test still required
		Upon heat test only: Red (solid light) 'when device is in alarm <i>followed by</i> Green (continuous loop) 'smoke test still required
		Upon smoke and heat test completion: Red - red (continuous loop)
Smoke detector	Green (continuous loop)	Red (solid for 3 seconds) <i>followed by</i> Red (continuous loop)
Heat detector	Amber (continuous loop)	Red (solid for 3 seconds) <i>followed by</i> Red (continuous loop)
Dual input / output	Green - amber (continuous loop)	Upon input 1 activation: Red (solid light) 'when input is in alarm Amber (continuous loop) 'input 2 activation required
		Upon input 2 activation: Red (solid light) 'when input is in alarm Green (continuous loop) 'input 1 activation required
		Upon input 1 and input 2 activation completion: Red - red (continuous loop)

With the given zone in the zone walk test mode condition, the following will occur upon receipt of a fire alarm condition from a dual detector within that zone:

<p>1 Device LED flashes to indicate walk test mode</p>  <p>Green – amber</p>	<p>2 Device smoke tested: alarm LED on</p>  <p>Red</p>	<p>3 Event shown and zone LED flashes (for 4 seconds)</p> 
<p>4 Associated zones' sounders operate (for 4 seconds)</p> 	<p>5 Alarm LED flashes: heat testing still required</p>  <p>Red – amber</p>	<p>6 Device heat tested: alarm LED on</p>  <p>Red</p>
<p>7 Event shown and zone LED flashes (for 4 seconds)</p> 	<p>8 Associated zone's sounders operate (for 4 seconds)</p> 	<p>9 Device LED flashes to confirm testing complete</p>  <p>Red – red</p>

Each test alarm event will also now be present in the event log.

Note: In this mode, any device faults that are allocated to a zone which is in test will still be displayed as normal.

All zones

All fire zones are set into walk test mode. The option will be available to either include or exclude call points.

Individual zones

Individually selected fire zones can be set into walk test mode. Fire zones in use on the system, ranging between 1-48 will be available. The option will be available to either include or exclude call points.

Restore zones

All zones are restored to normal operation.



Test event listing

When first entered, all devices on the system will be displayed as 'Untested'. When devices are tested, the display will change to show 'Tested'. This feature can be used in conjunction with the two aforementioned test methods, to ensure all devices have been tested. It is also possible to reset the test details, once testing is complete.

Show all devices

When entered, the display will show all fire devices pictorially across multiple displays. The amount of displays required is dependant upon the number of devices on the system. When devices have been tested this will be shown as a fire symbol.

Show device list

When entered, the display will show all fire devices in a list format. All devices will be able to be viewed by scrolling through the  and  buttons. When devices have been tested this will be shown as a fire symbol.



Reset test details

When entered, all test details will be reset to 'Untested'.



Sounder o/p test

When entered, it is possible to send individual sounder device commands to turn their sounder elements 'ON' and 'OFF'. It is also possible to select individual output devices and send commands to turn the unit's relay outputs 'ON' and 'OFF'. Note: If the unit is a dual output device, both outputs will operate.

Device signal list

When entered, the screen will show signal information for all devices on the system. The devices can be scrolled through by using the  and  buttons. The signal levels will be shown as 'GOOD', 'LOW' and 'NO' 'SIGNAL'.

Device battery list

When entered, the screen will show battery information for all devices on the system. The devices can be scrolled through by using the  and  buttons. The battery levels will be displayed for each device using icons for 'BATTERY HEALTHY', 'BATTERY LOW' and 'BATTERY MISSING'.

Maintenance date

When entered, it is possible to enter a date together with an associated message. The message will be displayed on the front screen when the date is reached and is designed to be used as an indication to the customer when the next maintenance of the fire alarm system is due. The programming of the date field is in the same DD/MM/YY format as programed for the panels time and date settings.

Edit service code

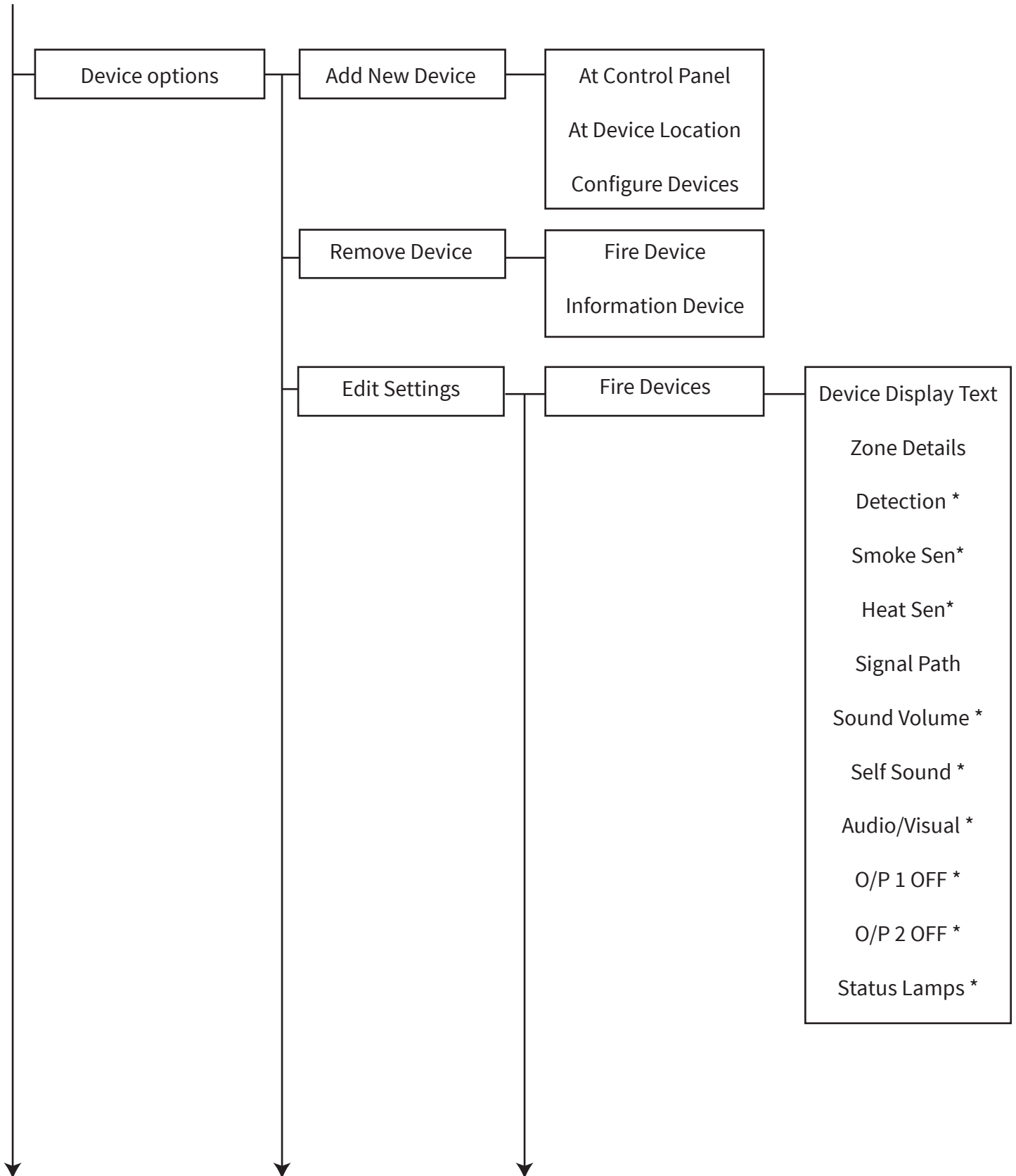
This menu option allows the service code to be changed.

