Intercall One Documentation

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Introduction

1 Introduction

Intercall supplies industry-leading technology to health care facilities, helping them offer security, comfort and assistance to their residents and patients. Our commitment to innovation through continuous research, development and improvement, has made Intercall the best selling nurse call system in the UK. We understand that being a carer is a vocation, undertaken by committed individuals who regularly go beyond the call of duty. We're proud to be part of this sector. This is why as technical experts we don't just innovate for innovations sake – we innovate to support all the carers and patients in a care environment. We call this considered innovation.

1.1 System Overview

Easy to install, configure and maintain, and with its clean design lines, the Intercall One Series is perfect for new build or building renovations, using a combination of the wired and wireless mediums at our disposal. This helps keep both disruptions to patients and residents to a minimum, while keeping unnecessary costs down.

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1.2 Definitions

The following definitions are used throughout this document.

1.2.1 Call Follower

With the Call Point in Nurse Present mode, the Call Point sounds when other calls are waiting on the system.

1.2.2 Event

Events (sometimes referred to as '*call types*') are used to give a friendly name for the process or activation of a Device as recorded in the datalog. For example "Call, Reset, Emergency"

1.2.3 Event Traffic

Event Traffic refers to Events from the BUS which are sent and received over the Local Area Network to allow system integration between Controllers and other IP Devices. Two protocols are available.

1.2.4 RFID

The system used to read information from cards or fobs within a few centimetres of the reader, sometimes referred to as *proximity reader* or *near field communication*.

1.2.5 Care Card

Proximity Card carried by staff to identify themselves to the system.

1.2.6 Device

A Device is a Call Point, Overdoor Light, Door Point etc, we use the generic term *Device* as it covers all the different types.

1.2.7 User Name

Each Care Card and Pendant may be associated with an individual user number to identify when they are active. Each User Number may be assigned with a friendly User Name such as "Alice Smith" or "Nurse Brown" so the user may be easily recognised.

1.2.8 User Number

Each Care Card and Pendant may be associated with an individual User Number, which may also be assigned with a friendly User Name such as "Alice Smith" or "Nurse Brown" so the user may be easily recognised on the system.

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1.2.9 Local Area Network

A local area network (LAN) is a computer network that interconnects computers within a limited area such as a site, residence, school, laboratory, or building. Ethernet and Wi-Fi are the two most common technologies in use for local area networks.

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1.3 Intercall One Events

The Intercall System features 10 individual events, below describes each event and how they are shown.

1.3.1 Call

Patient Call from a Call Point indicated with a slow magenta flashing LED. Calls can be generated from a Pear Lead, Bathroom Pull Cord or the Call Button on the Call Point.

1.3.2 Priority

Patient Call from a Call Point which has been waiting for a extended period of time indicated with a slow magenta flashing LED

1.3.3 Assistance

Non Urgent Staff Call from a Call Point indicated with a slow alternating flash of Magenta and Green LED.

1.3.4 Emergency

Urgent Staff Call from a Call Point generated by pressing the Call and Reset buttons simultaneously, indicated with a rapid flashing blue LED.

1.3.5 Attack

Staff under Duress requiring urgent assistance, generated from portable device and normally can only be reset at the Display with Care Card, indicated with a rapid flashing red LED.

1.3.6 Accept

Patient Call which has been accepted at the display and will revert back to a Patient Call* or Priority Call* when the Accept Timer* has elapsed. **Determined by system configuration*.

1.3.7 Nurse Present

Registered on the Call Point to indicate there is a nurse or staff member present in this room. Nurse Present is indicated with a solid Green light and can be reset by pressing the Reset button. Call Points in Staff Present can be viewed using the "Staff" button on the Display.

1.3.8 Tamper

Call devices may be security monitored to detect unauthorised removal, there is no indication on the unit however it is shown on the LCD displays and recorded in the datalog.

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1.3.9 Lost Device

A Device which is no longer communicating with the system, and recorded on the Displays and in the Datalog. There may be a number of reasons for this, including faulty cabling, faulty device device, or simply the Device DIP Address has been changed and the system still remembers the previous Address.

1.3.10 Reset

The quiescent condition for a Call Point or calling device.

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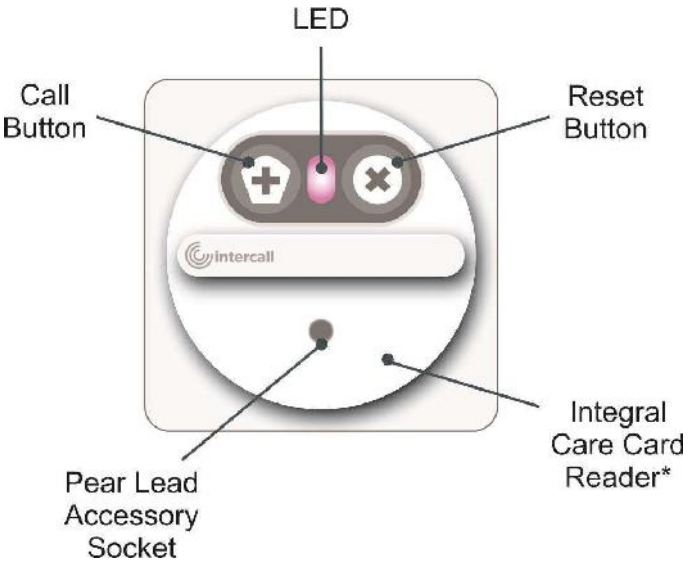
User Guides

2 User Guides

We have designed the Intercall One system to be simple to use and intuitive and the following pages describe the features of the Intercall One system, some of which may not be available on your system configuration. Our sales support team are on hand to offer assistance and can provide further information if required.

2.1 Call Points

The Call Point is simple to use and provides the essential features for your Intercall System. *__Note:__ This feature may not be available on your system.



2.1.1 Patient Call

Patient Call may be generated by pressing (1) The Pear Lead (or other device) plugged into the Call Point, (2) The Call Button, (3) The pendant, (4) Ceiling Pull Switch wired to the Call Point or (5) Unplugging the lead from the Call Point. The Call Point will bleep and the **Re-assurance light** will slowly flash magenta.

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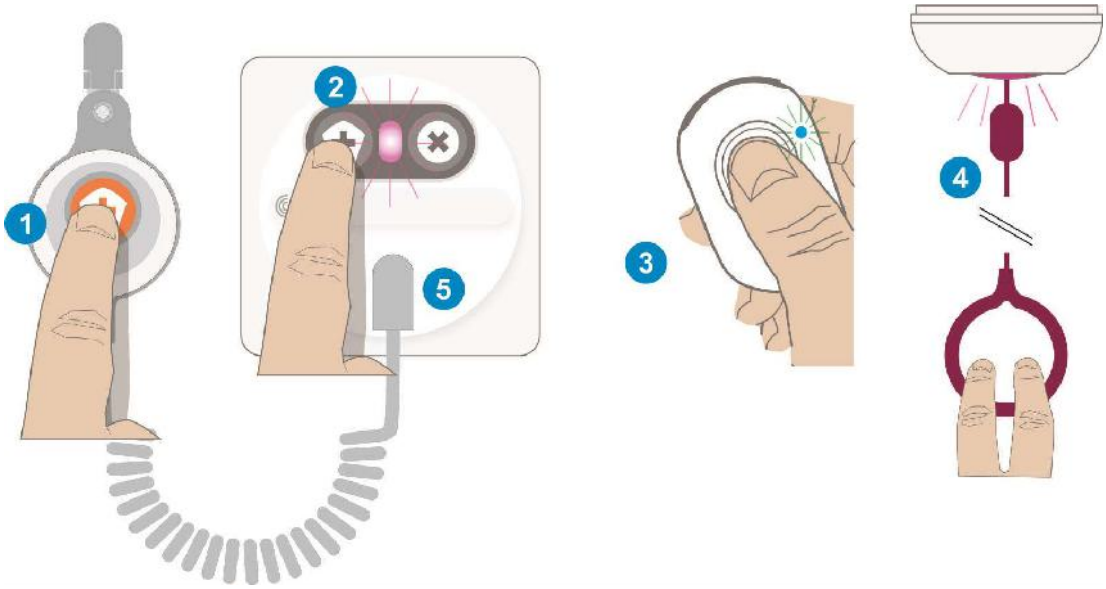
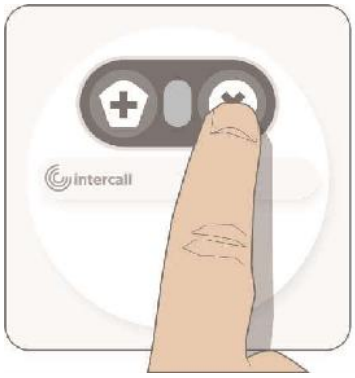


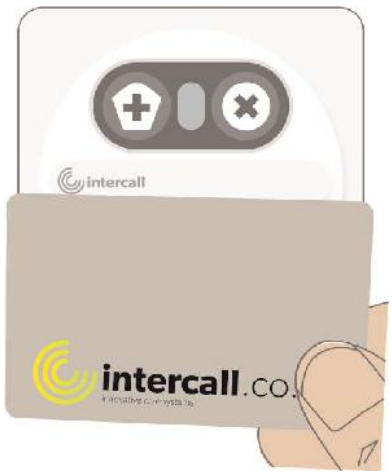
2.1.2 Reset

The call point may be reset or cancelled by pressing the Reset Button and the **Re-assurance light** will be off. **Note:** The Reset Button may be disabled by your system administrator, see Reset with Card.



2.1.3 Reset with Card

The call point may be reset or cancelled by presenting your **Care Card** to the Call Point as shown below. When the Call Point is Reset, the **Re-assurance light** will be off. **Note:** This feature may not be available on your system.



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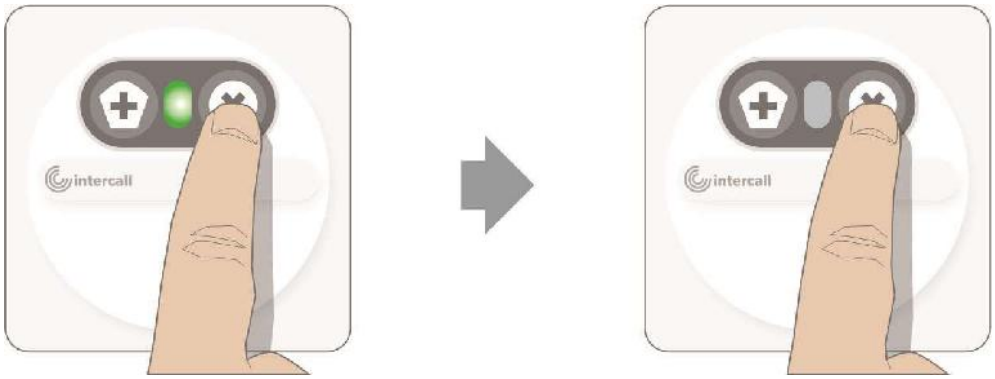
2.1.4 Emergency

A Staff Emergency or 'Crash' call may be generated at any time by pressing both Call and Reset buttons simultaneously, the blue **Re-assurance light** will flash rapidly.

2.1.5 Nurse Present

When staff enter a room, pressing the **Reset button** to register Nurse Presence and the **Re-assurance light** illuminates green. Should another call be waiting, the call point will beep. When staff leave the room, they press the **Reset button** again and the **Re-assurance light** is off. The system can be configured to automatically revert the Call Point back to reset after 10 minutes of inactivity.



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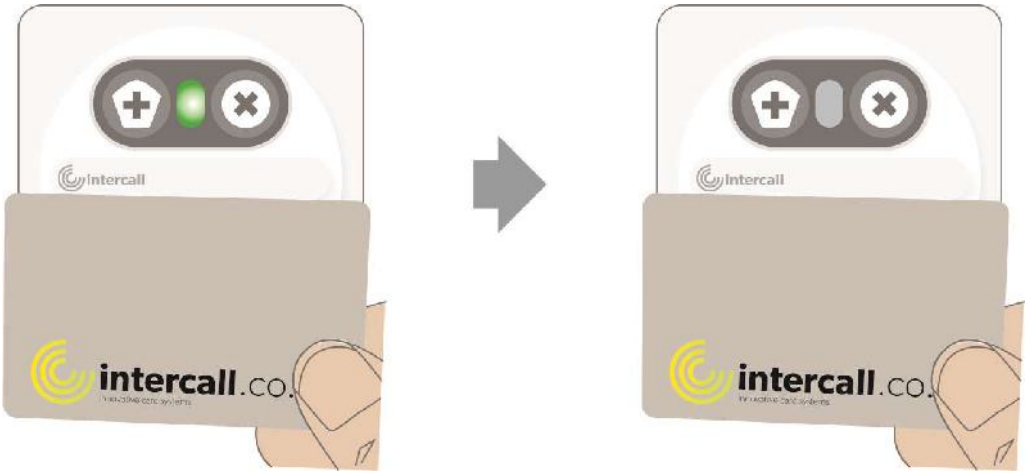
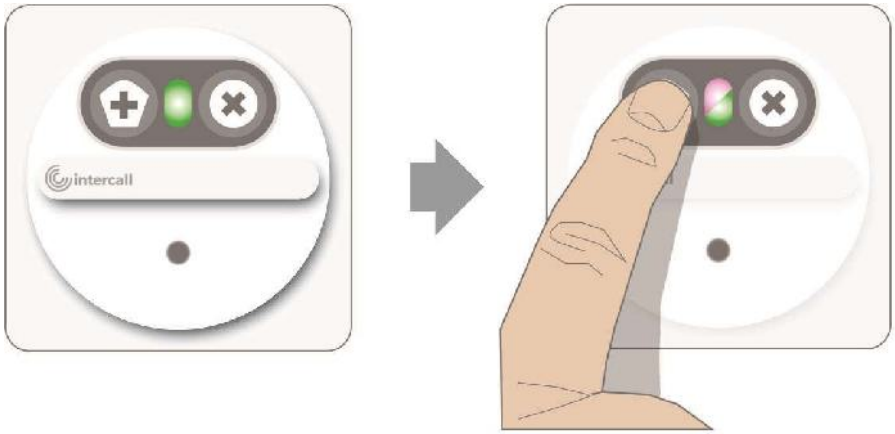
2.1.6 Nurse Present with Card

When staff enter a room, presenting their **Care Card** to register Nurse Presence and the **Re-assurance light** illuminates green. Should another call be waiting, the call point will beep. When staff leave the room, they present their **Care Card** again and the **Re-assurance light** is off. The system can be configured to automatically revert the Call Point back to reset after 10 minutes of inactivity.



2.1.7 Assistance

With the Call Point in Nurse Presence and Re-assurance light green, press the Call Button, the magenta and green **Re-assurance light** will flash alternately. Important: Assistance Call is only available with Nurse Present enabled.



With the call point in the Nurse Presence, press the Call button to generate a Staff Assistance Call.

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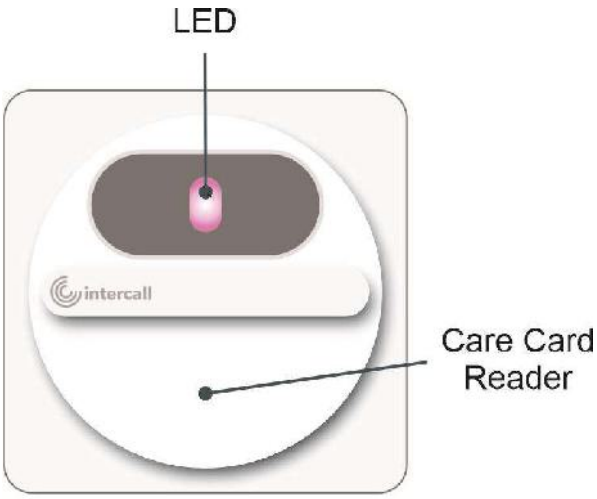
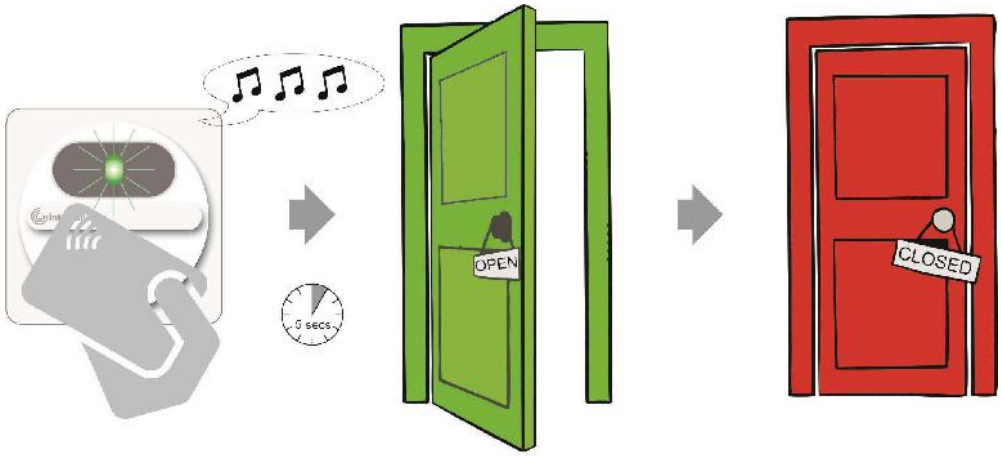
2.2 Access Points

The Access Point protects doors from unauthorised access and is simply operated with your Care Card. Note: Features marked with an asterisk may not be available on your system.



2.2.1 Access Control

To gain entry, simply present your Care Card to the unit as shown below and the unit will start bleeping indicating the door is unlocked. When the door is closed, it will automatically lock.*



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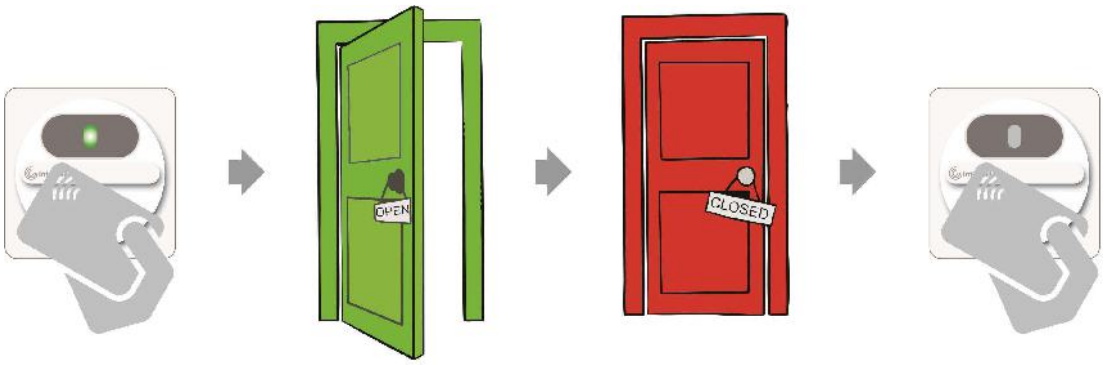
2.2.2 Door Alarm

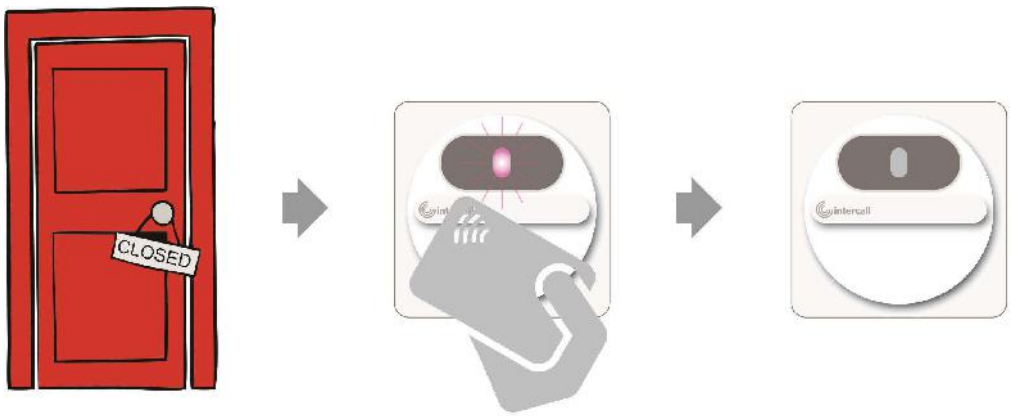
To disable the alarm, simply present your Care Card to the unit as shown below and the unit will bleep and the unit will light green indicating the alarm is off. When the door is closed, repeat the process and the green light will extinguish and the door alarm is re-enabled*



Present Card to light green LED | Door is un-armed and may be opened and closed as required. | Door Closed | Present Card to re-arm door.

2.2.3 Alarm Reset

To Reset the alarm, close the door and present your Care Card to the unit as shown below.



Close Door | Present Card | Alarm Reset

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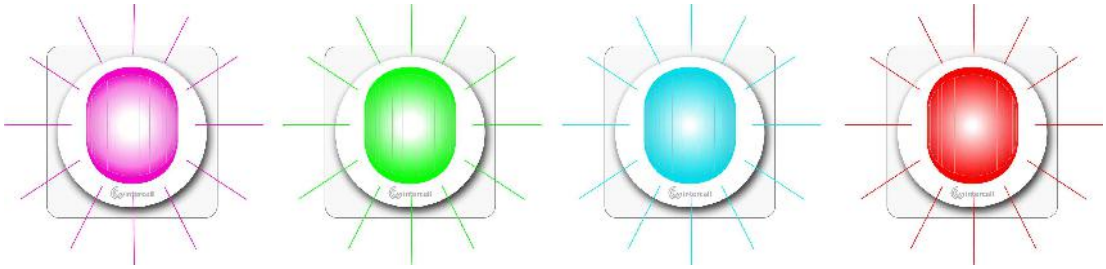
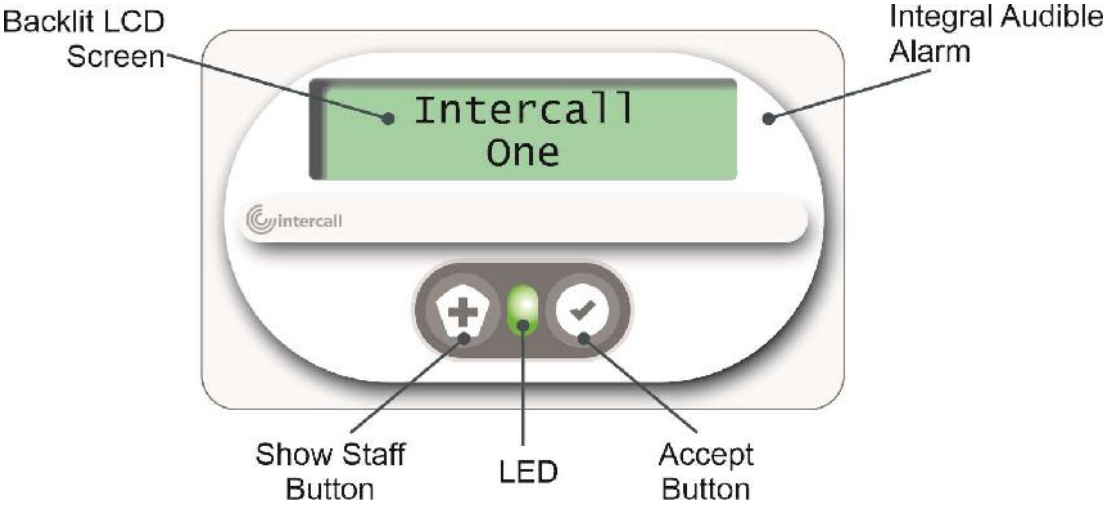
2.3 Overdoor Light

Overdoor lights provide a simple, bright, clear indication at a glance. Patient Calls are coloured Magenta, Staff Assistance Calls alternate Red and Green and Urgent Calls Rapidly flash Blue or Red.



2.4 Displays

Display units alert staff to waiting calls together with providing facilities to Accept calls and Locate Staff.



2.4.1 Calls Waiting

Waiting calls are allocated a queue position with the oldest given position number 1 and when multiple calls are waiting, the display will automatically scroll showing their individual queue positions.

2.4.2 Patient Calls

Patient Calls sound a single repeating tone and are displayed in order of occurrence with the oldest call given the lowest queue position. Depending on system configuration, the display may show one call with the User Name or two calls simultaneously.

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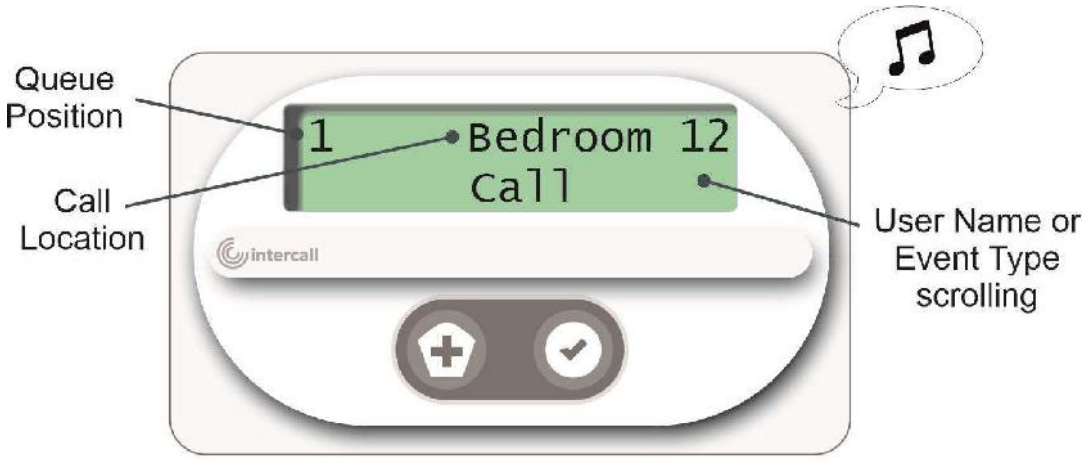
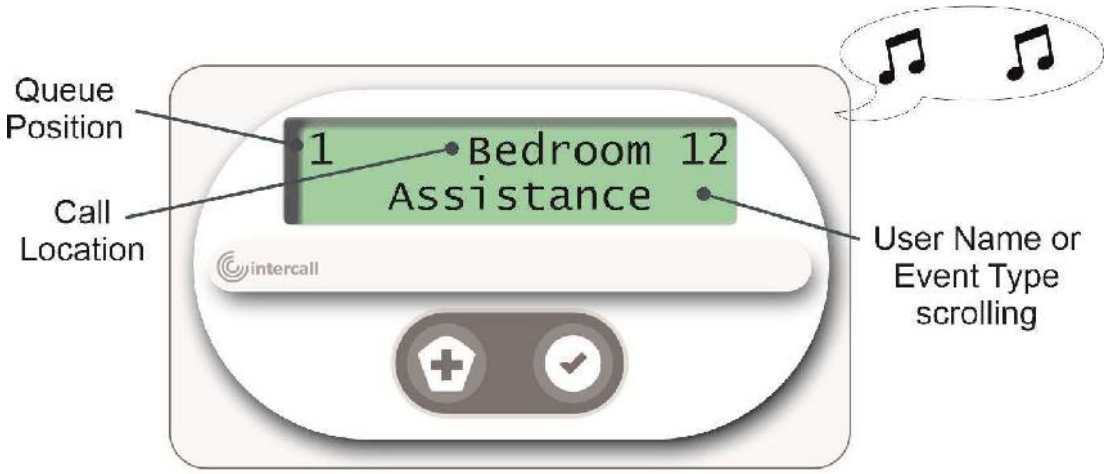


2.4.3 Assistance Calls

Staff Assistance Calls sound a double repeating tone and are displayed in order of occurrence with the oldest call given the lowest queue position. Depending on system configuration, the display may show one or two calls simultaneously. Assistance Calls override Patient Calls.



2.4.4 Emergency Calls

Emergency or Crash Calls sound a urgent repeating tone and are displayed in order of occurrence with the oldest call given the lowest queue position. Emergency Calls override Patient and Assistance Calls.

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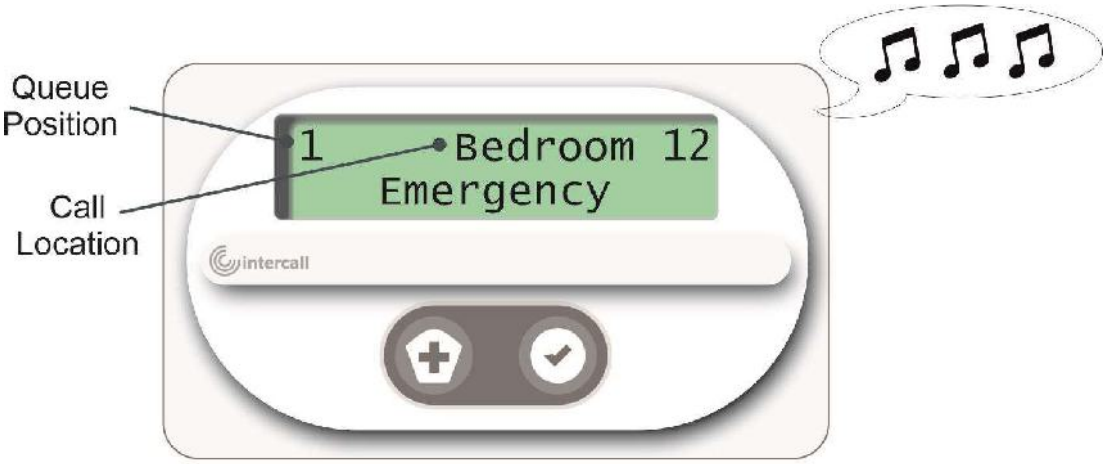
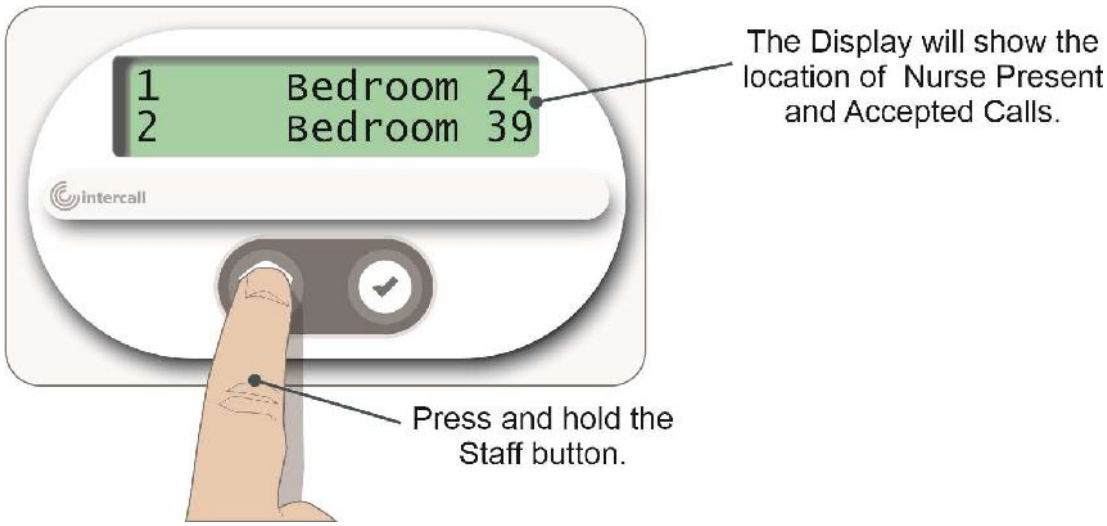


2.4.5 Accept

Staff can choose which call to accept by selecting the Accept button while the selected call is showing on the top line and the green LED is flashing. Only Patient Calls and Assistance calls can be accepted.

2.4.6 Show Staff

Staff may be located by pressing and holding the Show Staff button, this will display all Call Points in Staff Present or Accepted mode.



2.4.7 Faults

Faults are displayed when no other calls are active, the type of fault is displayed on the lower line. System Faults require an engineer to investigate the fault at the Controller.

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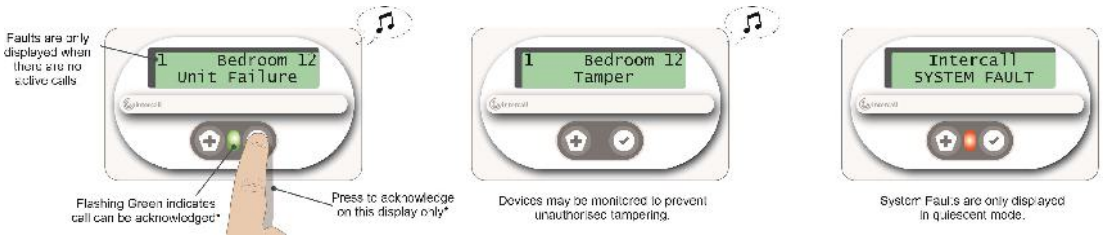

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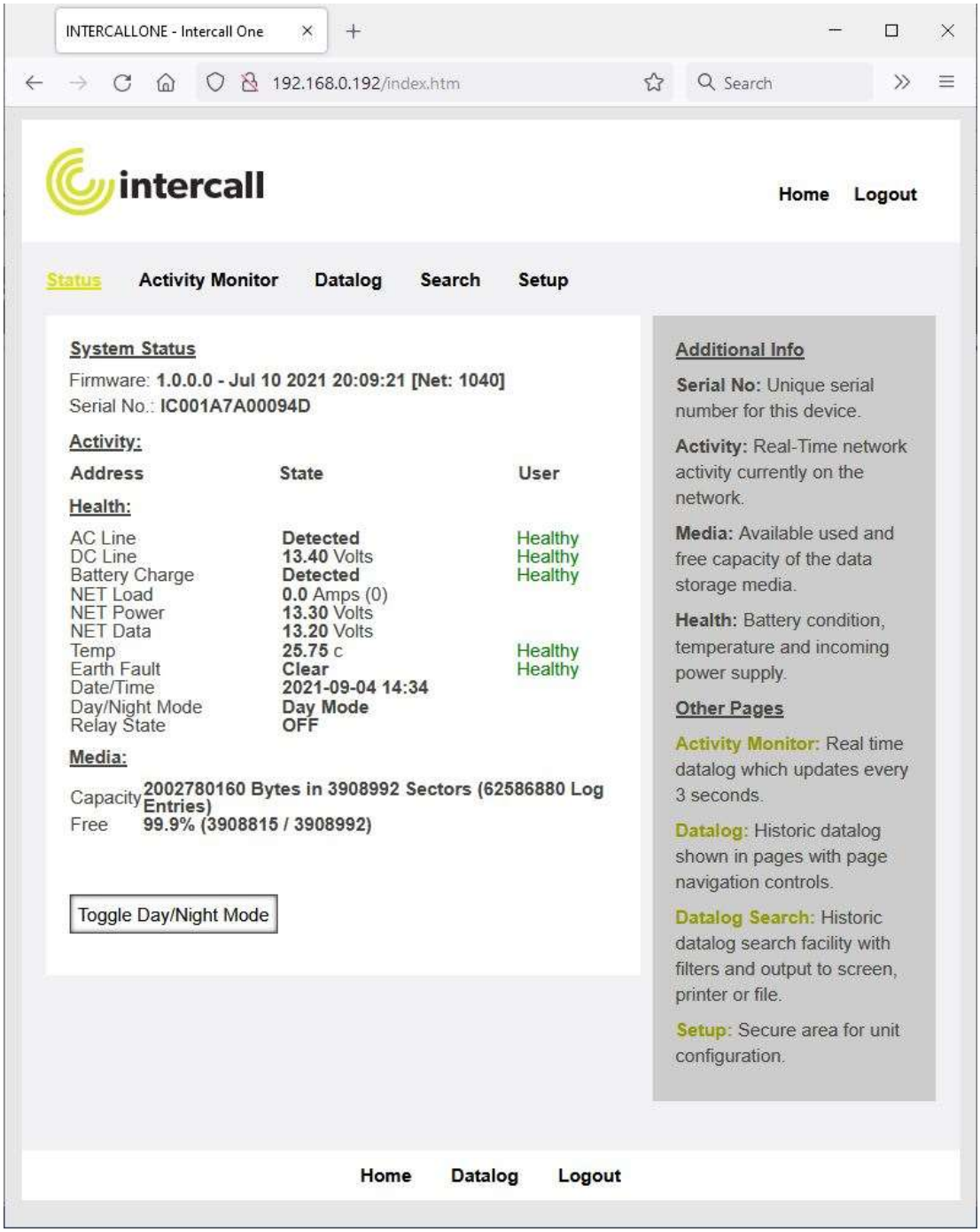
2.5 Website & Datalog

The Controller website may be accessed using a standard web browser and contains system status together with easy access to the historical datalog which records all system activity.

2.5.1 Status Page

Displays active devices together with internal monitoring system health and media capacity information together with the Controller system status. This page also provides the ability to manually switch the system between Day Mode and Night Mode using the Toggle button at the bottom of the page.



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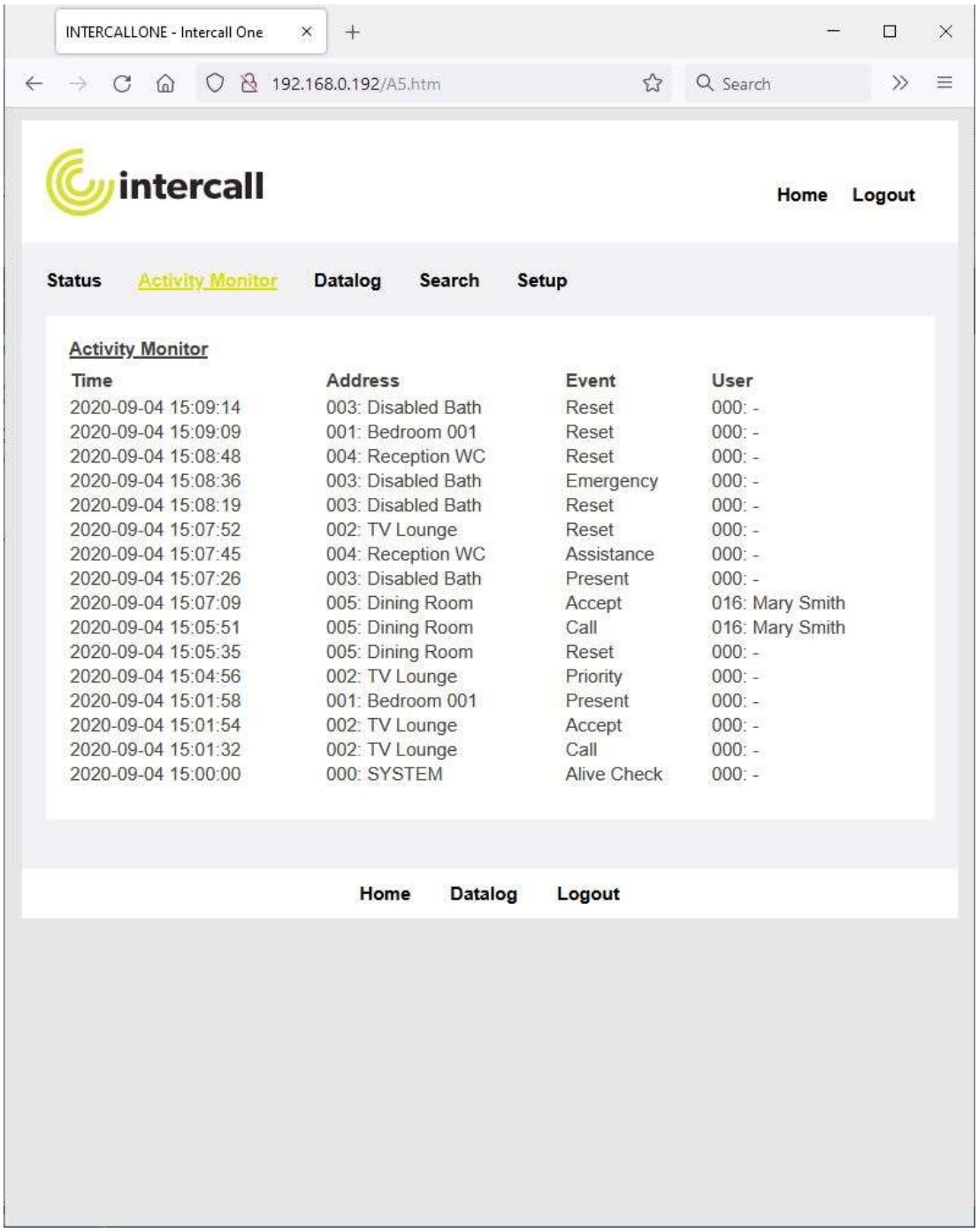
2.5.2 Activity Monitor

Live Datalog, updates every few seconds. *Please note Live Pages do not display extended ASCII characters.*



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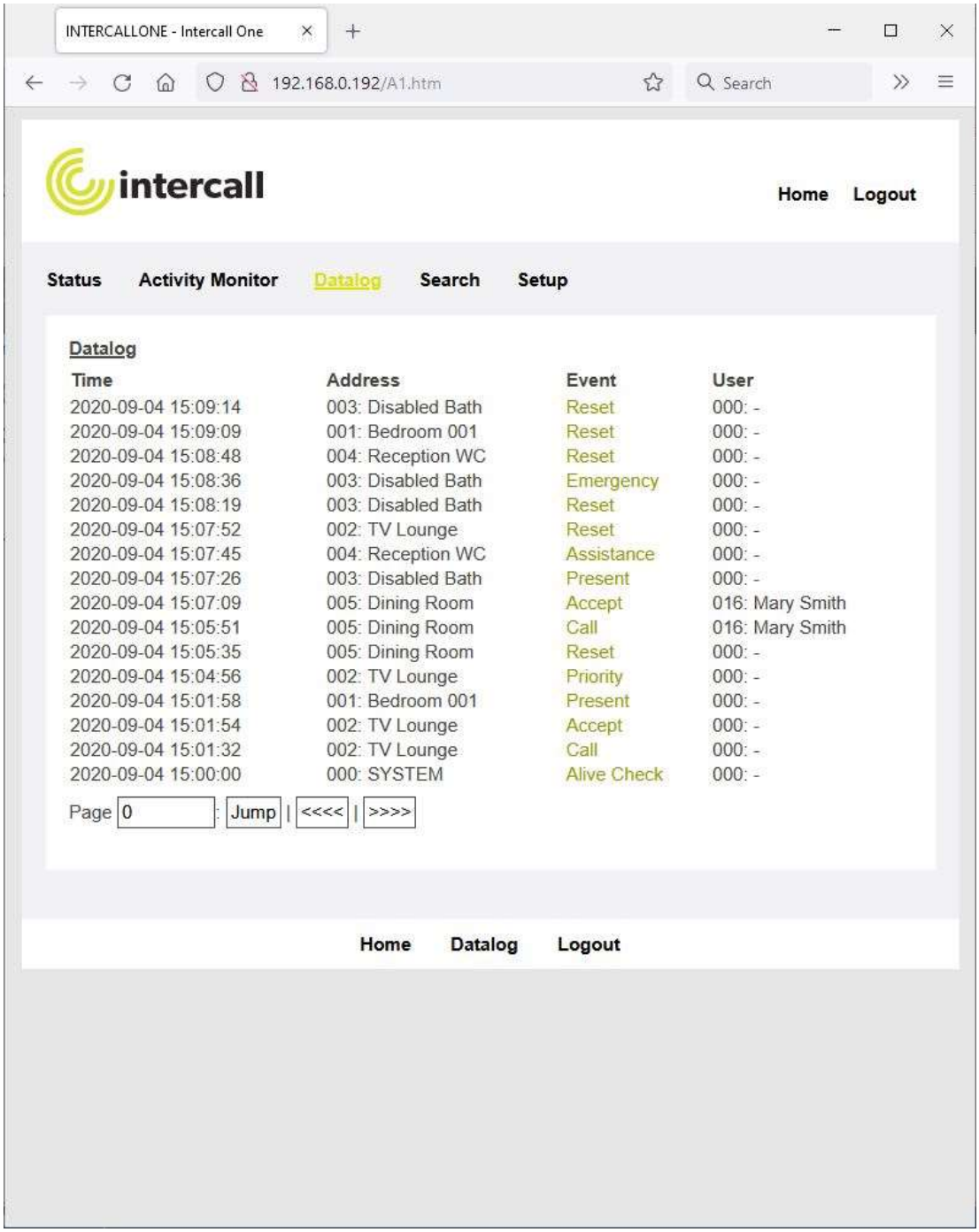
2.5.3 Datalog

Historic Datalog with page navigation controls.



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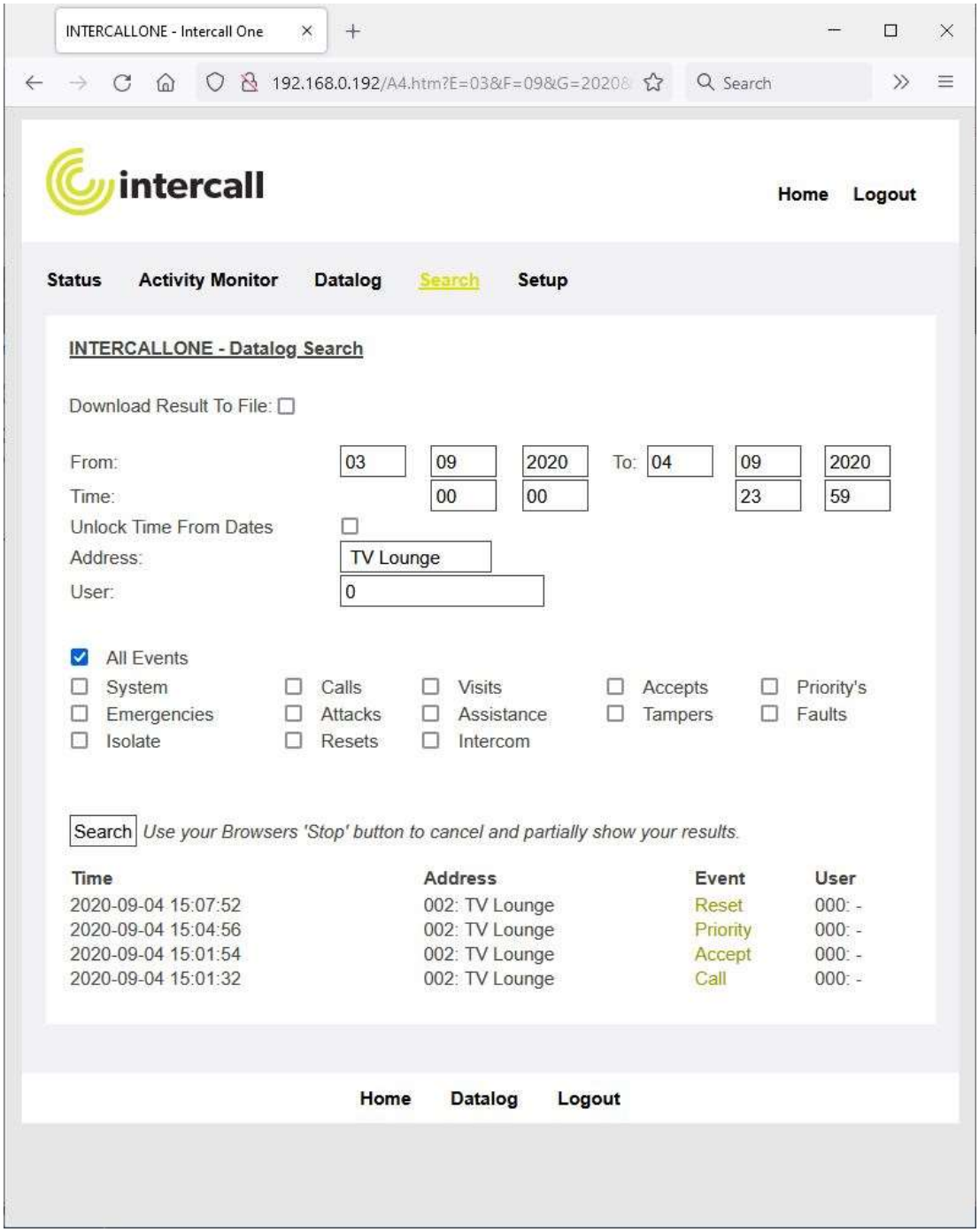
2.5.4 Search Page

Historic Datalog Search facility with filters and output to screen, printer or file.



2.5.4.1 Download Results to File

Tick *Download Results To File* to save the output in .CSV format suitable for Microsoft Excel etc.

2.5.4.2 From and To Fields

The From and To Fields are automatically populated with today's date from midnight to 23:59 and may be altered as required.

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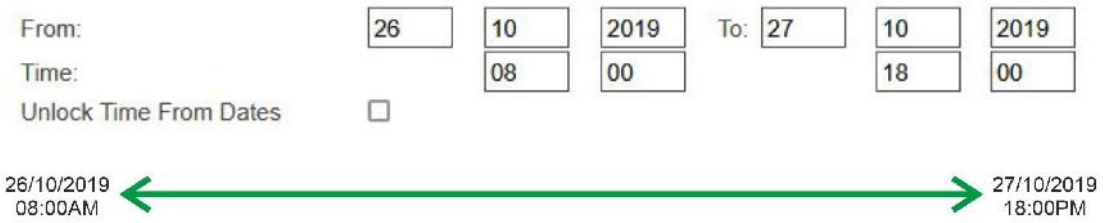
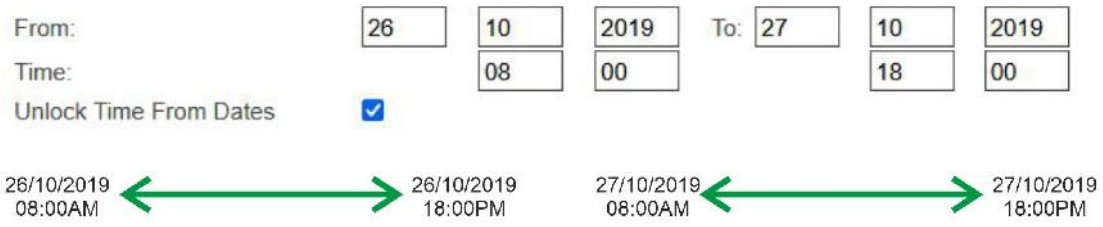
2.5.4.3 Unlock Time From Dates

This feature allows the same time period to be searched on consecutive days. With the feature un-ticked, the search will start at the FROM Date & Time and run until the TO Date & Time, however with the feature enabled the search will start at the FROM time until the TO time on the selected dates allowing the same time window to be searched on consecutive days.



The search will start at the FROM Date & Time and run until the TO Date & Time across consecutive days.



The search will start at the FROM Time and run until the TO Time on each consecutive day.

2.5.4.4 Address and User

Use the Address dropdown to select the individual Call Point you wish to search, alternatively search all Call Points by selecting ANY ADDRESS. If you wish to search for an individual user, enter the User number into the dialogue. Note: User zero searches for all users.

2.5.4.5 Event Selection

Search criteria may be selected by Event type, tick to select the required event(s) or alternatively select *All Events*.

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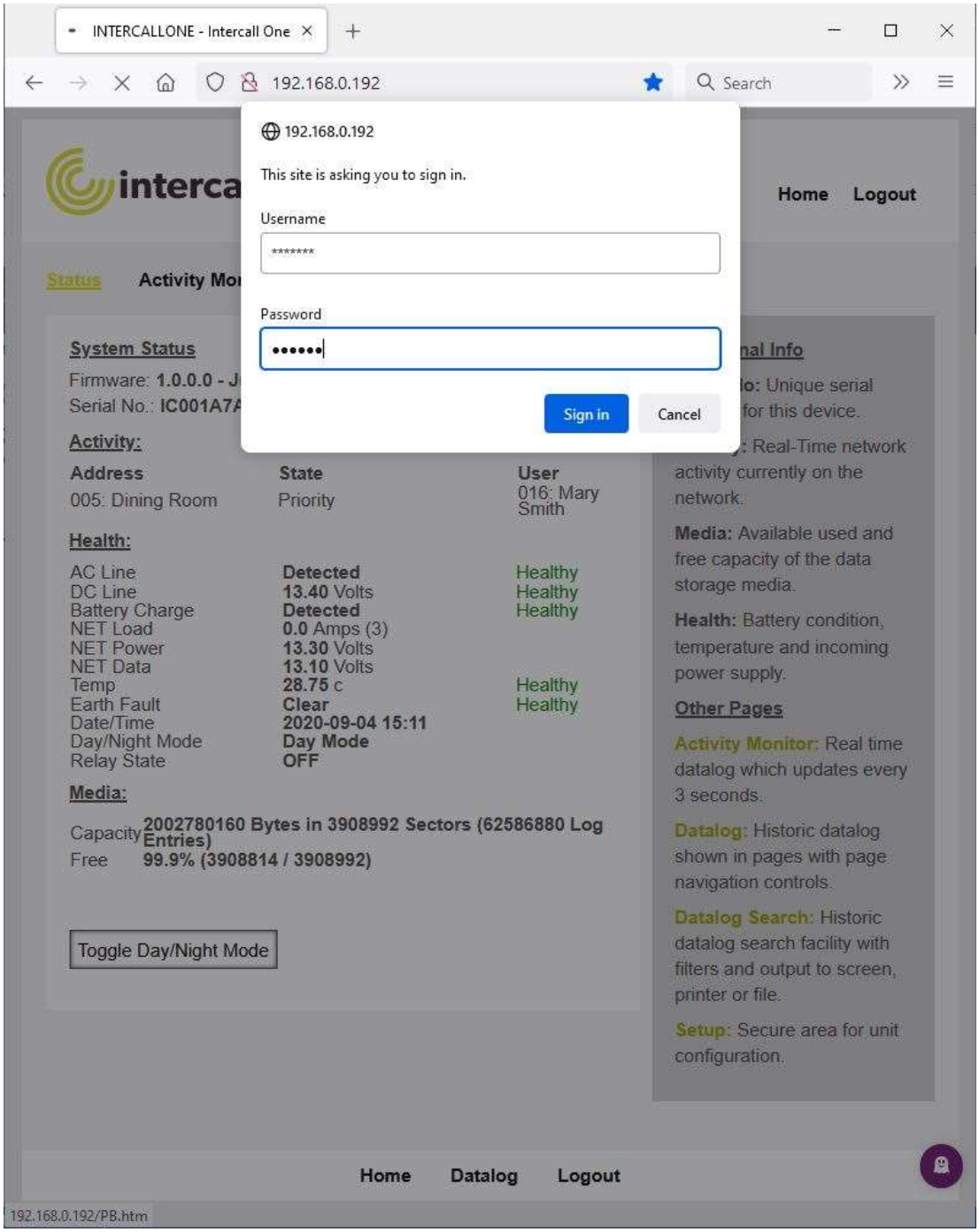
2.5.5 Setup Page

Administrators access to the secure area for configuration.



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2.6 Programming Cards

The Carecard and Intercall Token are programmed using the Intercall Programmer.

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2.7 Programming Pendants

Pendants are programmed using the Intercall Programmer.

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Installation

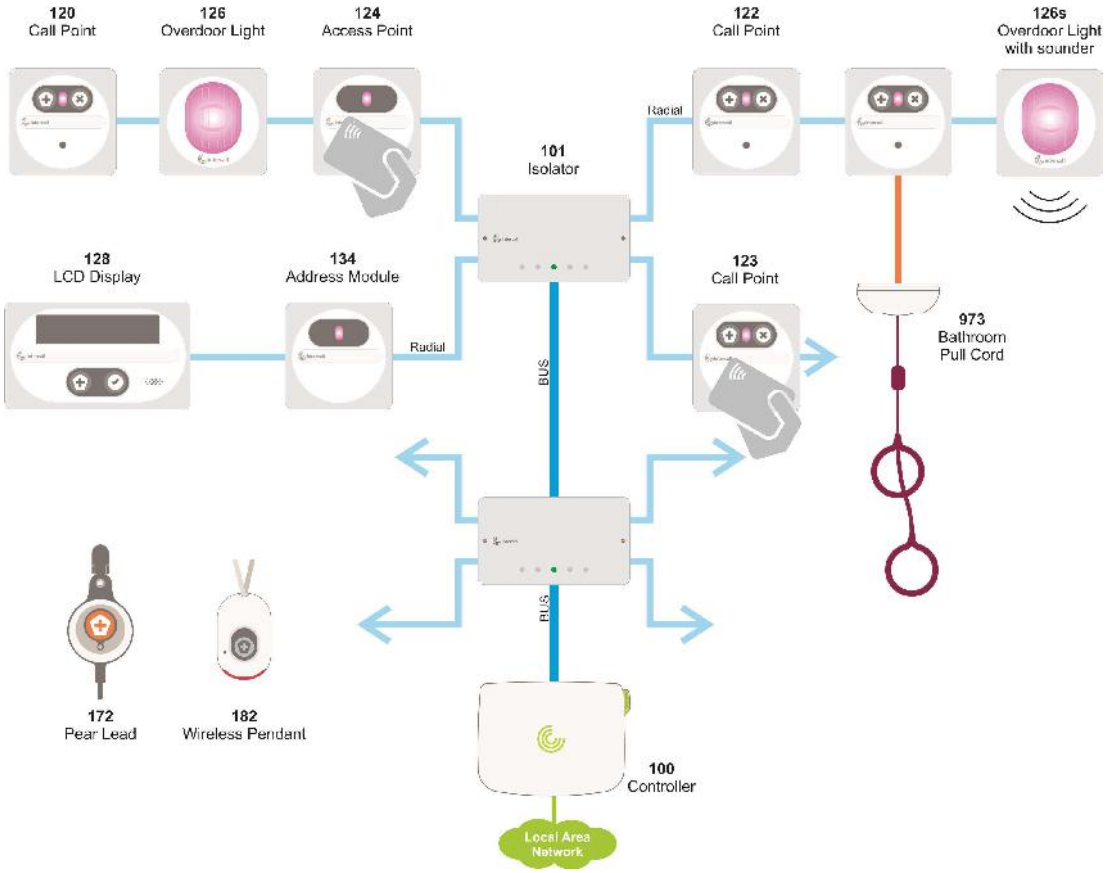
3 Installation

The following guide contains the information required when designing and Installing the Intercall system.

3.1 System Overview

The Intercall One system is fully addressable and employs a simple two wire BUS, to distribute power and synchronisation for the system. At its heart, the Intercall One Controller, supplies a nominal 12 volts overlaid with digital signalling. Isolators are installed in discrete locations to ensure fault tolerance and to protect against over current. Intercall One Devices are connected to the output of the Isolators and located throughout the building as required.

3.2 System Schematic



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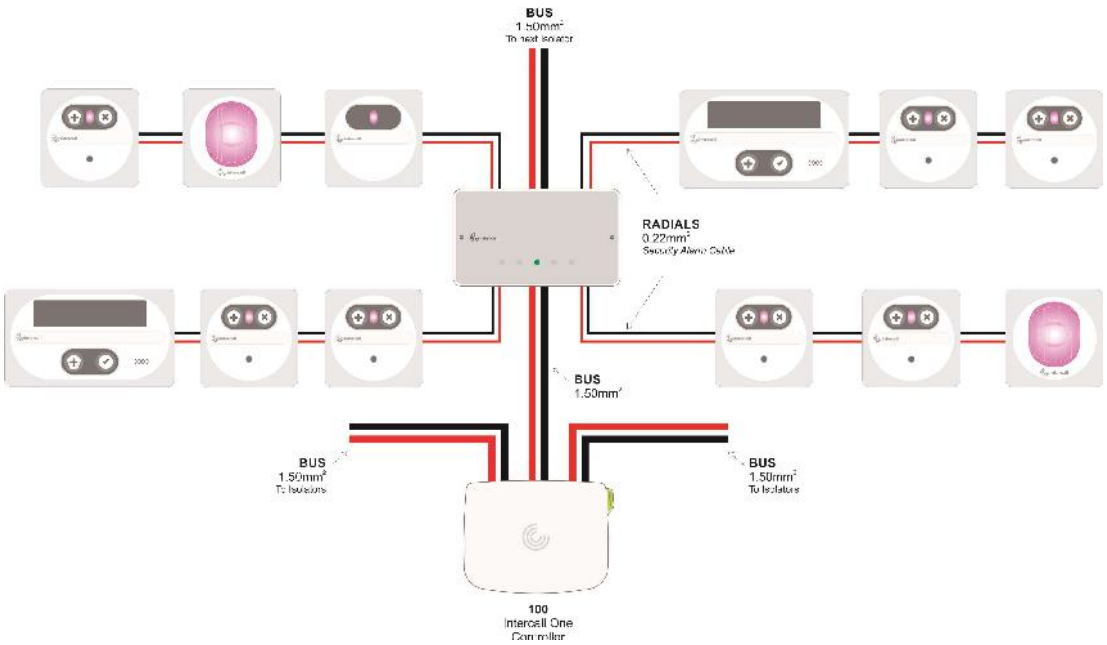
3.3 Two Core Cabling Structure

The Intercall One system uses a two core cabling structure with Bus Cable delivering power from the Controller to the Isolators and smaller Radials from the Isolators to the individual Devices. As with all systems of this nature, the integrity of the cabling is paramount to the performance and reliability of the system and we only recommend using the principles and good practice detailed in this manual.



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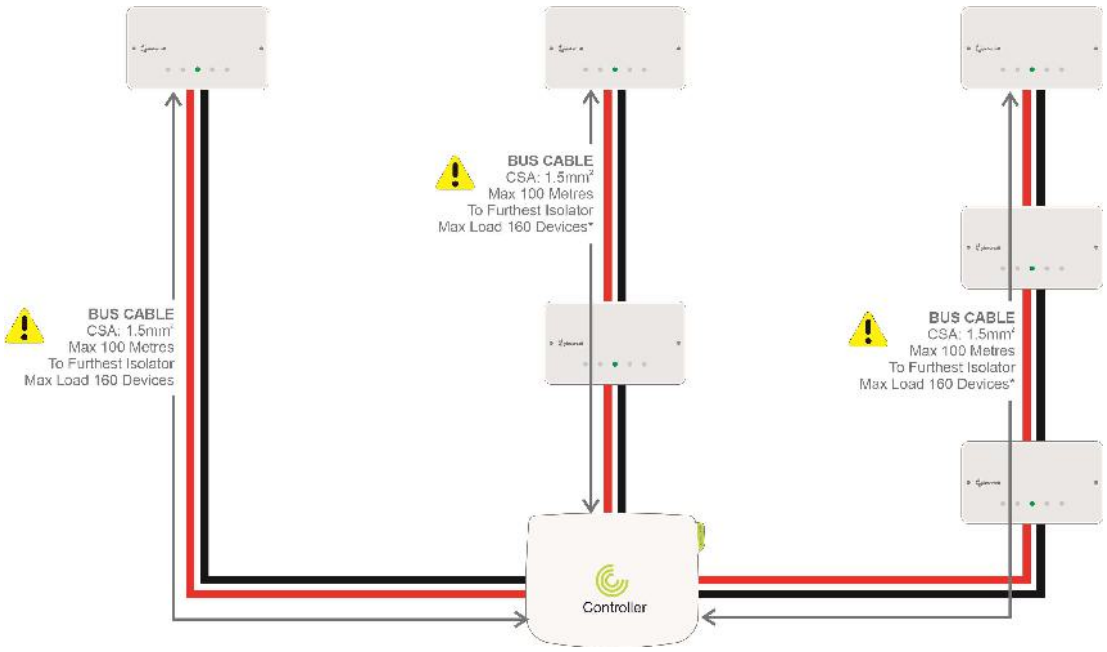
3.4 Bus Cable

Each BUS cable can support up to a maximum of 160 Devices and be up to a maximum length of 100metres to the furthest Isolator. You may run several BUS cables and use as many Isolators as required on a BUS providing no more than 160 Devices are supported. The Bus Cable requires a CSA of 1.5mm^2 and we recommend stranded (E.g. 30/0.26) Cable for greater flexibility and endurance.



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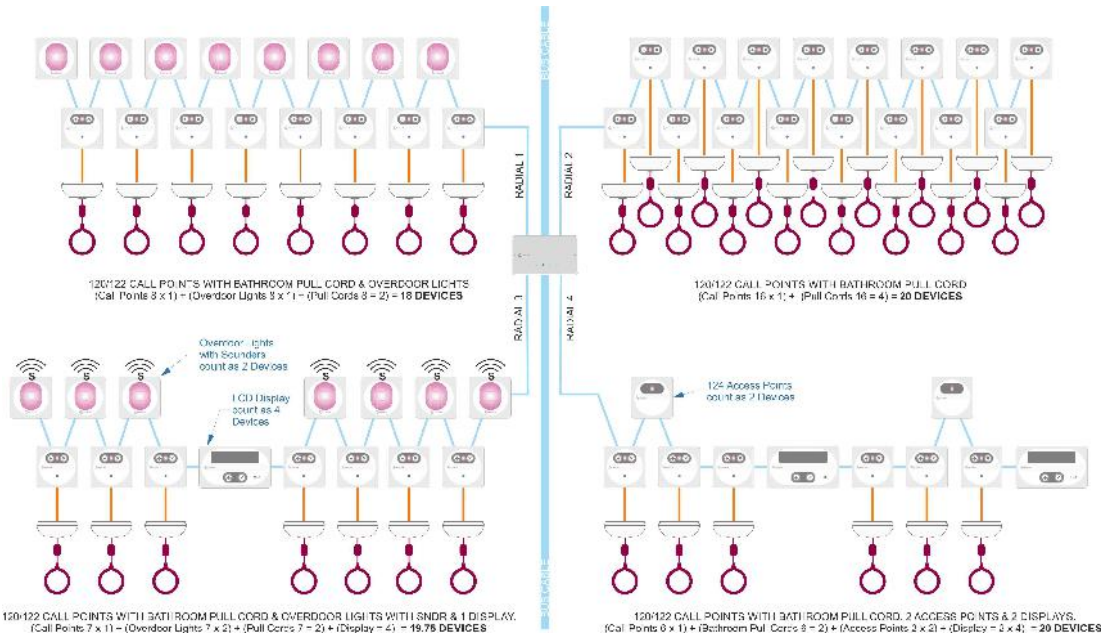
3.5 Radial Cables

Radial cables distribute the load from the Isolators to the individual Devices. Each RADIAL cable may be up to 100metres in length and support a up to 20 Devices. Devices vary in the current they consume and must be considered in the RADIAL load calculation. The Radial Cable requires a CSA of 0.22mm^2 and we recommend stranded conductors to provide greater flexibility and endurance. Below we show the maximum number of Devices in example combinations for each Radial. Further information can be found here



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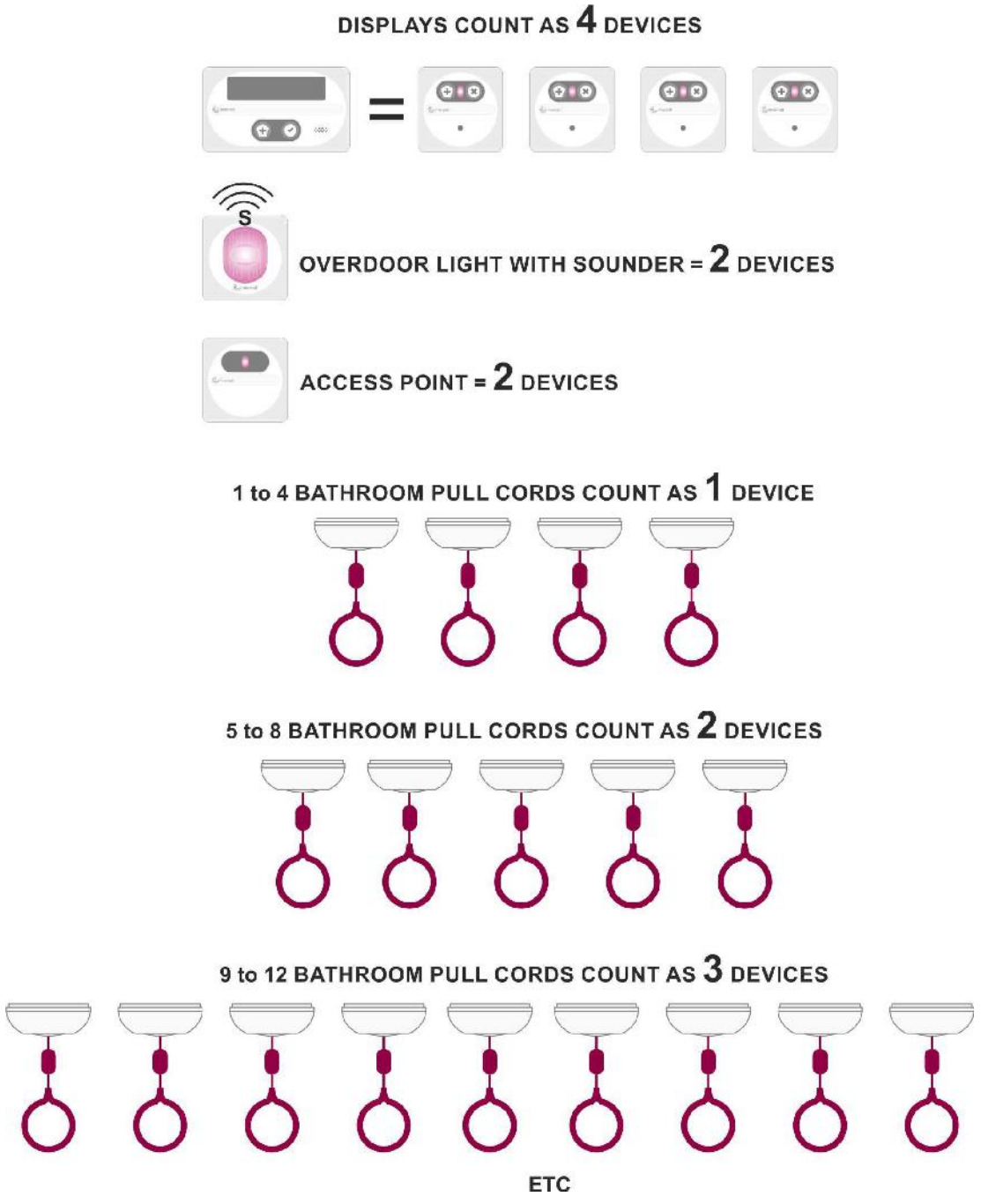
3.6 Device Load

The amount of volt-drop on each Radial depends on the size of the cable and the total load it supports, for this reason we have allocated a 'Device' value to each component to reflect the current draw. Call Points (120/122) and Overdoor Lights (126) are counted as One Device, (126s) Overdoor Lights with Sounders and (124) Access Points are Two Devices, (128) Display are Four Devices. Bathroom Pull Switches count as 0.25 Device (quarter of a Device) and are rounded up to the next whole number so 1-4 Bathroom Pull Cords = 1 Device, 5-8 = 2 Devices, 9 to 12 = 3 Devices, and so on.



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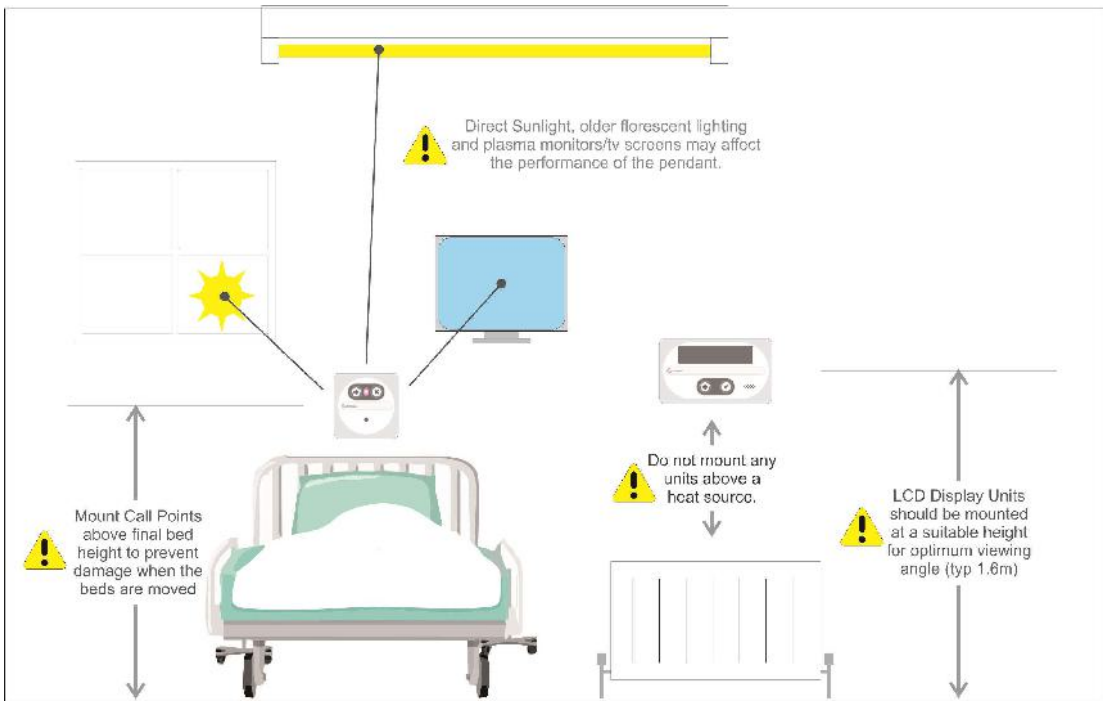
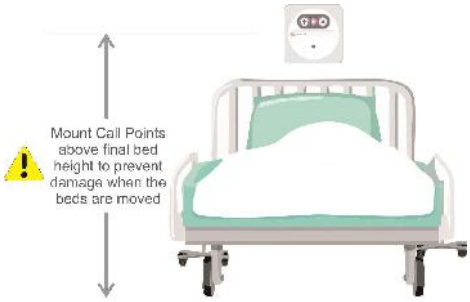
3.7 First Fix



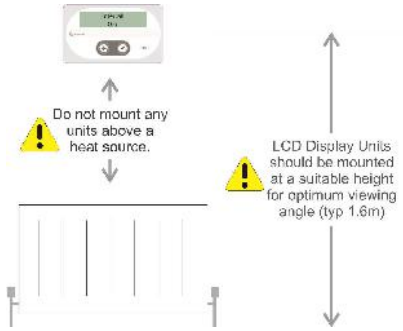
3.7.1 Call Point Location

Ensure Call Points are located above the final bed height to avoid damage to the units when the beds are moved.



3.7.2 128 LCD Display Position

The LCD Displays should be positioned at a height of 1600mm to obtain the optimum viewing angle of the LCD Screen. Avoid mounting the unit above heat sources or in temperatures below 10°C as this will affect the contrast of the LCD screen.



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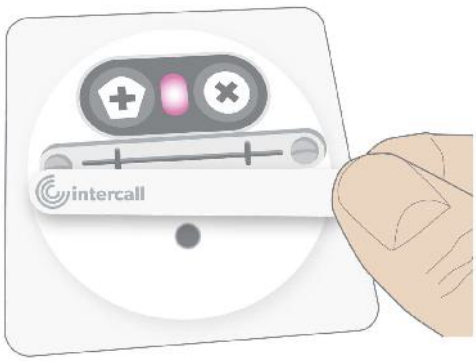
3.7.3 Device Fixing Cover

Intercall One Devices feature a fixing cover to encase the mounting screws, this should be fitted after commissioning is complete. The Call Points and LCD Display simply clip into place while the Overdoor Light features a lens assembly which forms the front face of the unit.



Fixing Covers are fitted after commissioning is complete!

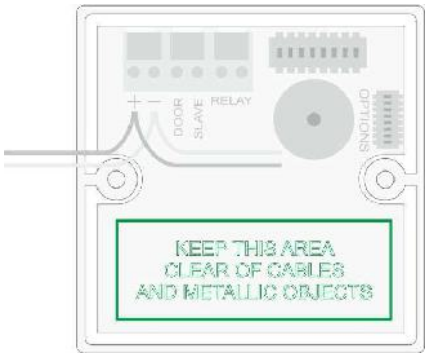
Lens Assembly forms the front face of the Overdoor Light

3.7.4 122 Call Point

The 122 Call Point features a wireless IRDA receiver designed to accept signals from the Intercall One Pendant. Avoid locating the Call Point in direct sunlight, under older fluorescent light fittings or near TV screens or Monitors as these may affect the performance of the receiver. Our technical support team can provide further information if required.

3.7.5 124 Access Point

The Access Point features NFC technology and we recommend that metal objects and cables are kept away from the lower half of this Device as they may affect NFC performance. Our technical support team can provide further information as required.



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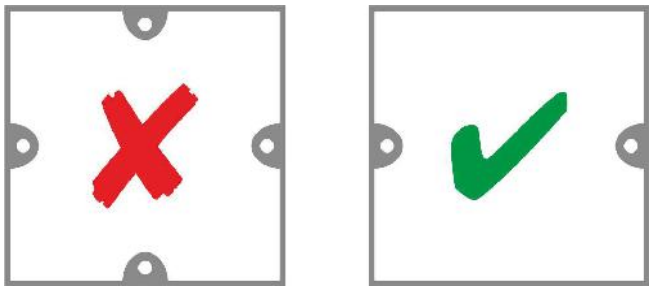
3.7.6 Backboxes

Due to the wide variety of installation possibilities, the system is not supplied with Backboxes which are supplied by others and available in the local market or from your Intercall distributor. Ensure backboxes only have two mounting lugs as shown below, boxes with four mounting lugs will clash with some devices.



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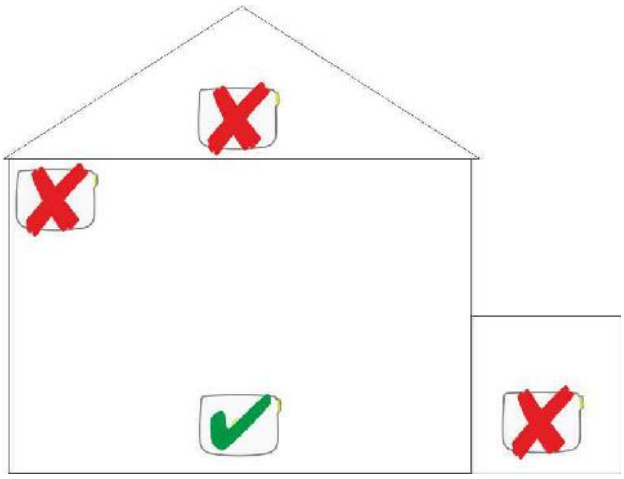
3.8 Running The Cables

Additional information when planning cable runs as part of an installation.

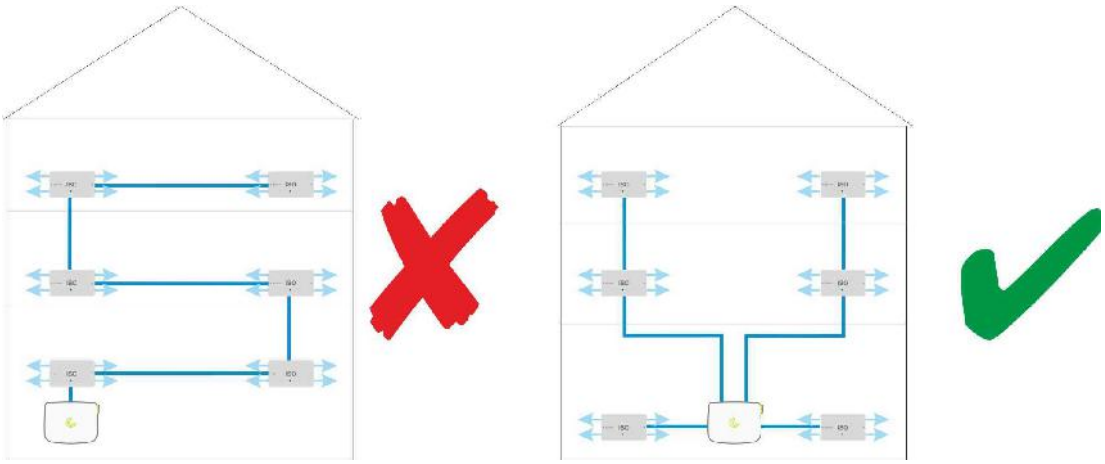
3.8.1 Controller Location

Locate the Controller in a central location to the system wiring, this will help to reduce the length of cable runs. Run BUS cables from this point to the Isolator locations.



3.8.2 Run Many Bus Cables

Run as many BUS cables as required, to minimize the length and loading whilst ensuring they comply with the Bus Cable Requirements.



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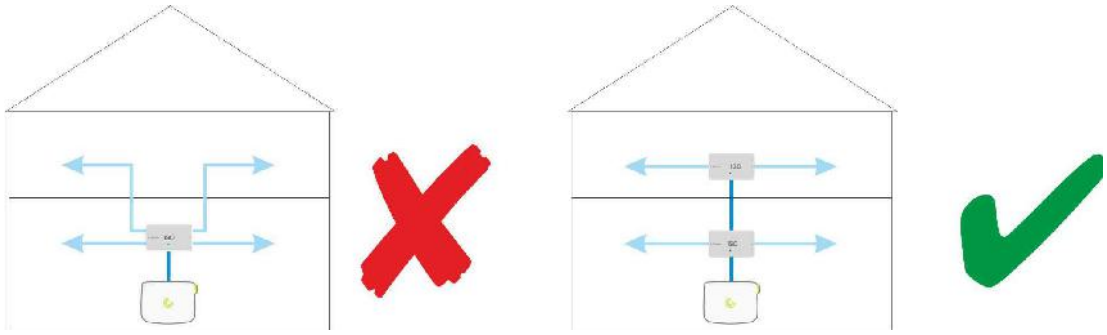
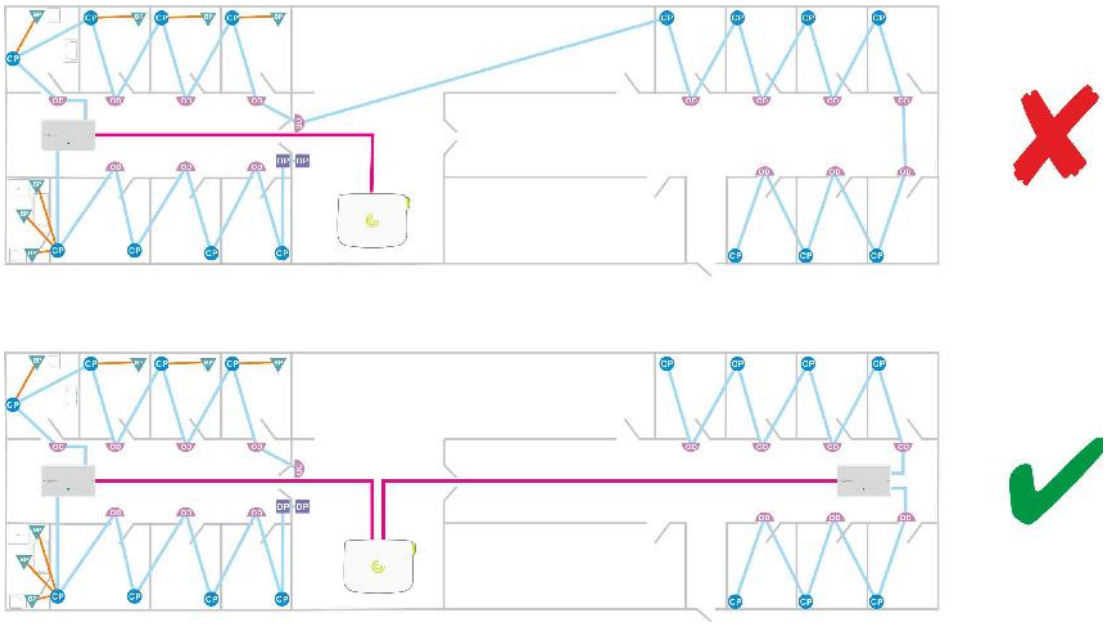
3.8.3 Locating Isolators

Avoid running Radial cables between floors, extend the BUS cable to the next level and install isolator(s) as necessary.



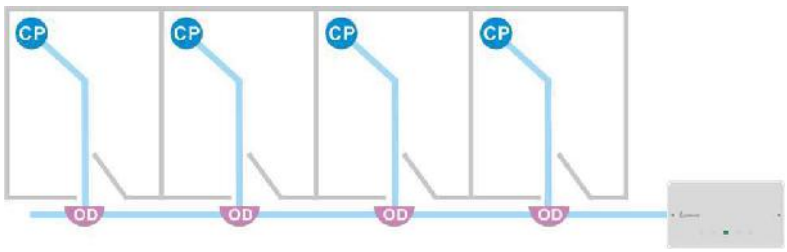
3.8.4 Additional Isolators

Isolators should be local to the Devices they support. Avoid running long Radials, consider installing another isolator and run another BUS cable.



3.8.5 Tee-Off/Spur from a Radial

You may 'Tee Off' from a radial, however, you must remain compliant with the Radial Cabling guidelines, however, an additional connector may be required at the Overdoor Light position to accommodate the three cables.



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3.8.6 Cable Routes

Avoid running cables alongside high voltage/mains cables, fluorescent lights, electrical switch-gear, lift machinery and motors or similar.

3.8.7 Sharing Cables

Never share a cable with another system (i.e never use two cores of a cable which is also being used by another system regardless of its operating voltage)

3.8.8 Cable Testers

Never perform a high voltage insulation test with any Controller or Device connected to the cabling as this will destroy the electronic components.

3.8.9 Isolated BUS

The 12V BUS output is designed to 'float' and be completely isolated from Mains Electrical Earth, subsequently, there must be No Connection between the 12V Bus **(+)** or **(-)** and Mains Electrical Earth as this may expose the system to mains derived power surges. When the Controller detects a low resistance between the Bus and Mains Electrical Earth an Earth Fault will be generated. We recommend checking all cabling with a Digital Volt Meter (DVM) prior to powering up the system.

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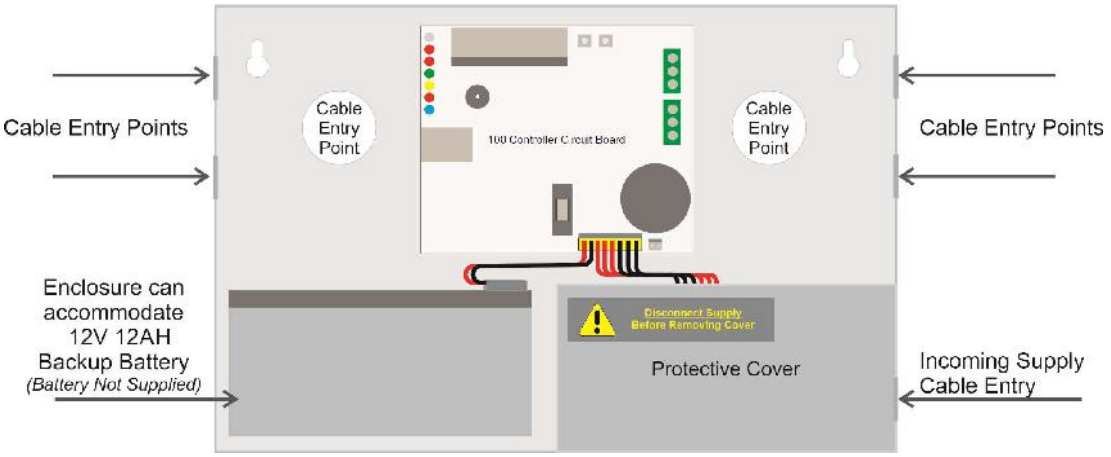
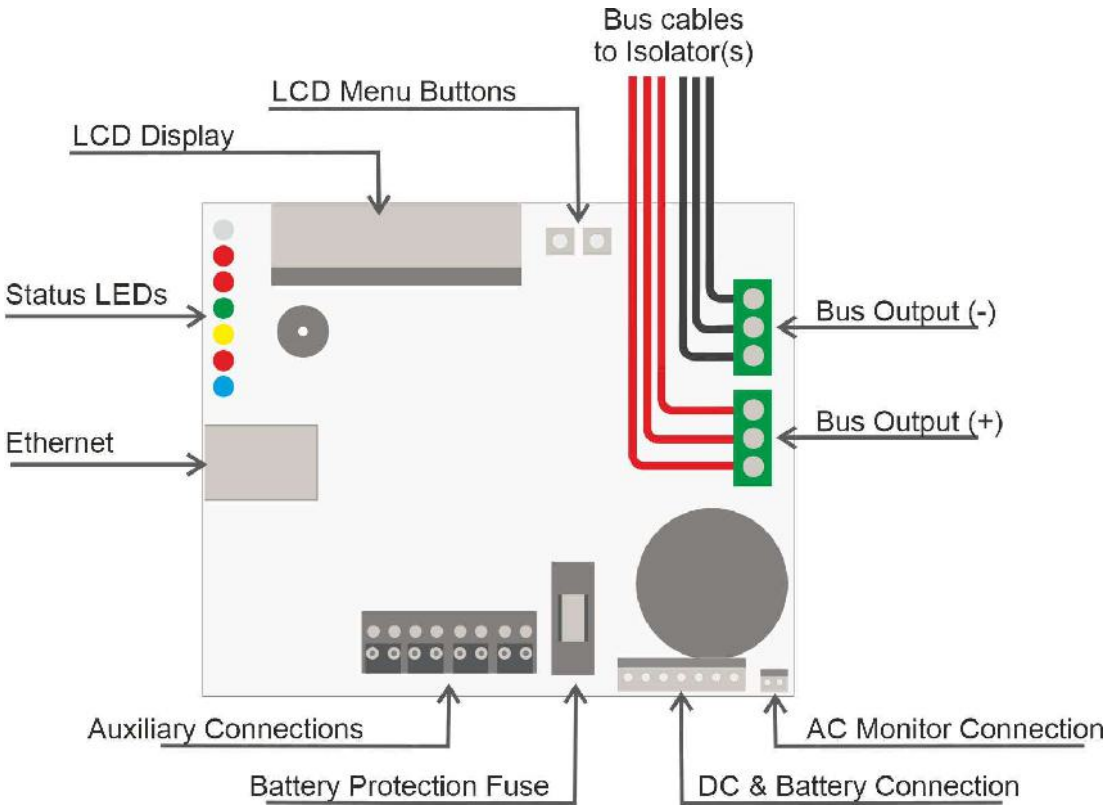
3.9 100 Controller

The Intercall Controller is the heart of the system, providing the power and synchronisation for the Intercall Devices, together with the link to the Local Area Network. The unit features LCD with menu control, LAN connector with embedded website, Bus output terminals, Relay Output, RS232 Output, Battery Float Charger and Status LEDs.



Touch Controller Circuit Board Detail.



3.9.1 Bus Output Terminals

Three sets of Bus Output terminals are provided in parallel for connection to the Isolator(s). **Caution** Observe Polarity when connecting to these terminals.

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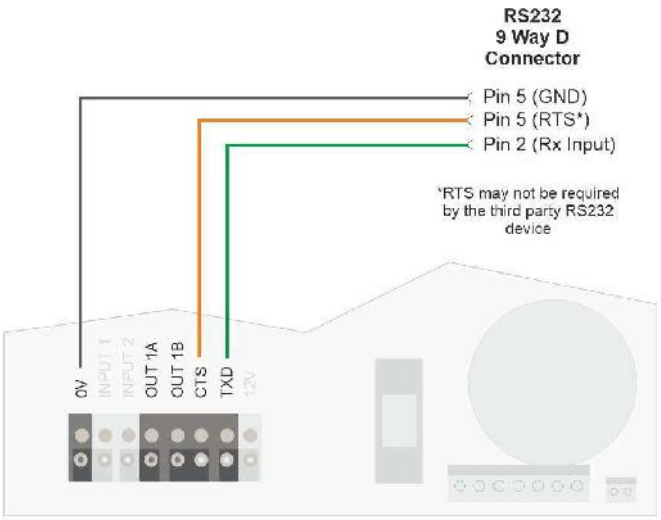
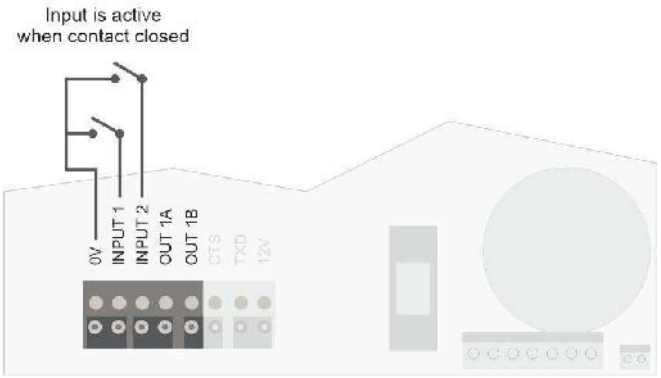
3.9.2 Auxiliary Connections

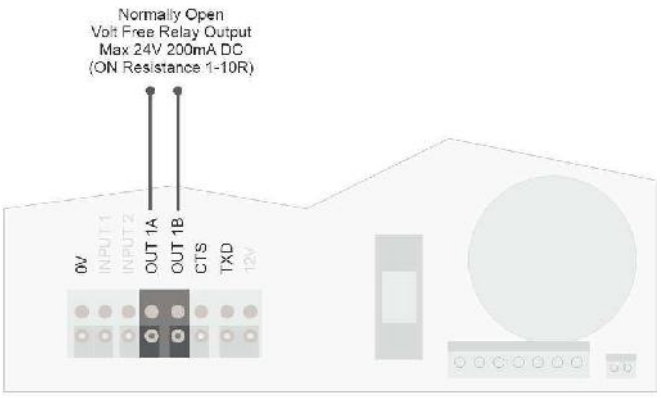
Auxiliary Terminals provide access to the on board RS232 Output, Relay Output and Contact Inputs. These are configured using the Despatch Page of the Controller.



Connections for the RS232 Port



Connections for the two Input Ports



Connections for the Relay Output

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3.9.2.1 0V Terminal

Common 0V terminal referenced for inputs and RS232 Output.

3.9.2.2 Input 1 Terminal

Contact input number 1, active when shorted to the 0V terminal. This input can be configured to perform various functions on the Controller via the embedded website.

3.9.2.3 Input 2 Terminal

Contact input number 2, active when shorted to the 0V terminal. This input can be configured to perform various functions on the Controller via the embedded website.

3.9.2.4 OUT 1A/B Terminals

Isolated Volt-Free relay output. **Caution:** Solid state relay, Contacts On-Resistance; 1-10 Ohms, Contact Rating; Maximum 24Volts DC 200mA (0,2A) **Important** Not suitable for inductive loads.

3.9.2.5 CTS Terminal

RS232 Flow Control Input configured from the Serial Settings Page. **Note** This terminal operates at RS232 voltage levels. (Typically +/- 15V)

3.9.2.6 TXD Terminal

Isolated RS232 Data Transmit Output configured from the Despatch Page. **Note** This terminal operates at RS232 voltage levels. (Typically +/- 15V)

3.9.2.7 12V Terminal

On Board nominal 12V DC Rail. **Caution:** Any load connected to this terminal will affect battery backup operational time.