Clear event log

This menu option allows the event log to be cleared.

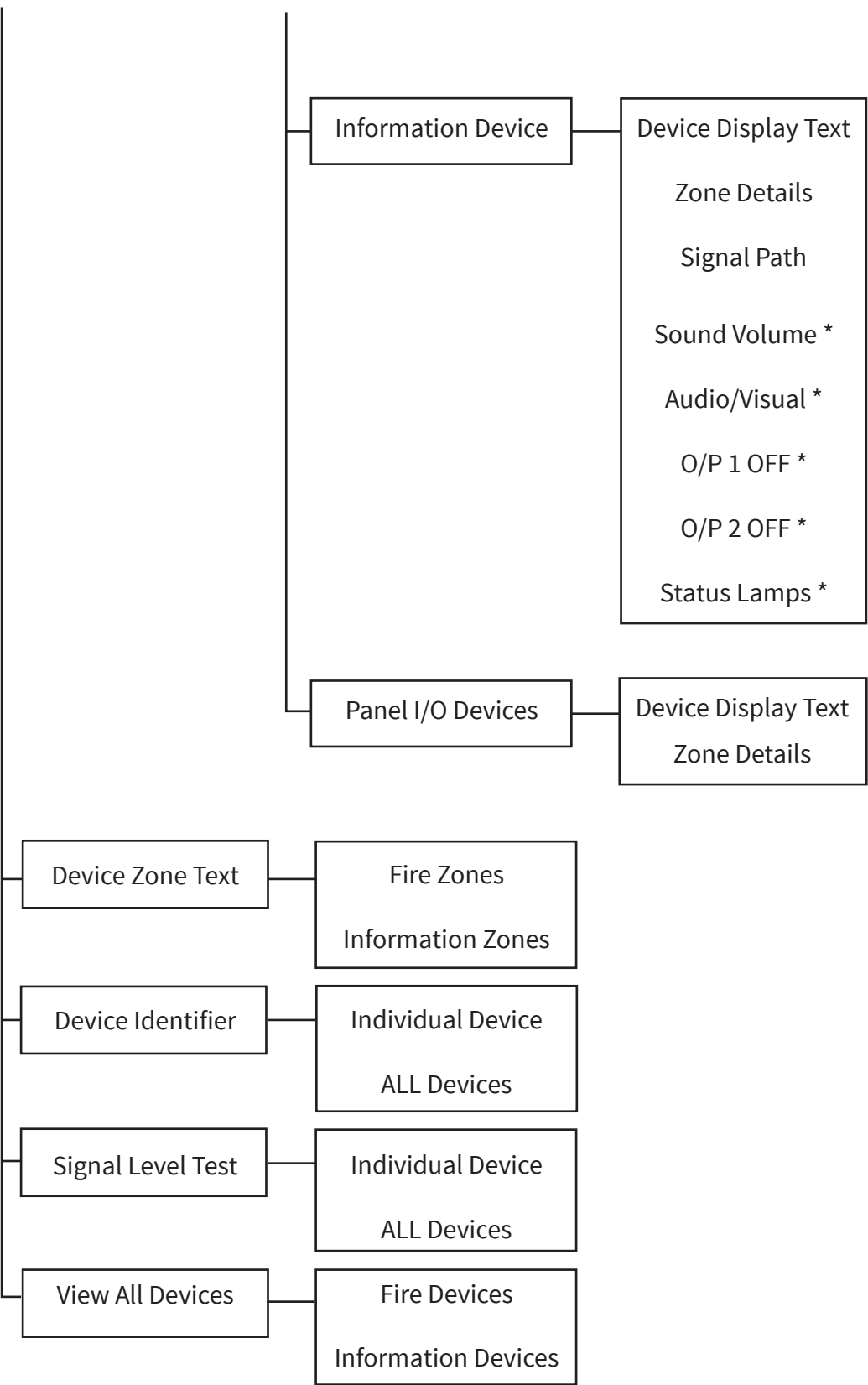
Device options

This menu allows an access level 3 user to add, remove and replace devices. The user can also edit the devices programming parameters, view device information and identification modes of test operation.