3.9.3 Ethernet RJ45

The Ethernet RJ45 socket connects to the Local Area Network using a standard CAT5 copper connection.

3.9.4 Clock Battery

The on-board clock/calendar is supported by a CR2016 3V lithium coin cell.

3.9.5 Battery Protection Fuse

The battery is protected by a 20mm 5Amp Quick Blow fuse. If this fuse fails the battery fault indicator will light.

3.9.6 DC and Battery Connections

Connects to the chassis wiring loom from the AC-DC Converter.

3.9.7 AC Monitor Connection

Connects the the monitor point for the incoming AC Supply.

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3.9.8 Installation

Self Contained surface mounting enclosure. Required mains supply connection 90-240VAC 100W *(max)*

3.9.9 Environment

The unit is designed to operate in ambient temperatures of between 0°C to 25°C. Relative Humidity should not exceed 75%. Allow a minimum of 25mm around all sides of the enclosure to allow air flow.

3.9.10 Size & Weight

The unit is supplied in a surface mounting self contained metal enclosure with moulded lid. Size: W420xH320xD150mm. Weight (Excluding Battery) 3.9Kg.

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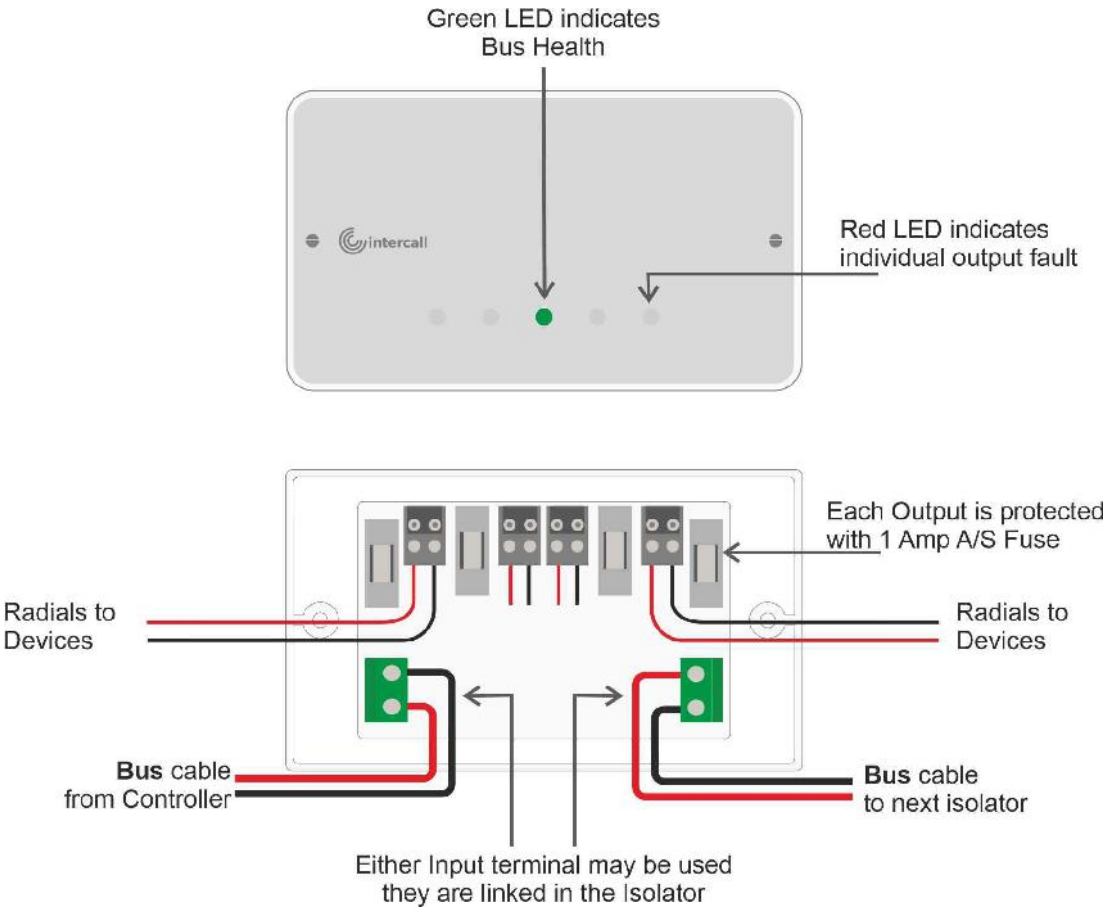
3.10 101 Isolator

The Isolator is used to protect the output from the Controller and limits the current available to the radials and Devices. The Bus cable connects to the Input and provides four current limited outputs for connection the the Radial cables and on to the Devices. There is a through terminal which allows the Bus cable to continue to the next Isolator as required.



3.10.1 Input Terminals

There are two sets of green terminals which accept the Bus cable from the Controller and allow it to pass through onto the next Isolator as required. The terminals are linked together within the Isolator.

3.10.2 Output Terminals

There are 4 sets of output terminals to connect the Radial cables to the Devices. The connectors may be unplugged without removing the cables simplifying fault finding. **Caution:** Observe Polarity when making these connections !

3.10.3 Output Protection Fuses

Each output is current limited with an individual fuse. **Fuse Rating:** 1 Amp Anti-Surge / Slow Blow.

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3.10.4 Front Panel LEDs

The front Panel LEDs indicate Green for Bus Heath and Red for a fault on the individual outputs.

3.10.5 Installation

Flush or surface mount into standard 'double sized' electrical back box provided by others or ordered separately.

3.10.6 Size and Weight

The unit is supplied as a flush mounted plate. Size: W148mm x H88mm x D35mm Weight: 110g. Required Backbox: Double Gang minimum depth 25mm

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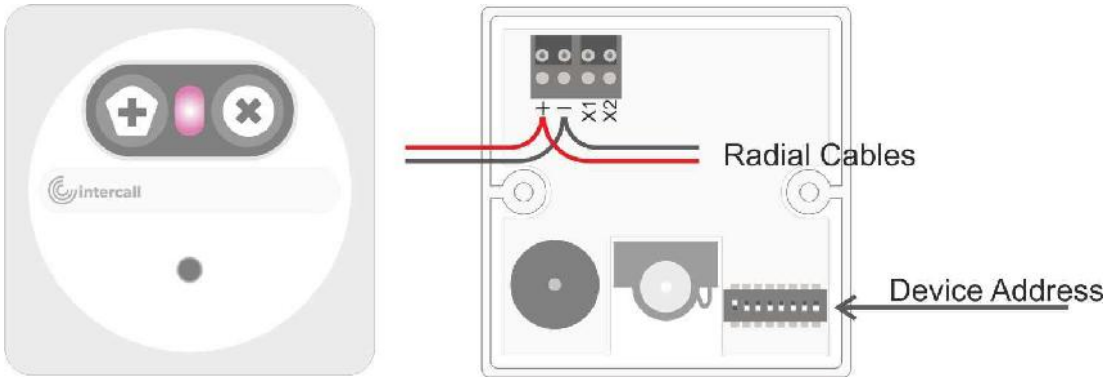
3.11 120 Call Point Basic

The 120 Call Point is designed to provide a patient calling point with staff reset button. The unit features Call & Reset button, re-assurance LED, Pear Lead socket and terminals for connection to bathroom pull cords or other closing contact devices. The unit connects to the radial cabling from the isolator, and may also connect two external inputs for bathroom pull cords etc.



3.11.1 Bus Terminals

The device connects to the Radial cabling from the Isolator. The connectors may be unplugged without removing the cables simplifying fault finding. **Caution:** Observe polarity when making these connections !

3.11.2 X1 Terminal

Input Terminal generating a Patient level call, momentarily connect to '-' to active the call point. The X1 terminal also drives the LED in the Bathroom Pull Cord. Note: This input is designed for Momentary type input only, continuous shorts will not allow the call point to reset and will consume additional current.

3.11.3 X2 Terminal

Input Terminal generating an Emergency call, momentarily connect to '-' to active the call point. **Important:** When used with a 973 Bathroom Pull Cord, link X1 and X2 together to enable the re-assurance LED. This terminal does not have an LED drive and may be used for door contacts and auxiliary contact inputs.

3.11.4 Address DIP Switches

The Call Point occupies a Device Address using the DIP Switches between 1-254. Illegal addresses are shown with a constant Red LED and Beeper. **Caution:** The Unit Must be set to a unique Device Address.

3.11.5 Pear Lead Socket

The 6.35mm mono pear lead socket accepts a closing contact and features integral LED drive.

3.11.6 Screw Cover

The Intercall screw cover conceals the mounting screws **Caution** We recommend this is not fitted until system commissioning is complete.

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3.11.7 Installation

Flush or surface mount into standard 'single sized' electrical back box provided by others or ordered separately.

3.11.8 Size and Weight

The unit is supplied as a flush mounted plate. Size: W88mm x H88mm x D25mm (min) Weight: 60g. Required Backbox: Single Gang minimum depth 25mm

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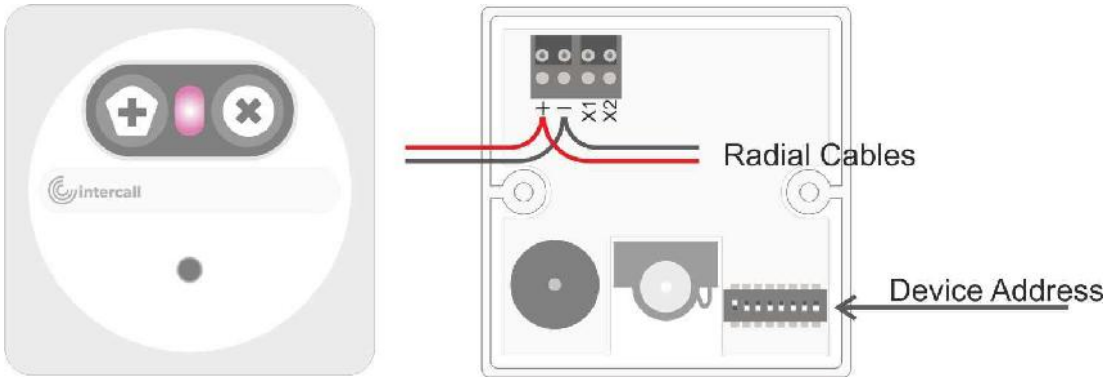
3.12 122 Call Point Standard

The 122 Call Point is designed to provide a patient calling point with staff reset button with wireless activation. The unit features Call & Reset button, IRDA wireless receiver, re-assurance LED, Pear Lead socket and terminals for connection to bathroom pull cords or other closing contact devices. The unit connects to the radial cabling from the isolator, and may also connect two external inputs for bathroom pull cords etc.



3.12.1 Bus Terminals

The device connects to the Radial cabling from the Isolator. The connectors may be unplugged without removing the cables simplifying fault finding. **Caution:** Observe polarity when making these connections !

3.12.2 X1 Terminal

Input Terminal generating a Patient level call, momentarily connect to '-' to active the call point. The X1 terminal also drives the LED in the Bathroom Pull Cord. . Note: This input is designed for Momentary type input only, continuous shorts will not allow the call point to reset and will consume additional current.

3.12.3 X2 Terminal

Input Terminal generating an Emergency call, momentarily connect to '-' to active the call point. **Important:** When used with a 973 Bathroom Pull Cord, link X1 and X2 together to enable the re-assurance LED. This terminal does not have an LED drive and may be used for door contacts and auxiliary contact inputs.

3.12.4 Address DIP Switches

The Call Point occupies a Device Address using the DIP Switches between 1-254. Illegal addresses are shown with a constant Red LED and Beeper. **Caution:** The Unit Must be set to a unique Device Address.

3.12.5 Pear Lead Socket

The 6.35mm mono pear lead socket accepts a closing contact and features integral LED drive.

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3.12.6 Screw Cover

The Intercall screw cover conceals the mounting screws **Caution** We recommend this is not fitted until system commissioning is complete.

3.12.7 Installation

Flush or surface mount into standard 'single sized' electrical back box provided by others or ordered separately.

3.12.8 Size and Weight

The unit is supplied as a flush mounted plate. Size: W88mm x H88mm x D25mm (min) Weight: 65g. Required Backbox: Single Gang minimum depth 25mm

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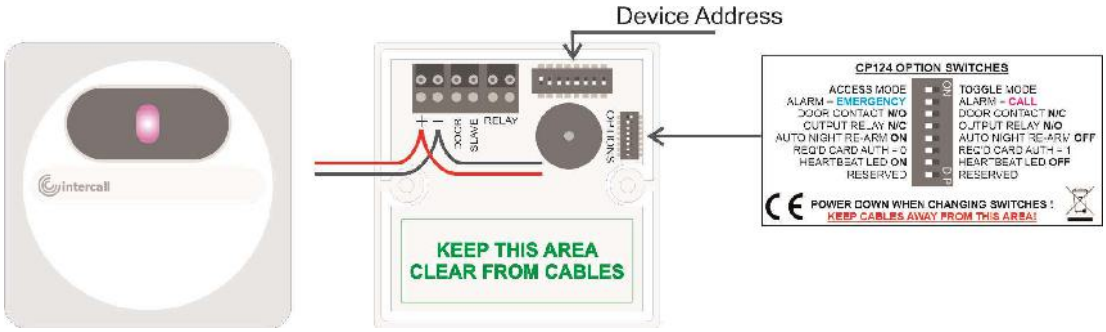
3.13 124 Access Point

The 124 Access Point is designed to protect doors and other sensitive areas from unauthorised access. The unit features NFC Care Card Reader with LED, door contact input and volt free relay output for connection to a Magnetic Door Lock or other locking system. The unit is powered from the radial cabling from the Isolator. More information may be found in the commissioning section.

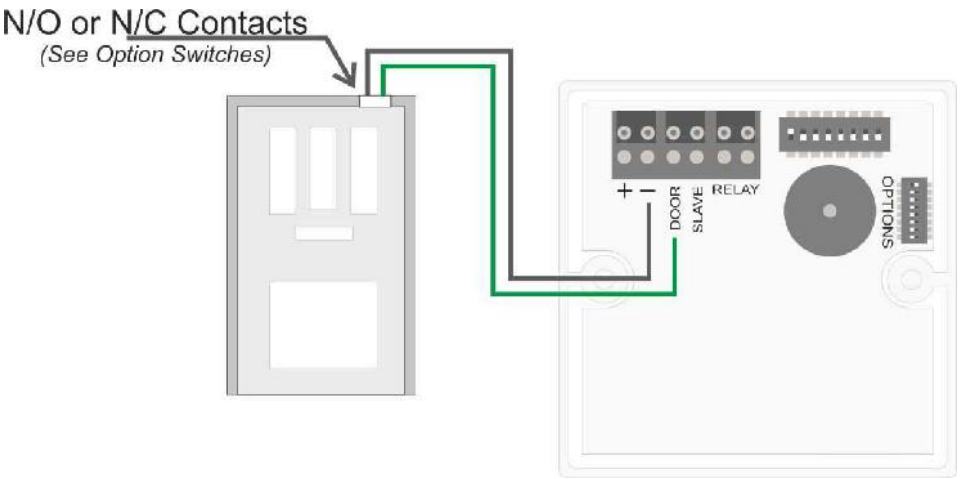


3.13.1 Bus Terminals

The device connects to the Radial cabling from the Isolator. The connectors may be unplugged without removing the cables simplifying fault finding. **Caution:** Observe polarity when making these connections !

3.13.2 DOOR Terminal

Input terminal used to monitor the door and is suitable for *Normally Open* or *Normally Closed* Reed Switches. By fitting the door monitor contacts, additional features are realised; In Access Mode, the door may be held open indefinitely by presenting the card again while the Access Timer is running and the door is open. In addition, the Extended Access Timer allows the door to remain open for longer to allow for wheelchair access etc without compromising security by extending the access timer when the door is detected as opened. Finally, an alarm is generated should the door be opened by unauthorised personnel.



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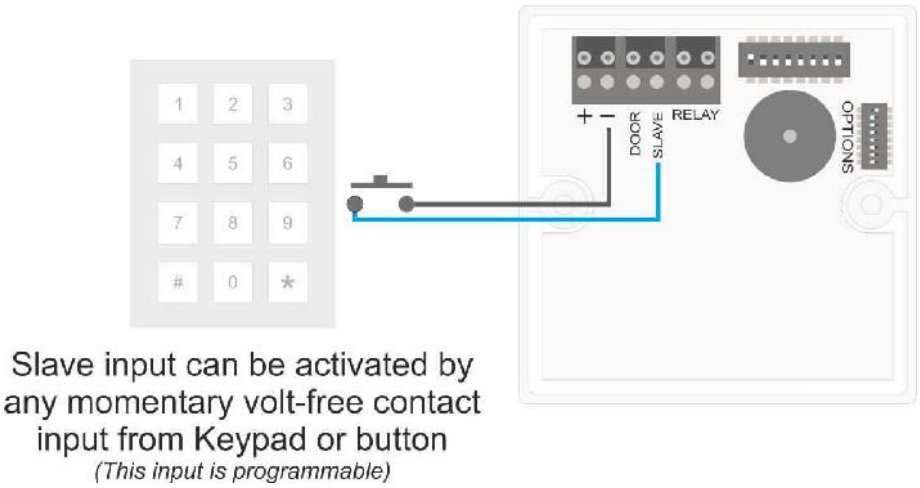
3.13.3 SLAVE Terminal

Input terminal suitable for a momentary volt-free contact input, temporarily allowing access if required. The duration is programmable. Suitable for 'Press to Exit' button, Keypad, or another 924 Access Point for 'back to back' operation.



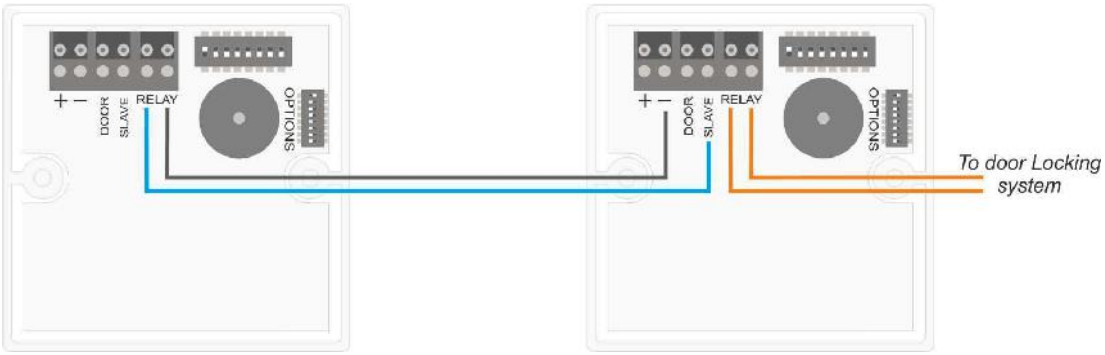
Slave input can be activated by any momentary volt-free contact input from Keypad or button
(This input is programmable)

3.13.4 RELAY Terminals

Volt-Free relay output to operate door locking mechanism, the relay may be configured to be *Normally Open* or *Normally Closed*, using the Option Switches. **Caution:** Relay Contact Rating; Maximum 24Volts DC 1Amp Do not exceed the ratings.

3.13.5 Connecting Two Access Points to one door

Two 124 Access Points can be configured to operate 'Back to Back' with a unit either side of the door. In this configuration, both units must be configured to Access Mode and door monitoring is unavailable so there is no alarm. The units will obviously require connection to the Bus Radial which is not shown.



3.13.6 Address DIP Switches

The Access Point occupies a Device Address using the DIP Switches between 1-254. Illegal addresses are shown with a constant Red LED and Beeper. **Caution:** The Unit Must be set to a unique Device Address.

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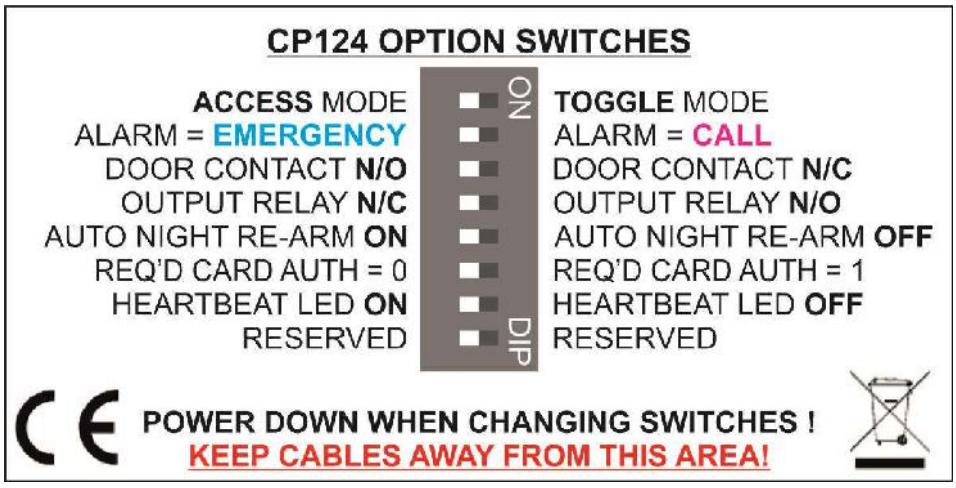
3.13.7 Option Switches

Miniature DIP switches, used to configure the Device. Detailed descriptions of each option are provided in the Commissioning Section.



3.13.8 Installation

Flush or surface mount into standard 'single sized' electrical back box provided by others or ordered separately. **Caution:** Metal objects and cables to be kept away from the lower portion of this Device as they may affect NFC performance.

3.13.9 Size and Weight

The unit is supplied as a flush mounted plate. Size: W88mm x H88mm x D25mm (min) Weight: 60g. Required Backbox: Single Gang minimum depth 25mm.

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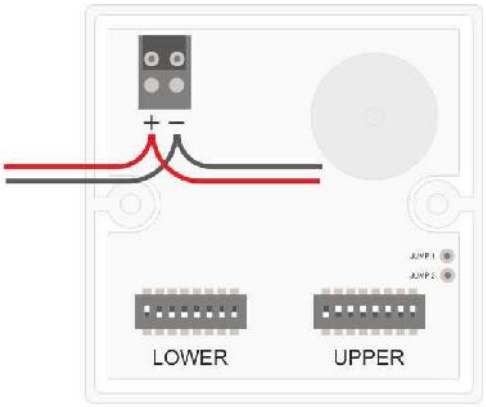
3.14 126 Over Door Light

The 126 Overdoor Light is designed to indicate the status of one or more call points. The unit features High Brightness tri-colour LED indication, mimicking the re-assurance LED on the Call Points. An optional sounder is available, **Order code 126s.**



3.14.1 Bus Terminals

The device connects to the Radial cabling from the Isolator. The connectors may be unplugged without removing the cables simplifying fault finding. **Caution:** Observe polarity when making these connections !

3.14.2 DIP Switches

The 126 Overdoor Light is fitted with two banks of DIP Address switches, labelled Lower and Upper. The light will respond to any Call Point Device within the Address range between the ***Lower*** and ***Upper*** settings. To set the Overdoor light to respond to a single Call Point Device, set the Lower and Upper DIPs to the same address. ***Note:*** *The Overdoor light is a passive Device and does not occupy a Device Address.*

3.14.3 Installation

Flush or surface mount into standard 'single sized' electrical back box provided by others or ordered separately.

3.14.4 Size and Weight

The unit is supplied as a flush mounted plate. Size: W88mm x H88mm x D25mm (min) Weight: 65g. Required Backbox: Single Gang minimum depth 25mm

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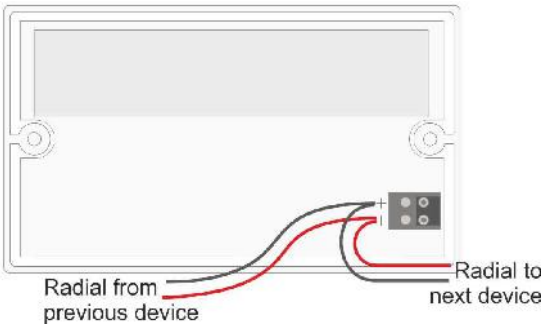
3.15 128 LCD Display

The 128 LCD Display is designed to indicate the location of calling Devices together with alerting staff. The unit features discreet clear backlit Call Display with user controls and sounder.



3.15.1 Bus Terminals

The device connects to the Radial cabling from the Isolator. The connectors may be unplugged without removing the cables simplifying fault finding. **Caution:** Observe polarity when making these connections !

3.15.2 Installation

Flush or surface mount into standard 'double sized' electrical back box provided by others or ordered separately.

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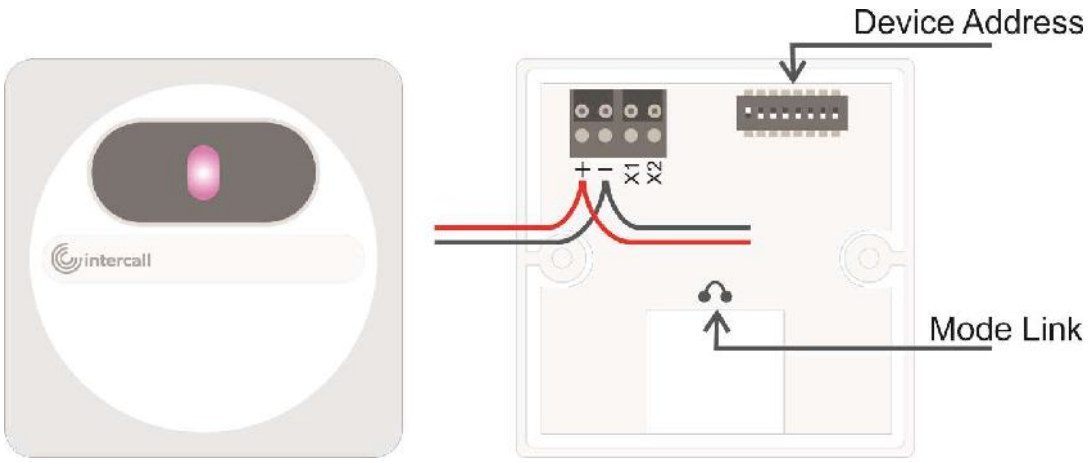
3.15.3 Size and Weight

The unit is supplied as a flush mountable unit. Size: W150mm x H88mm x D28mm (max) Weight: 60g. Required Backbox: Double Gang minimum depth 25mm.

3.16 134 Address Module

The 134 Address Module allows a third party closing contact to trigger the Intercall system. The unit may be configured to generate a Non Latching Patient Call or Emergency Call, or alternatively a Patient Call which is reset once accepted on the Display.



3.16.1 Bus Terminals

The device connects to the Radial cabling from the Isolator. The connectors may be unplugged without removing the cables simplifying fault finding. **Caution:** Observe polarity when making these connections !

3.16.2 X1 Terminal

Input Terminal generating a Patient level call, momentarily connect to '-' to active the call point. The input is non latching and once the connection to '-' is released, the unit will reset after 10 seconds. Alternatively, the Input may be configured to a remote reset input which is reset when the call is accepted on the Display. Configuration is performed using the Mode Link.

3.16.3 X2 Terminal

Input Terminal generating an Emergency level call, momentarily connect to '-' to active the call point. The input is non latching and once the connection to '-' is released, the unit will reset after 10 seconds.

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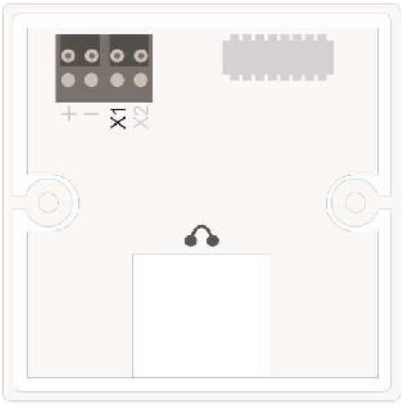
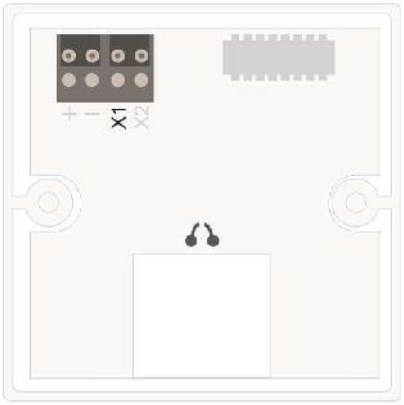
3.16.4 Mode Link

The mode link controls the function of the X1 Input. With the link in place (factory default) the X1 input is non latching and with the mode link cut, X1 becomes a remote reset input which is reset when the Call is Accepted on a Display Unit.



With the Mode Link in place
X1 is non latching



With the Mode Link cut,
X1 is remote reset.

3.16.5 Address DIP Switches

The Address Module occupies a Device Address using the DIP Switches between 1-254. Illegal addresses are shown with a constant Red LED and Beeper. **Caution:** The Unit Must be set to a unique Device Address.

3.16.6 Screw Cover

The Intercall screw cover conceals the mounting screws **Caution** We recommend this is not fitted until system commissioning is complete.

3.16.7 Installation

Flush or surface mount into standard 'singe sized' electrical back box provided by others or ordered separately.

3.16.8 Size and Weight

The unit is supplied as a flush mounted plate. Size: W88mm x H88mm x D25mm (min) Weight: 65g. Required Backbox: Single Gang minimum depth 25mm

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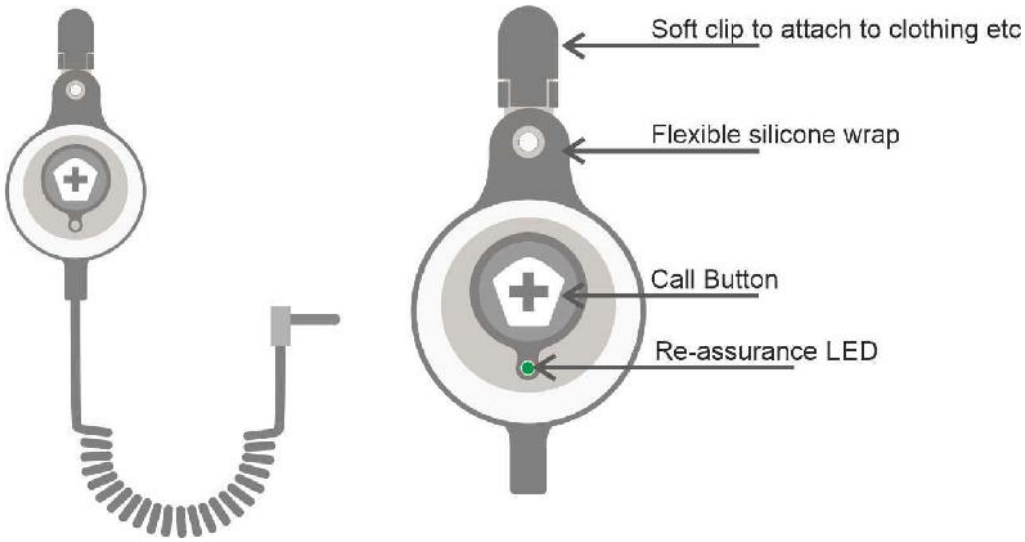
3.17 172 Pear Lead

The Pear Lead plugs into the Call Point to allow a call to be made away from the Call Point.



3.17.1 Cable

The Pear Lead comes complete with a four metre extendable cable with anti-bacterial properties.

3.17.2 Connector

The cable is terminated with a moulded 6.35mm mono jack plug.

3.17.3 Soft Clip

The soft clip allows the pear lead to be attached to bedsheets or clothing. **Caution** Do you attempt to attach to items with a thickness greater than 3mm as this may damage the clip.

3.17.4 Technical

Sealed to IP65. Operational Voltage 3v Current Draw<3mA.

3.17.5 Size and Weight

L (Max) 110mm x W (Max) 50mm x H (Max 17mm) (Excluding Cable) Weight 105g

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3.18 182 Wearable Pendant

The Intercall One Pendant provides wireless access to the Call system while the resident is a away from the Call Point.

3.18.1 Programming

By default, the unit is configured to *Call User Zero*, this can be changed using the Intercall Programmer.

3.18.2 Technical

Protected to IP54, Connectivity Bluetooth/CIR, Battery 3V Lithium factory replaceable.

3.18.3 Size and Weight

L (Max) 75mm x 45mm x H (Max 25mm) 35g (Excluding Lanyard)

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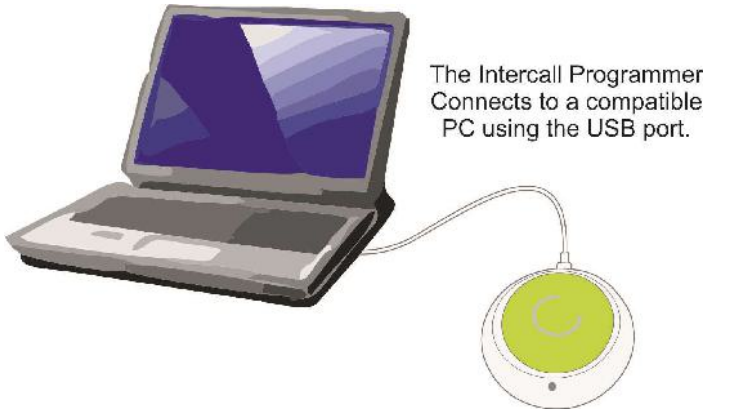
3.19 906 Intercall Programmer

The Intercall Programmer is used to program the 182 Wearable Pendant and Intercall Care Cards. The unit connects to a PC or laptop using the USB cable supplied with the programmer. **Very Important: Install PC software application *Prior* to connecting the device to the computer.**



3.19.1 Installing the PC Software

The software is supplied as two files for x86 or x64 machines. **Important: Install this software *Before* connecting the USB Programmer to the PC.**

3.19.1.1 Installing the Software

Start installing the software by running the version suitable for the destination computer. **Caution:** You may require administrator permissions in order to install this software.

3.19.1.2 Customer Information

Enter the User and Organisation details to which this installation is to be associated.

3.19.1.3 Customising the Installation

You can customize which parts of the software are installed if required. By default the Installer will include all components for the Care Card Programmer and Pendant Programmer.

3.19.1.4 Select Install File Location

Select the location you wish to install the file, the default settings are shown the dialog below.

3.19.1.5 Installing the USB Drivers

The USB drivers for the Touch Wearable Programmer and Touch Care Card Programmer will be installed.

3.19.1.6 Finish this Installation

The Installation is complete, select Finish to complete the installation process.

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3.19.1.7 Attach Wearable Programmer

Once the installation is complete, you may attach the Programmer to your computer using the USB cable.

3.19.1.8 Launch Icons

You should have the launch icons on the desktop. Information on use of the software can be found in the *User Guide* section.

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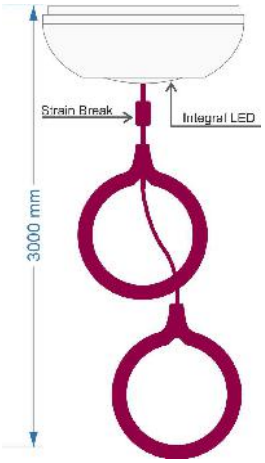
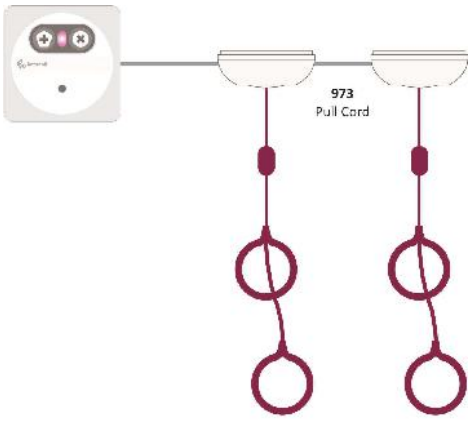
3.20 973 Bathroom Pull Cord

The Bathroom Pull Cord is supplied in a self contained enclosure which is fixed to the ceiling or suitable surface. The unit is designed to operate in the horizontal plane as shown. The unit features antibacterial pull with cord, together with integral Re-assurance LED. The maximum length of the cord and pull is 3000mm.



3.20.1 Two Bathroom Pull Cords

A Maximum of 2 Bathroom Pull Cords may be connected to a single Call Point and must be included in all cabling calculations.



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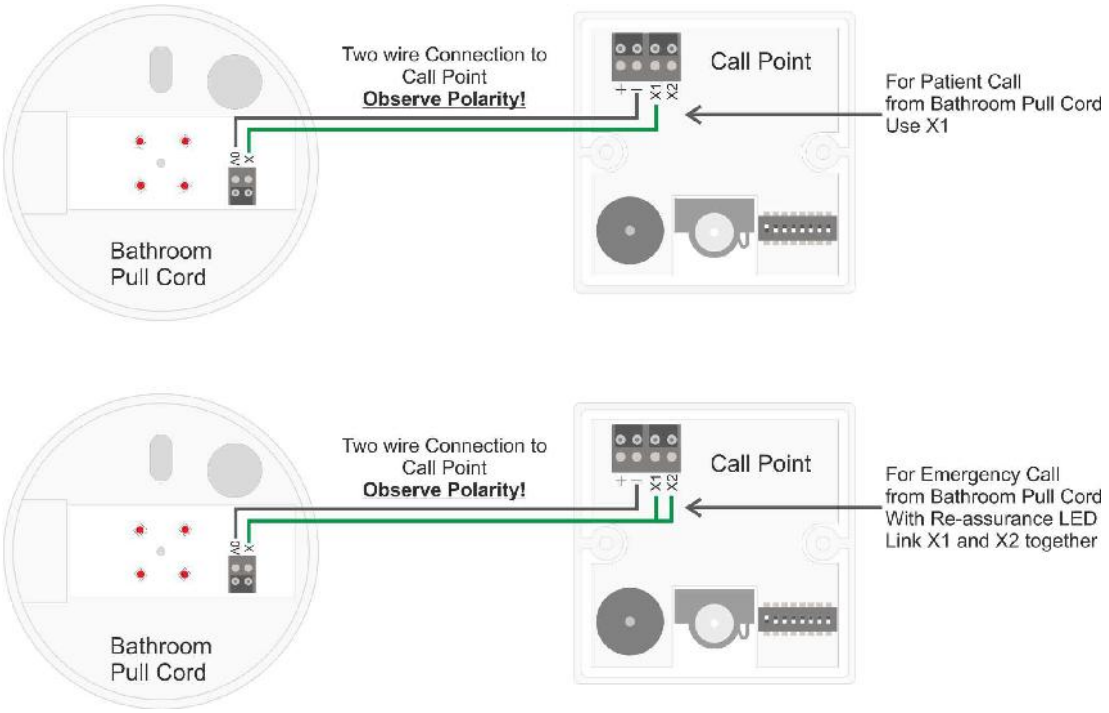
3.20.2 Connection to Call Point

The Bathroom Pull Cord connects to the call point using a two wire connection. **Caution:** The maximum cable length between the call point and the bathroom pull cord is 10metres.



3.20.3 Size and Weights

The unit is supplied in a surface mounting self contained enclosure Size: Diameter 105 x H45mm. Weight 120g. The unit is designed to operate in the vertical plane only.

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Commissioning

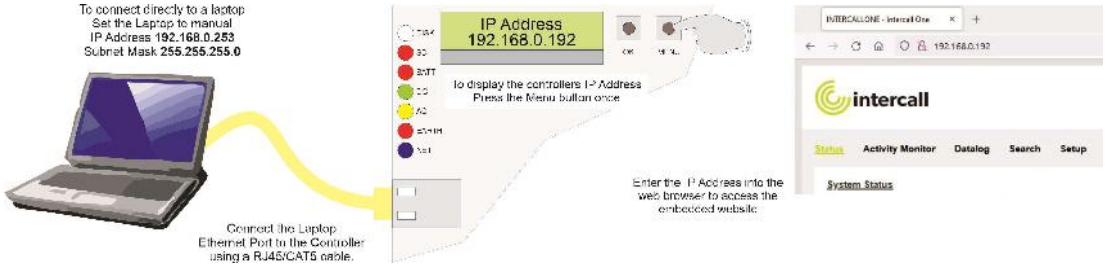
4 Commissioning

4.1 2nd Fix (Quick Start)

The following section is intended as an overview of connecting and commissioning, it does not explore the features of the system and these are found in the commissioning section of this manual.

4.1.1 Connecting to the Controller

The Controller features an embedded website and configuration is performed using a web browser. A static IP address may be required when connecting a laptop to the Controller during commissioning.



To set a static IP address in Windows 10:

1. Click Start > Settings > Network and Internet > Ethernet > Change Adaptor Settings.
2. The Network Connections page displays all available adaptors, ensure you are selecting the correct device!
3. Double click on the connection icon.
4. Click Properties.
5. Double click on Internet Protocol Version 4 (TCP/IPv4).
6. Move the Radio Button to "Use the following IP address"
8. Enter the IP address, Subnet mask, Default gateway, and DNS server.
9. Click OK.

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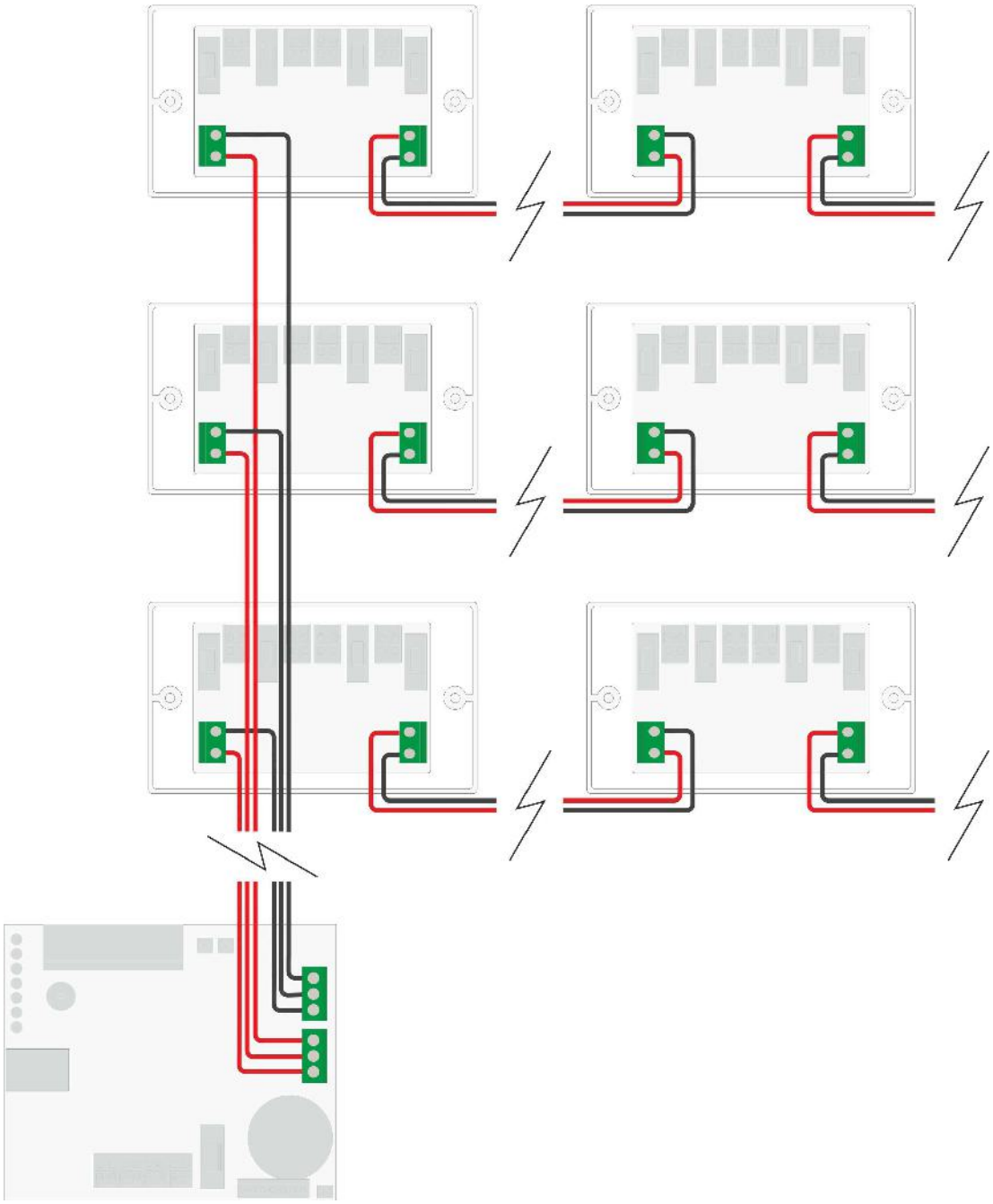
4.1.2 Connecting the Bus

Connect the BUS cables from the output of the Controller to the Isolators so that all BUS cables are connected as required.



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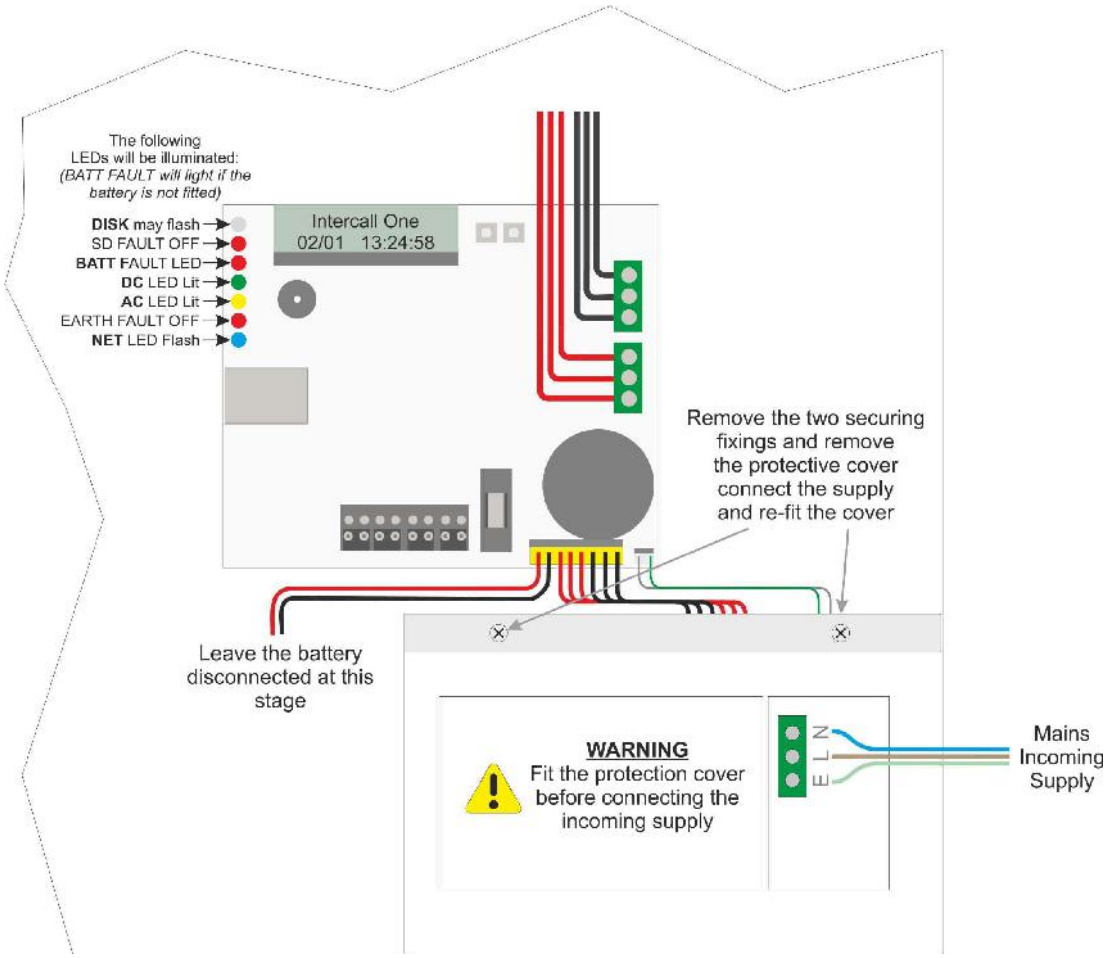
4.1.3 Power up the Controller

Remove the protective cover and connect the incoming main supply cables, replace the protective cover and switch on the power. Leave the battery disconnected at this stage. After the start-up sequence, the controller will be showing the date and time and the AC, DC Status LEDs will be illuminated. The BATT FAULT LED will also be illuminated if the battery is not fitted, however, no other RED Fault LEDs should be illuninated.



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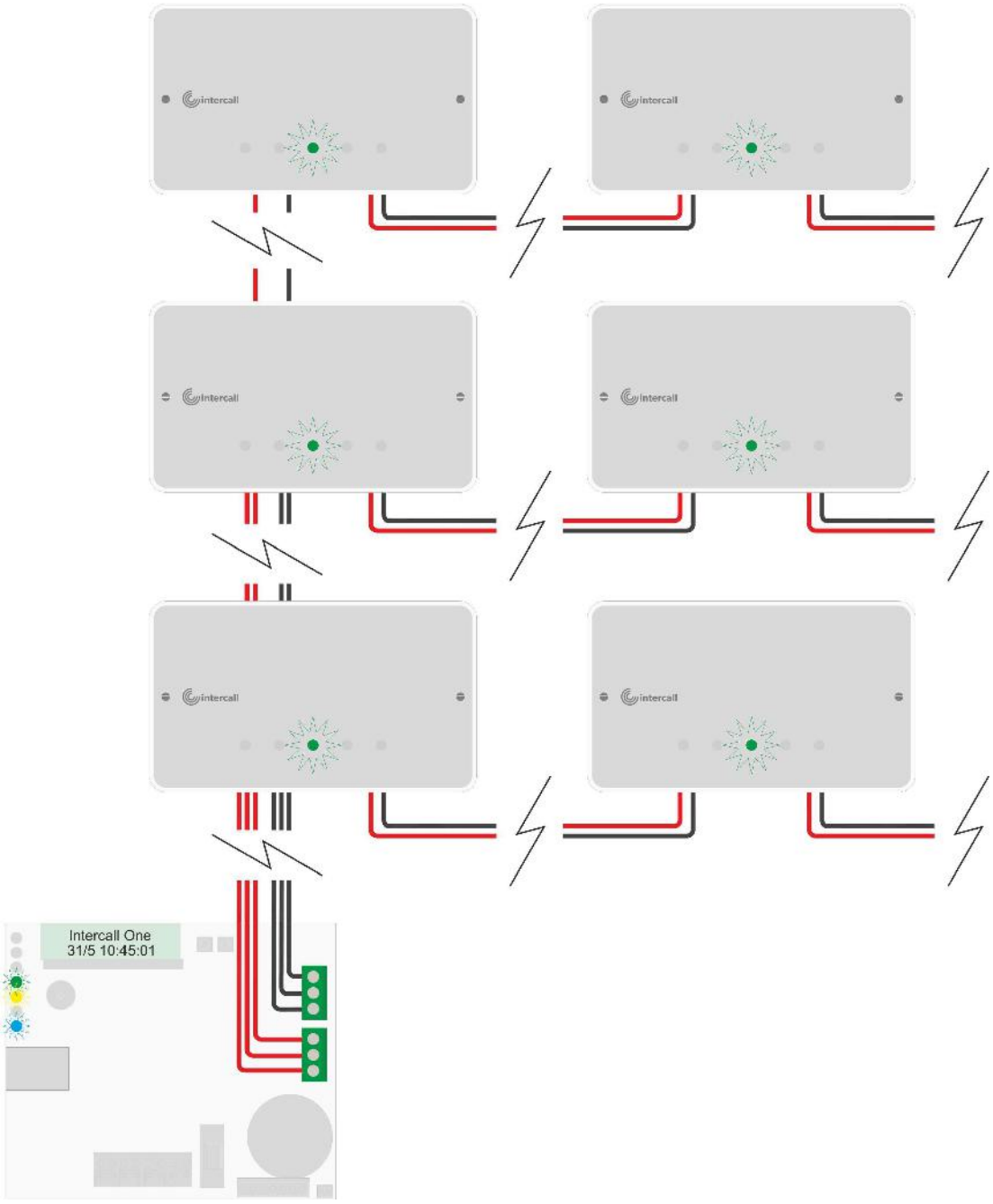
4.1.4 Isolators Running

With the BUS cables connected to the Isolators and the Controller Powered Up and Running, check the Green LEDs are illuminated on all Isolator units.



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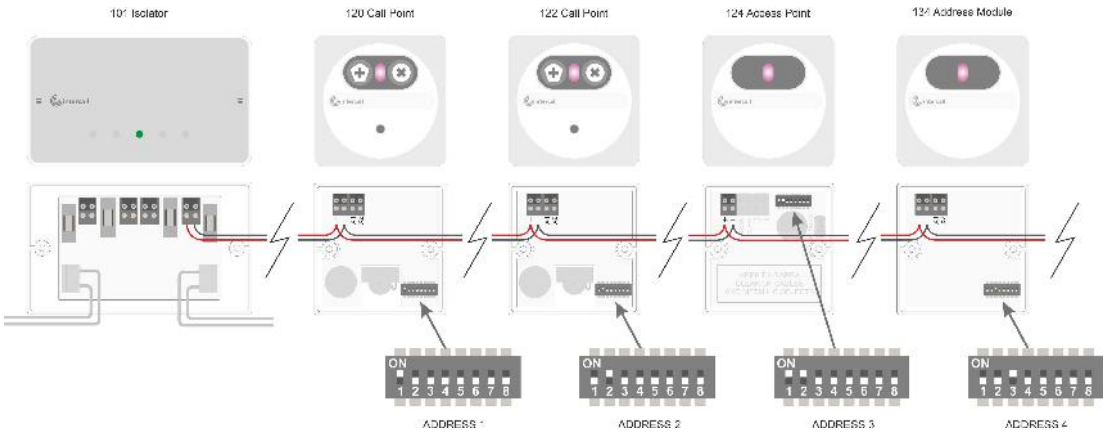
4.1.5 Connecting Devices

Power Down the Controller and begin connecting Devices to the Radial cables, carefully observing polarity on each connection. You must set all Calling Devices (Call Points/Access Points/Address Modules) to a Unique DIP Switch Address prior to powering up the Device.



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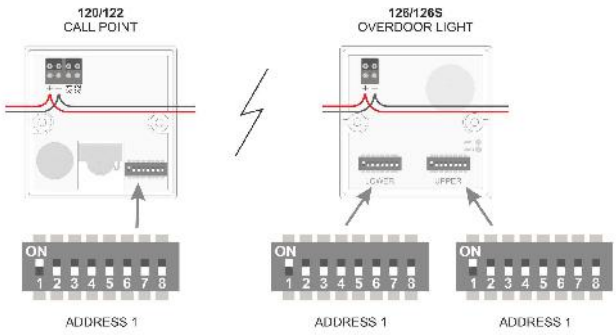
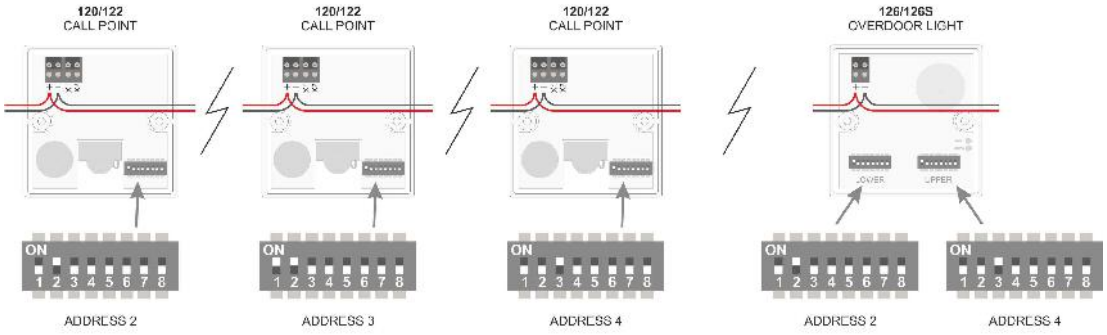
4.1.6 Overdoor Light DIP Switches

Overdoor Lights have two DIP Switches, *Lower* and *Upper*. Where an Overdoor Light is to follow a single Call Point, simply set both DIP Switches to the same Address as the Call Point. When following a consecutive range of Call Point Addresses, set the Lower and Upper DIP Switches accordingly.



Overdoor Light following a single Call Point



Overdoor Light following multiple Call Points

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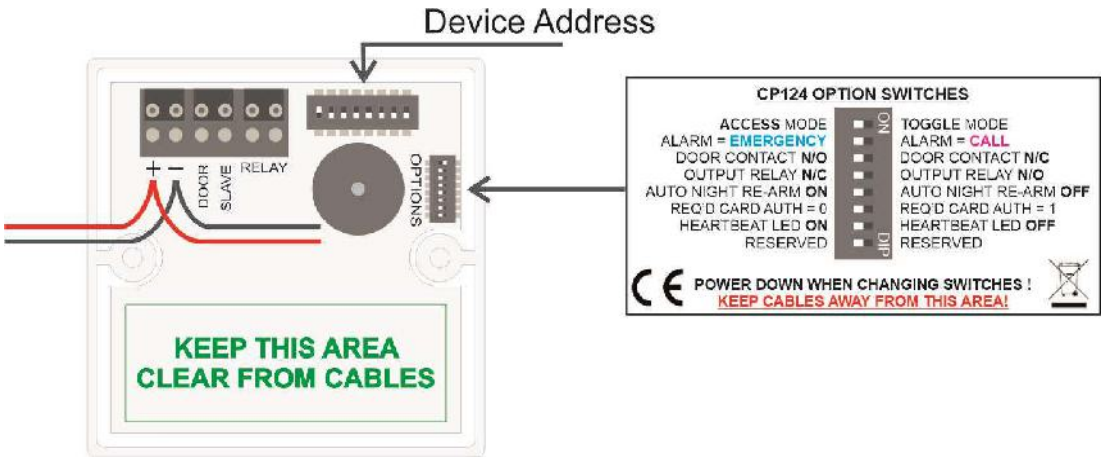
4.1.7 Access Points

In addition to the Address DIP Switches, the 124 Access Point has eight Option Switches which configure the unit operating modes. **Important:** The unit must be powered down when changing settings.



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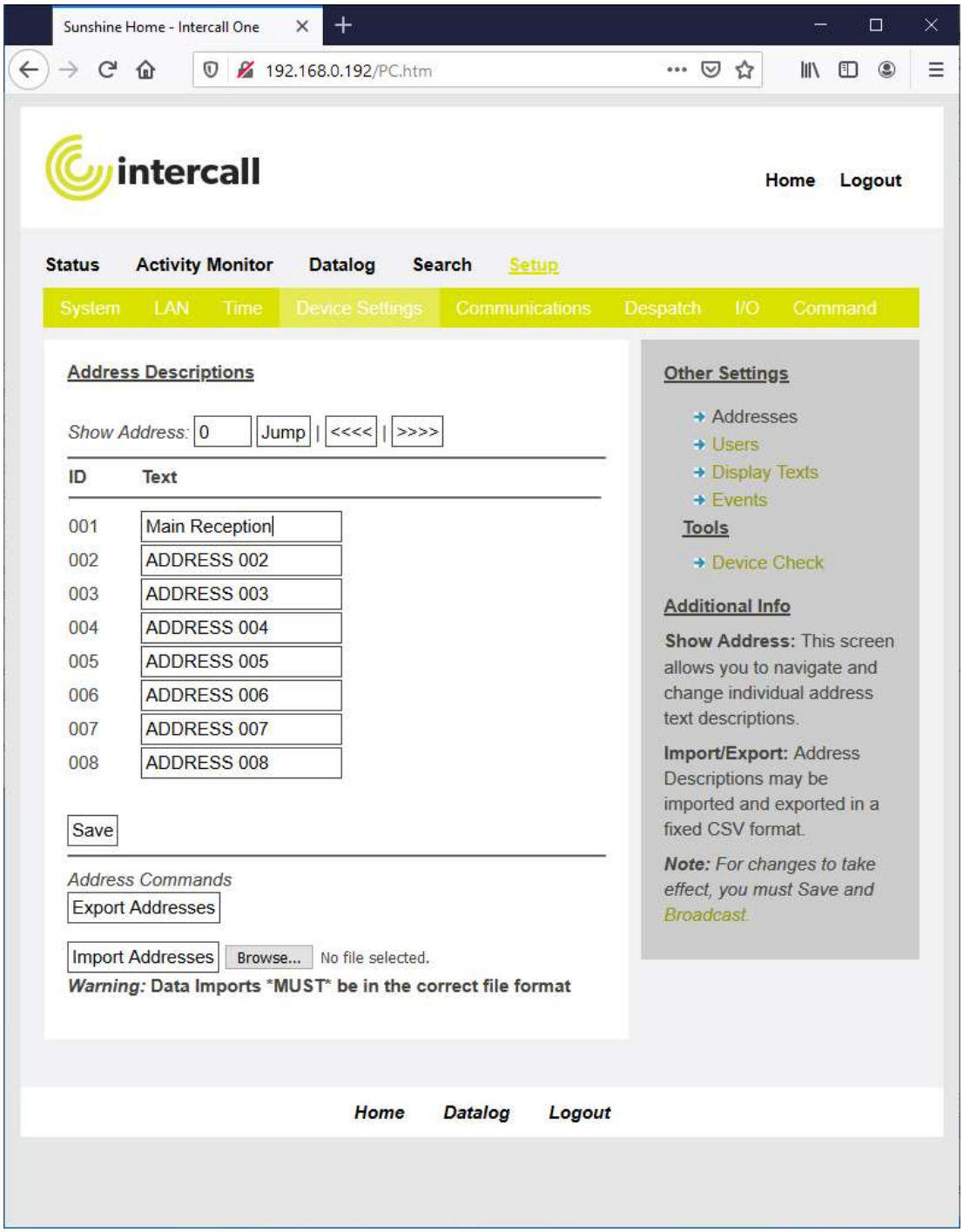
4.1.8 Address Descriptions Page

The Address Descriptions Page forms part of the controller embedded website, simply select the DIP Address, enter the required description and select Save. When complete, navigate to the Commands Page and Select the Broadcast function to send the descriptions to the Display Units.



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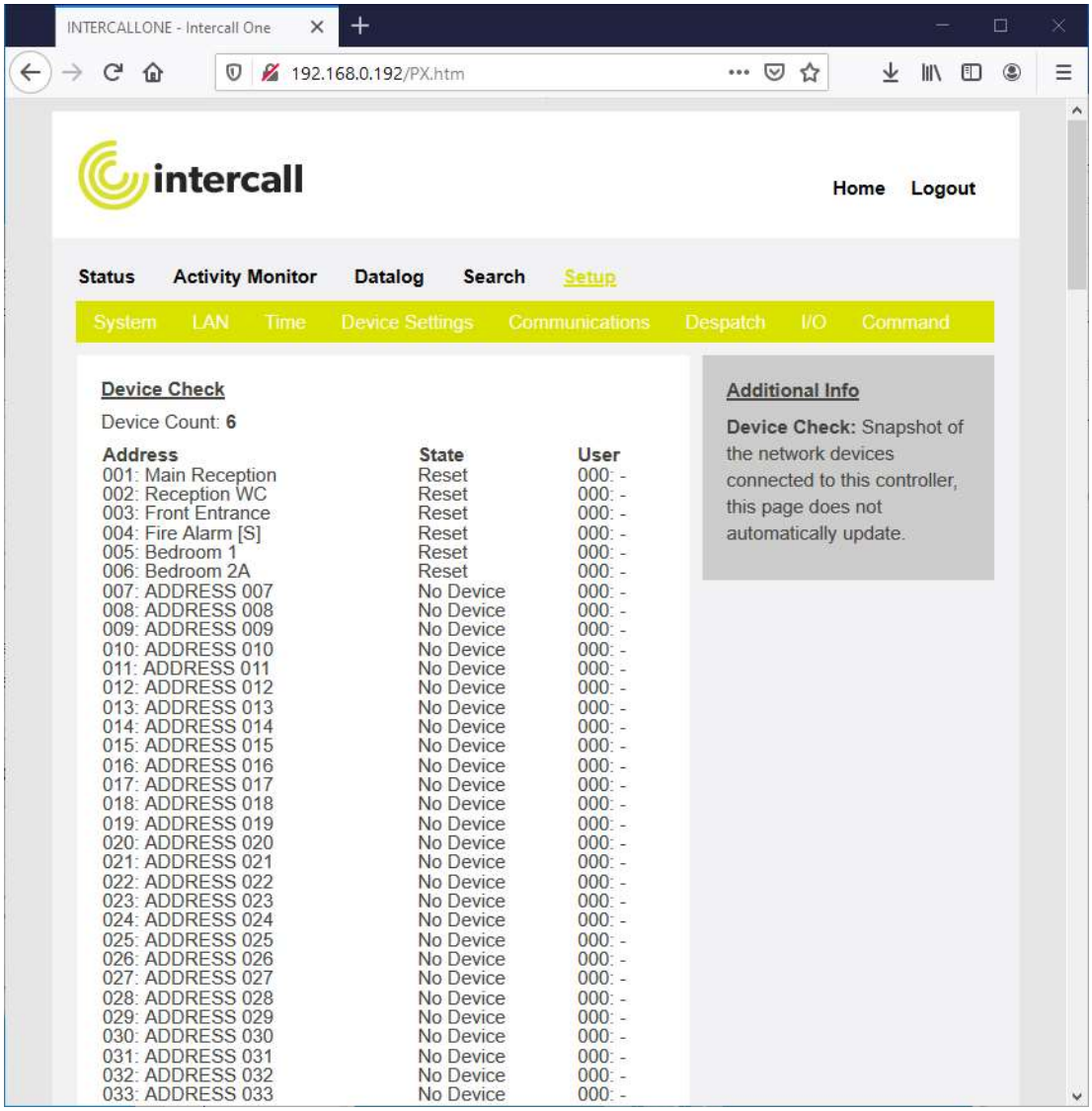
4.1.9 Device Check Page

The Device Check page provides a snapshot of all Calling Devices on the Bus, together with a Device Count. Use this page to confirm device addressing and the correct number of devices are showing in the Device Count at the top of the page. Note: This page does not automatically update, refresh the browser (Normally F5) to update.



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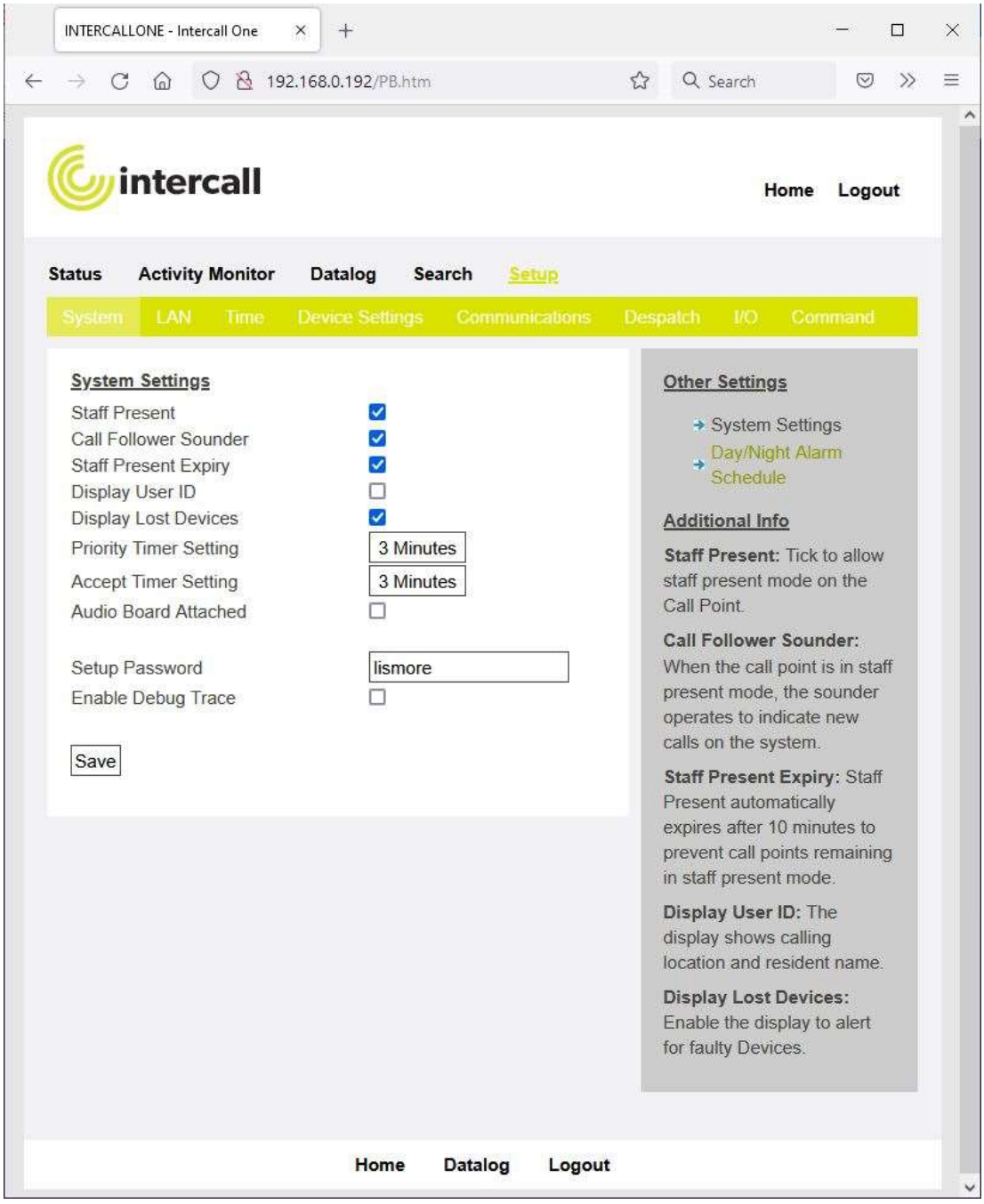
4.1.10 System Settings Page

The System Settings Page forms part of the controller embedded website. Select the tick boxes to enable or disable the required feature and use the drop down to select the timer values. When complete, select Save to store your changes.



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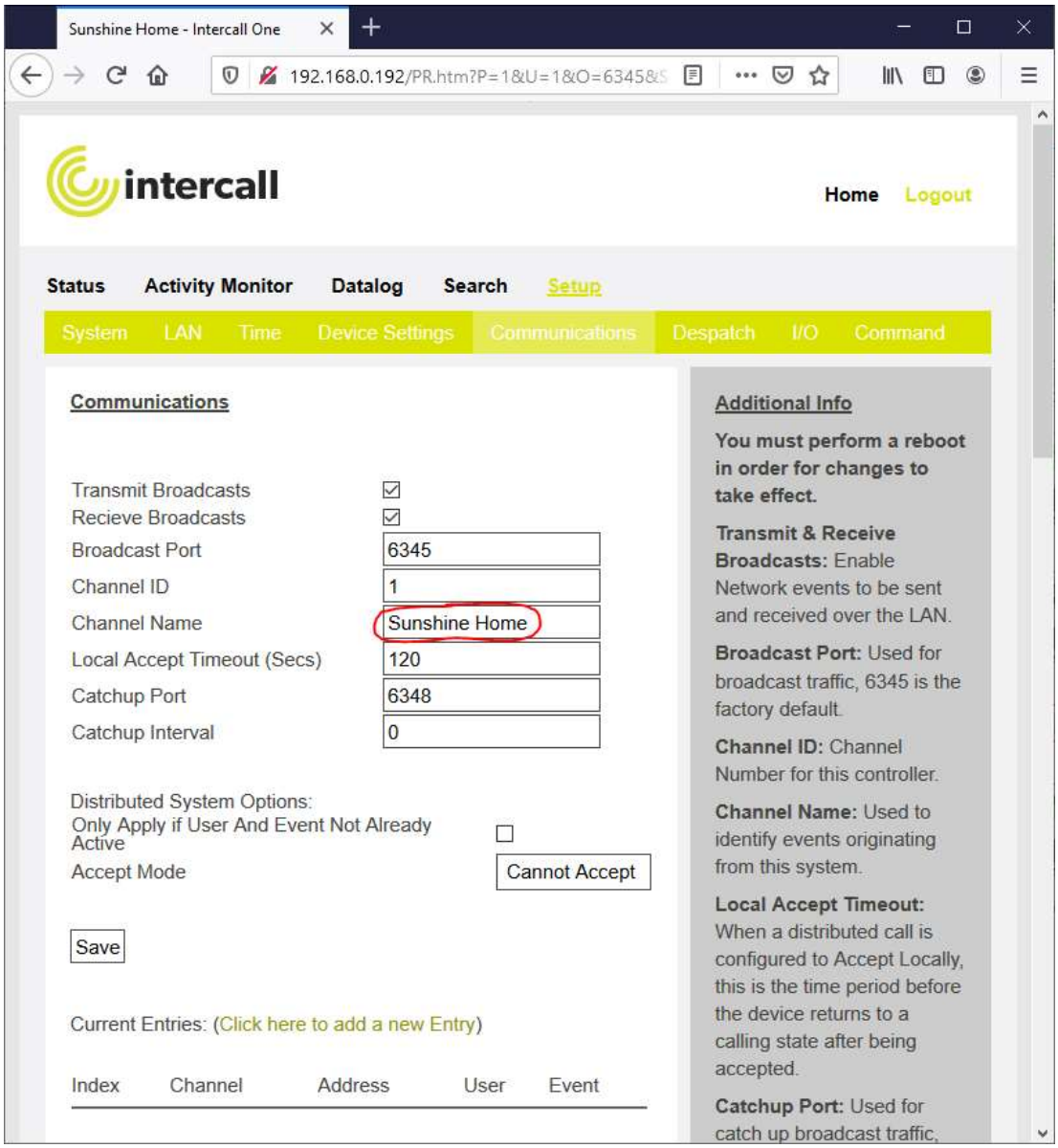
4.1.11 System Name

The Communications Page forms part of the controller embedded website, Insert the system name for this controller and select Save to store your changes.



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4.1.12 Intercall Pendant

The Pendant may be used on the factory default settings, alternatively they can be programmed with a User Number or Name as required. The pendants are programmed using the Intercall Programmer.

4.1.13 NFC Care Cards

The Care Cards must be programmed to be used on the Intercall system, they are programmed using the Intercall programmer or may be supplied pre-programmed by the factory.

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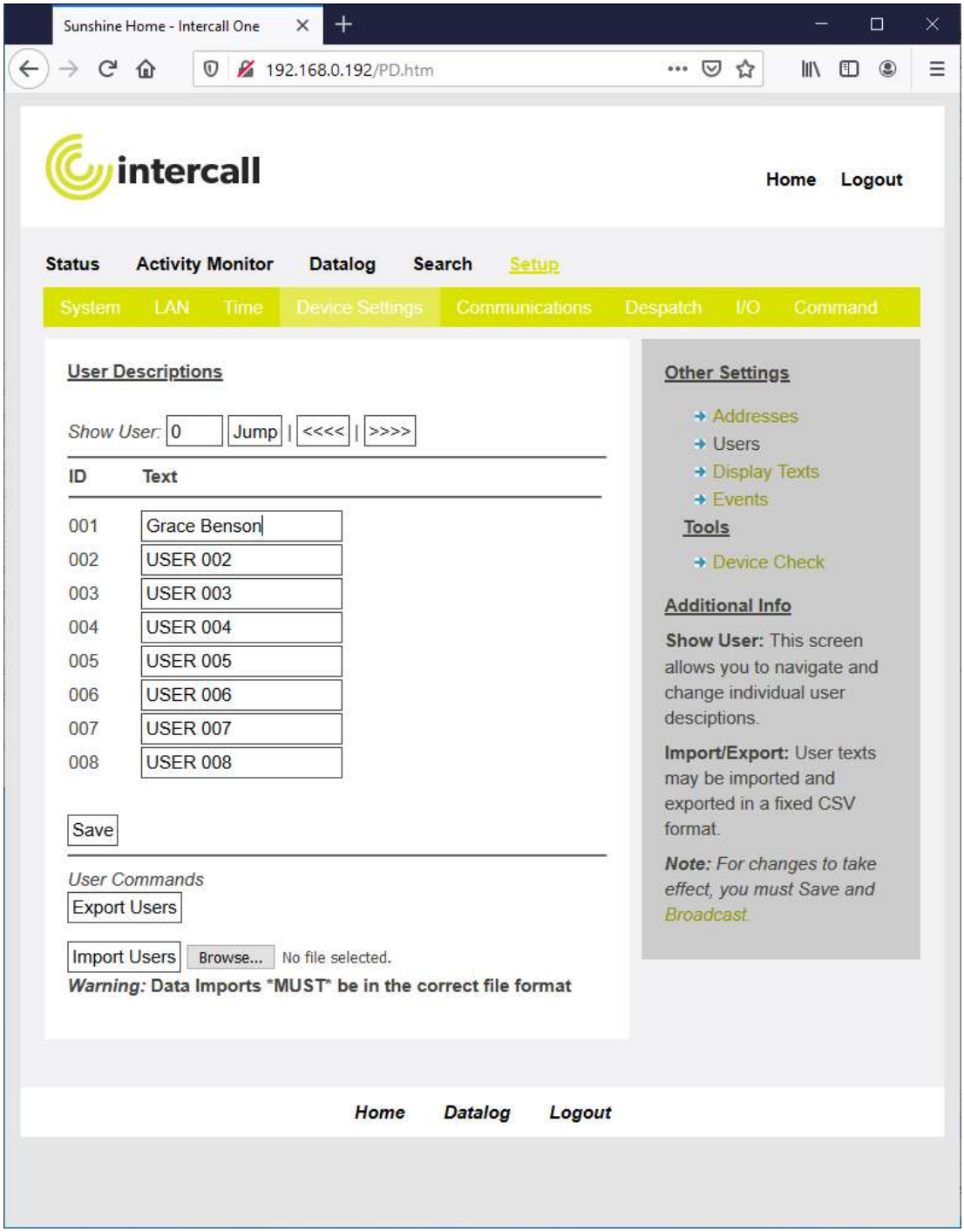
4.1.14 User Descriptions Page

Users are defined where Individual Users require identification using the NFC Care Cards or Pendants. The User Descriptions Page forms part of the controller embedded website, simply select the User ID, enter the required description and select Save. When complete, navigate to the Commands Page and Select the Broadcast function to send the descriptions to the Display Units.



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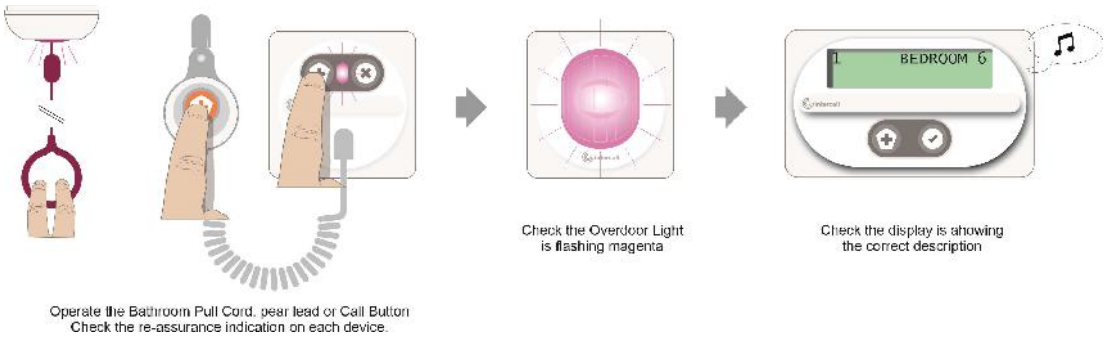
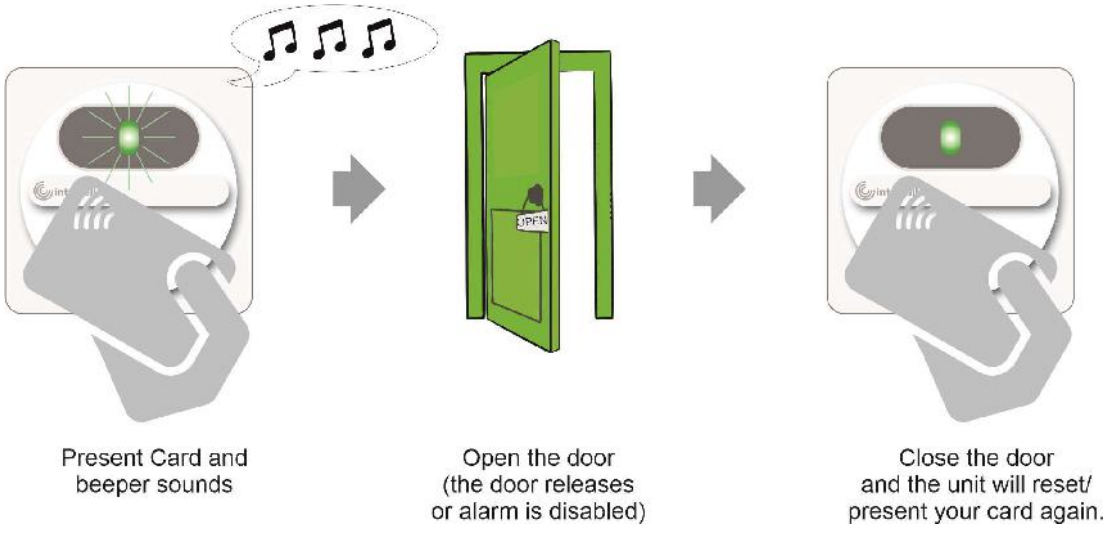
4.2 Simple System Testing

Once the Second Fix has been completed and the system is operational, a simple test can be carried out as detailed below and we recommend all parts of the system are tested prior to customer handover. Operate the Bathroom Pull Cord and check the re-assurance indication illuminates, the Call Point should be calling, Overdoor Lights should be flashing magenta and the correct room description is showing on the Display.



Present a Care Card to the Access Point and the unit will respond with a Beep and the door will be released or un-armed (depending on configuration) and the door may be opened. Close the door and the unit will reset or present a Care Card again.



Generate a Patient Call from a call point by pressing the Call Button, with the call showing on the display, press the Accept Button, the call will be removed and the Call Point indicator will illuminate continuously, press the Reset button.

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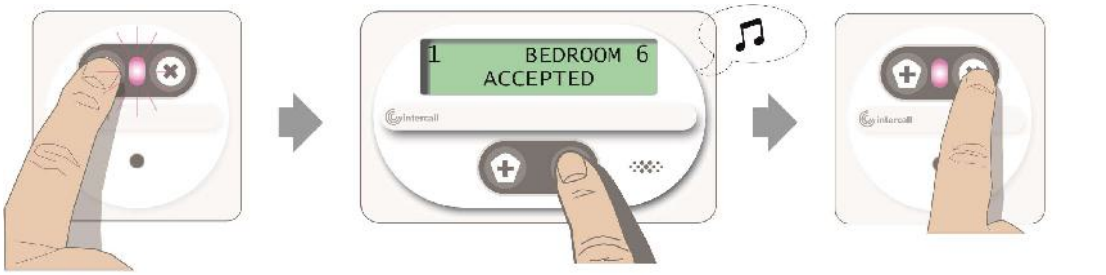

Operate the Call Point

Accept the Call on a Display Unit

The Call Point reassurance indicator will illuminate continuously

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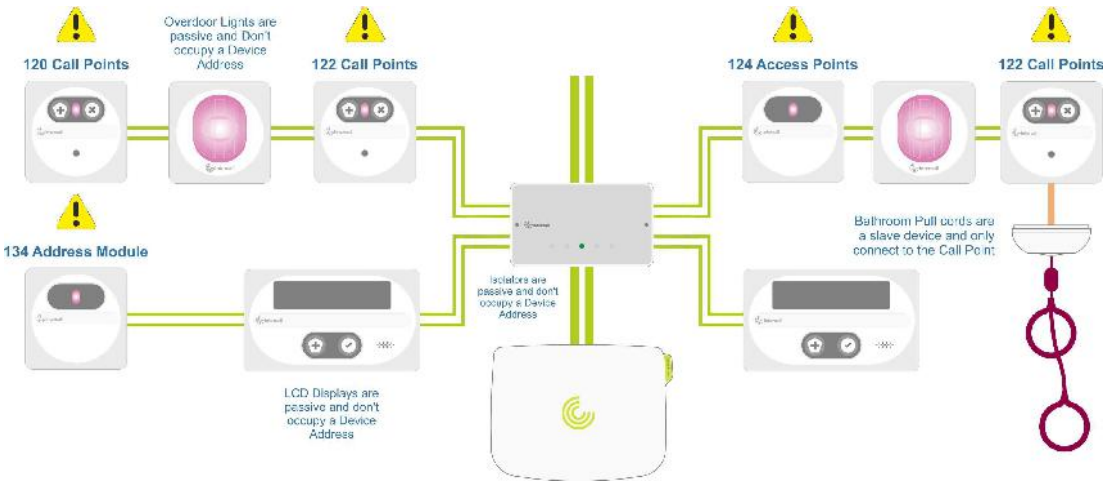
4.3 Device Addressing

Each calling device must be configured to a Unique DIP Switch Address between 1 and 254, which is assigned an Address Description in the Controller to identify the individual device on the system. Where a system is Zoned the Call Points in each zone are contained within a consecutive Address range. Similarly when Overdoor Lights indicate a group of Call Points, the Call Points are contained within a consecutive address range. We always recommend leaving a gap between these addressing groups to allow for future alterations etc. **Note:** An illegal Address is indicated on a device by a Red LED indication or continuous reboot.



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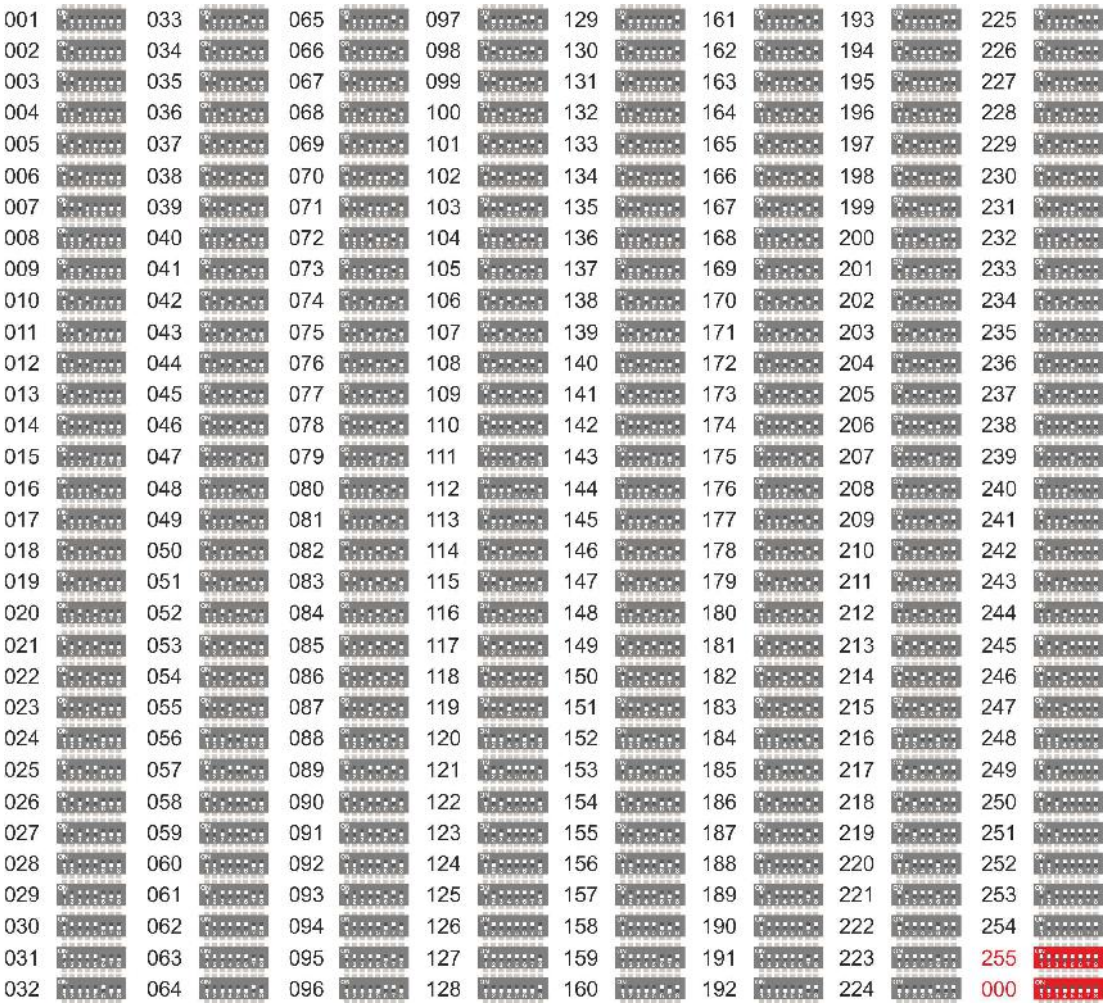
4.3.1 Address DIP Switch Chart

The Call Point Devices may be set to a DIP Switch Address between 001 and 254. Do not repeat addresses as **Each Call Point Device must be set to a Unique Address**. Addresses 0 and 255 are not available.



4.4 Day / Night Mode

The Intercall One System operates in either Day Mode or Night Mode and the Controller may be configured to switch between these modes automatically, via the website or using a manual input. Call Points and Displays can be configured to operate differently depending on the mode in use. For example, Displays can reduce the alarm volume and/or use different zoning configuration while in the night mode to avoid disturbing sleeping residents. Access Points can re-arm doors when the system switches from Day Mode to Night Mode to prevent doors being left open at the end of the day.

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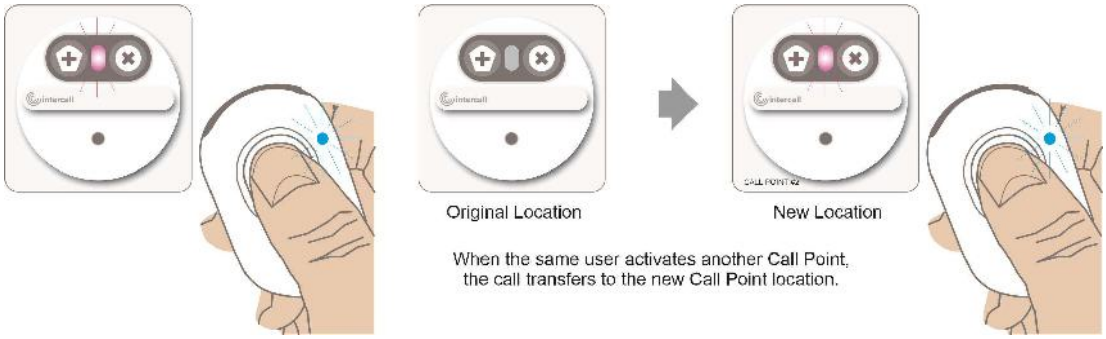
4.5 User Tracking

When a Call Point has been activated by a resident using a pendant and the same user activates another Call Point, the call transfers to the new Call Point location, ensuring the most recent location is displayed. Note: The Pendants must be programmed to a User Number between 1-250 to use this feature.



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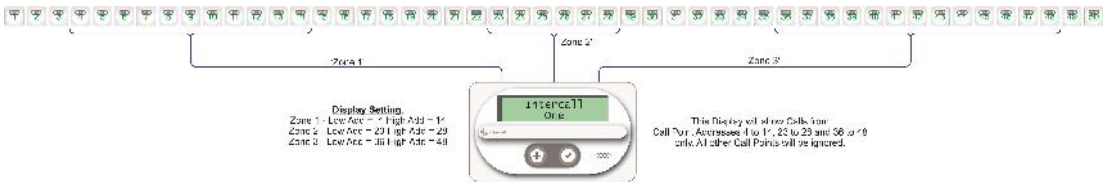
4.6 Zoning Configuration

Zoning restricts the Call Points which will be presented on a particular Display. The Zoning is configured in the Displays and each unit may be configured to operate independently using the Display Configurator Application or integral Display menu. In the example below in a building with three floors, Displays are configured to exclusively show patient calls from their own floor, however, urgent Emergency Calls are presented on all floors. We can also configure the displays to show unanswered Patient calls on all floors.

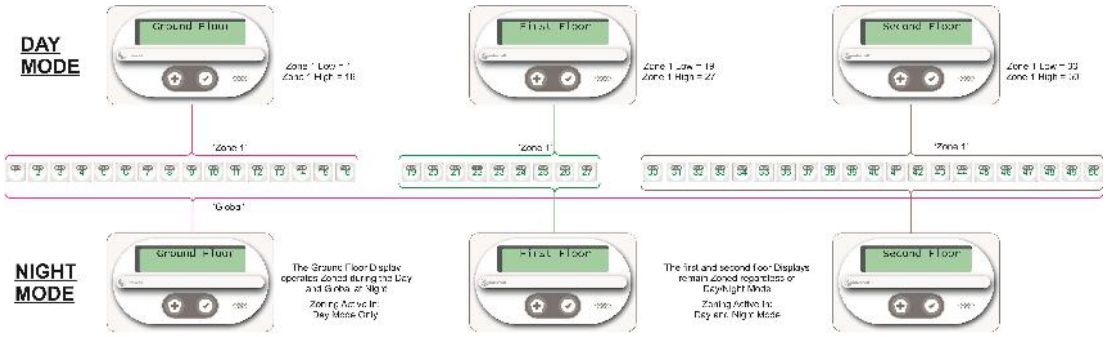
4.6.1 Call Points Groups

Call Points are arranged in consecutively addressed groups or zones and the Display Units can accommodate up to three of these groups to form a single operating block of Addresses. A group may contain a Single Call Point or multiple Call Points as required. In the Display, the groups are labelled 'Zone 1, 2, and 3' and in the example below, the display will present any Call Point address which is inside one of the Zones, all other Call Points are ignored.



4.6.2 Day/Night Mode

The engineer can choose when zoning is active on a particular display, which may be in Day Mode Only, Night Mode Only, or Day and Night Mode *(i.e always)* In the typical example below, the ground floor Display is zoned during the day but operates globally at Night, however, the first and second floor Displays are zoned in Day and Night Mode.