Continued overleaf....

Continued....



** Option available dependant upon device type*

Add new device

This menu allows all wireless device types to be added to the system. The function allows the device to be added in two different ways. Both methods are shown in more detail below:-

At Control Panel

This option is used when devices are logged onto the system prior to the devices being installed. The step by step process is shown below:




- A) Log on /adding is undertaken whilst standing in front of the control panel with each device.
- B) This involves entering the 'Add Control Panel' menu, then fit the device's batteries.
- C) The device details are then received and displayed on the control panel.
- D) Check the device ident number shown on screen against the ident shown on the device's barcode label. If correct and details are accepted, the device is added to the control panel.
- E) The device can then be installed in the required location.

Add Device Location

This option is usually used when the devices have already been installed and the user requires them to be added to the system via the devices magnetic log on switch. The step by step process is shown below:

- A) Log on /adding is undertaken by visiting each installed device.
- B) This involves entering the 'Add Device Location' menu and then placing a magnet against the devices magnetic log on switch. *See the 'Magnet log on points' section for device log on points.*
- C) The device's LED will flash to indicate that the device has successfully communicated with the control panel.
- D) The device details are then received and displayed on the control panel.
- E) It is possible to accept the new device, or add another device in the same fashion, therefore creating a list at the panel.
- F) When these details are accepted, the device is added to the control panel.

Remove device

This section allows wireless devices to be removed from the system. A list of devices already allocated to the system are shown, these can be scrolled through by using the  and  buttons. The required device to be removed can be selected by using the  button.

Edit settings

This menu allows the user to change device text descriptions, allocate the device to a zone, allocate detection type, select detector sensitivity settings, change sounder volume and I/O operation for inputs and outputs. All of the above will have default settings. The available options and the default settings are shown in the following tables for each device type;

Dual detector

Attribute Type	Default setting
Address number	Next available address number on system
Device Display Text	The device type followed by the devices unique ident number (where xx = represents the ident number of the device)
Zone	Zone 0
Detection	Dual
Smoke Sen	Normal
Heat Sen	58°C static
Signal path	Panel

Fire manual call point

Attribute type	Default setting
Address number	Next available address number on system
Device Display Text	The device type followed by the devices unique ident number (where xx = represents the ident number of the device)
Zone	Zone 0
Signal path	Panel

Information manual call point

Attribute type	Default setting
Address number	Next available address number on system
Device Display Text	The device type followed by the devices unique ident number (where xx = represents the ident number of the device)
Zone	Zone 0
Signal path	Panel

Sounder

Attribute type	Default setting
Address number	Next available address number on system
Device Display Text	The device type followed by the devices unique ident number (where xx = represents the ident number of the device)
Zone	Zone 0
Sounder volume	High
Signal path	Panel

Sounder beacon

Attribute Type	Default setting
Address number	Next available address number on system
Device Display Text	The device type followed by the devices unique ident number (where xx = represents the ident number of the device)
Zone	Zone 0
Sounder volume	High
Audio/Visual	On
Signal path	Panel

Detector sounder

Attribute type	Default setting
Address number	Next available address number on system
Device Display Text	The device type followed by the devices unique ident number (where xx = represents the ident number of the device)
Zone	Zone 0
Detection	Dual
Smoke Sen	Normal
Heat Sen	58°C static
Sound volume	High
Self sound	Off
Signal path	Panel

Detector sounder and beacon

Attribute type	Default setting
Address number	Next available address number on system
Device Display Text	The device type followed by the devices unique ident number (where xx = represents the ident number of the device)
Zone	Zone 0
Detection	Dual
Smoke Sen	Normal
Heat Sen	58°C static
Sound volume	High
Audio/Visual	On
Self sound	Off
Signal path	Panel

Dual input / output device

Attribute type	Default setting
Address number	Next available address number on system
Device Display Text	The device type followed by the devices unique ident number (where xx = represents the ident number of the device)
Zone	Zone 0
O/P 1 OFF	Reset
O/P 2 OFF	Reset
Signal path	Panel

Auxiliary monitored dual output device

Attribute type	Default setting
Address number	Next available address number on system
Device Display Text	The device type followed by the devices unique ident number (where xx = represents the ident number of the device)
Zone	Zone 0
O/P 1 OFF	Reset
O/P 2 OFF	Reset
Signal path	Panel

Contact transmitter and input device for information zones

Attribute type	Default setting
Address number	Next available address number on system
Device Display Text	The device type followed by the devices unique ident number (where xx = represents the ident number of the device)
Zone	Zone 0
Status lamps	On
Signal path	Panel

Device zone text

This menu allows 16 characters of text to be allocated to each individual zone on the system. This text is displayed on the system upon events from devices on the corresponding zone. The available zones on the system will be listed. The maximum available zones range from fire zone 1-48 and information zone 1-48.

Note: As default, zone text will be blank.

Device identifier

This mode of operation allows identification of a single device, or all devices globally on the system. The identification is undertaken using the device's LED, firstly to ascertain the device's type i.e. fire or information and secondly to identify the device's address number.

For a fire device, the LED will firstly flash red (*staying on for 2 seconds*) to indicate that it is a fire type device. The LED will subsequently identify the device address by flashing green to indicate the tens digit and red for the ones digit.

For an information device, the LED will firstly flash green (*staying on for 2 seconds*) to indicate that it is an information type device. The LED will subsequently identify the device address by flashing green to indicate the tens digit and red for the ones digit.

For example; fire device 27 will be identified as follows:

The device's LED will flash red for two seconds (*to indicate fire type*), then flash green twice (*to represent twenty*) and then red seven times (*to represent seven*). There would then be a pause and this would repeat.