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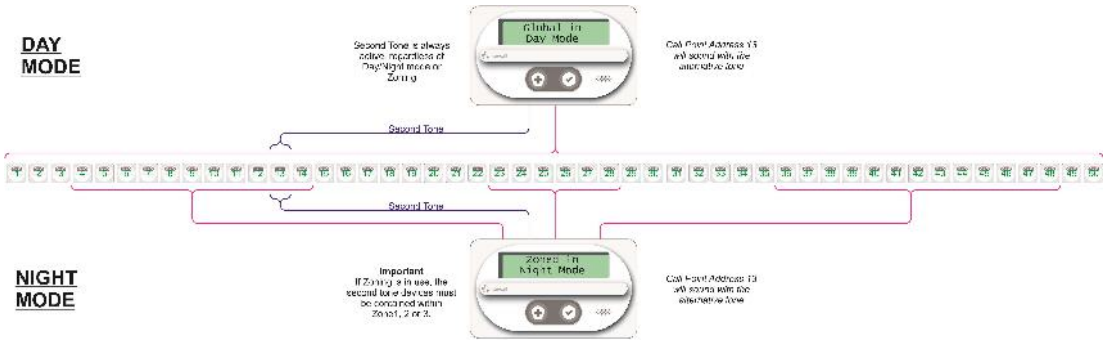
4.6.3 Second Tone

Second Tone is a feature of the Displays which allows them to generate an alternative tone when a Call Point (or group of Call Points) is active. For example if the door bell is connected to the Intercall system, and configured for Second Tone, staff may be alerted audibly without needing to visit the display. The Second Tone feature operates independently of the Zone settings, however, if Zoning is in use, any Call Point in the Second Tone group must also be contained within the Zone.



4.6.4 Additional Equipment

No additional equipment is required for zoning, however, if manual zoning is required (ie controlled from a switch) a simple closing contact switch will be required, connected to the controller.

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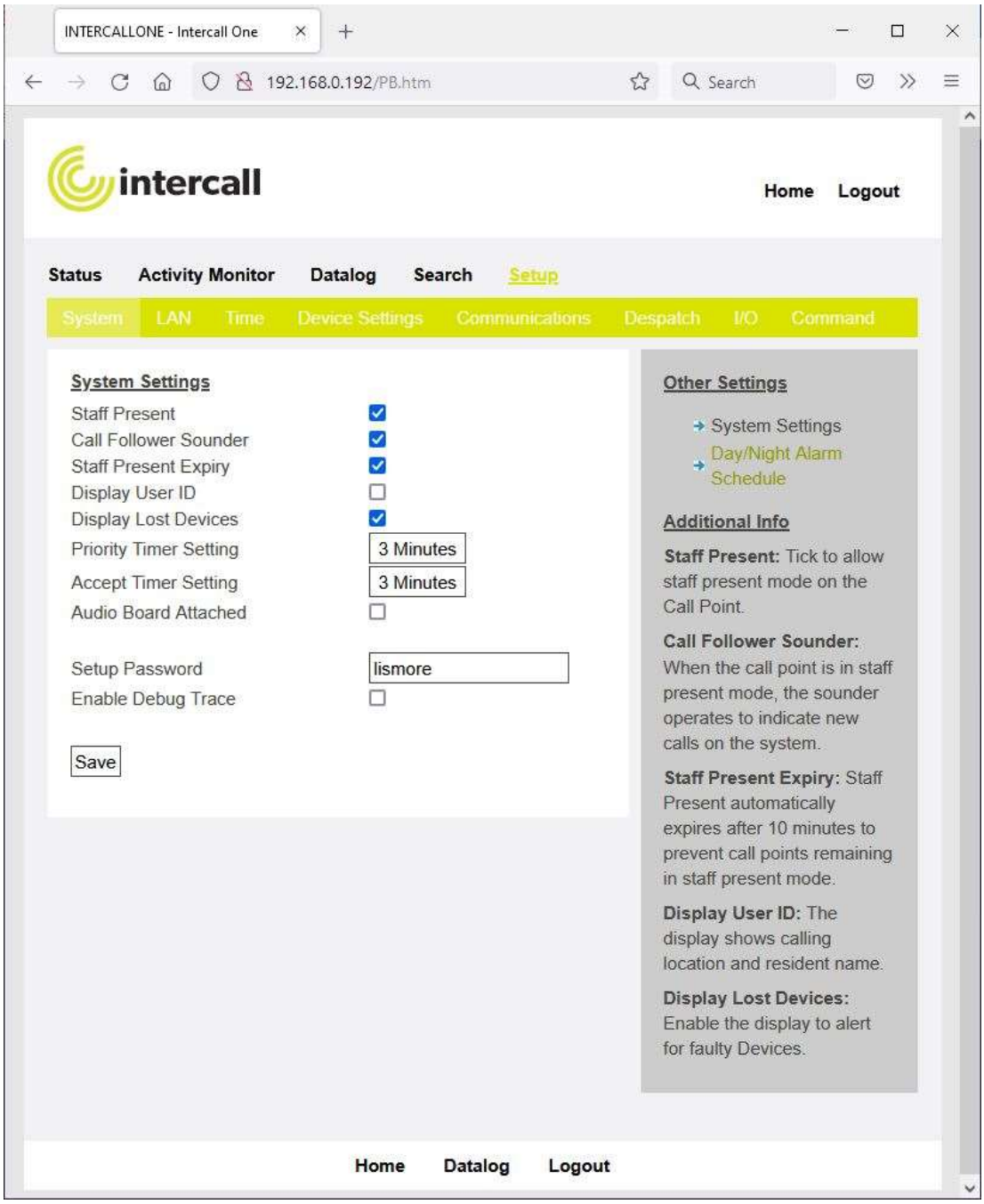
4.7 100 Controller

The Intercall Controller features an embedded website accessed using a web browser, no special software is required. The following details the engineering section of the embedded website.

4.7.1 System Settings Page

The System Settings page defines the system features and behaviour.



4.7.1.1 Nurse Present

Tick to allow staff to register Staff Presence at the Call Point using the Reset button when the Call Point is in the quiescent condition.

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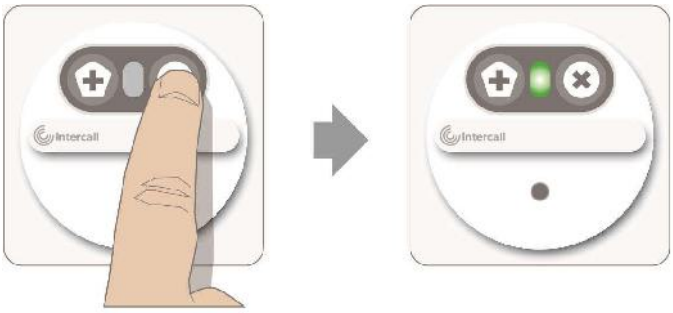


With the call point in the quiescent condition, press the Reset button to register Staff Presence

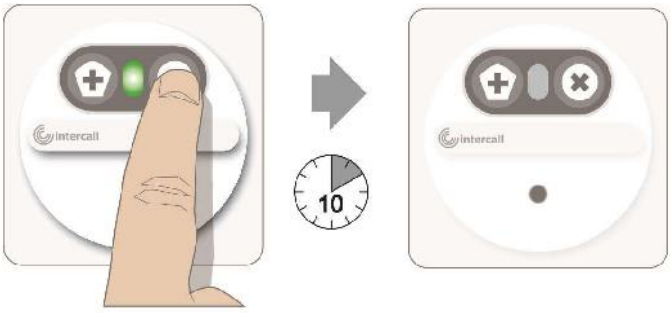
4.7.1.2 Call Follower Sounder

Tick to enable the Call Follower Sounder in Staff Present mode, staff are alerted to waiting calls using the audible sounder.

With Nurse Present Enabled, staff are alerted to other calls waiting.

4.7.1.3 Staff Present Expiry

Tick to enable Staff Present Expiry. With Staff Present enabled, the Call Point will automatically move from Staff Present to Reset after 10 minutes to prevent the unit being left in Staff Present mode accidentally.



Staff Present automatically changes to Reset after 10 minutes

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4.7.1.4 Display User ID

Tick to enable the Displays to show the calling user name where available. Pendants can be programmed with the residents name allowing them to be identified together with their location when they require assistance. If a user name is not available, the display will show the Event name. Without this option ticked, the display will use both lines to show calls.

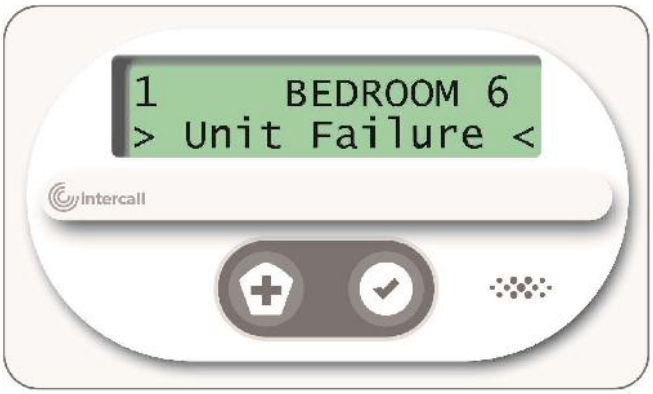
With Display User ID Ticked, the Displays will show the calling room on the top line and the resident name on the lower line.

If the Residents Name is no. available The Displays will show the calling room on the top line and the Event name on the lower line.

With Display User ID Not Ticked, the Displays will use both lines to show more than one call simultaneous.

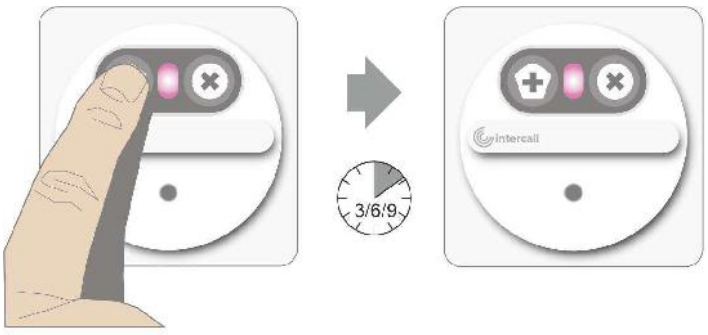
4.7.1.5 Display Lost Devices

Tick to enable the Displays to show lost device faults on the system. When a calling device is disconnected or becomes faulty, the Display units can present an audible alert and identify the faulty device if required.



4.7.1.6 Priority Timer

Patient Call can be configured to automatically escalate to Priority Call after a period of time. On a zoned system, this feature can be used to route unanswered calls to other Displays so that additional staff may be alerted. Use the dropdown to select from four options; 3, 6 or 9 minutes, alternatively this feature may be disabled as required.



Patient Calls can be configured to escalate to Priority Calls after 3,6,or 9 minutes.

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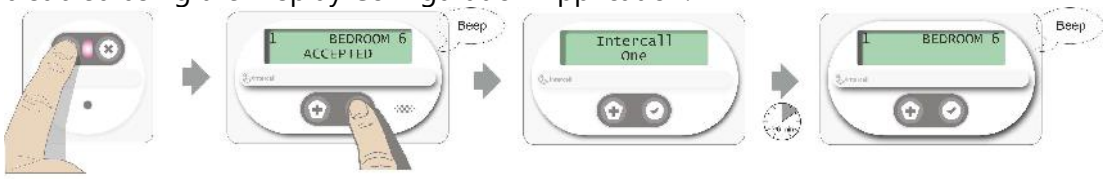
4.7.1.7 Accept Timer

Patient Calls may be accepted at the Display by pressing the Accept button, silencing the call for a period of time to allow staff to attend the room. Use the dropdown to select from two options; 3 or 6 minutes. Alternatively, the Accept feature may be disabled using the Display Configuration Application.



Patient Calls may be accepted at the Display unit to silence the alarm. If the call remains unanswered the alarm will return after 3 or 6 minutes.

4.7.1.8 Setup Password

The Setup Password is used to access the engineering pages of the website.

4.7.1.9 Enable Debug Trace

The Debug trace is used in conjunction with the Intersniff engineering software for fault finding purposes.

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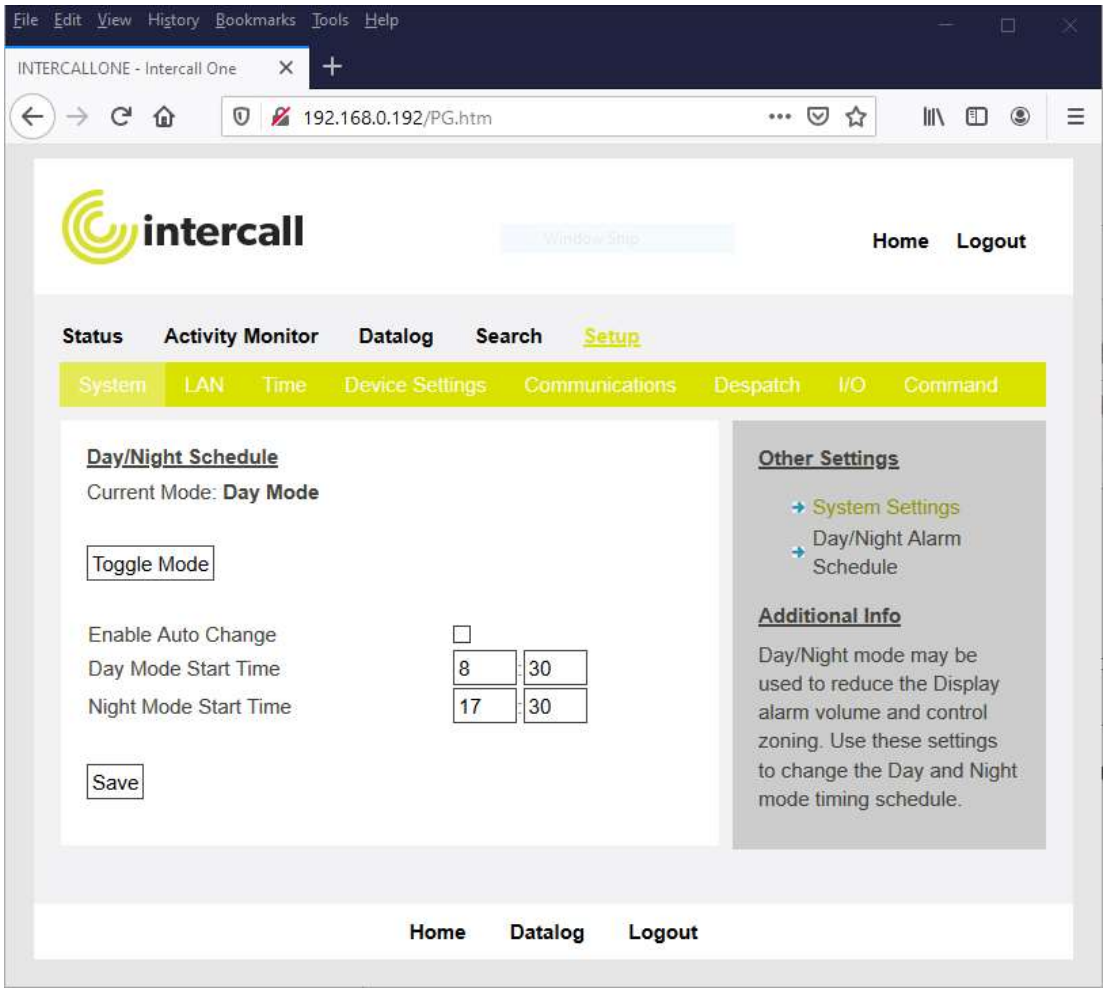
4.7.2 Day/Night Schedule

The Controller features a Day and Night schedule which may be changed manually using the Toggle Button, or automatically at the specified times entered into this dialogue. The Day/Night Mode can also be set by a contact input to the Controller or from the Home Page.



4.7.3 LAN Page

The LAN page contains essential settings for connection to the Local Area Network controlling web access and when connecting Controllers together.

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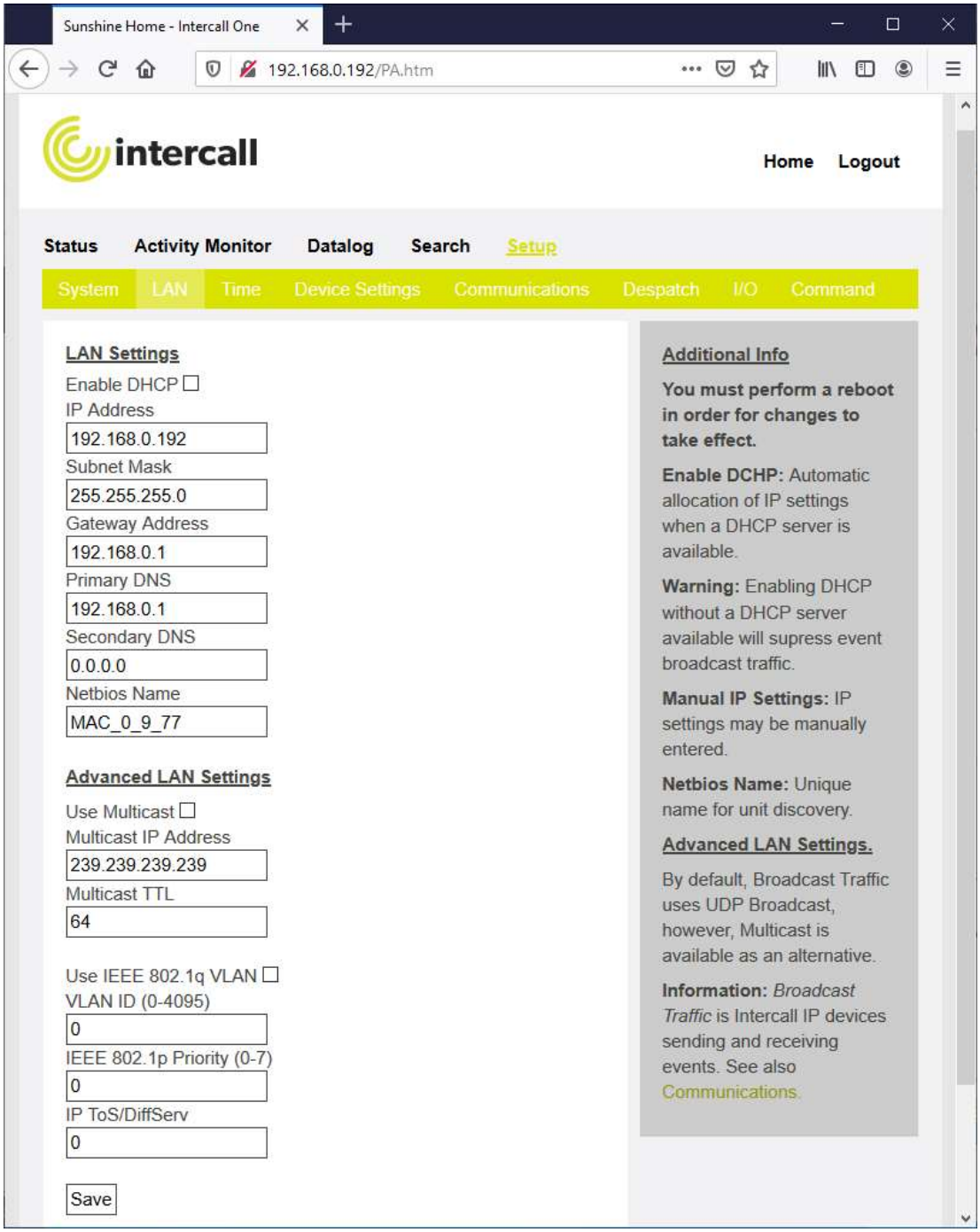

4.7.3.1 Enable DHCP

Tick to automatically allocate IP Settings when a DCHP server is available on the Local Area Network. If this item is not ticked, you must manually enter these settings.

4.7.3.2 IP Address, Subnet, DNS

Manually entered fixed IP settings, enter the IP Address, Subnet, Gateway and DNS Addresses as required.

4.7.3.3 Netbios Name

Enter a unique name to permit device discovery on the LAN.

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4.7.3.4 Muticast

By default, Event Traffic uses UDP Broadcast protocol, tick to use the Multicast protocol in place of UDP Broadcast and enter the shared Multicast IP Address & TTL value as required.

4.7.3.5 Save and Reboot

Select the Save button to store the LAN settings and Reboot the device.

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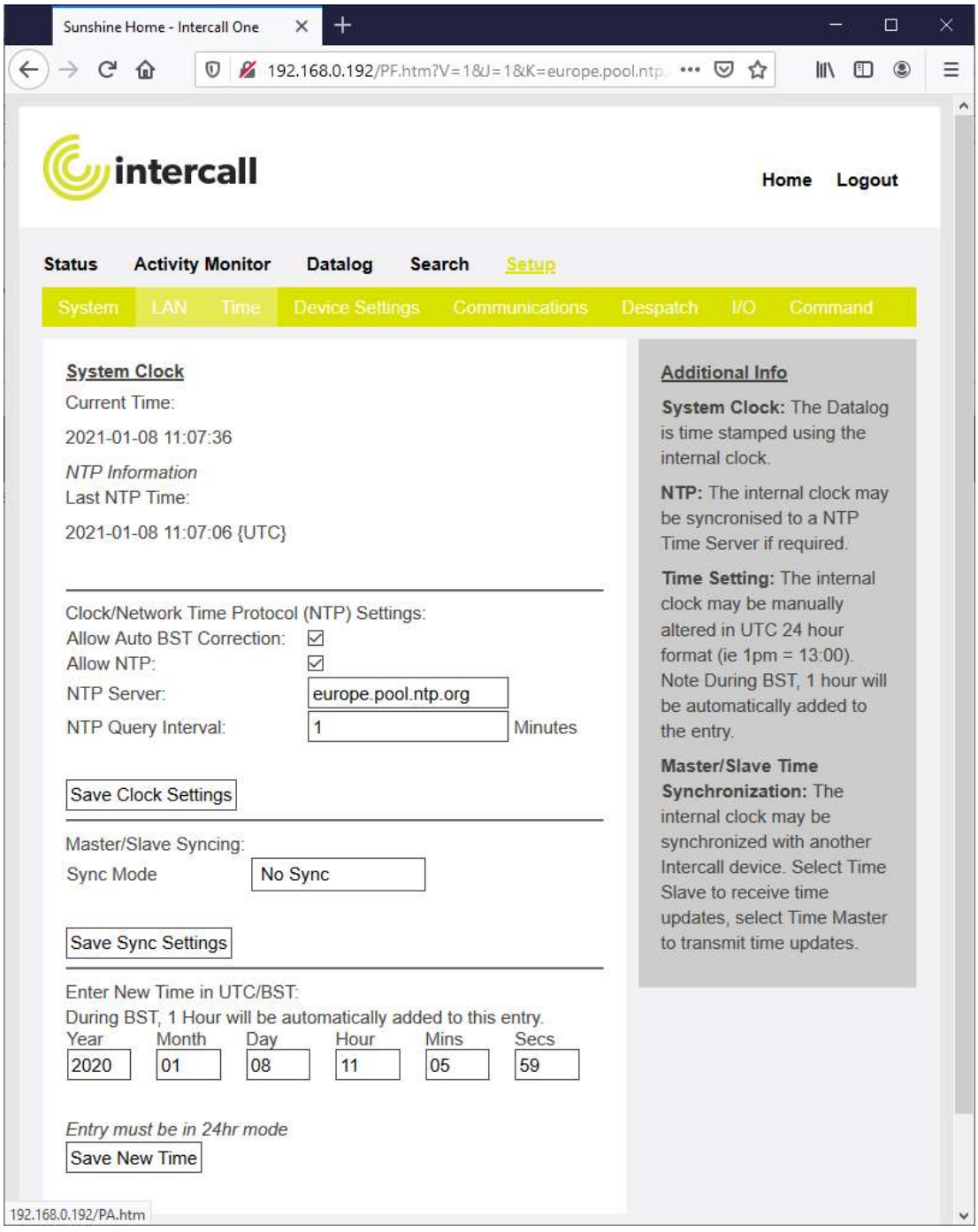
4.7.4 Time Page

The Controller features a real time clock which is controlled using this page.



4.7.4.1 System Clock

All datalog entries are time stamped using the internal date and time clock, the current date and time is also displayed on the home page.

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4.7.4.2 NTP Settings

NTP Servers provide Network Time Synchronisation over the Local Area Network to UTC. Enter the NTP Service name or IP Address, together with the query interval, as required. Tick the *Allow Auto BST Correction* to automatically correct for British Summer Time.

4.7.4.3 Master/Slave Settings

We only recommend the use of NTP when time synchronisation is important, however a simple Master/Slave configuration may be used to synchronise the time clocks between devices without external reference. The Time Master transmits its local time and Current Day/Night mode to devices configured as Time Slave.
Important: There can be only one Time Master device and devices configured as Time Slave must not have NTP enabled.

4.7.4.4 Manually Enter Date & Time

The internal clock can be manually set in UTC 24 hour clock format. *Note During Daylight Saving periods, this entry will automatically be adjusted by the system adding or subtracting one hour when* ***Auto BST Correction*** *is enabled.*

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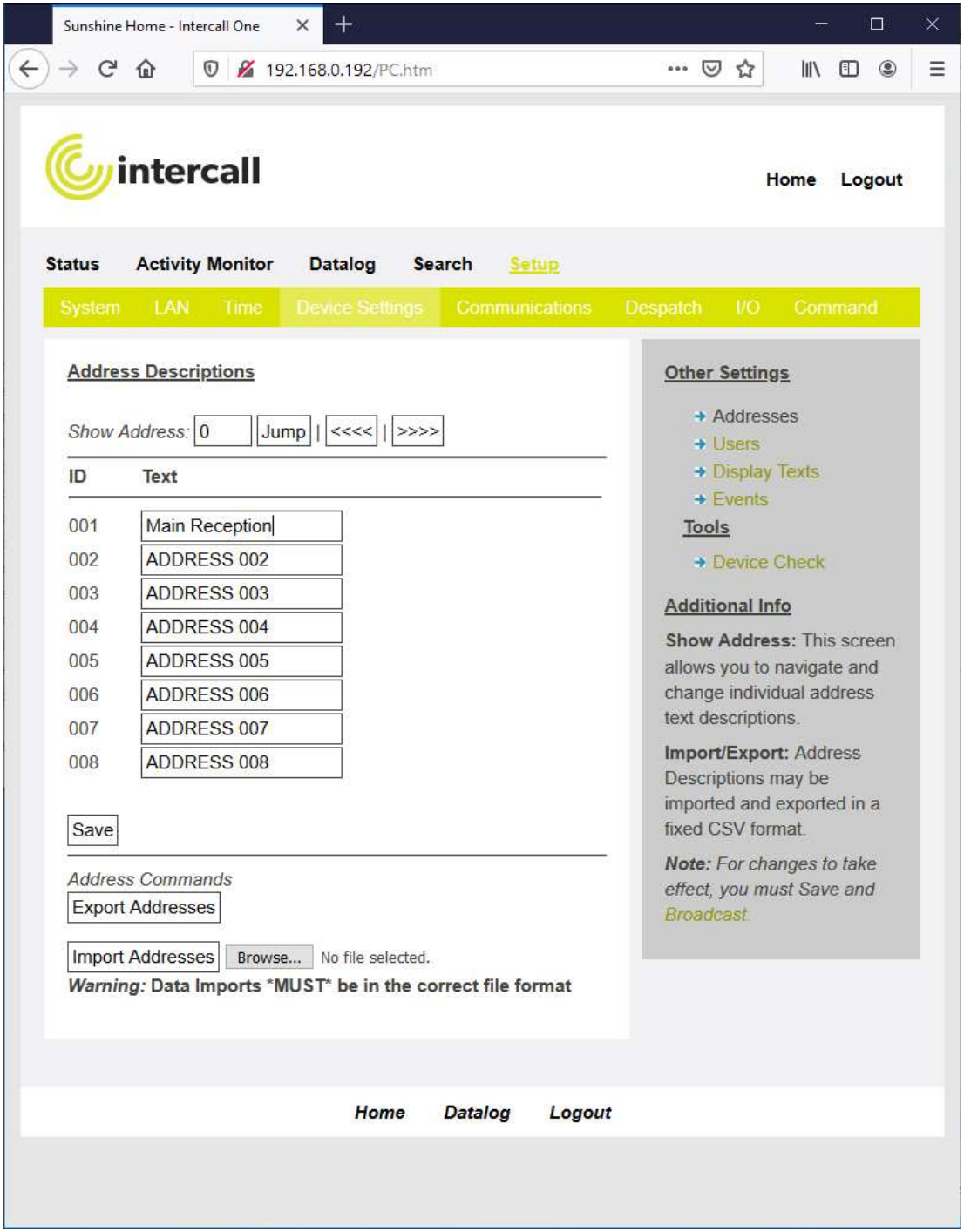
4.7.5 Device Settings Page

The Device Settings Page contains the configuration for the Call Points and Displays.

4.7.5.1 Address Desctiptions

The Address Descriptions page is used to assign a friendly name for each Calling device which is displayed when the device is active. Each Call Point may accommodate a 14 character description and when the descriptions have been entered and Saved, they are Broadcast to the Displays.



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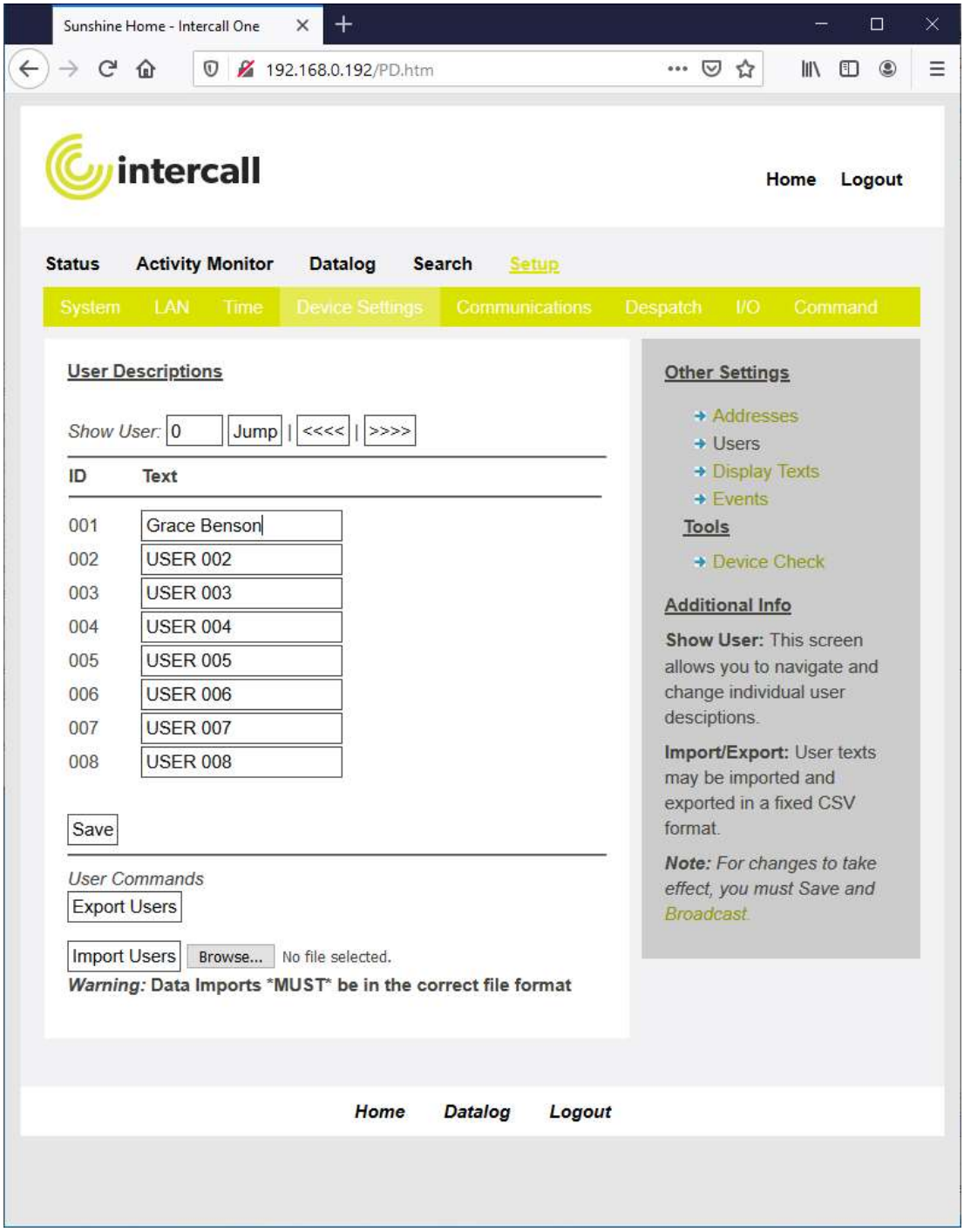
4.7.5.2 User Descriptions

User Names are associated with Residents Pendants and Staff Care Cards are generally, managed by the Intercall Programmer software. However, the User Descriptions page can be used to access them. Users are each assigned a numerical User ID value between 1-127 for the Pendants and between 128-254 for the Care Cards. Each User Name may accommodate a 16 character description and when the descriptions have been entered, and Saved they are Broadcast to the Displays.



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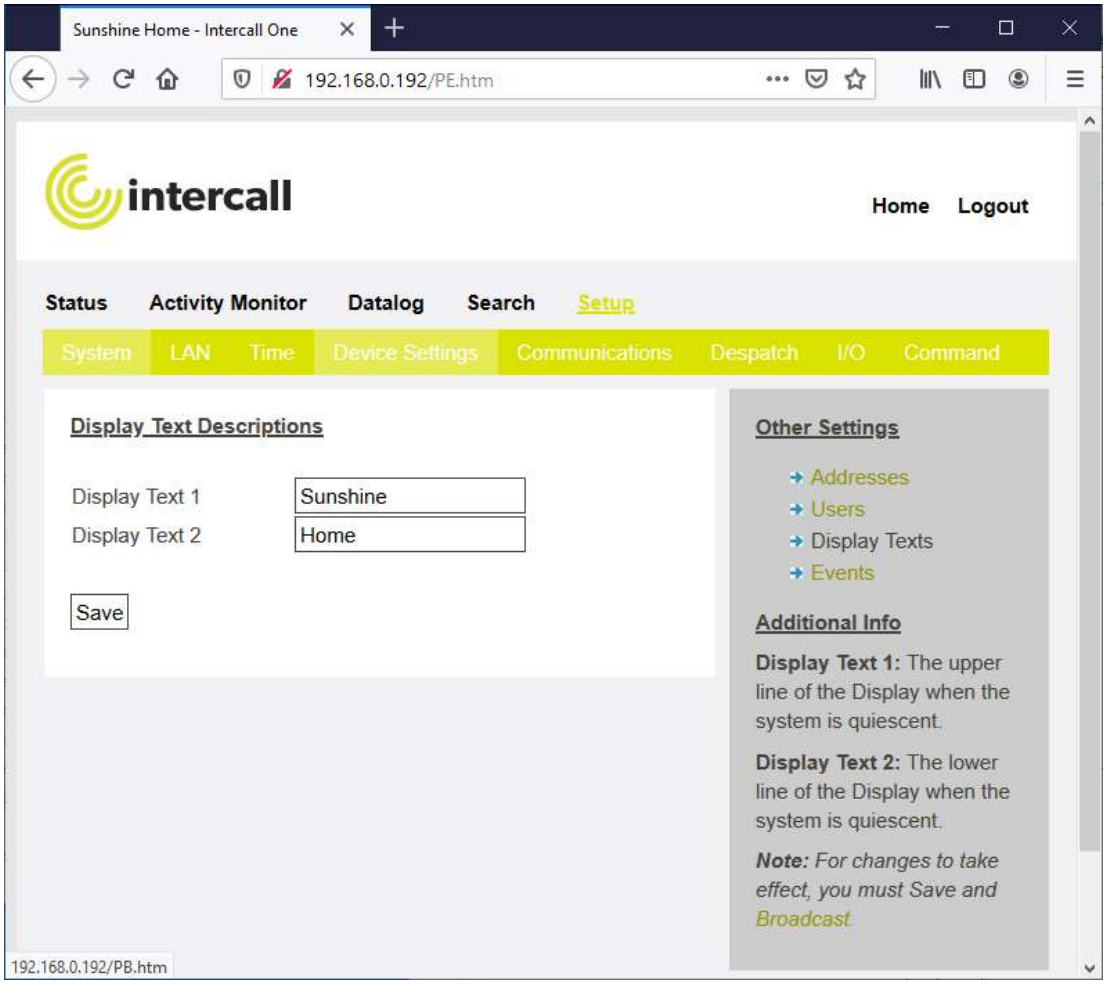
4.7.5.3 Display Texts

The Display Texts page allows the Display quiescent message to be configured. The message may be made up of two lines of 16 characters each and the factory default is 'Intercall' 'One'



4.7.5.4 Events

The Event Descriptions page is used to assign a friendly name (Call, Reset, Emergency etc) for each Event generated by the Call Points, and stored in the datalog when the Call Point is active. Event names may be up to 16 characters in length and when the descriptions have been entered they must be Saved. Events names shown on the Displays are configured using the Display Configuration Software.

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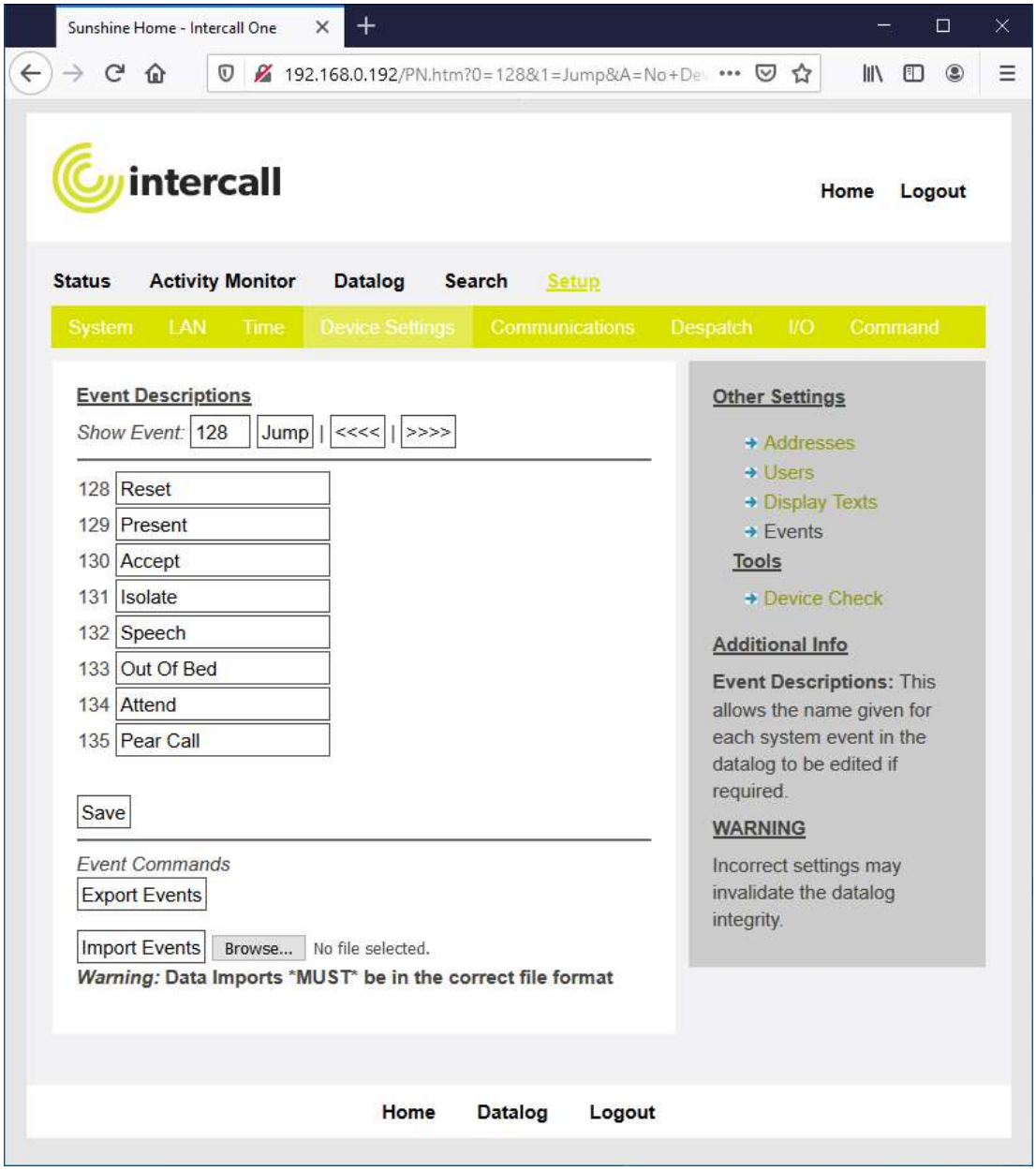

4.7.5.5 Device Check

The Device Check page provides a snapshot of all Call Points on the Bus, together with a Device Count. The Devices marked with '[S]' are occupying Slots generated by the controller from Contact Inputs or other remote events from Bridging or Distributed Systems.

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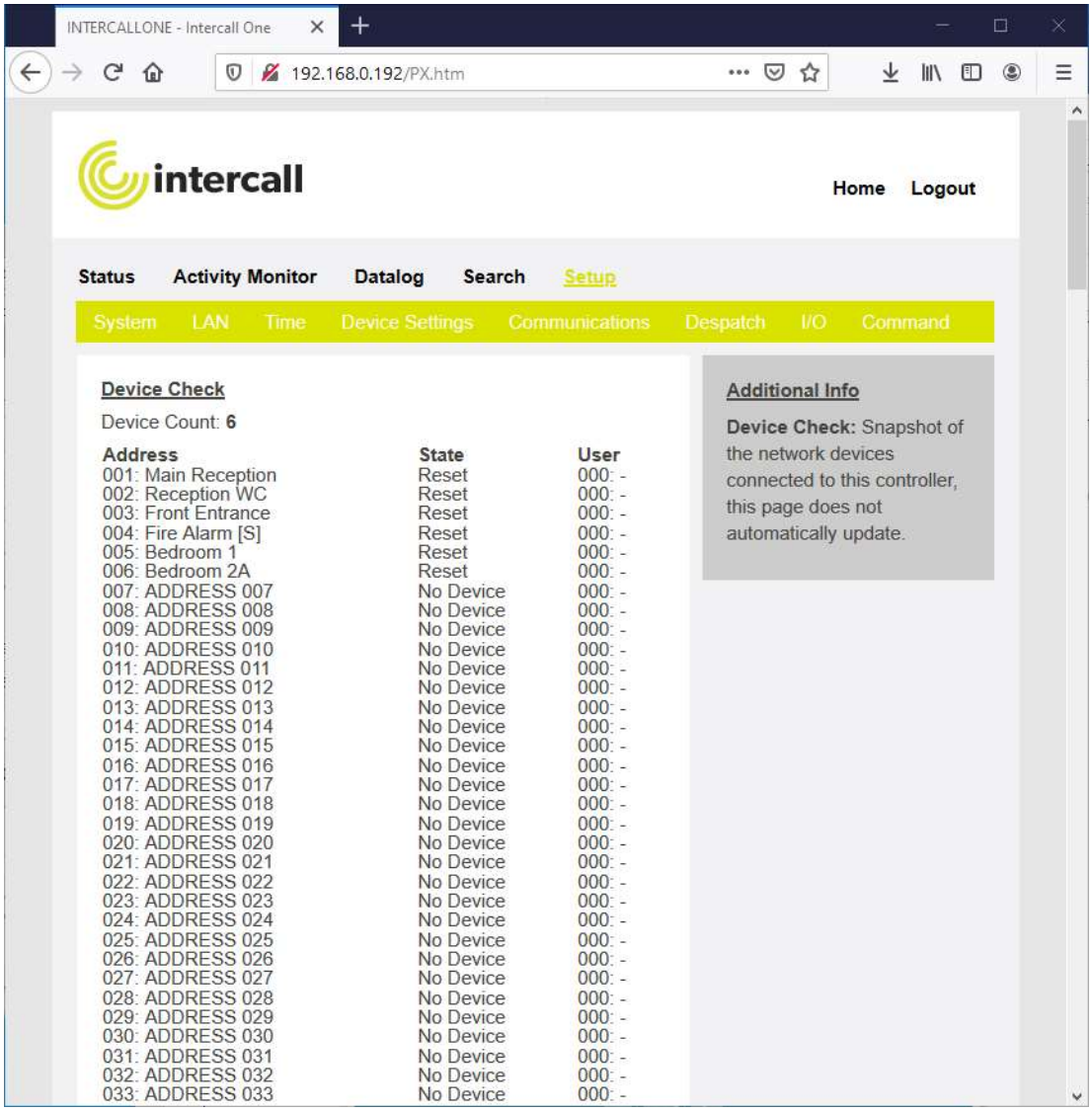

4.7.6 Communications Page

The Communications Page is where the name of this Controller is entered and also controls the Event transmission over the Local Area Network with features used when connecting Controllers together.

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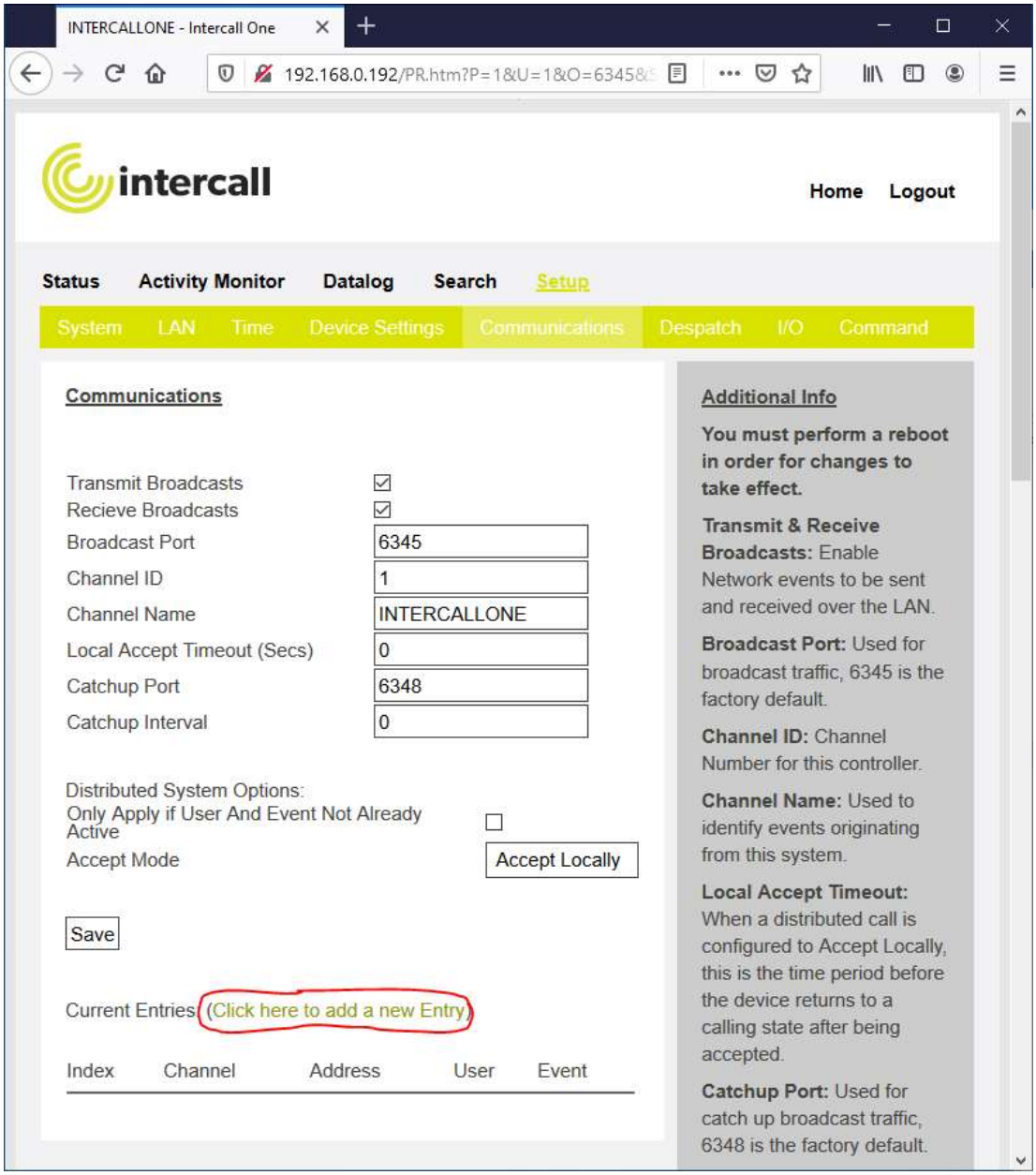

4.7.6.1 Transmit Broadcasts

Enable Event traffic to be sent from this controller over the Local Area Network.

4.7.6.2 Receive Broadcasts

Enable Call Point traffic to be received by this controller from the Local Area Network.

4.7.6.3 Broadcast Port

Ethernet port number used to send and receive Event Traffic. Important: All Intercall Devices are configured to use the default port 6345, changing the port on a single device will prevent communication with other devices.

4.7.6.4 Channel ID

All events sent from this controller are sent with this Channel ID. Used for Distributed Systems, Bridged Systems transferring events between Controllers and other Intercall IP Devices.

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4.7.6.5 Channel Name

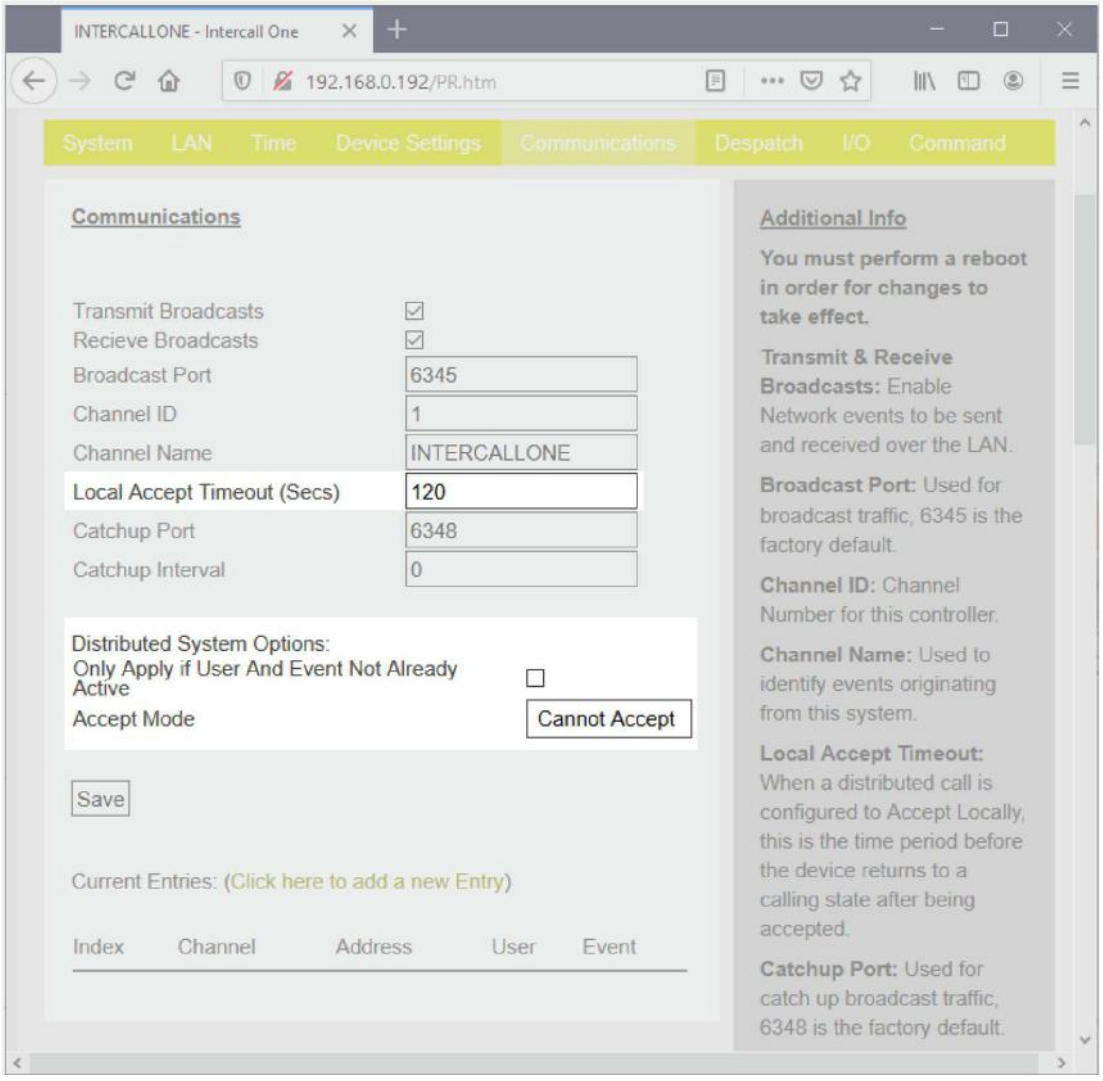
Event traffic sent from this controller is identified with this Channel Name we recommend entering the wing/area or establishment name.

4.7.6.6 Catchup

The Catchup feature allows the Controllers to synchronise periodically over the Local Area Network by broadcasting the current device stack. The Catchup Port defines the IP port used for this traffic and the Catchup Interval sets how often the Catchup traffic is broadcast. (0 is disabled)

4.7.6.7 Distibuted System Options

The highlighted options on the Commands page relevant to Distributed Systems.



4.7.6.7.1 Ignore if User & Event Already Active

This feature prevents an incoming event activating a slot on this Controller if the same Event and User is already active on this Controller. Used to prevent multiple unwanted calls where a single incident activates devices which are connected to more than one controllers. Generally only used on trigger based infra red systems.

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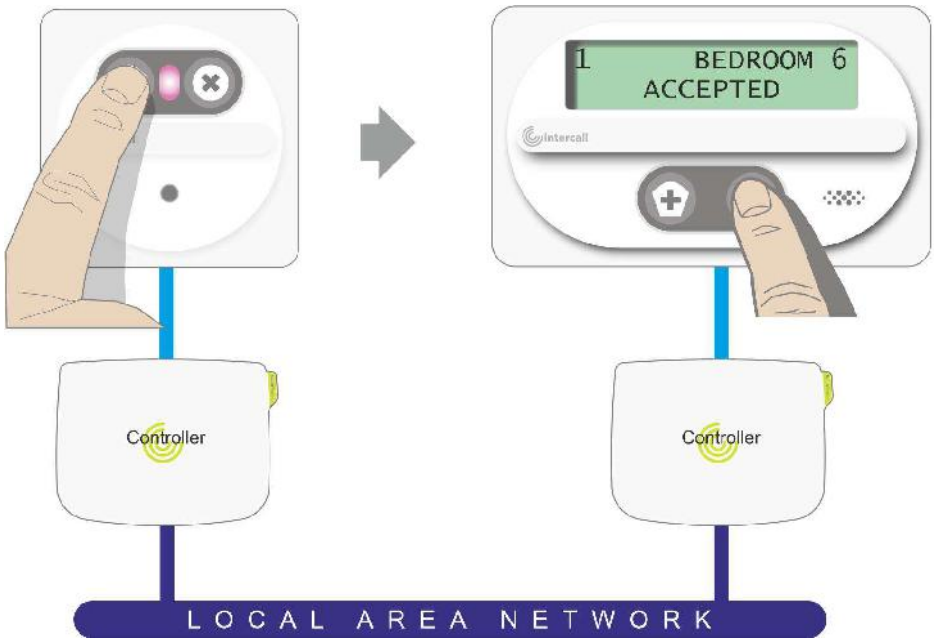
4.7.6.7.2 Accept Mode

This dialog controls what happens when an incoming event from another Controller is accepted by a BUS Display on this controller. Cannot Accept - The incoming event cannot be accepted on the BUS displays and any attempt is ignored. Accept Locally - The incoming events can be accepted and will remain accepted for the duration of the Local Accept Time-out but has no effect on the originating Call Point. Accept Remote - The incoming event can be accepted and the accept will be passed back to the originating Call Point. Reset Locally - The incoming event can be accepted and will reset however this has no effect on the originating Call Point.



4.7.6.7.3 Local Accept Timeout

For linked controllers, this dialog configures the Local Accept Timeout period when the Accept mode is set to Accept Locally.

4.7.6.8 Bridged System Options

When using Bridging, multiple Bridging Entries are created on the receiving Controller specifying the range of incoming parameters you wish to process from the other Controllers. To Create a Bridging Entry, from the Communication Page, select 'Click here to add a New Entry' which will open the Add/Edit Bridge Entry page shown below together with the four steps used to create each entry.

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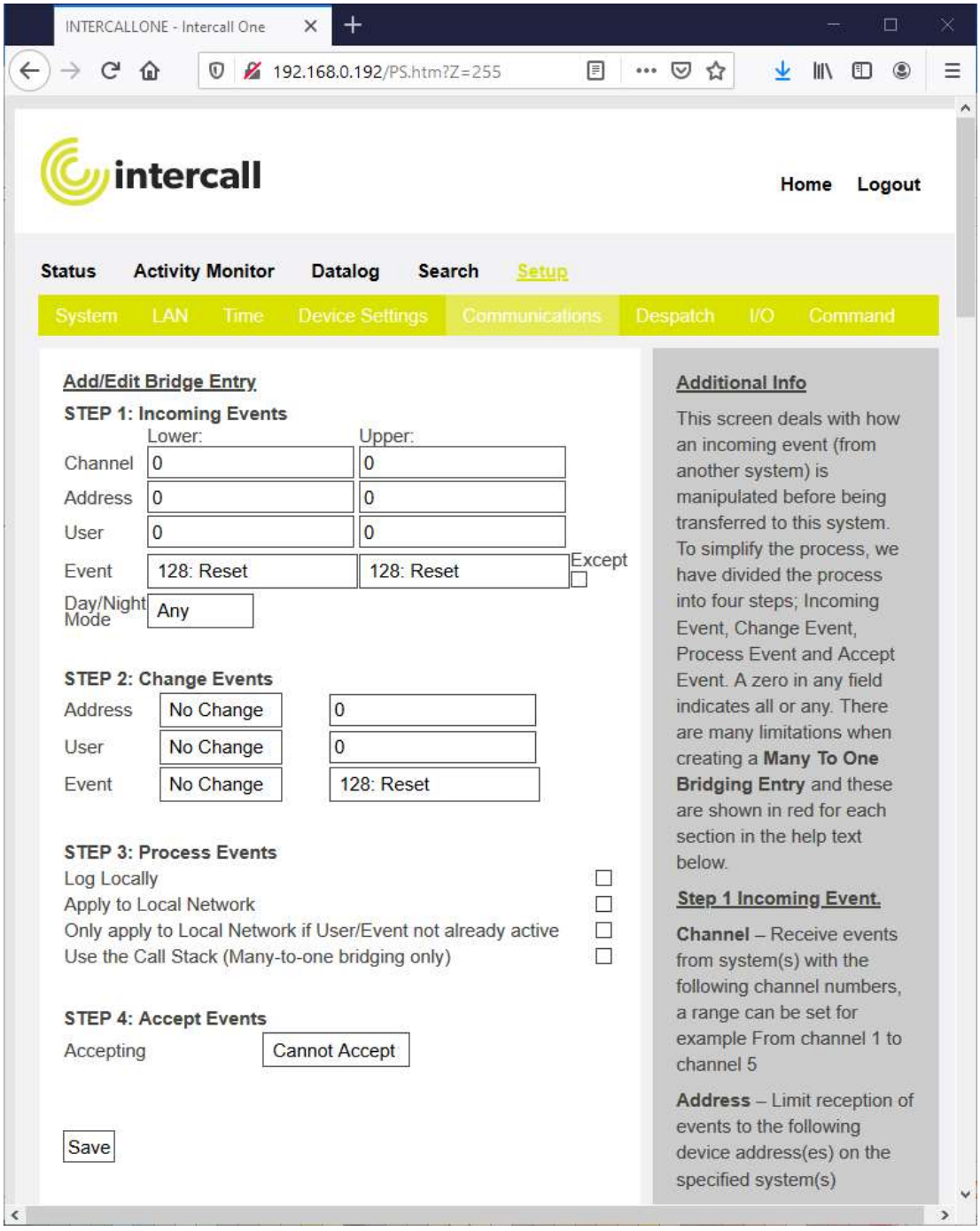

4.7.6.8.1 Incoming Events

These are the Incoming Events you wish to process from the remote Controllers, select the Channel Number, Address, User and Event range for the incoming Events you wish to process. Many bridging entries may be required to cover the desired range.

4.7.6.8.2 Change Events

The incoming event can be changed before it is shown on this system there are three elements to the incoming event; Address, User and Event. **Address** – There are three options; No Change - The same incoming address is shown on this system. Add Offset - a numerical value is added to the incoming address number. Map To New - The incoming event is transferred to a single address. **User** – There are three options; No change - The same incoming user is shown on this system. Add Offset -

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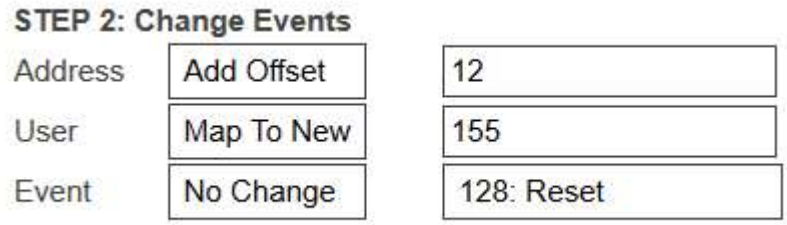
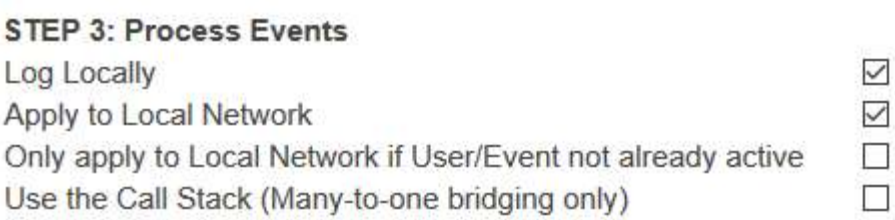
a numerical value is added to the incoming user number and Map To New - The incoming user number is transferred to a single user number on this system. **Event** – There are two options; No Change - The same incoming event is shown on this system. Map To New - The incoming event is changed to a single specified event.



4.7.6.8.3 Process Events

You may choose how the incoming event is processed by this system. Log Locally – Record the incoming event in the data log on this controller. Apply To Local Network – Show incoming event as a network device on this system (ie make the call show on the displays and overdoor lights etc) Ignore if User/Event already active - Where a single building or zone is covered by more than one IP Controller, this feature is ticked to enable Attack calls to track between receivers on the IP Controllers without generating two events as the trigger passes from one system to the next. This must not be confused with the IP Receiver Secondary mode which is configured individually in the RXIP Receiver and the delay timer entered. Use the Call Stack (Many To One Bridging Only) - Only used on Many To One Bridging and keeps a record of the number of incoming calls and their corresponding resets. This prevents more than one call from being reset by the first incoming Reset.



4.7.6.8.4 Accept Event

For Bridged Systems, this dialog controls what happens when an incoming event from another Controller is accepted by a BUS Display on this controller. There are four options; Cannot Accept - The incoming event cannot be accepted on the BUS displays and any attempt is ignored. Accept Locally - The incoming events can be accepted and will remain accepted for the duration of the Local Accept Time-out setting but has no effect on the originating Call Point. Accept Remote - The incoming event can be accepted and the accept will be passed back to the originating Call Point. Reset Locally - The incoming event can be accepted and will reset however this has no effect on the originating Call Point.

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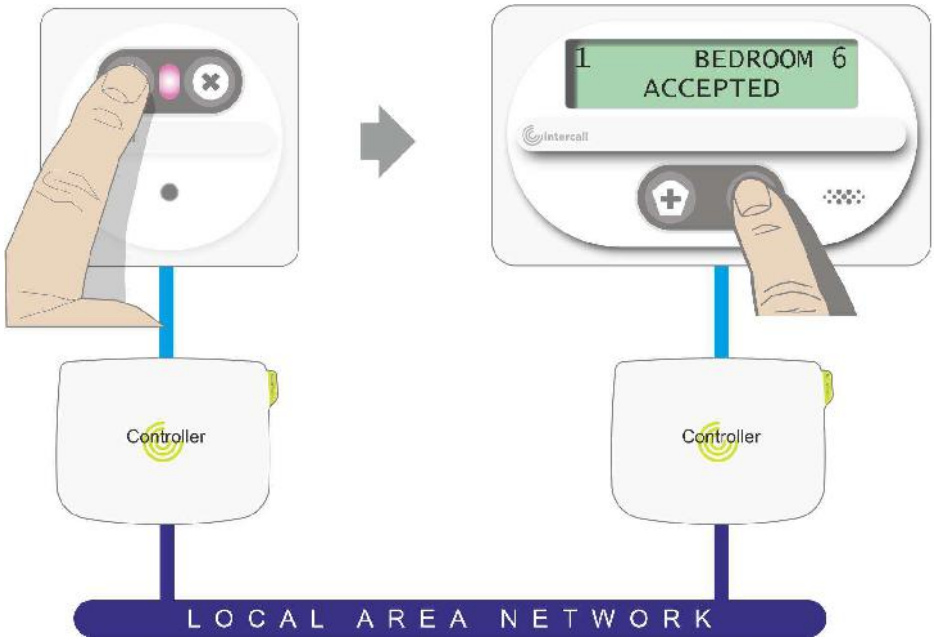

4.7.6.8.5 Local Accept Timeout

For linked controllers, this dialog configures the Local Accept Timeout period when the Accept mode is set to Accept Locally.

4.7.7 Despatch Page

This page controls the Despatch Engine which sends selected information to other third party equipment, using the on-board RS232 Serial Port or Relay Output. Each entry on this page represents an individual configuration in the Despatch Engine. You must tick Enable Despatcher in order for any entries to become active. Individual entries may be enabled and disabled as required. This page also contains a hyperlink to the Serial Settings for the RS232 Port.

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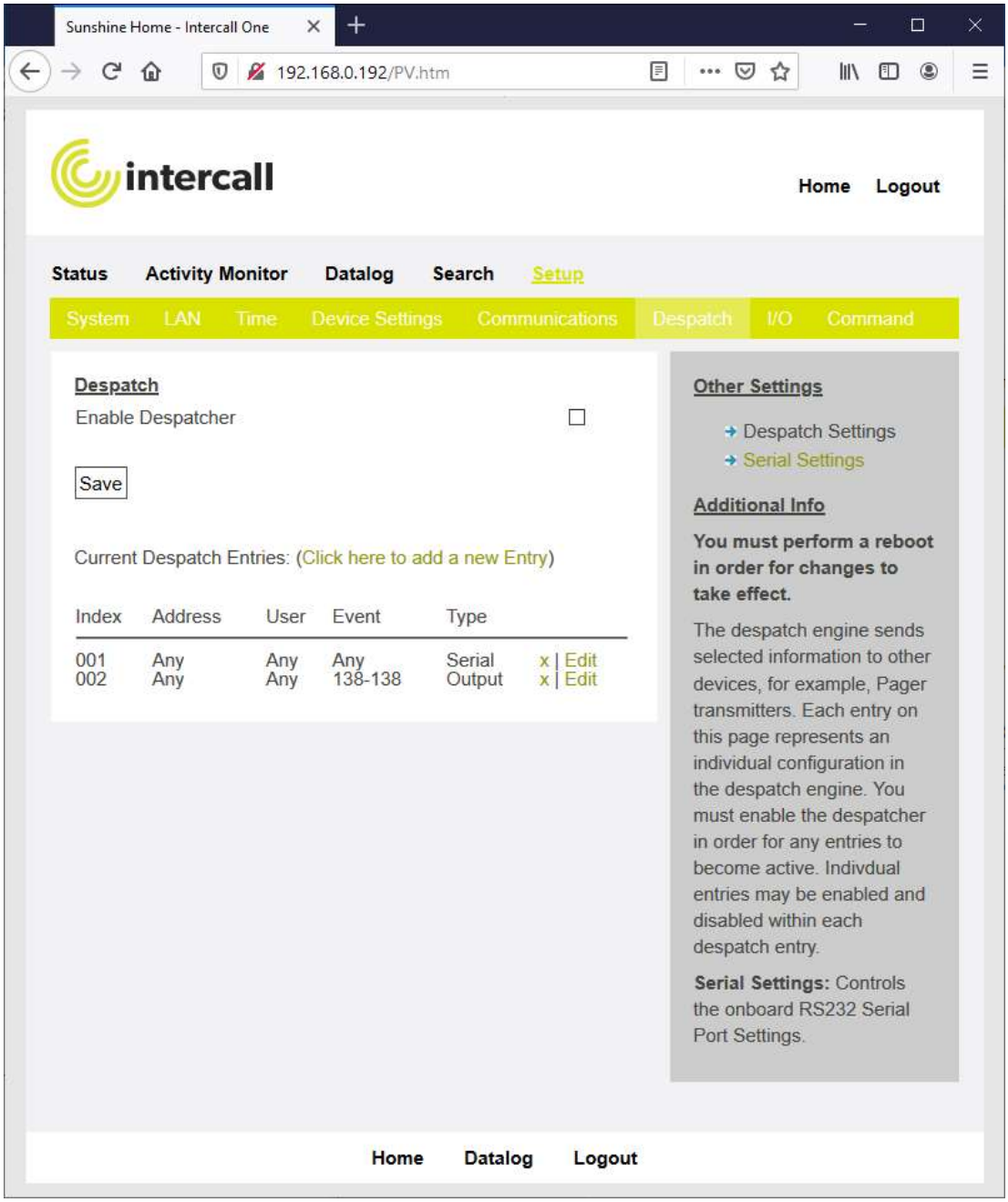

4.7.7.1 Creating a Despatch Entry

To create a new Dispatch Entry, first select 'Click Here To add a new Entry' from the Despatch Page which will open the page shown below. This screen deals with how an incoming BUS event is selected before being despatched to the RS232 Port or Relay. We have divided the process into two steps; Incoming Event Matching and Event Despatching settings. A zero in any field indicates all or any.

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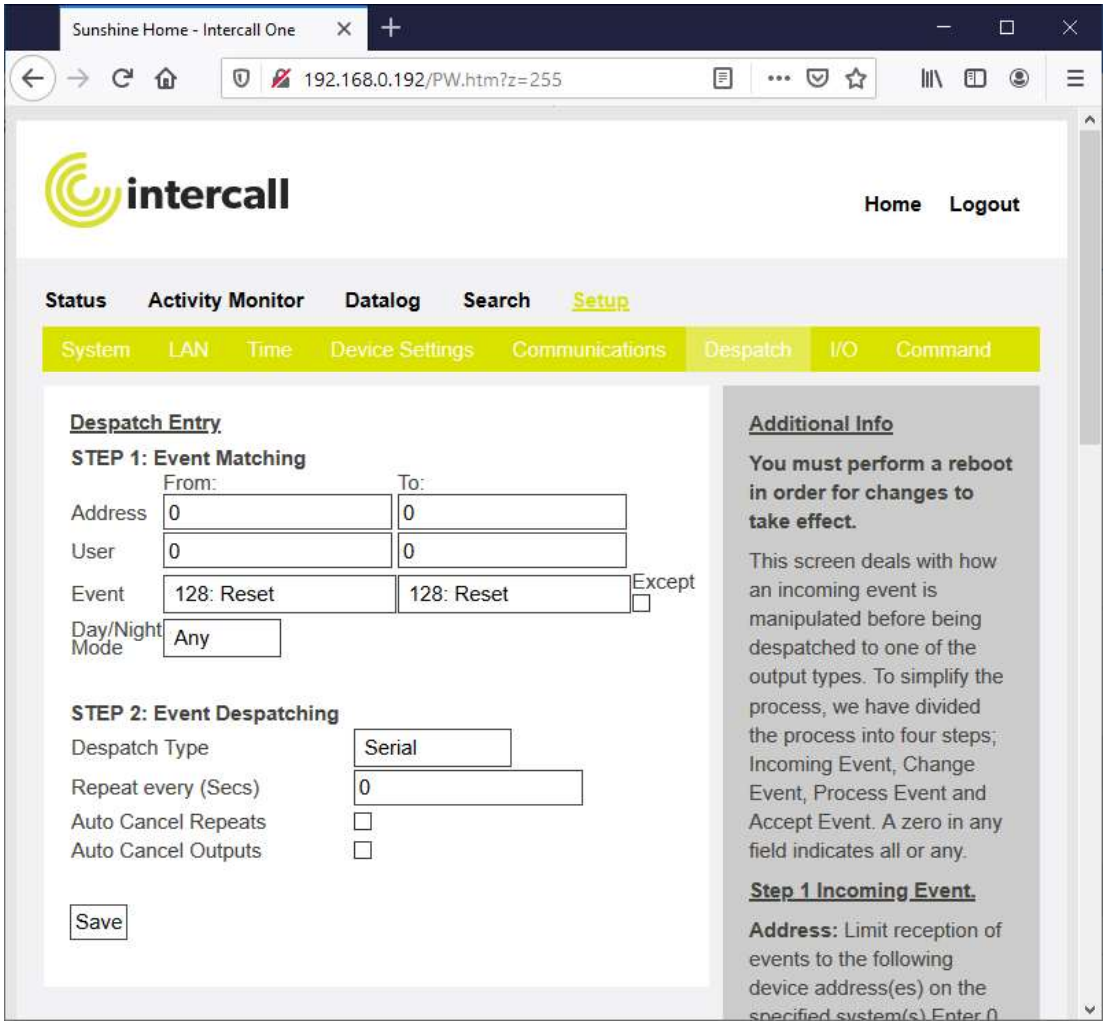

4.7.7.1.1 Event Matching

Firstly we specify which Call Point Addresses and Call Point Events are processed by this Despatch Entry. Address: Limit reception of Events from the following range of consecutive Call Point Addresses. (Enter 0 (zero) for Any Address) User: Limit reception of Events to the following consecutive range of User IDs. Event: Use the dropdown to select the range of Events, or select Any Event. Tick the Except button to specify all events excluding the specified event. Finally using the dropdown, select when this despatch entry is enabled in either Day or Night Mode or at all times. Note: you may need to create multiple despatch entries to cover the required input parameters. In the example below we are looking for Events between Call and Attack with Any User from Call Point Addresses 12 to 32, at all times regardless of the Day or Night Mode of this Controller.

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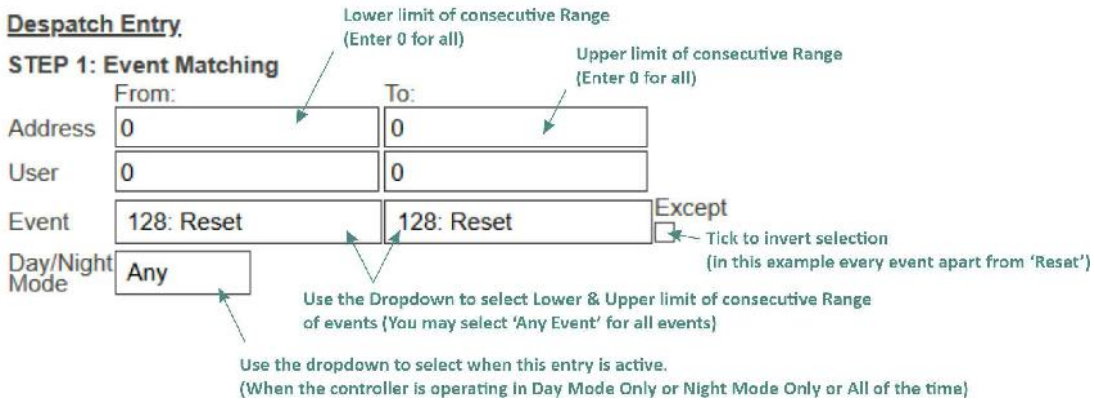
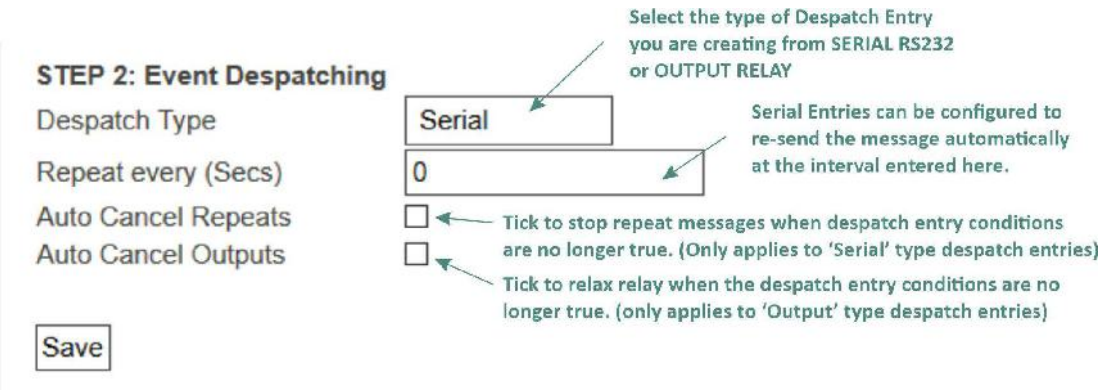


4.7.7.1.2 Event Despatch

Second, we must specify the output parameters for this despatch entry; Despatch Type: The type of output required; Serial RS232 or Output Relay. Repeat Interval: Serial dispatch entries may be configured to re-send the data at a specified interval. Enter a value into this dialog and the message will be sent again at the desired interval. Enter 0 (zero) to disable the repeat function. Auto Cancel Repeats: Tick to cancel the Serial message repeat when the dispatch entry is no longer true. Auto Cancel Output: Tick to release the Output relay when the dispatch entry is no longer true. This function only applies to the Output Relay. Finally, press the Save button to move onto the next page.



4.7.7.2 Serial Despatch Entry

When the Despatch Type is selected as Serial, the following page will be displayed which allows the RS232 message to be configured. Setup For Scope wizard automatically enters a Driver Field and message string suitable for Scope Paging. The Serial Data to Send contains the complete message sent to the pager and may be modified as required. The Entry Enabled tick box at the top of the screen must be ticked prior to pressing the Save button (both highlighted in the capture below)

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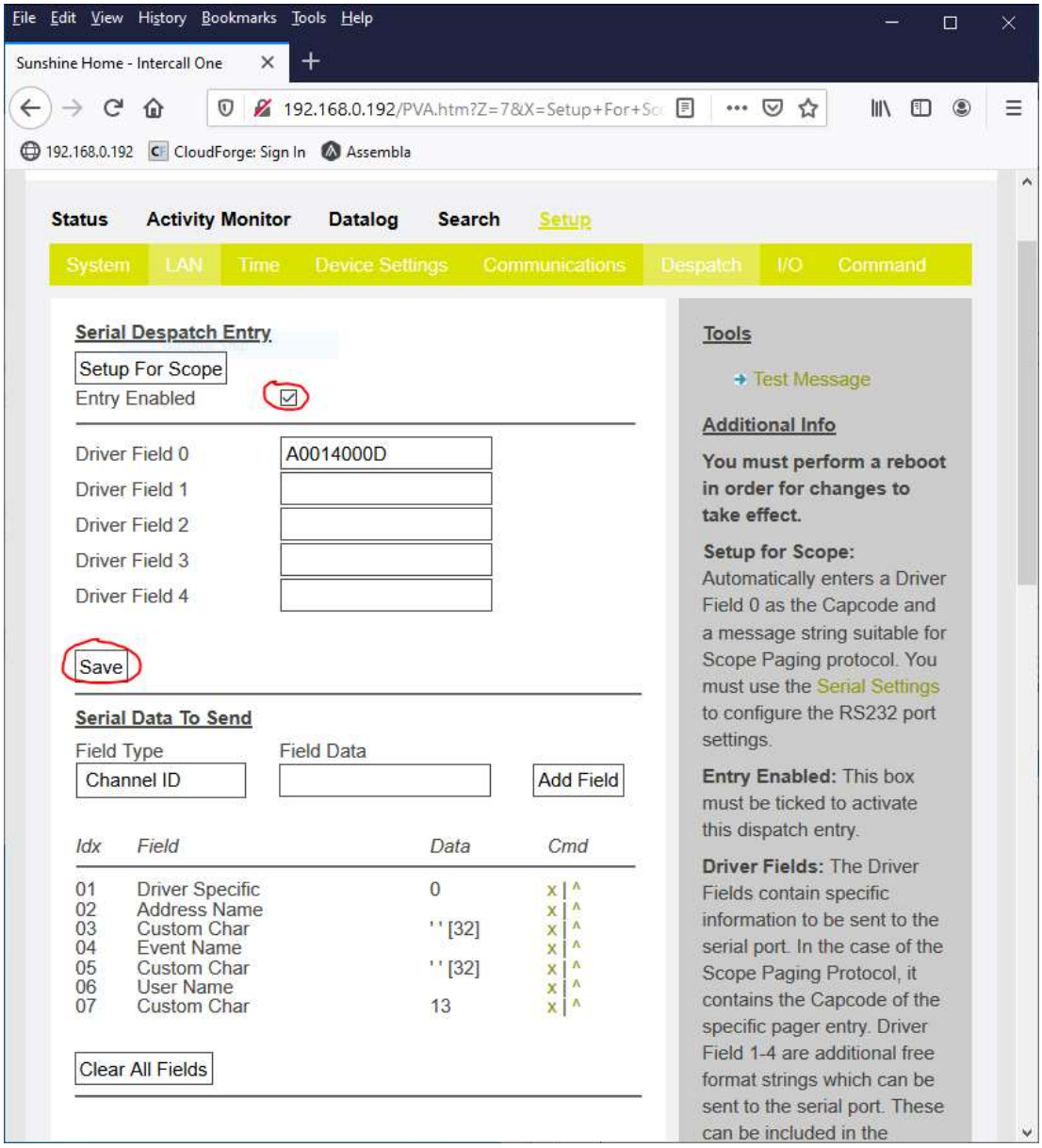

4.7.7.2.1 Serial Message Manipulation

Below is a detailed section of the Serial Despatch Entry page and how the output message can be modified.

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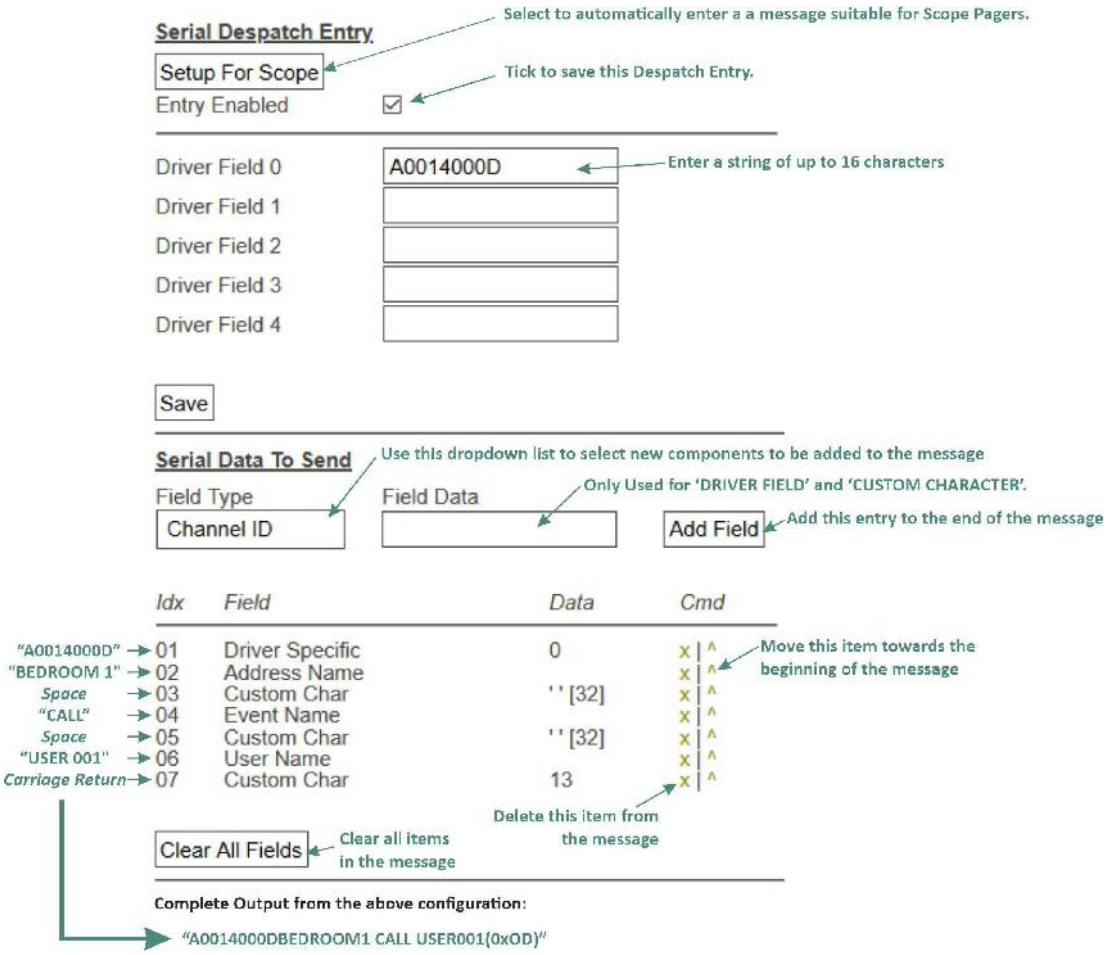

Choice of Field types which can be sent to the Serial Port as text:

Driver Field - Enter the Driver Field as 1,2,3,4 which enters the string as entered into the driver field 1,2,3,4.
Channel Name - The Channel Name of this Controller. (Eg 'East Wing')
Address Name - The Address Description of the Calling Device. (Eg 'Bedroom 12')
User Name - The User Name of the Calling Device. (if any) (Eg 'Doris Smith')
Event Name - The name of the Event from the Calling Device. (Eg 'Assistance')
Hour ASCII - The on-board clock hour counter.
Minute ASCII - The on-board clock minute counter.
Second ASCII - The on-board clock second counter.
Day ASCII - The on-board calendar day as text.
Month ASCII - The on-board calendar month.
Year YY ASCII - The on-board calendar year last two digits.
Year YYYY ASCII - The on-board calendar year as all four digits.
Custom Char - Enter the Driver Field as the decimal ASCII number for the required character
Common Characters are 32=Space, 13=Carriage Return, 10=Line Feed, 11=Form Feed.
http://en.wikipedia.org/wiki/Ascii for more information.

Other Field types:
Channel ID, **Address ID**, **Event ID**, **User ID**, **Minute**, **Hour** etc will send the value of these parameters and not the ASCII representation. (Eg Channel ID = 1 will send (0x01) whereas ASCII will send "1" (0x31) etc)

4.7.7.3 Relay Output Despatch Entry

When the Despatch Type is selected as Output, the following page will be displayed which allows the output to be configured. Entry Enabled This box must be ticked to activate this dispatch entry. Output State: A normally open relay contact set is provided, If you want the relay to close for this dispatch entry, tick this box. If you want the relay to open for this entry do not tick this box. The

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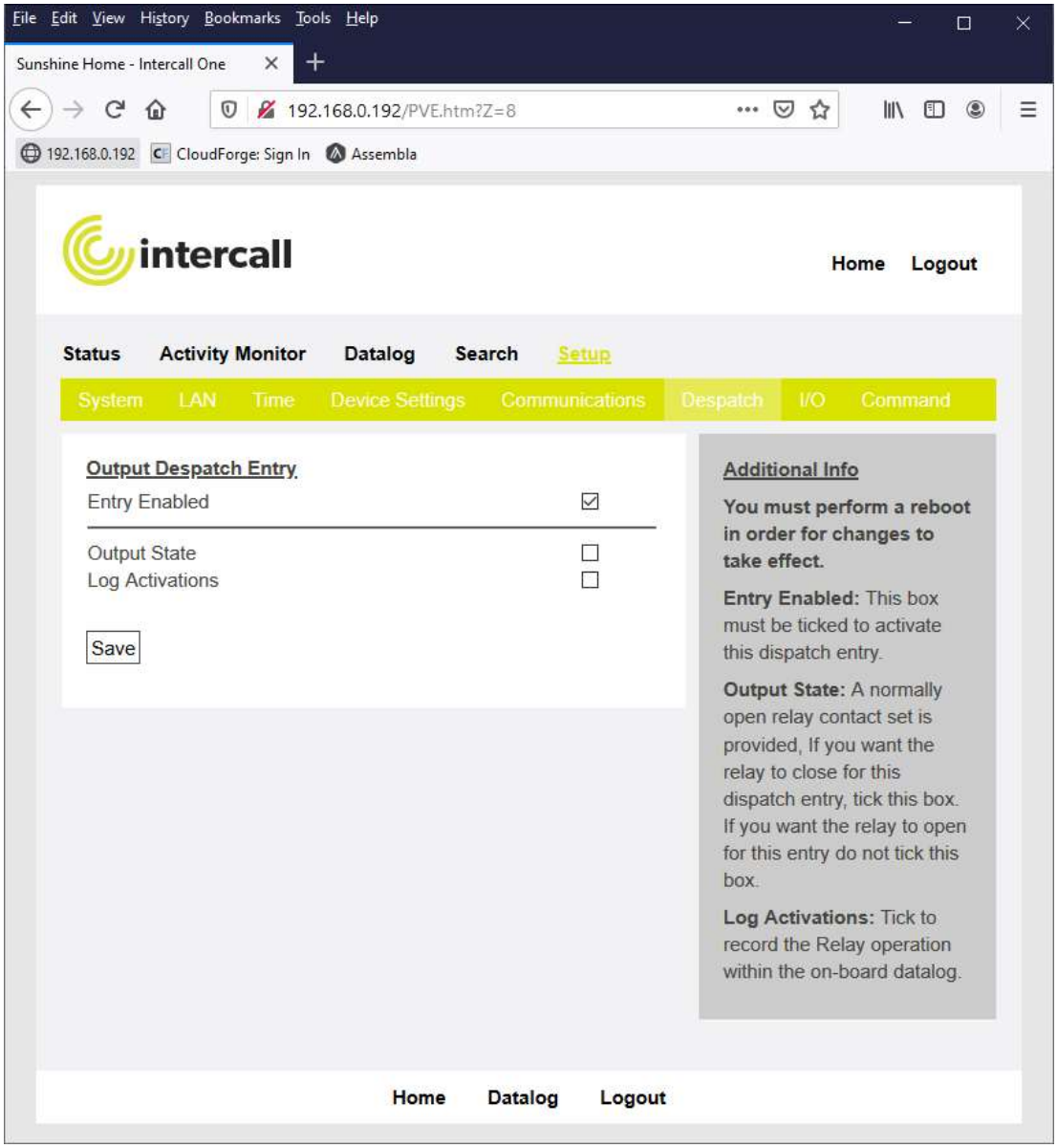

4.7.8 Serial Settings

The Controller is fitted with on-board RS232 Serial port, used to send data to a third party Receiving Device. The hardware connection is provided through the Auxiliary Terminals and this page provides access to the configuration settings for the RS232 Serial Port.

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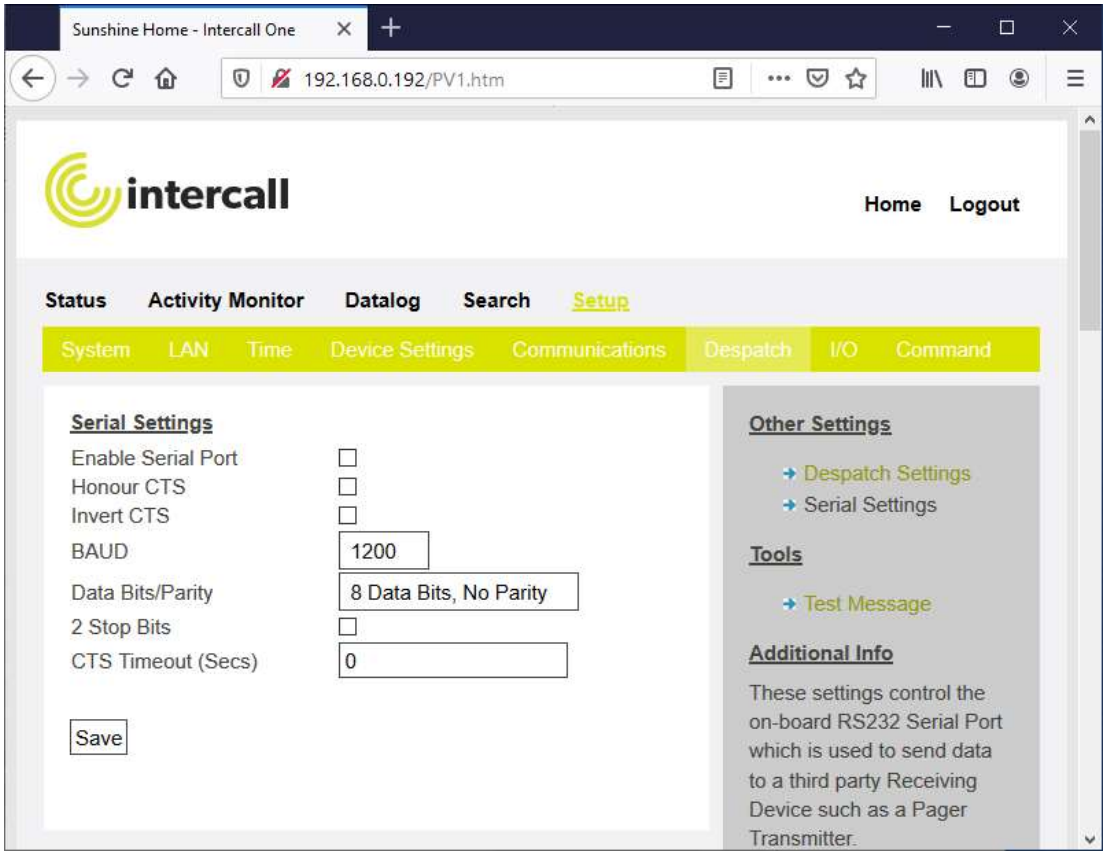

4.7.8.1 Enable Serial Port

The port must be enabled to send RS232 data to the Receiving Device, and must be ticked.

4.7.8.2 Honour CTS

The CTS (Clear-To-Send) line is an output from the Receiving Device connected to the CTS terminal of the Controller and used to signal when it can no longer receive data. This may not be supported on the receiving hardware and should only be enabled where the CTS terminal is in use. See Auxiliary Connections

4.7.8.3 Invert CTS

Tick to invert the polarity of the CTS signal and generally remains un-ticked and reserved for non-standard third party hardware.

4.7.8.4 Baud Rate

Use the drop-down to select the speed of the data stream. *Seek advice from third party manufacturer regarding this setting.*

4.7.8.5 Data Bits/Parity

Use the dropdown to select the format of the data stream.

4.7.8.6 2 Stop Bits

Tick to use 2 stop bits for the data stream, generally remains un-ticked and reserved for non-standard third party hardware.