Further examples are shown below:

	Device type identification	Address number Identification
Fire device type / address 06	LED red for 2 secs	6x red LED flashes
Information device type / address 15	LED green for 2 secs	1x green LED flash, 5 red LED flashes

Signal level test

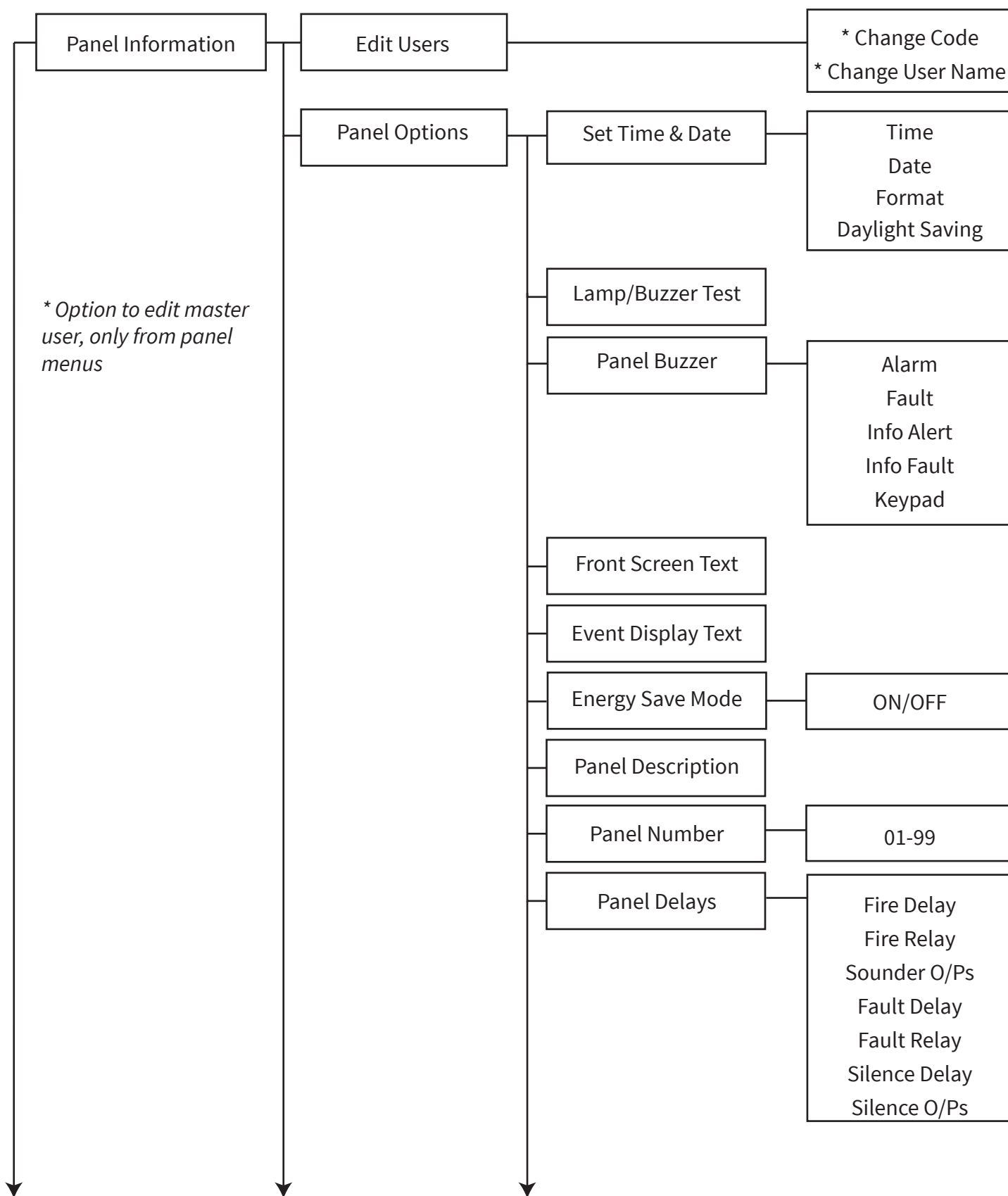
This mode of operation allows the signal strength of a single device on the system or all devices globally on the system to be indicated via the devices on board LEDs. The signal strength level is shown by flashing the individual devices LED to ascertain the device's signal strength level. This is split into two colours :- green for 'GOOD' signal and red for 'LOW' signal. The signal strength status LED would update periodically to allow an updated reading to be shown.

View all devices

When entered the screen will show the current settings for the devices on the system. The device listings can be scrolled through by using the  and  buttons.