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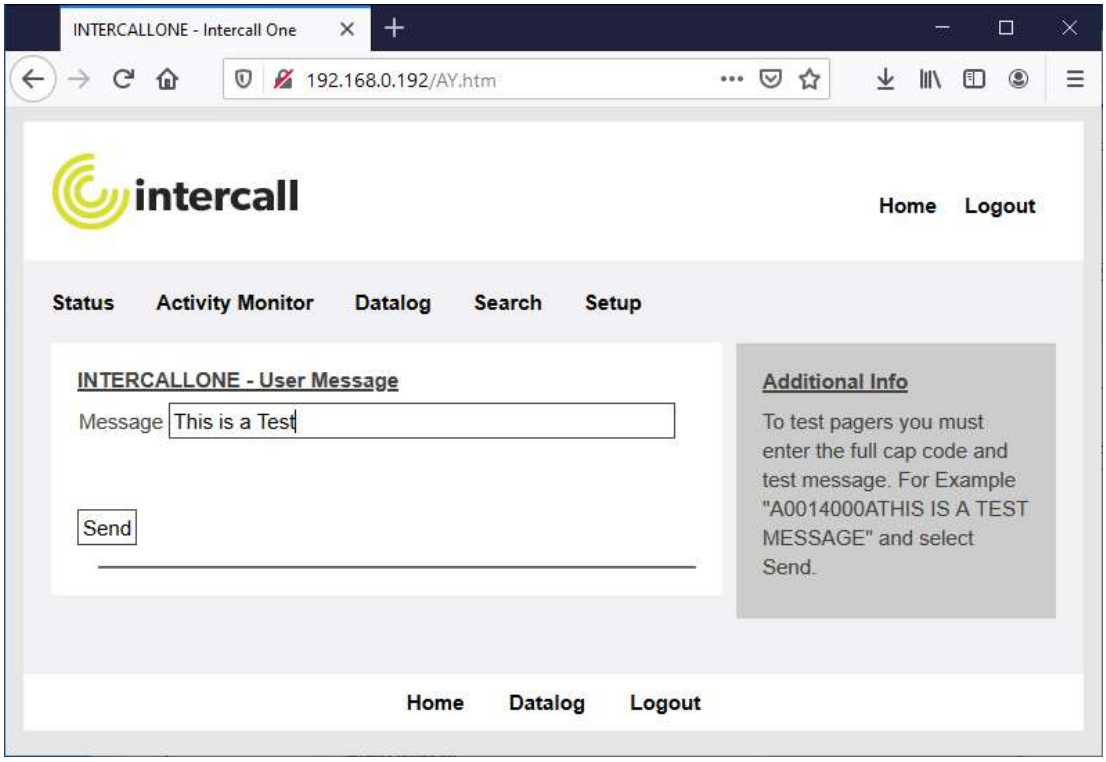
4.7.8.7 CTS Timeout

Only used when Honour CTS is enabled, this is the length of time in seconds that the controller will wait for the Receiving Device to allow the data to be sent. If the timer has elapsed, the data will be discarded and the controller will move onto the next data packet.

4.7.9 Test Message

Send simple free entry text message to the on-board RS232 port for testing purposes.



4.7.10 I/O Page

The Controller is fitted with two contact inputs and a volt free relay which are both fully programmable. The Relay output is configured using the Despatch Page while the Inputs are configured using the Inputs Page below. The current state of the contact inputs is displayed on this page, however, you will need to manually refresh this page to monitor changes.

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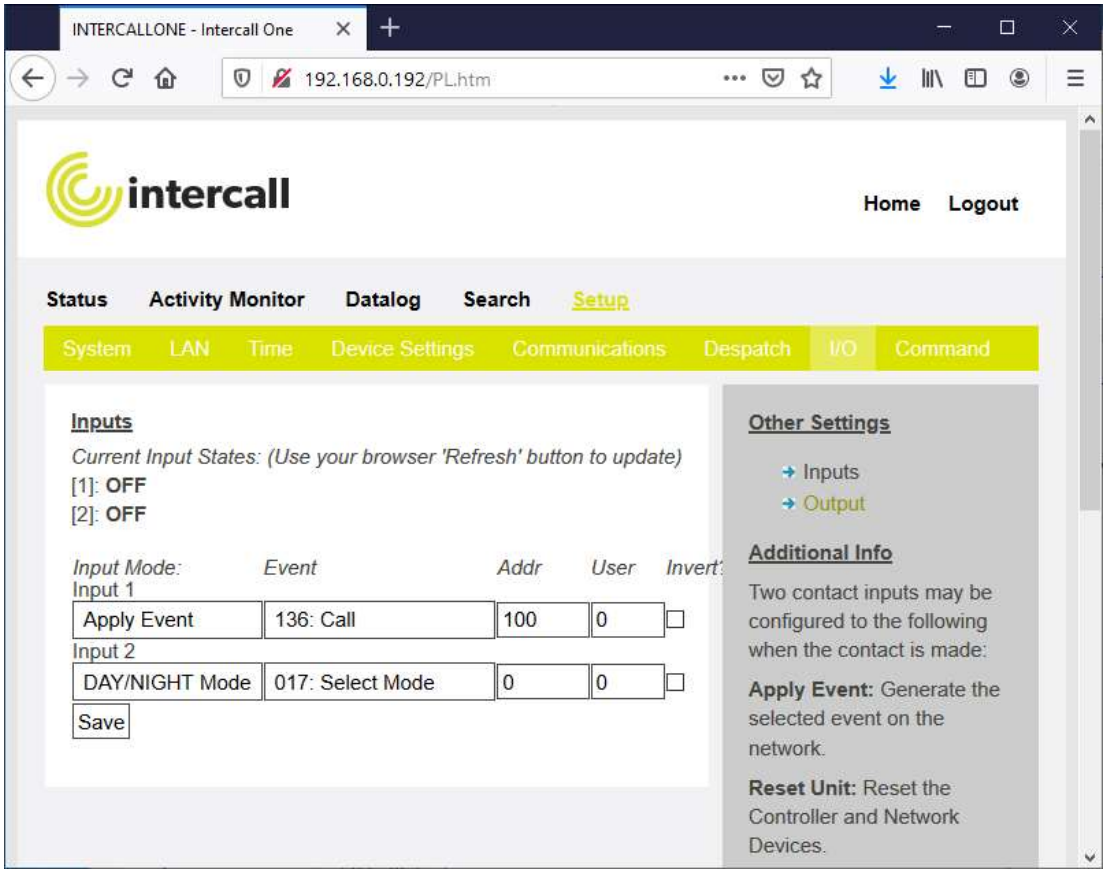
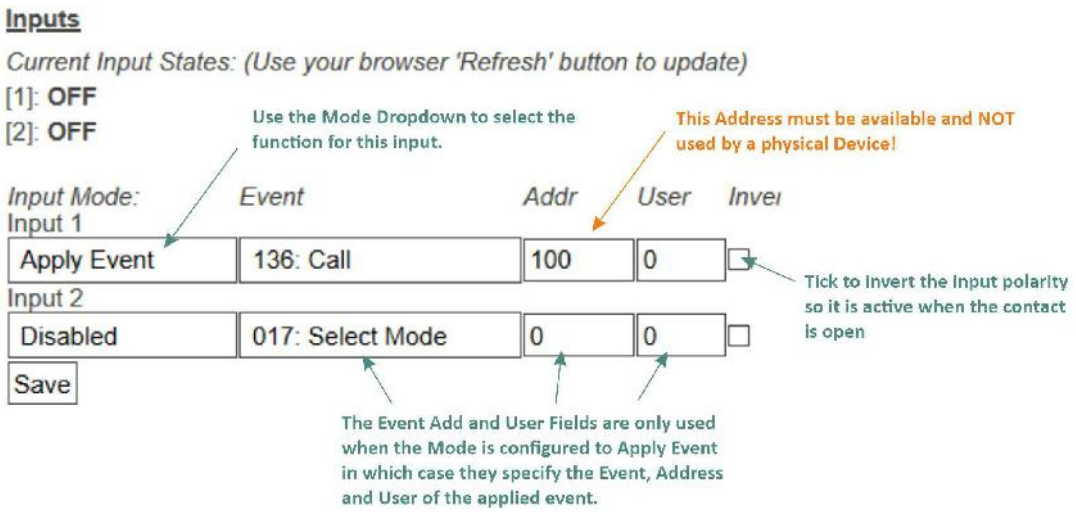


4.7.10.1 Inputs

The Controller is fitted with two contact inputs which may be configured to perform a range of functions.



Choice of Input Modes Available when selected contact is active.

Apply Event - Generate a Soft Call Point on the BUS, use the **Event**, **Address**, & **User** fields to specify the Call Point details.
Reset Unit - Perform a warm reset on the Controller and Network Devices. (Event, Address & User fields are ignored)
Reset Slots - Reset all slots on the BUS (Event, Address & User fields are ignored)
Reset OP1 - Reset the relay output (Event, Address & User fields are ignored)
Reset NET - Reset all legacy devices on the BUS (Event, Address & User fields are ignored)
Day/Night Mode - Day Mode when contact active, Night Mode when contact not active.

* Slots are generated by the Controller from 'Apply Event' Input Settings, bridging, distributed systems or other IP Devices.

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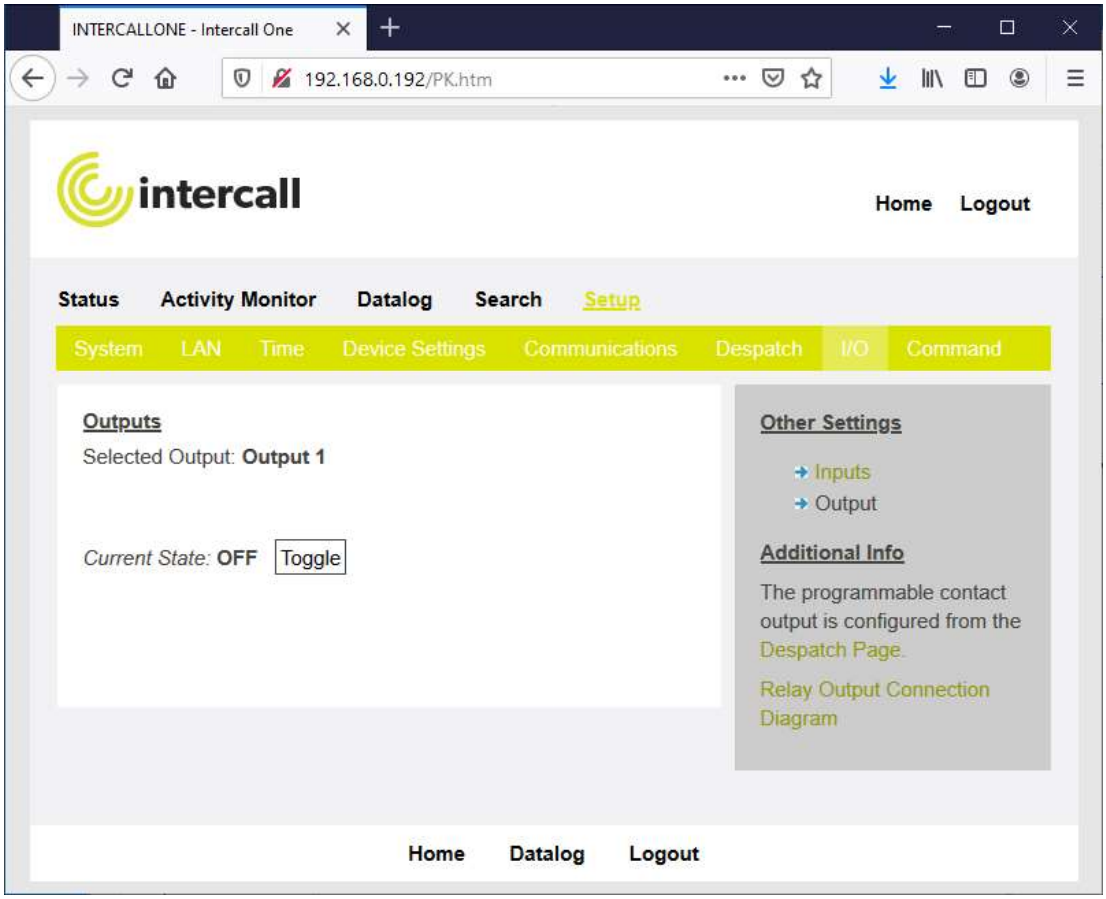
4.7.10.2 Outputs

The volt free relay output is configured using the Despatch Page, the output page shows the status of the relay and allows it to be manually toggled for testing purposes.



4.7.11 Command Page

The Controller Command Page contains the a range of functions described below.

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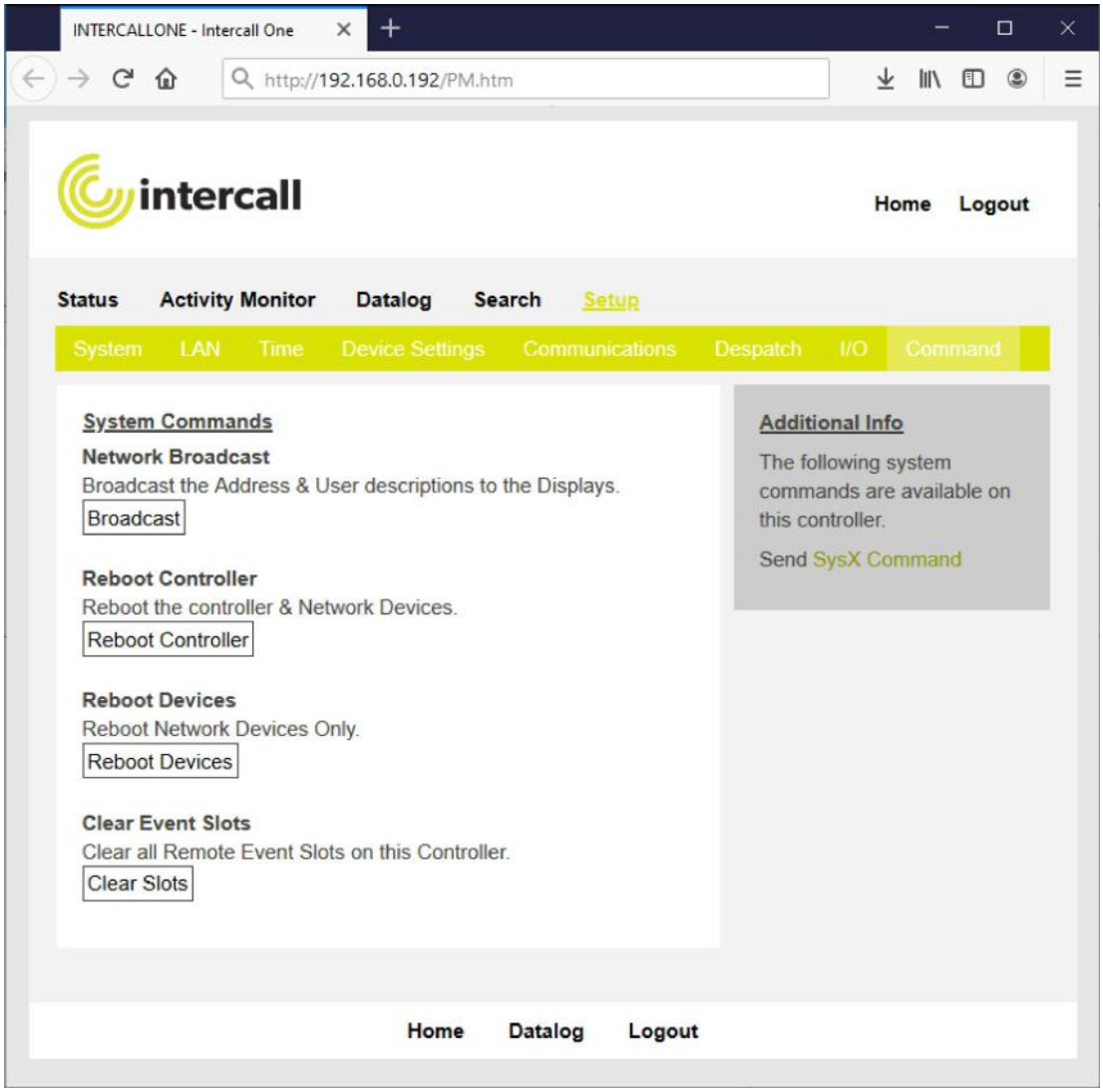

4.7.11.1 Network Broadcast

Broadcast the Address and User Texts to the Displays, which must be carried out when the Address Descriptions, User Descriptions or Display Texts are changed.

4.7.11.2 Reboot Controller

Reboot the Controller and all attached Network Devices.

4.7.11.3 Reboot Devices

Reboot attached Network Devices.

4.7.11.4 Clear Event Slots

Clear all Remote Event Slots on this controller which have been generated by Contact Inputs or other remote events from Bridging or Distributed Systems. This function will remove these devices completely so they become 'No Devices' in the datalog.

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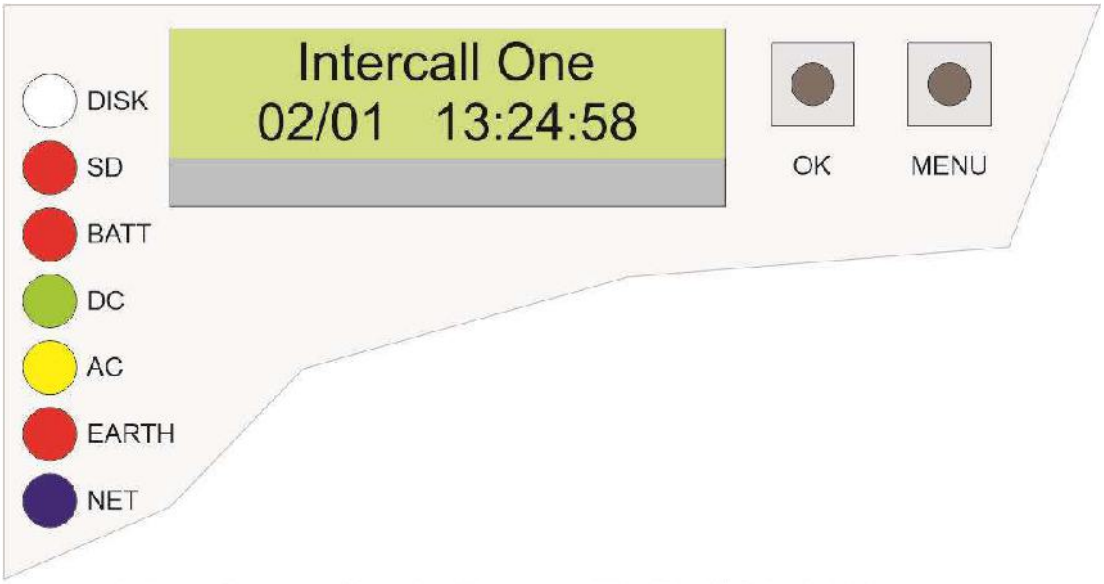
4.7.12 LCD Menu

The LCD menu is used to provide essential settings. Use the MENU button to advance to the next item and the OK button to action it.



The Controller is fitted with build in LCD menu accessed using the OK and MENU buttons, together with coloured status LEDs

4.7.12.1 IP Address

The first item in the menu displays the current IP Address of the controller, this may be manually or automatically assigned by the DHCP Server.

4.7.12.2 Serial No

Displays the Serial Number of the Controller which is also the MAC Address.

4.7.12.3 Free Disk Space

Displays the available capacity in the datalog contained within the embedded SD Card.

4.7.12.4 DC Rail

Displays a snapshot of the DC Voltage Level at the Controller Bus Terminals.

4.7.12.5 Battery Charge

Confirmation that the battery is taking current from the float charger.

4.7.12.6 Unit Temperature

Displays a snapshot of the surface temperature on the Controller circuit board.

4.7.12.7 Firmware Version

Displays the version of Controller Firmware and Touch Bus Firmware.

4.7.12.8 Build Date

Displays the Build Date of the Firmware.

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4.7.12.9 Do Broadcast

Press OK to broadcast the Address Descriptions and User Descriptions to the Bus Display Units. **Note:** Normal system operation will be suspended for approximately 90 seconds.

4.7.12.10 Clear Fault

Press OK to send a Clear Fault message to Ethernet devices. **Note:** This does not remove faults from the Bus Displays.

4.7.12.11 Device Reset

Press OK to perform a device reset to the Legacy Devices. **Note:** Advanced devices do not support this feature.

4.7.12.12 Full Reset

Press OK to perform a restart the Controller.

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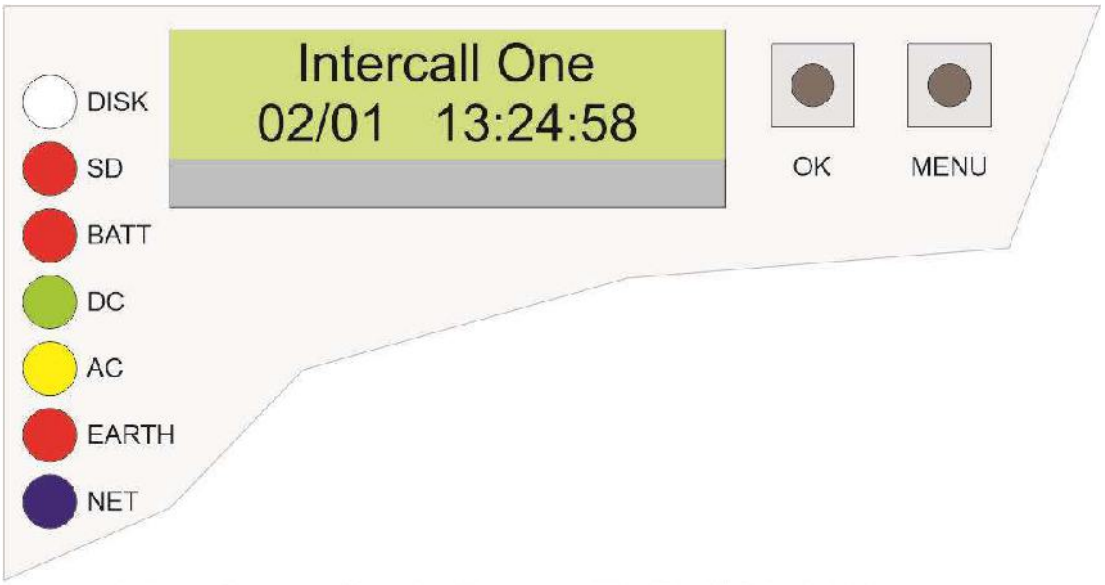
4.7.13 Status LEDs

The Touch Controller is fitted with Status LEDs, Red LEDs indicate Faults.



The Controller is fitted with build in LCD menu accessed using the OK and MENU buttons, together with coloured status LEDs

4.7.13.1 Disk LED (White)

The Disk LED indicates activity of the internal datalog media, this will be flashing as web pages are accessed and when the controller is storing or accessing the datalog.

4.7.13.2 SD Fault LED (Red)

Indicates the embedded datalog contained on the SD Card may be running low on available space, or there is a fault with the SD Card. If this is a critical alarm, the sounder will also operate. Warning: SD card fault may prevent access to the embedded web site.

4.7.13.3 BATT Fault LED (Red)

When lit, indicates the Backup Battery is not charging. This may be due to the battery not being connected, the 5 Amp fuse has failed or that the battery is no longer accepting a charge and requires replacement.

4.7.13.4 DC OK LED (Green)

Indicates the DC input voltage is within limits. This is the DC supply into the controller circuit board from the Switch Mode Power Supply Module, mounted under the protective cover.

4.7.13.5 AC OK LED (Yellow)

Indicates the incoming AC supply has been detected. This is monitored on the AC input board, if the mains is present but the LED is not lit check the 2 pin AC MON connection at the bottom right of the circuit board.

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4.7.13.6 EARTH Fault LED (Red)

The 12V BUS output from the Controller is designed to 'float' and be completely isolated from Mains Electrical Earth, this LED Indicates a low resistance between the BUS output and Mains Electrical Earth. **Important** This condition exposes the installation to high potential voltage spikes and should be corrected.

4.7.13.7 LED (Blue)

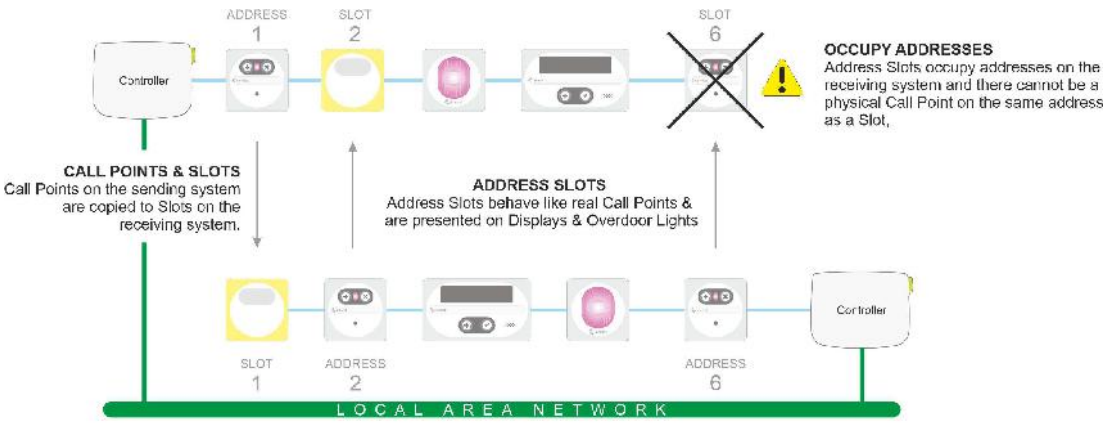
Pulsing to indicate Bus device polling, during broadcast flashes rapidly.

4.7.14 Factory Default

The Controller features the ability to revert settings to the factory default.

4.8 Connecting Controllers together

Calls can be transferred between controllers over a shared Local Area Network. Call Points on the sending system are copied to Address Slots on the receiving system and operate in the same way as real Call Points. The Slots occupy addresses on the receiving system and there cannot be a physical Call Point on the same Address occupied by an Slot. The Address Descriptions for the Slots are programmed into the receiving Controller. There are two types of integration; Distributed Systems where all 254 Call Point Addresses are shared and Bridged Systems which allow selected addresses to be shared with more flexible configurations. Important: Only event changes are transmitted real-time between Controllers and will not be sent again until the real Call Point has changed event. As the individual Controllers are operating asynchronously, there will be a greater delay for the events which are transferred between Controllers over those from the local BUS.



All Participating Controllers must have a connection to the shared Local Area Network to send and receive Call Point events.

4.8.1 Distributed System

To create a Distributed System, participating controllers are simply set to the same Channel ID and the Distributed System Options are configured as required on each controller. In the example below, we show two controllers each with a mixture of physical Call Points and remote 'slots' operating as a single system. Identical Address Descriptions are programmed into all participating Controllers.

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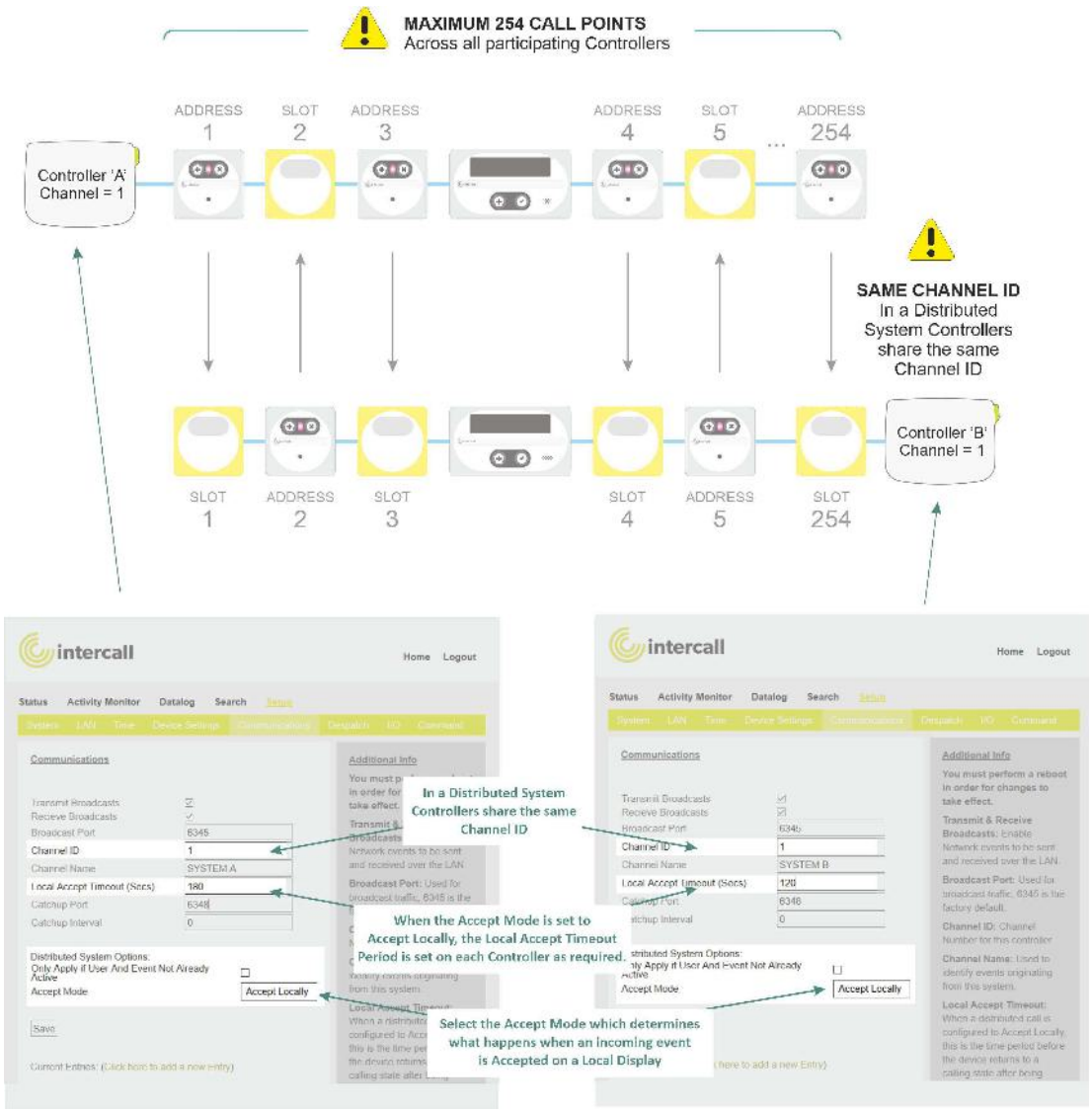

4.8.2 One-To-One Bridging Same Address

A Bridged System comprises multiple Controllers, each with their own bus devices behaving as a single system with selected Call Point Addresses shared between them. Using the same consecutive range address on the sending & receiving system, a bridging entry is created on the Receiving Controller. Navigate to the Communications page and select; 'click here to add a new entry'. Multiple Bridging Entries may be created to accommodate the required Call Point addresses. Identical Address Descriptions are programmed into the Controllers for shared Call Point Addresses. In the example below we show a typical configuration and website Bridging Entry for Controller B.

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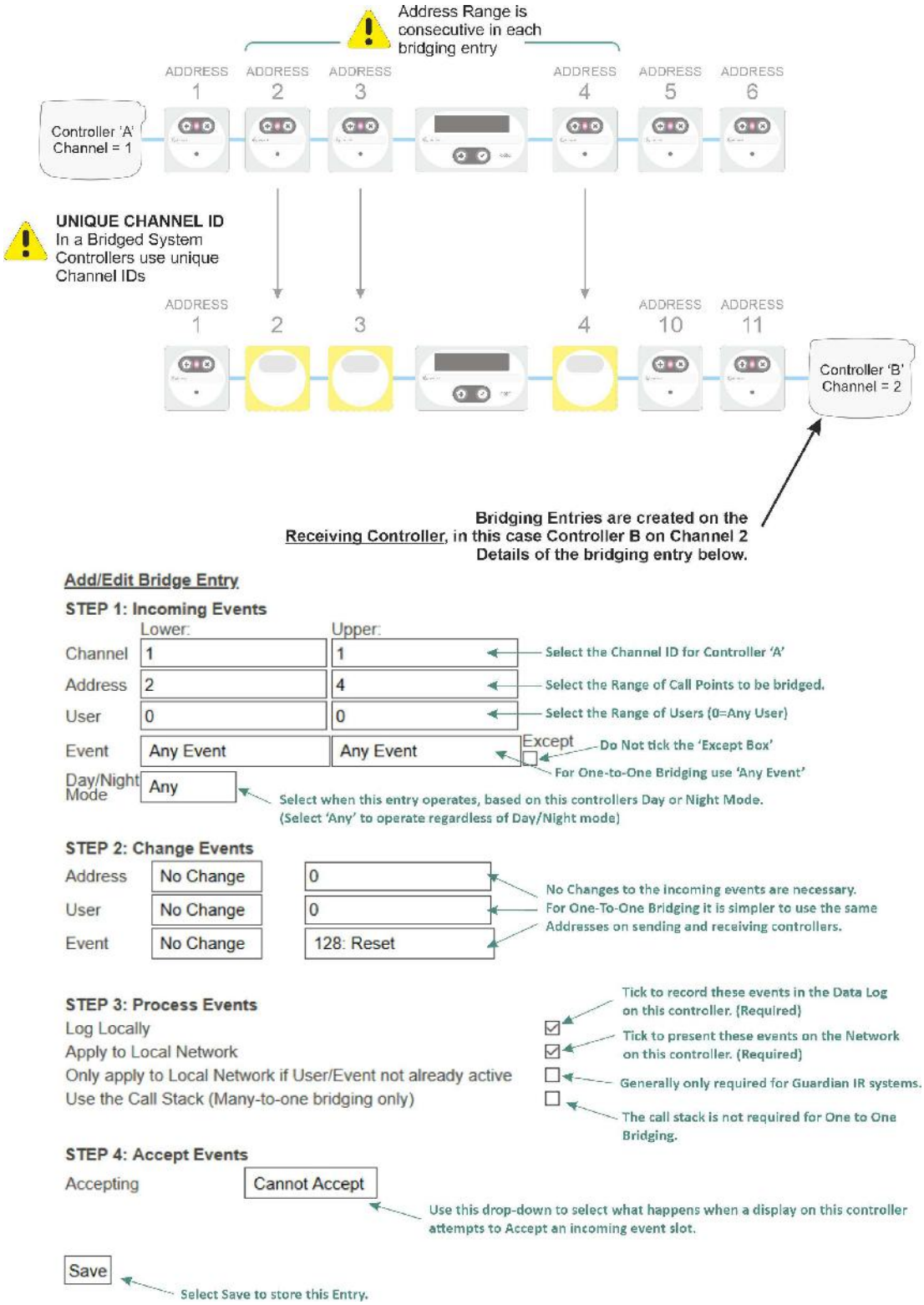

4.8.3 One-To-One Bridging Address Offset

If you are using a range of consecutive addresses for the call points on the originating system and have an alternative range of addresses for slots on the receiving system, you can still use a single bridging entry by using the offset feature. Enter a fixed offset into Step 2 of the bridging entry to offset the addresses of the sending and receiving system as highlighted below.

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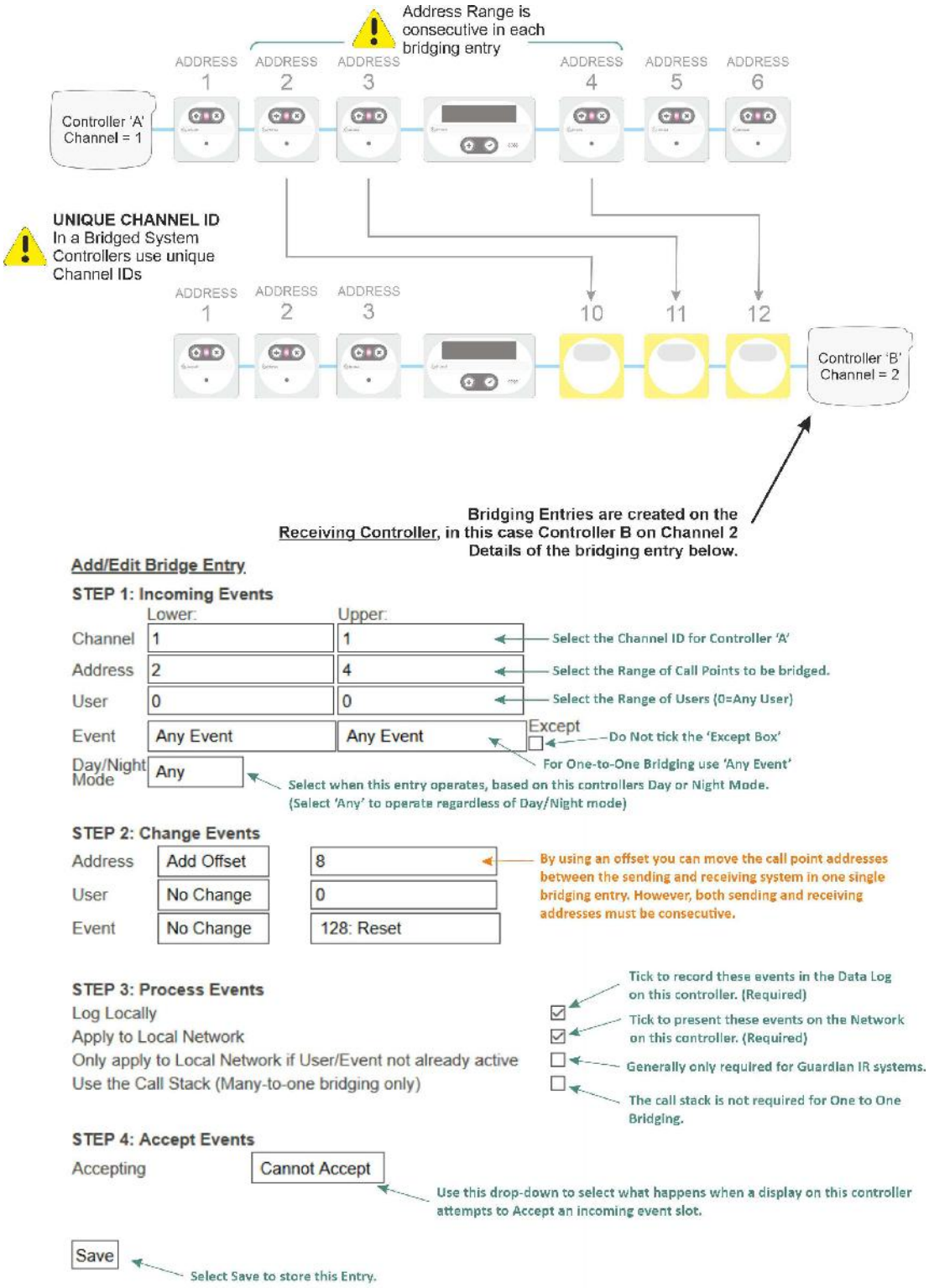

4.8.4 One-To-One Bridging Fixed Address

Individual Call Points can be bridged between systems using completely different addresses between the sending and receiving controllers. You will need to create an individual Bridging Entry for each Call Point Address and use the Map-To-New feature to select the slot address. Enter the address into Step 2 of the bridging entry as highlighted below.

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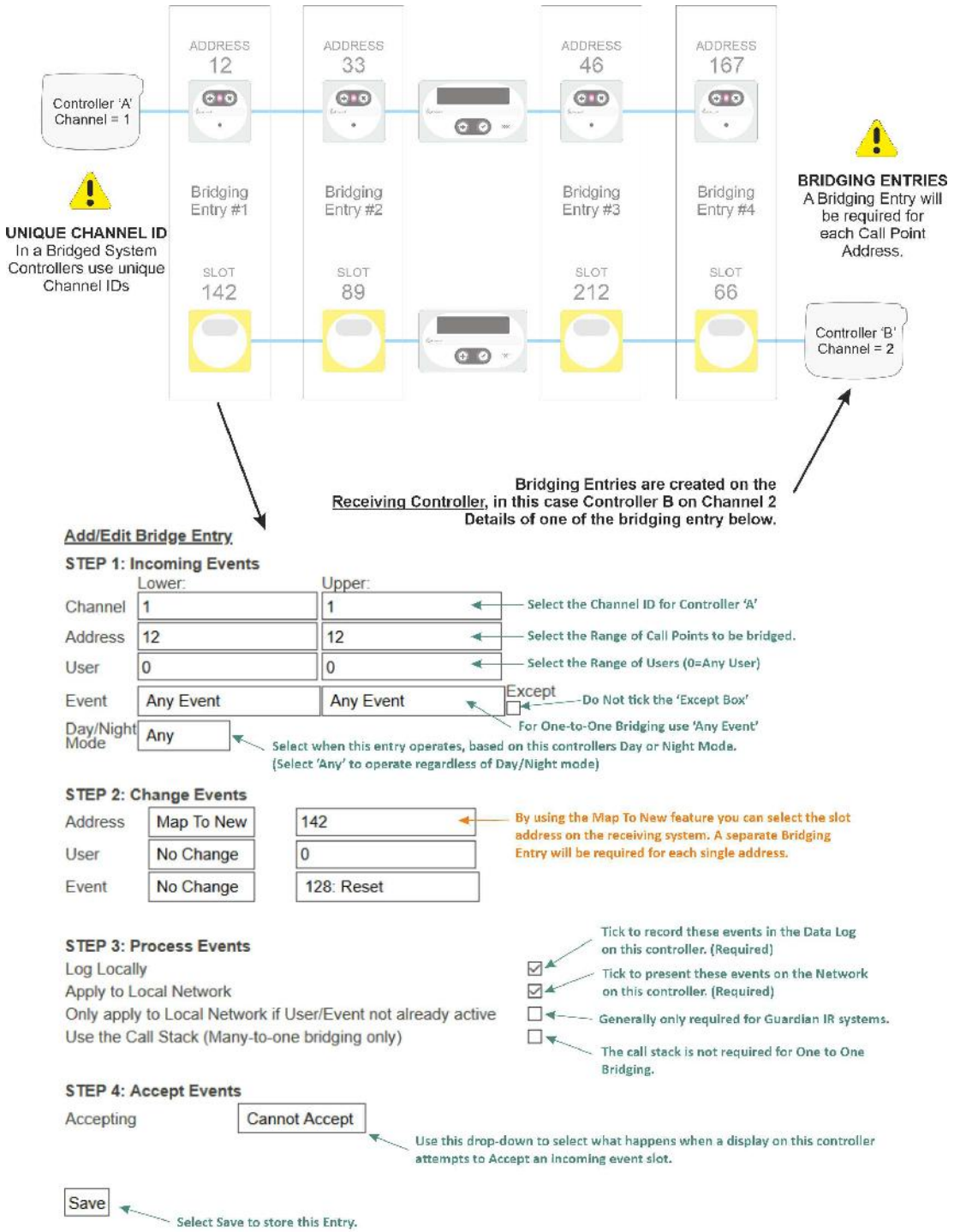

4.8.5 Many-To-One Bridging

Multiple Call Points can be bridged to a single slot address on the receiving system, however as a single slot cannot represent the status of multiple Call Points there are limitations with Many to One Bridging. Creating a Many to One bridging entry is the same as any Bridging Entry, however we use Step 2 to specify the single Address, User and Event to be created on the receiving system. A typical Bridging Entry is shown below, capturing Call, Priority, Assist, Emergency and Attack and presenting a single Call on the receiving system. If you wish the receiving controller to reset automatically when there are no active calls in the Address Range, you will need to create another Bridging Entry capturing Reset.

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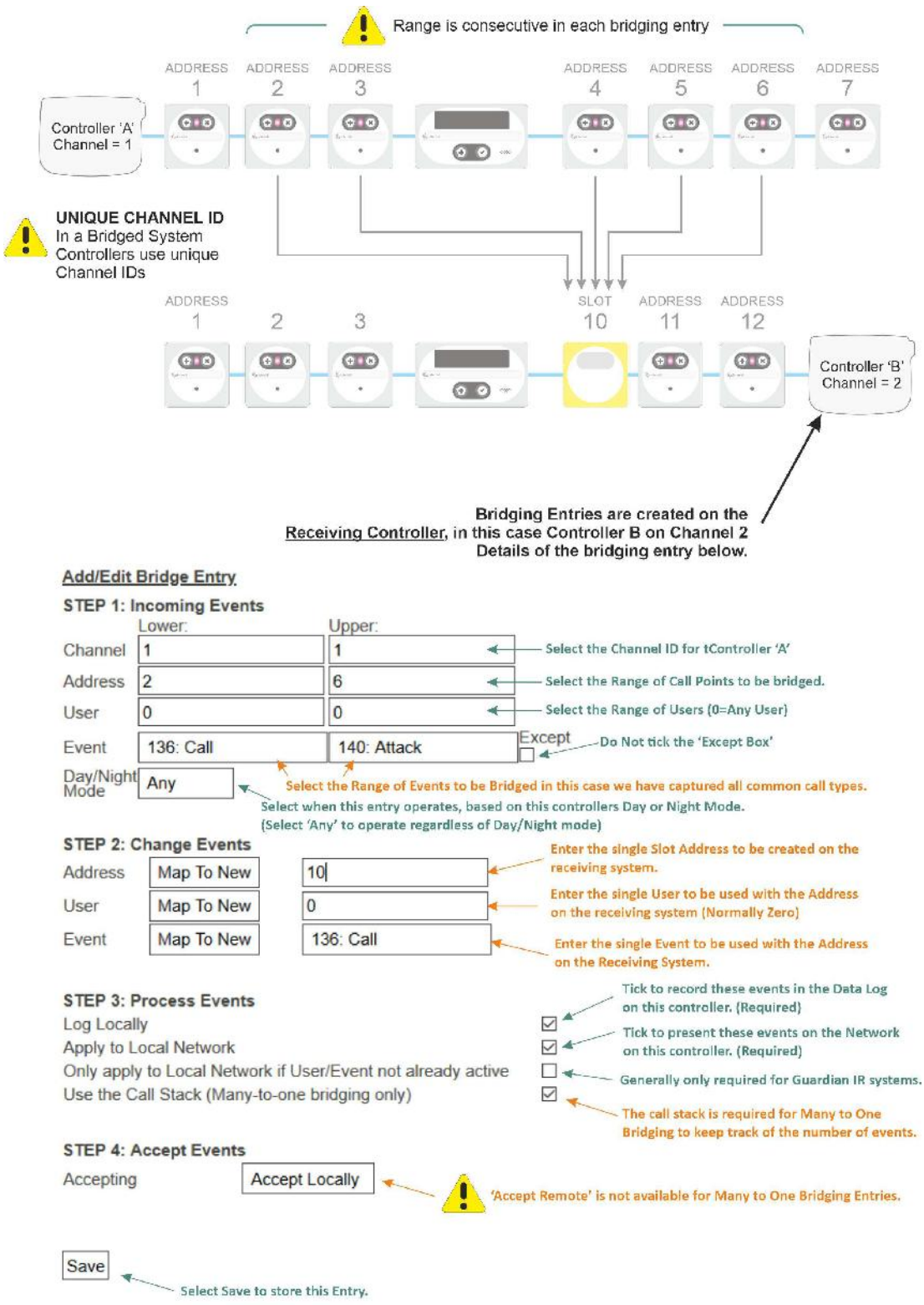

4.8.5.1 Automatic Reset Entry

If you wish the slot reset automatically when all bridged Call points are reset on the originating system, you must create the following entry which creates a Reset Slot using the Call Stack to keep track of the number of calls. The entry is essentially the same as the initial Many to One Bridging Entry and must cover the same Call Points for the Call Stack to operate correctly. In the following example, we have captured

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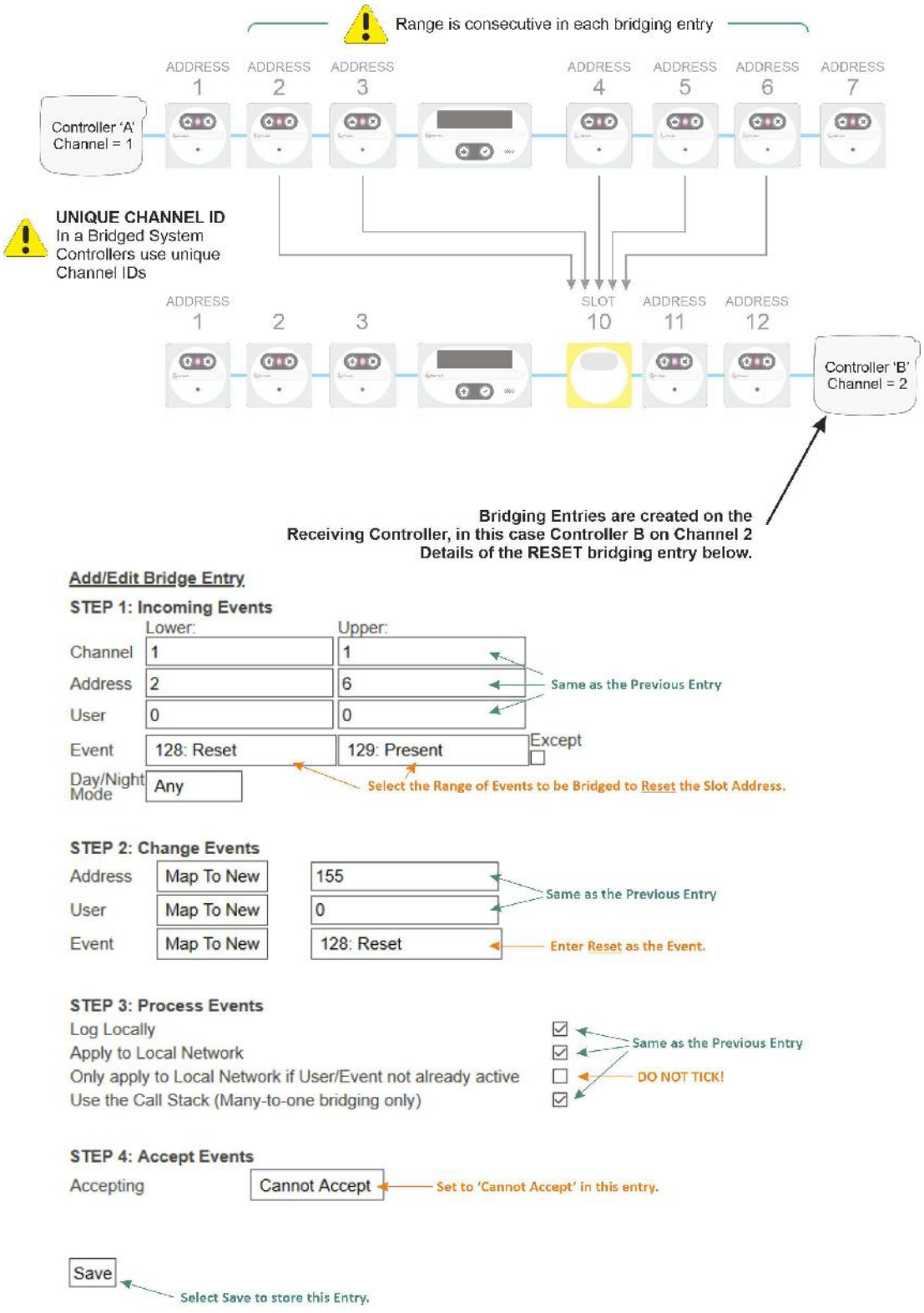
Nurse Present and Reset to be converted into the Reset on the receiving system Address Slot.