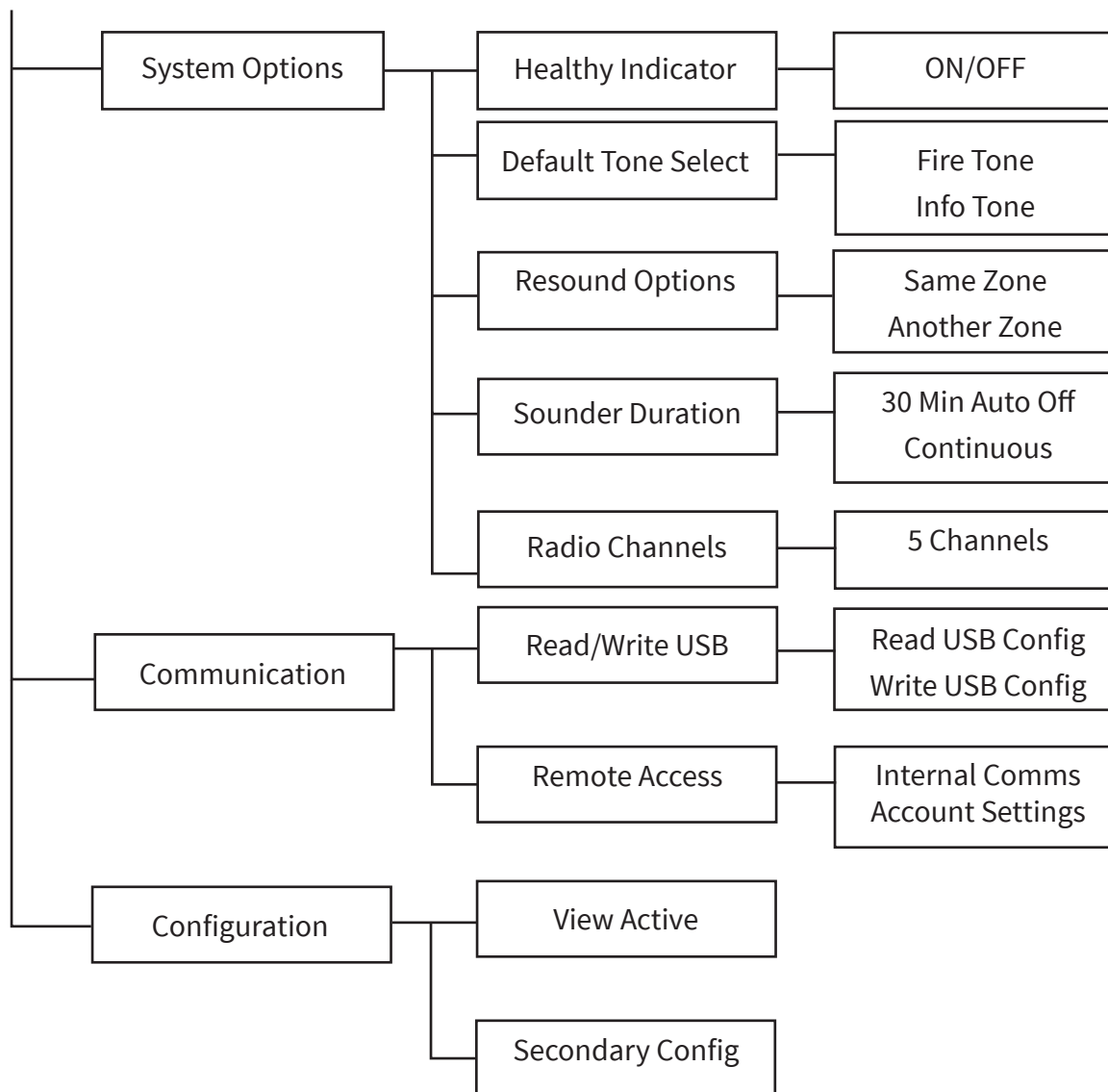
Panel information

The 'Panel Information' menu allows an access level 3 user to program various panel options. The available options are explained in more detail below.



Continued overleaf....

Continued....



End users

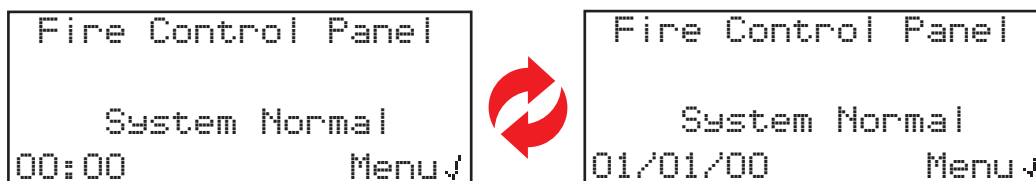
The master user menu allows an access level 2 master user the ability to change their own code. The master user has the ability to change codes for up to 9 other users on the system via the configuration tool. A text description can be associated with each user. All access level 2 functions are available as default to non-master users however this can be changed via the configuration tool as required.

Panel options

Set time & date

The 'Set Time & Date' menu allows an access level 3 user to program the systems time and date. The time will be displayed on the panel display and the time and date is also used for time stamping events in the event log. This menu option also allows the date format to be changed, along with the option of switching the daylight saving mode 'ON' or 'OFF'. With the daylight saving mode setting 'ON', the BST/GMT hour time change will automatically occur. The default setting is to OFF.

If the time and date is not set on the control panel the following display will be shown:



Lamp/buzzer test

This option when entered performs a lamp and buzzer test on the control panel.

Panel buzzer

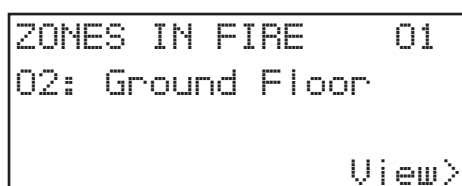
The internal panel buzzer can be programmed in this option between 'HIGH', 'LOW' and 'OFF'. The default is 'HIGH' volume.

Front screen text

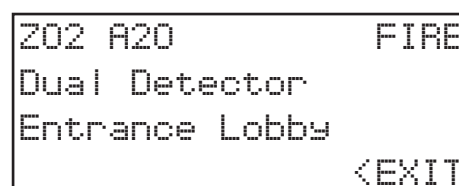
The front screen text can be edited in this menu.

Event display text

This menu allows the fire alarm event display format to be changed. Examples are shown below:



Zone text display format (default)



Device text display format

Energy save mode

This menu allows power to be saved, by reducing the brightness of the OLED display.

Panel description

This menu allows 16 characters of text to be programmed for individual panel identification.

Panel number

This menu allows a panel number to be programmed. Available settings are 1-99. The panel defaults to 1.

Relay delays

It is possible from this menu to program a delay for the fire and fault relay outputs in the control panel between 1-10 minutes. Once selected, 'Delays Active' is indicated on the control panel's display.

System options

Healthy indicator

The system has the capability of showing on each individual device a health indication LED. This menu allows this functionality for the devices to be selected. The default setting is for the LED to flash on a device every poll, which is every 2 minutes. If the device is in a fault free healthy condition this will flash green, if the device is in any fault condition the flash will be a yellow flash. Once the device is fault free the indicator LED will return to green. This indication feature can be turned 'ON' or 'OFF' from this menu.

Default tone

This menu option allows the default sounder tone for fire alarms in fire zones and alerts in information zones to be selected.

Re-sound option

This menu allows the programming of the systems sounder re-sound settings. Available options are re-sound for a fire in the same zone and resound for a fire in another zone. Both of these options are defaulted to 'ON'.

Sounder mode

This menu allows the auto silencing of wireless sounders to be programmed. Available options are continuous and 30 min cut off. The default setting is to 30 min cut off which will turn all wireless sounders off after 30 minutes continuous sounding to conserve battery life. Any subsequent fire alarm activations will re-activate the sounders again.

Radio channels

This menu allows you to view the frequency channels currently used by the system. The radio channels used for the system are factory set. Any monitoring and channel changes can be undertaken using the configuration tool.

Communication

Read/write USB

This menu allows a new setup file to be read and write, to and from, a USB memory stick connected to the panel's USB-A connection.

Remote access

This menu allows an access level 3 user to enable the remote access facility. Once enabled, the following options are available:

Internal comms

Viewing and editing is permitted for the following options:

Module in use - Selecting 'YES' enables the communications module. Selecting 'NO' disables this feature.

ARC enable - Selecting 'YES' enables communication to the ARC. Selecting 'NO' disables this feature.

Services - Selecting 'YES' enables communication to SmartCell services. Selecting 'NO' disables this feature.

Remote config - Selecting 'YES' enables remote configurations to be undertaken. Selecting 'NO' disables this feature.

IP port used - Selecting 'YES' enables monitoring of the IP (Ethernet) port. Selecting 'NO' disables monitoring.

GPRS used - Selecting 'YES' enables monitoring of the GPRS port. Selecting 'NO' disables monitoring.

Stats - Selecting 'YES' enables the collection of statistical device information. Selecting 'NO' disables this feature.

Account settings

Create Account

This menu is used to create a SmartCell Services account. Refer to the 'System setup' section for details.

View / Edit Settings

Viewing and editing is permitted for the following options:

IP Address - IP; view / edit the IP address of the IP port. Note: this address should not be changed unless instructed.

IP Ports - IP; view / edit the port numbers of the IP ports. Note: this address should not be changed unless instructed.

IP Address - GPRS; view / edit the IP address of the GPRS port. Note: this address should not be changed unless instructed.

IP Ports - GPRS; view / edit the port numbers of the GPRS IP ports. Note: this address should not be changed unless instructed.

Panel IP Address; view / edit the selection of a static IP address, or automatic selection via the default DHCP option.

MAC Address; view the MAC address.

Panel Type; view / edit the panel type. Note: the panel type should not be changed unless instructed.

Protocol Version; view the protocol version.

VAR Code; view / edit the VAR code. Note: your VAR code is available from your distributor.

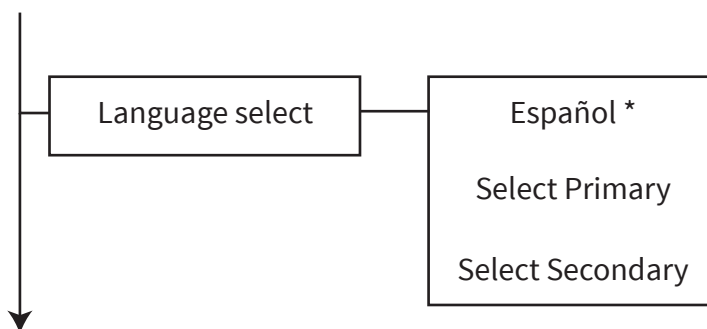
Configuration

View Active - this menu is used to view the configuration file currently in use. The date and time that the configuration went live is shown.

Secondary Config - this menu permits the selection of a secondary configuration. Secondary configurations can be sent via the configuration tool for future use. Once selected, the secondary configuration will become active and the previously used configuration will become the secondary configuration.

Language select

The 'Language select' menu allows an access level 3 user to display the control panel's menus in a secondary language, plus the ability to program the panel's primary and secondary languages.



* Example showing Spanish as the secondary language.

Secondary language select

The language option which has been programmed as the secondary language for the panel is shown on the top line of the display. Once selected the menu structure will be displayed in this language for the time duration that the user has menu access to the control panel. When the menu structure has been exited to the front display and after a further 30 seconds of inactivity, the system will revert back to the primary language.

Select primary

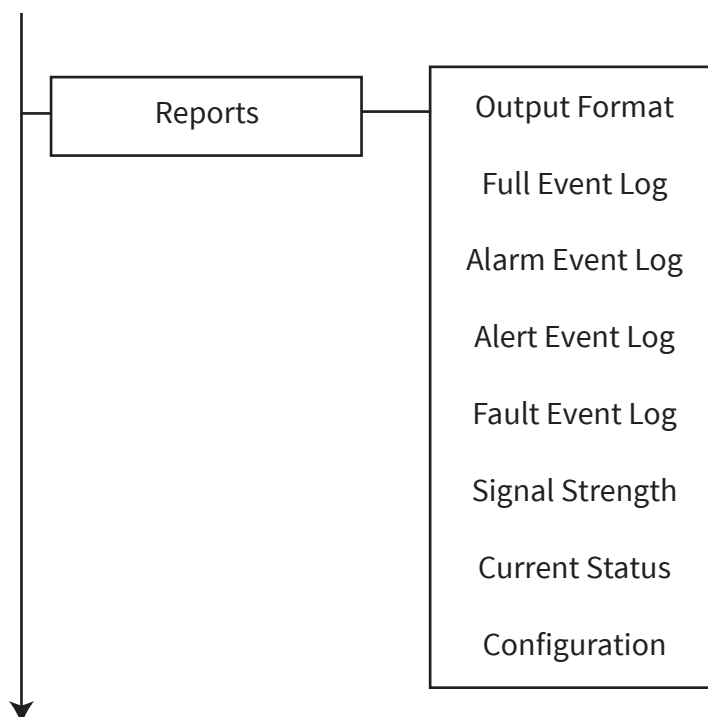
When this option is entered the languages that are available for use as the panel's primary language are able to be selected.

Select secondary

When this option is entered the languages that are available for use as the panel's secondary language are able to be selected.

Reports

A number of reports are available to be written to a USB memory stick, connected to the panel's USB-A connection. These can be saved or printed out accordingly thereafter. The available options are explained in more detail below.



Output format

When selected, exported data can be downloaded in 'CSV', 'JSON' and 'XML' formats.

Full event log

When selected, the full event log will be downloaded.

Alarm event log

When selected, an event log containing alarm events only will be downloaded.

Alert event log

When selected, an event log containing alert events only will be downloaded.

Fault event log

When selected, an event log containing fault events only will be downloaded.

Signal strength

When selected, all device signal levels including current, minimum and maximum levels will be downloaded. These are displayed as 'GOOD', 'LOW', 'NO SIGNAL', along with their associated level in dB.

Current status

When selected, the current status information from all devices will be downloaded.

Configuration

When selected details of the full system setup including all zone, device details and panel programmed parameters will be downloaded.

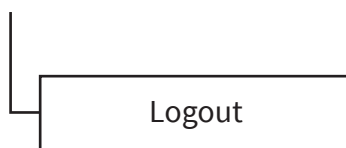
Access level 4

This option allows the ability for an access level 4 factory access code to be entered. At access level 4, all the panel's controls are functional and the control panel's factory menu is fully accessible allowing full software configuration. Access level 4 access is reached by entering the factory access code.

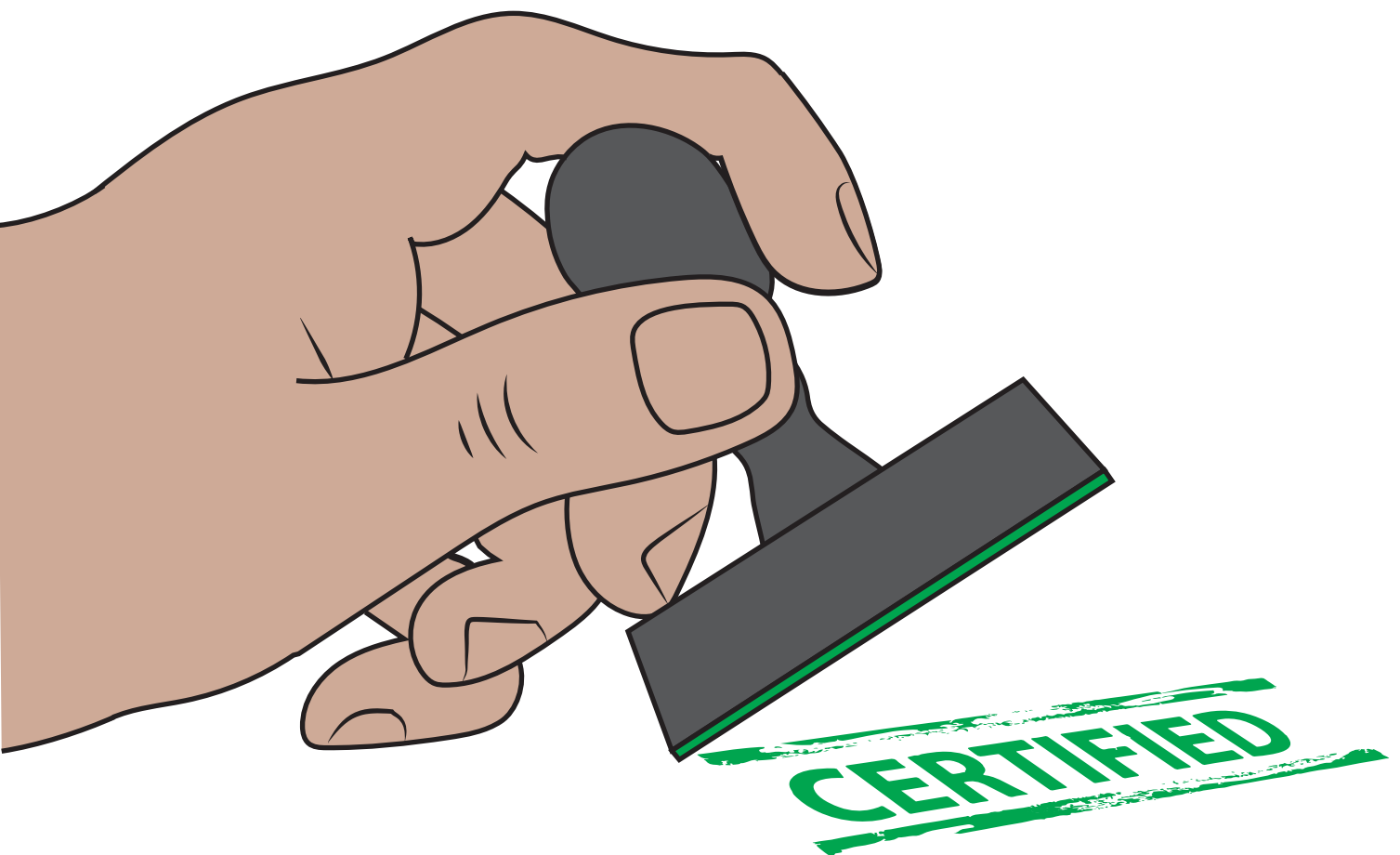


Logout

When selected the logout option will return the user to the front display immediately. Access to the panel's menus would need to be re-started I.e. access code re-entered.



Product conformance



Compatible wireless fire products and details of their conformance and part numbers are listed below:

Wireless control panel

CPR certificate DoP:

0359-CPR-00272

Approved to:

EN54-2, EN54-4, EN54-13, EN54-21* and EN54-25.



Part numbers: Variation:

SC-11-1200-0001-99 Wireless control panel (230 VAC version)

SC-11-2200-0001-99 Wireless control panel (24 VDC version)

SC-11-1201-0001-99 Wireless control panel (No Comms Module) (230 VAC version)

SC-11-2201-0001-99 Wireless control panel (No Comms Module) (24 VDC version)

** Communications module required*

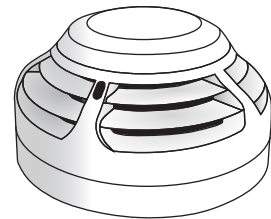
Wireless dual smoke / heat detector

CPR certificate DoP:

0359-CPR-00265

Approved to:

EN54-5, EN54-7, EN54-13 and EN54-25.



Part number: Variation:

SC-21-0200-0001-99 Dual smoke / heat detector

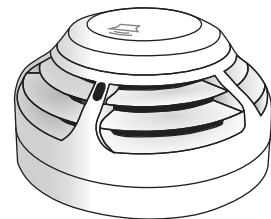
Wireless dual smoke / heat detector and combined sounder

CPR certificate DoP:

0359-CPR-00268

Approved to:

EN54-3, EN54-5, EN54-7, EN54-13 and EN54-25.



Part number: Variation:

SC-22-0200-0001-99 Dual smoke / heat detector and combined sounder

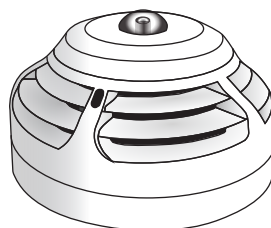
Wireless dual smoke / heat detector & combined sounder beacon

CPR Certificate DOP:

0359-CPR-00268

Approved to:

EN54-3, EN54-5, EN54-7, EN54-13, EN54-23 and EN54-25.



Part Numbers: Variation:

SC-23-0220-0001-99 Dual smoke / heat detector and combined sounder-beacon (VAD white flash)

Wireless fire manual call point

CPR certificate DoP:

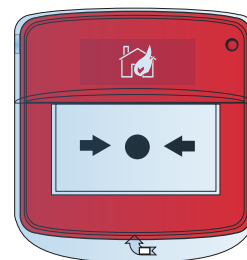
0359-CPR-00266

Approved to:

EN54-11, EN54-13 and EN54-25.

Part number:

SC-51-0100-0001-99



Wireless sounder

CPR certificate DoP:

0359-CPR-00428

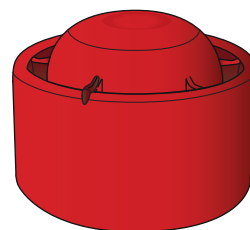
Approved to:

EN54-3, EN54-13 and EN54-25.

Part numbers: Variation:

SC-31-0100-0001-99 RED sounder

SC-31-0200-0001-99 WHITE sounder



Wireless sounder and ceiling beacon

CPR certificate DoP:

0359-CPR-00428

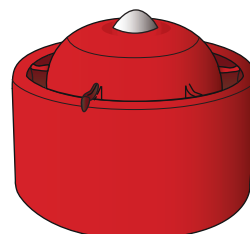
Approved to:

EN54-3, EN54-13, EN54-23 and EN54-25.

Part numbers: Variation:

SC-33-0120-0001-99 RED sounder and ceiling beacon (VAD white flash)

SC-33-0220-0001-99 WHITE sounder and ceiling beacon (VAD white flash)



Wireless sounder and wall beacon

CPR certificate DoP:

0359-CPR-00428

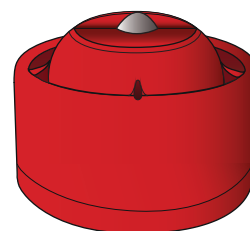
Approved to:

EN54-3, EN54-13, EN54-23 and EN54-25.

Part numbers: Variation:

SC-32-0120-0001-99 RED sounder and wall beacon (VAD white flash)

SC-32-0220-0001-99 WHITE sounder and wall beacon (VAD white flash)



Wireless dual input dual output device

CPR certificate DoP:

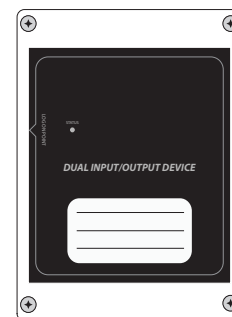
0359-CPR-00269

Approved to:

EN54-13, EN54-18 and EN54-25.

Part number:

SC-41-0200-0001-99



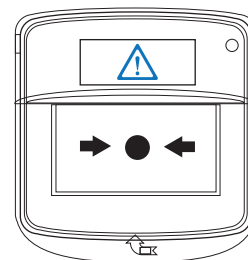
Wireless information manual call point

CPR certificate DoP:

0359-CPR-00266

Part number:

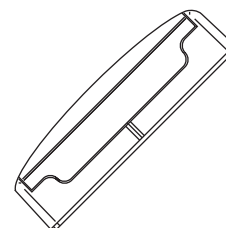
SC-52-0200-0001-99



Contact transmitter and input device for information zones

Part number:

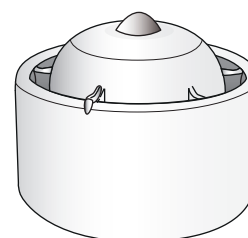
SC-43-0200-0001-99



Information sounder and ceiling visual indicator

Part number:

SC-33-0230-0001-99



EN54-2 options supported

The SmartCell wireless control panel is designed to support the following options from EN54-2:

- Output to fire alarm devices 7.8
- Control of fire alarm routing equipment 7.9
- Delays to outputs 7.11
- Dependencies on more than one alarm signal 7.12
- Fault signals from points 8.3
- Output to fault warning routing equipment 8.9
- Disablement of addressable points 9.5
- Test Condition 10

SmartCell

www.mysmartcell.co.uk

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