4.8.5.2 Many to One Bridging Limitations

Because of the nature of Many-To-One Bridging there are limitations to its use which are reviewed in the following; You must specify a single fixed Address, User and Event for the Slot virtual call point for each entry. Although it is possible to

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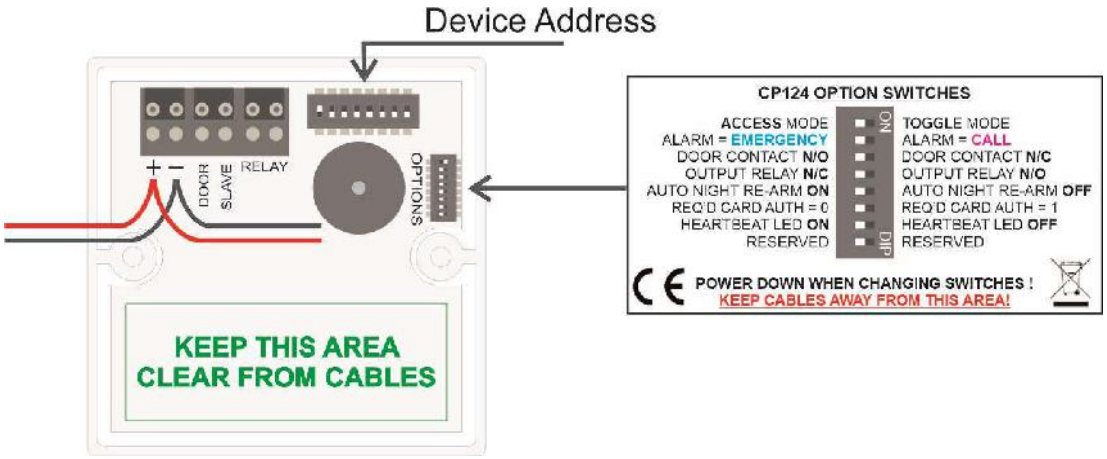
transfer the event from the originating system to the Slot, it will be replaced by newer events as they occur. There is no precedence table in the receiving power supply so an Emergency will be replaced with a Call if it is a more recent event. It is not possible to Remote Accept the originating calling point, however, Accept Locally, Reset Locally or Cannot Accept are available. If you wish the slot to be reset automatically when all bridged Call points are reset on the originating system, you must create two entries; one to receive the calling event (Call, Assistance, Priority Emerg etc) and a second entry to receive and create the Reset event. In both entries you must enable the Call Stack to keep a track of the calls and resets on the originating system(s)

4.9 124 Access Point

The Access Point may be used with electric door locking to prevent access, and also in combination with a Door Contact to activate an alarm when the door is opened without authorisation. The Device Address is set using DIP switches and features an additional switch bank to set the configuration for the unit. The factory set timers may be adjusted using the Intercall One 124 Configuration software. A description of the available options is contained in the following pages.



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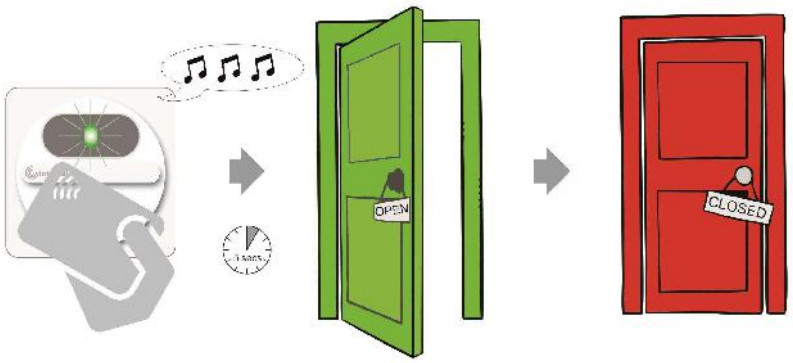
4.9.1 Option SW1 Operation Mode

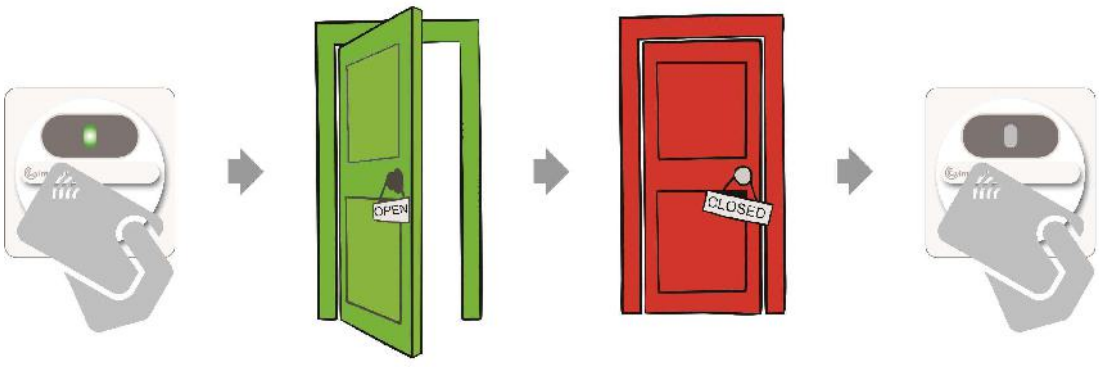
The Access Point can operate in one of two modes. In ***Access Mode***, the card is presented and the door is unlocked for a period of time to allow access, however, with the addition of Door Contacts, the door may be left open for long periods, automatically re-arming when the door is closed. In ***Toggle Mode*** the card is presented and the door may be opened & closed indefinitely until reactivated with a card. Unauthorised access will generate an alarm on the Intercall One system.

Access Mode *(SW1 OFF)*
Typically used with a Magnetic Lock or similar, and with the addition of Door Contacts, the door may be left open, automatically re-arming once the door is closed.



Present Card and beeper sounds | Door is unlocked temporarily. | Door Closed and automatically locks.

Toggle Mode *(SW1 ON)*
Typically used to monitor the door generating an alarm when accessed by unauthorised personnel.



Present Card to light green LED | Door is un-armed and may be opened and closed as required. | Door Closed | Present Card to re-arm door.

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4.9.2 Option SW2 Alarm Event

The Access Point can generate one of two levels of alarm. ***Call (SW2 ON)*** ideal for internal doors whereas ***Emergency (SW2 OFF*)*** is designed for doors that lead directly to outside (Eg Fire Doors)

4.9.3 Option SW3 Contact Input

The Access Point can accept one of two types of contacts attached to the door; **Normally Open (SW3 OFF*)** *Closes* when the Door is Opened, or **Normally Closed (SW3 ON)** *Opens* when the door is opened. *Generally intruder alarms operate Normally Closed contacts.*

4.9.4 Option SW4 Relay Output

The Access Point is fitted with a volt-free relay which may be configured to operate in one of two modes; **Normally Closed (SW4 OFF*)** the relay is closed when the door is secured or **Normally Open (SW4 ON)** the relay is open when the door is secured.

4.9.5 Option SW5 Auto Re-arm at Night Mode Switch

The Access Point may be configured to automatically re-arm when the system switches from *Day Mode* to *Night Mode*. Doors which are Isolated during the day are automatically re-armed and will alarm should they remain open at the point when the system switches to Night mode. Select **SW5 OFF*** to enable this feature or **SW5 ON** to disable this feature.

(((Illustration of day moving to night and doors re-arming automatically)))

4.9.6 Option SW6 Card Authorisation

Access Points protecting sensitive areas (such as drug cupboards etc) can require a higher authorisation level from the Care Card. Cards programmed to the standard authorisation level will not operate these units. Select **SW6 OFF*** to accept all Care Cards or **SW6 ON** to require Care Cards have an authorisation level of 1 or above.

(((Illustration of two cards one Auth=0 the other Auth=1)))

4.9.7 Option SW7 Heartbeat LED pulse

The Access Point pulses a blue light briefly every few seconds to indicate the unit is operating normally. This LED may cause disturbance and can be disabled if not required. Select **SW7 OFF*** to enable or **SW7 ON** to disable.

4.9.8 Option SW8 Reserved

Option Switch 8 is not currently implemented on this device.

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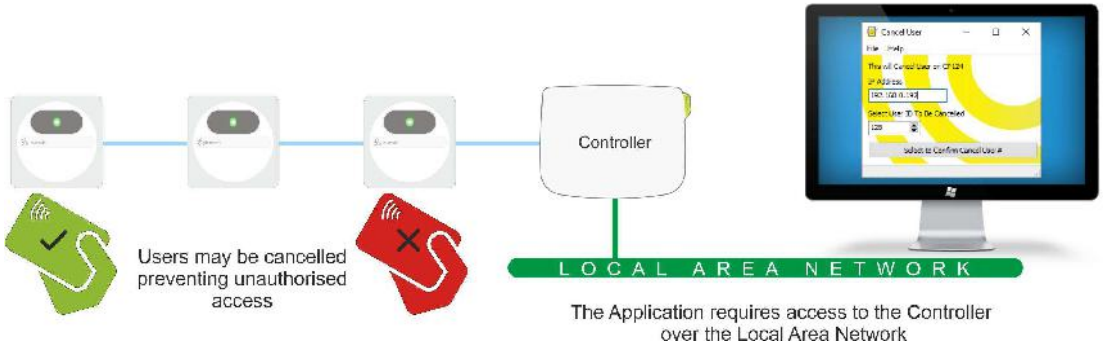
4.9.9 Programmable Options

The Access Point features programmable options configured using a simple Windows application.

4.9.9.1 Cancelling a Card

Should a card be mislaid or stolen, users may be cancelled preventing unauthorised use in the future. This may be targeted at all Access Points or specific units as required and is realised using a simple PC Application shown below.



4.9.9.2 Access Timer

The Access Timer controls the length of time the unit is Isolated after the card has been presented, the factory default is 5 seconds. **Important:** The Access Timer is only available when the device is configured to operate in **Access Mode (SW1 OFF)**

(((touch control app screen cap required)))

4.9.9.3 Access Timer Extension

While the Access Timer is running and the door is opened, the Access Timer Extension allows an additional amount of time before the door is re-armed. A contact set must be fitted to the door to realise this feature and the factory default is 15 seconds. **Important:** The Extended Access Timer is only available when the device is configured to operate in **Access Mode (SW1 OFF)**

(((touch control app screen cap required)))

4.9.9.4 Slave Input Timer

The unit may be isolated using a third party momentary closing contact such as a 'Press to Exit' button, keypad or similar. The Slave Input Timer controls the length of time the unit is Isolated when the contact is made, the factory default is 10 seconds. The Access Timer is available when the device is configured to operate in **Access Mode** or **Toggle mode**.

(((touch control app screen cap required)))

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4.9.9.5 Accept/Priority Timer

When the Alarm Event is configured as Call (option SW2 ON), the unit may be accepted on the Displays, in the same way as the Call Points. The Accept/Priority Timer controls the amount of time before the Call traverses to a Priority Call, together with the length of time before an *Accepted Call* returns as a *Priority*. Factory default is 180seconds (3 minutes)

(((touch control app screen cap required)))

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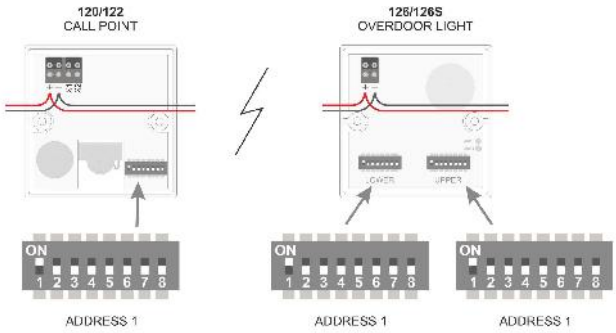
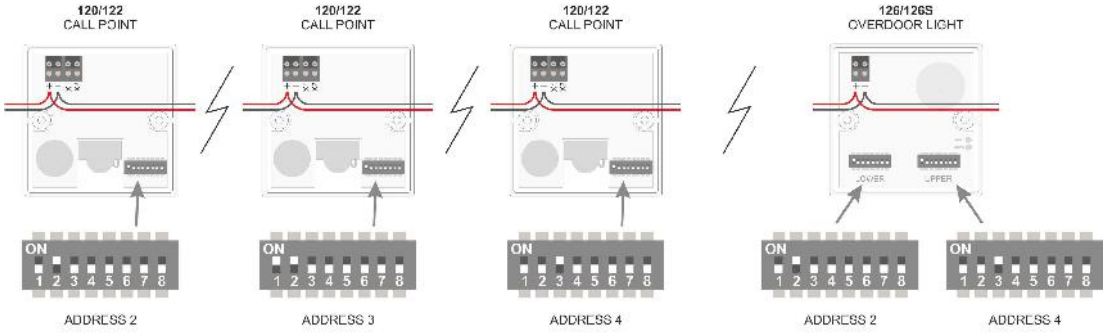
4.10 126 Overdoor Light

The 126 Overdoor Light is fitted with two banks of DIP Address switches, identified *Lower* and *Upper*. The light will follow any Call Point Device within the Address range between the ***Lower*** and ***Upper*** settings. To set the Overdoor light to respond to a single Call Point Device, set the Lower and Upper DIPs to the same address. To follow a range of Call Points, set the Lower DIP switch to the lowest Call Point Address and the Upper DIP Switch to the highest Call Point Address.



Overdoor Light following a single Call Point



Overdoor Light following multiple Call Points

4.10.1 Event Priorities

The Overdoor Light prioritizes the incoming events in the following order:

Attack *(Highest)*
Emergency
Assistance
Priority
Call
Accept
Nurse Present *(Lowest)*

The Overdoor Light does not respond to the following events;
Tamper, Isolate, Visit, Reset, Unit Failure

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4.10.2 Option Drill-outs

The Overdoor Light features two option cut-outs which change the behaviour of the unit. EM RED - Converts the Overdoor Light Emergency from flashing blue to flashing red. EM ONLY - Converts the Overdoor Light to respond to Emergency and Attack Calls Only, All other events are ignored.

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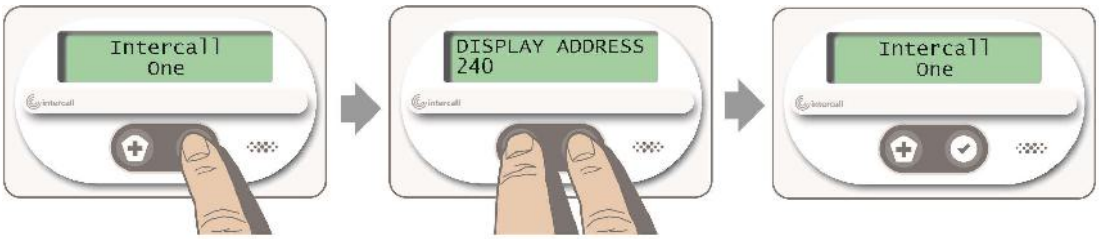
4.11 DU128 Display Menu

The Display Menu contains limited settings which are manually programmed into the Display using the front panel controls, see also the Display Configurator Application. To access the Display Menu, first, press and hold down the 'Accept' button, followed by the 'Staff' button, keep both buttons held down for around 10 seconds until 'Release Buttons' is displayed. Release the buttons and the first item of the menu is shown, 'Display Address'. Use the *Accept* button to change the current setting and the *Staff* button to move on to the next item in the menu.

4.11.1 Menu Disabled

To prevent tampering, access to the Display menu can be disabled using the Display Configurator Application. When the display menu is disabled, only the Display Address will be shown.



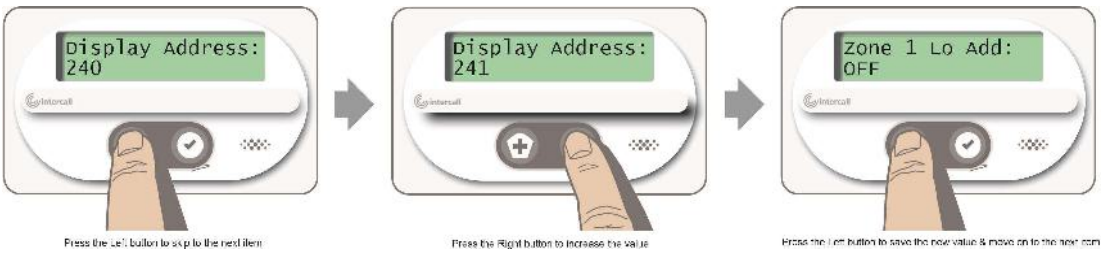
First, hold the Accept button down

Hold both buttons down, if the display menu is disabled, the display address will show immediately.

Release the buttons and the display will return to the quiescent text

4.11.2 Menu Display Address

Used with the Display Configurator Application, the Display Address is used to identify an individual device and may be set between 1 and 254. Displays may share the same Display Address and will receive an identical configuration. **Important:** Do Not use an Address occupied by a Call Point or Access Point etc.



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4.11.3 Zone 1

The Display has three inclusive Address Groups each containing a 'Lower' and 'Upper' address limit and Zone 1 is the first of these three groups. When Zone 1 Lower Address is set to 'OFF', Zoning is Disabled, and the Display operates '*Globally*' responding to all Call Points. When Zone 1 Lower Address is set to 'OFF', the menu skips the remaining Zoning settings. More information on Zoning see here.

4.11.4 Zone 2

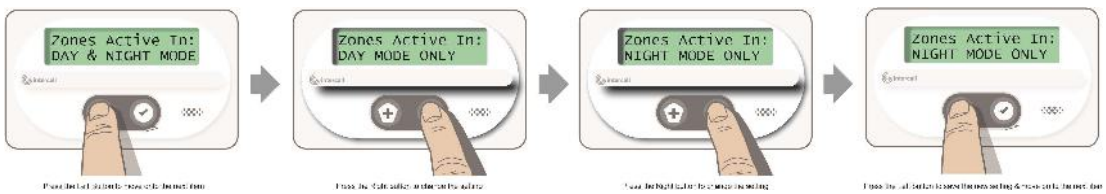
The Display has three inclusive Address Groups each containing a 'Lower' and 'Upper' address limit and Zone 2 is the second of these three groups. When zoning is disabled, these settings are hidden from the menu.

4.11.5 Zone 3

The Display has three inclusive Address Groups each containing a 'Lower' and 'Upper' address limit and Zone 3 is the third of these three groups. When zoning is disabled, these settings are hidden from the menu.

4.11.6 Zones Active In

This item controls when Zoning is active on this Display depending on the Controller Day/Night Mode. Select '**Day Mode**' to enable zoning while the system is operating in Day Mode and to operate Globally in Night Mode. Select '**Night Mode**' to enable zoning while the system is operating in Night Mode and operate globally in Day Mode. Select '**Day and Night Mode**' to enable zoning continuously regardless of the Day/Night Mode.



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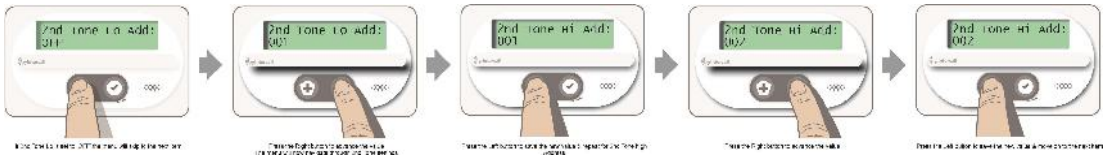
4.11.7 Second Tone

Using the Second Tone function, the Display Units can be configured to sound an alternative tone for specific Call Points. Any Call Point Address between the 'Lower' and 'Upper' limits will sound an alternative tone for Call and Priority. If the Display is Zoned, any Device Address in the Second Tone window must also feature in one of the Zone 1, 2 or 3.



4.11.8 Night Alarm Volume

Set the Alarm volume from this display when the system is operating in Night Mode, the default alarm level for Night Mode is 016.

4.11.9 Day Alarm Volume

Set the Alarm volume from this display when the system is operating in Day Mode, the default alarm level for Day Mode is 192.

4.11.10 Receive Broadcast

When disabled, prevents reception of the Broadcast command from the Controller on this Display, preventing the Address Descriptions, User Descriptions and Default Text from being altered on this Display.

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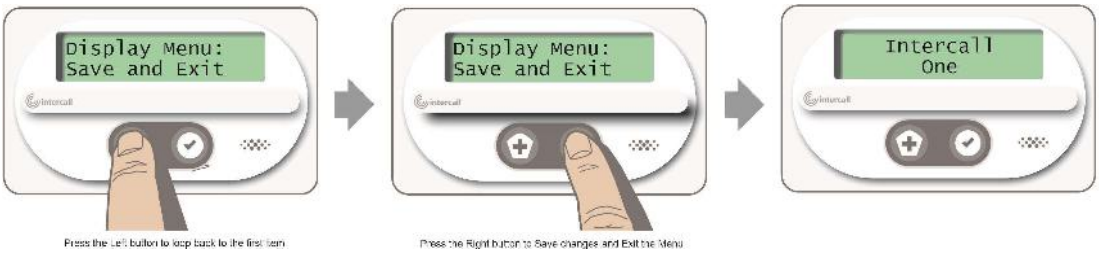
4.11.11 Save and Exit

Select to store any changes and exit the Display menu.



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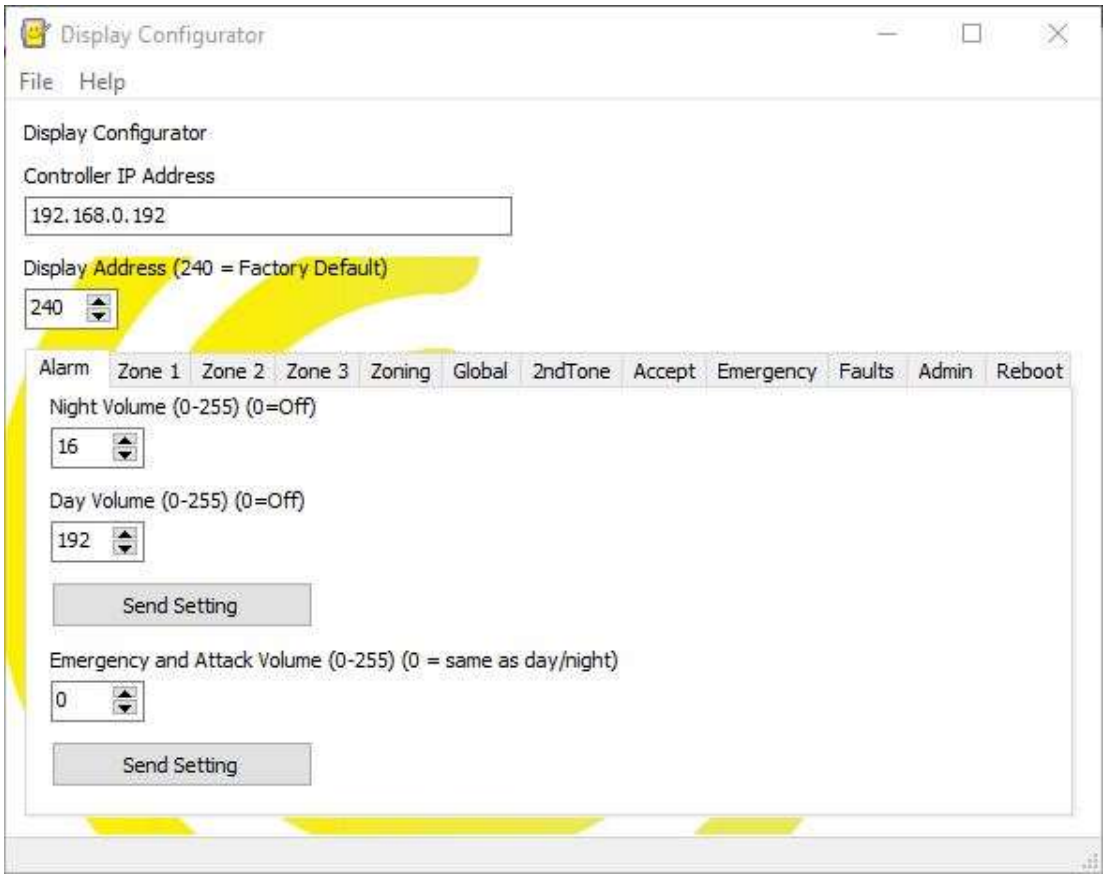
4.12 DU128 Displaying Faults

Three different fault types may be displayed; Unit Failure, Tamper and System Fault. Devices are continually monitored and in the event a device goes missing a Unit Failure is raised. Tamper is an alarm event generated from a monitored device, these are reset at the device. System Faults are generated by the Controller monitoring circuits, and have detected a fault or out-of-limits condition, they are only displayed when the system is operating in quiescent mode. You

4.13 Display Configurator Application

PC based application allowing configuration to be sent to the Display without the need to visit each individual unit. The Display unit may be programmed simultaneously with identical configuration or selected individually by using their Display Address. The Application is write only and there is no facility to read the settings of the Display Units. The PC will need to be connected to the Controller via the Ethernet Port.



IP Address
Enter the IP Address of the 100 Controller.

Display Address
Using the Display Address allows the configuration to be targeted to an individual display, alternatively, displays may share the same Display Address to be configured identically.

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Select one of the tabs to configure the following features.

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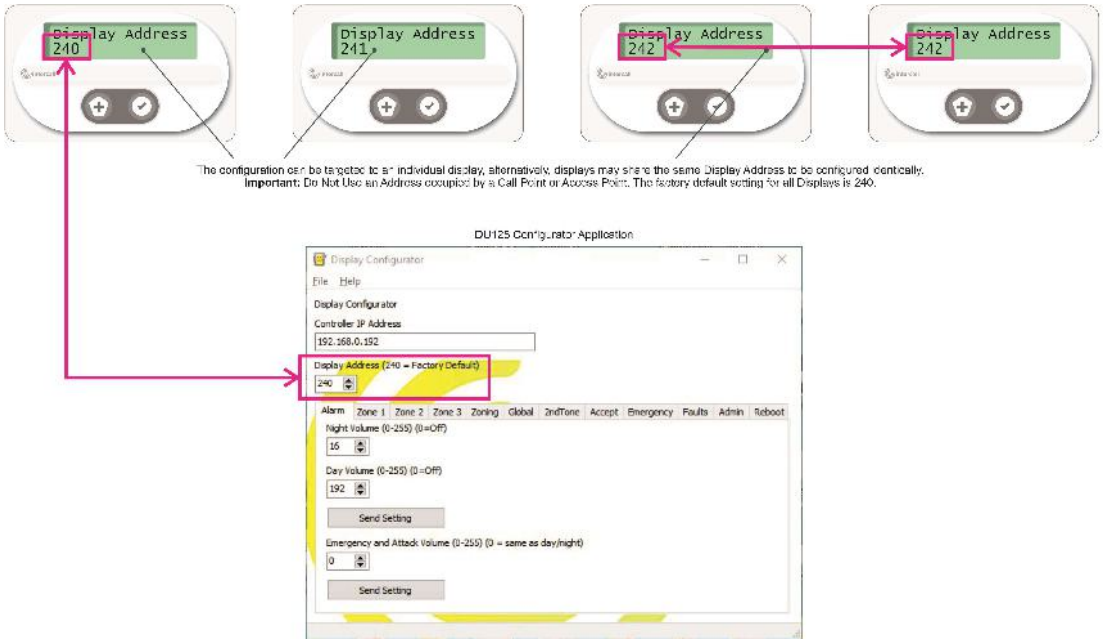
4.13.1 Display Address

Using the Display Address allows the configuration to be targeted to an individual display, alternatively, identical settings can be sent to multiple Displays sharing the same Display Address. The factory default is Display Address 240 for all display units.



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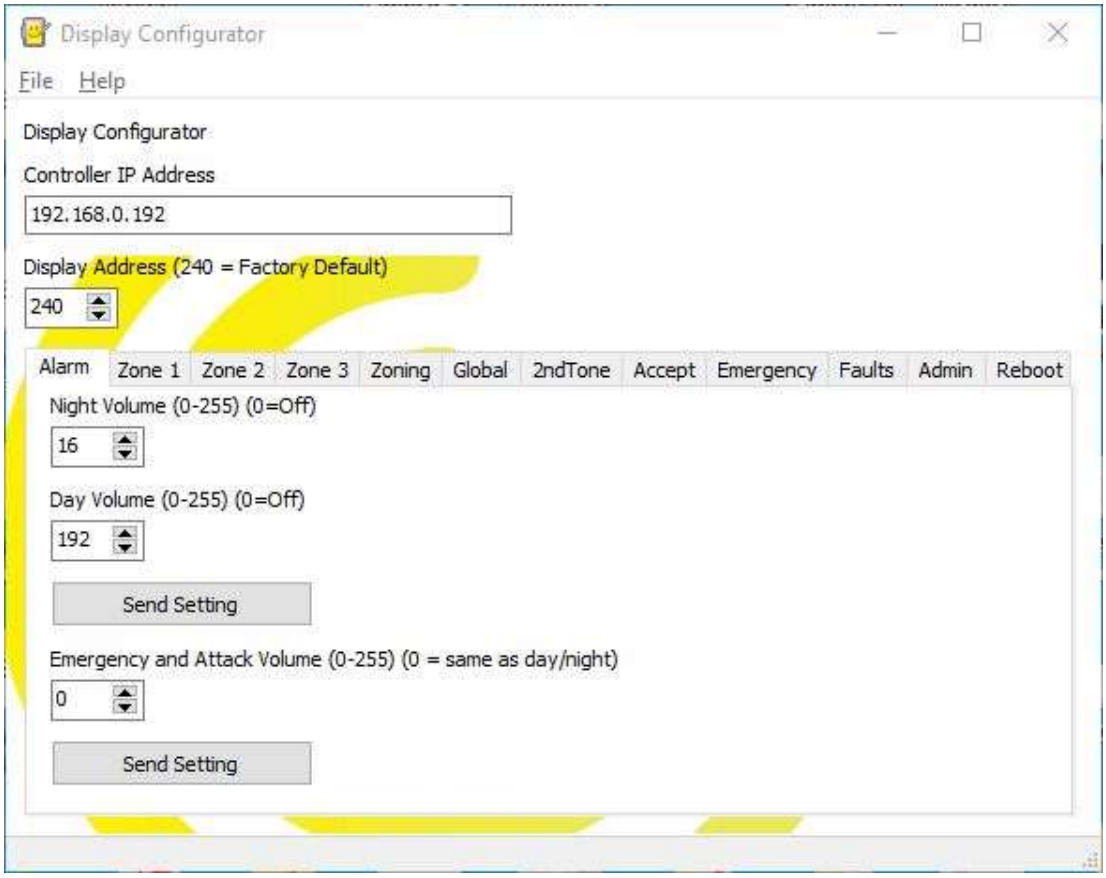
4.13.2 Alarm

The Alarm tab controls the alarm volume from the Display, allowing different volume levels to be set when the system is running in Day Mode and Night Mode to avoid disturbing sleeping residents. Emergency and Attack alarms may be configured to sound at a specific volume regardless of the Day/Night mode or may be configured to following the Day and Night volumes.



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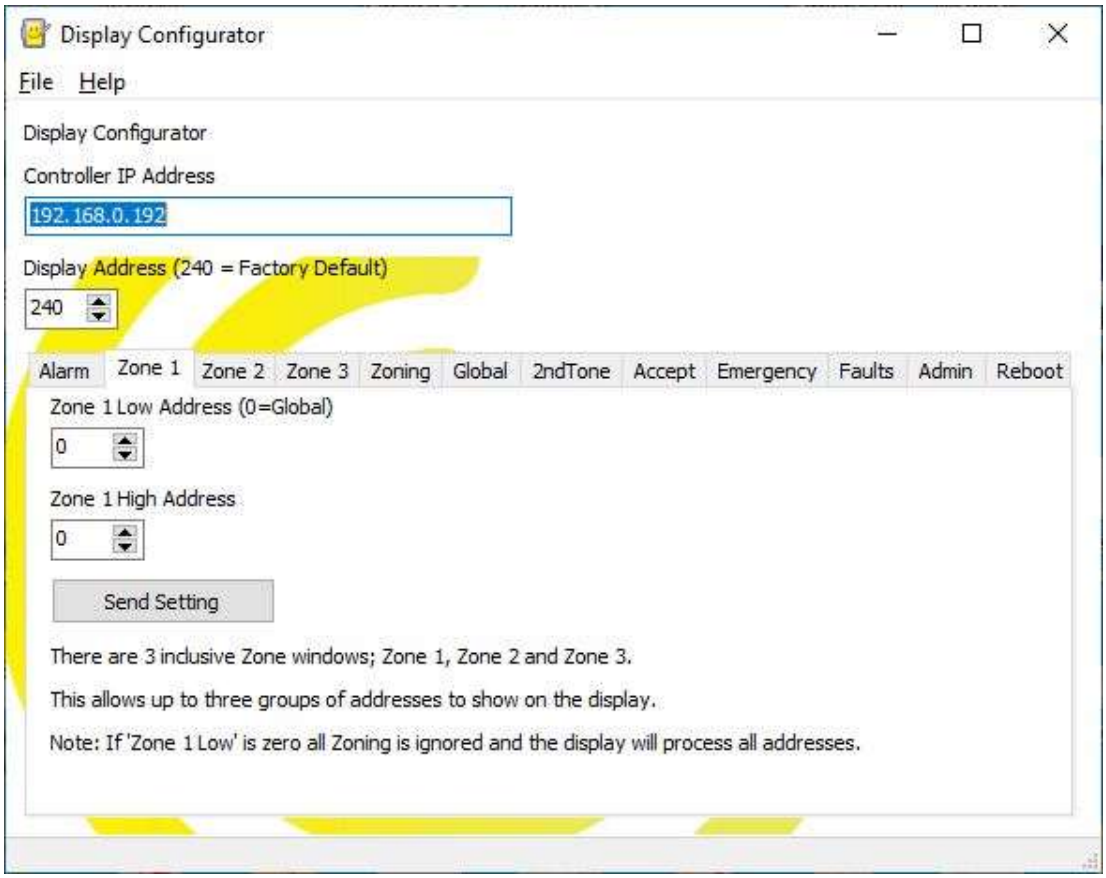
4.13.3 Zone 1,2,3

The Address Groups are used when the Display is Zoned and the three independent, inclusive zone windows; Zone 1, Zone 2 and Zone 3 are configured using these tabs.



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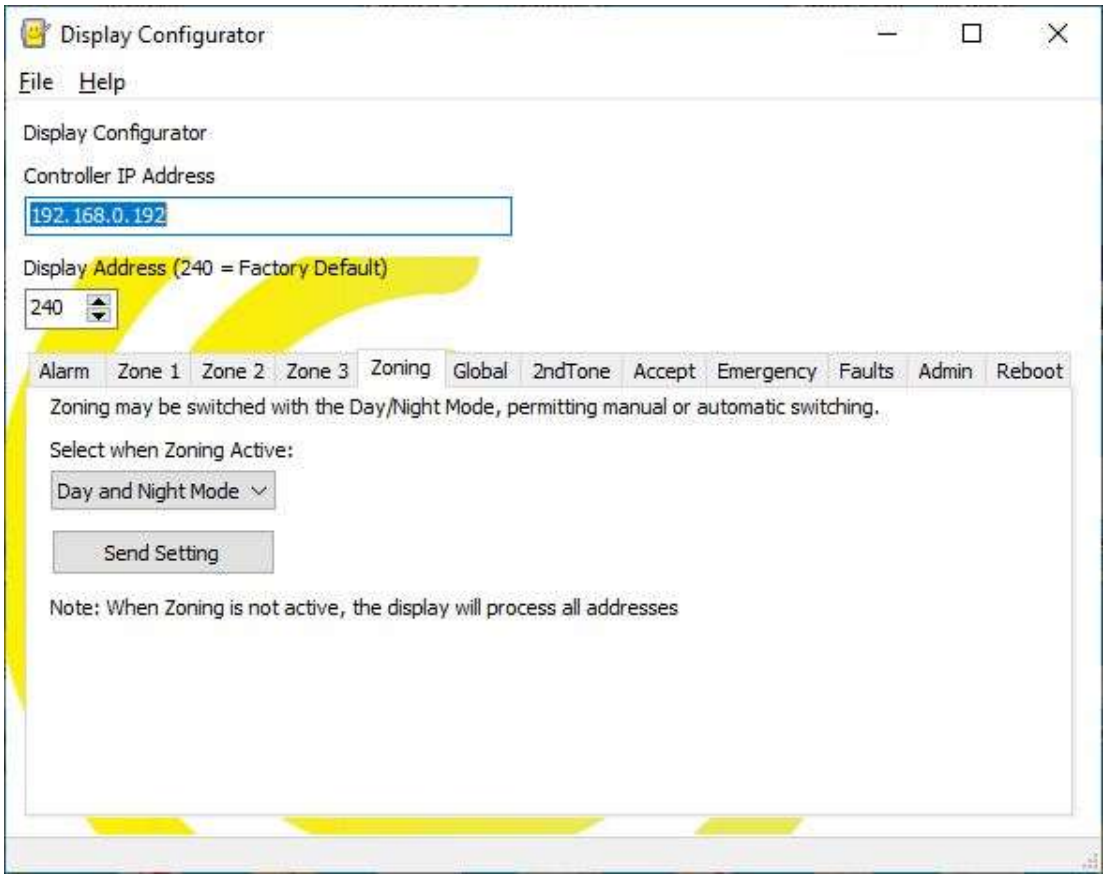
4.13.4 Zoning

The Zoning tab controls when Zoning is active on a particular display, which may be in Day Mode, Night Mode or all of the time (Day and Night Mode)



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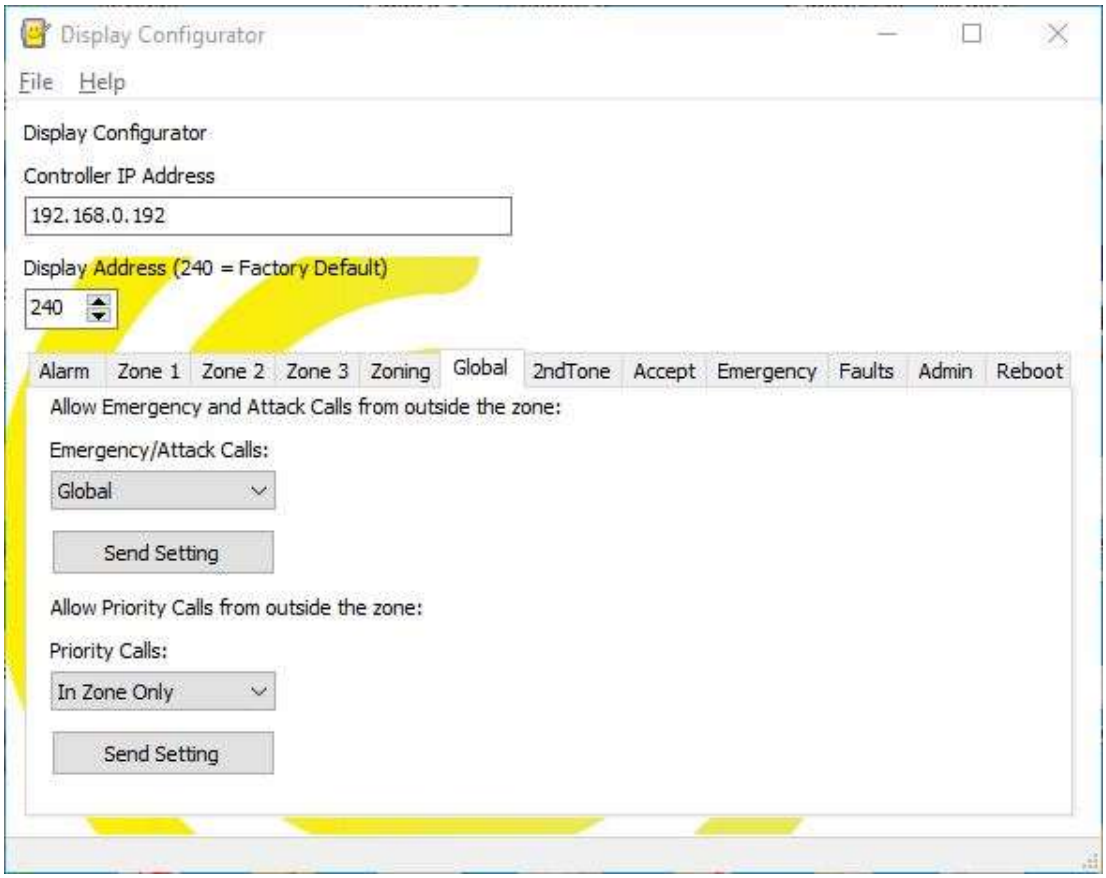
4.13.5 Global

The Global tab allows selected events from Call Points outside the configured Zones to alert at the selected display regardless of the Zoning Configuration.



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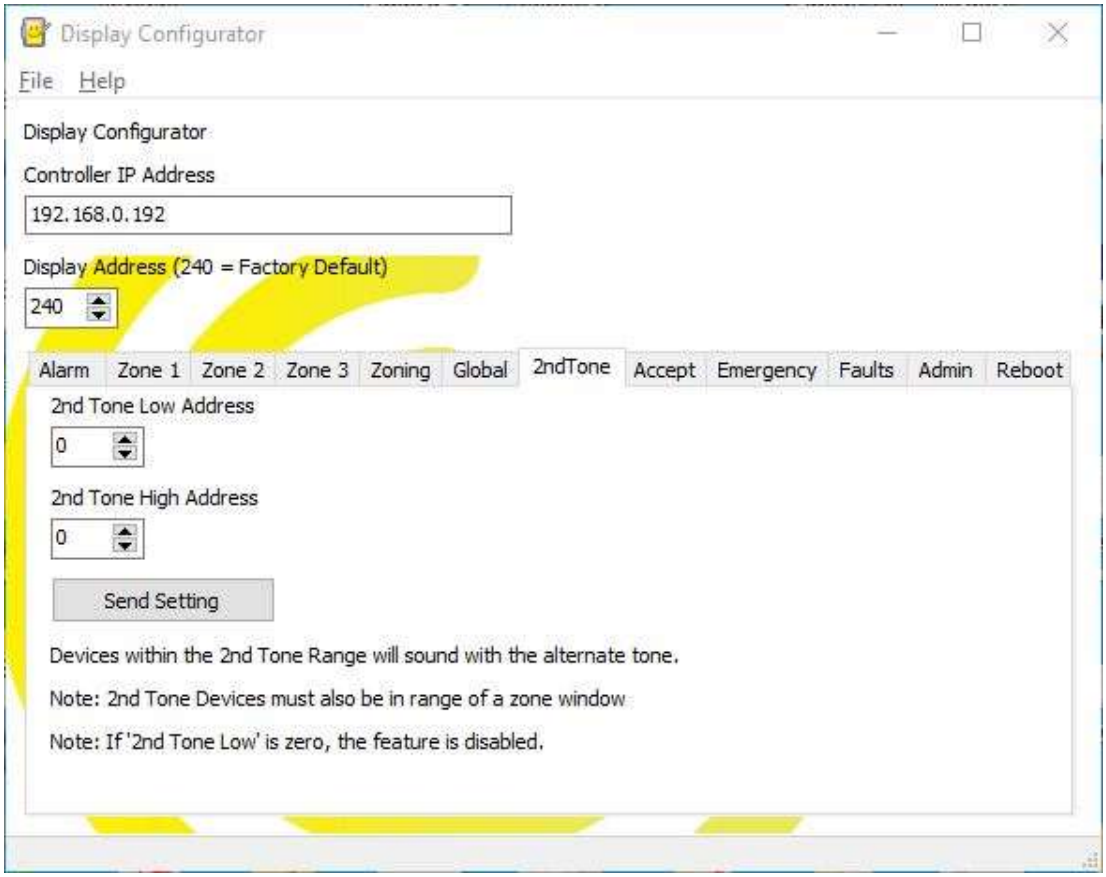
4.13.6 2nd Tone

The Second Tone tab allows selected Call Points to generate an alternative alert at the selected display. Note: Call Points must also be within range of the Zone settings.



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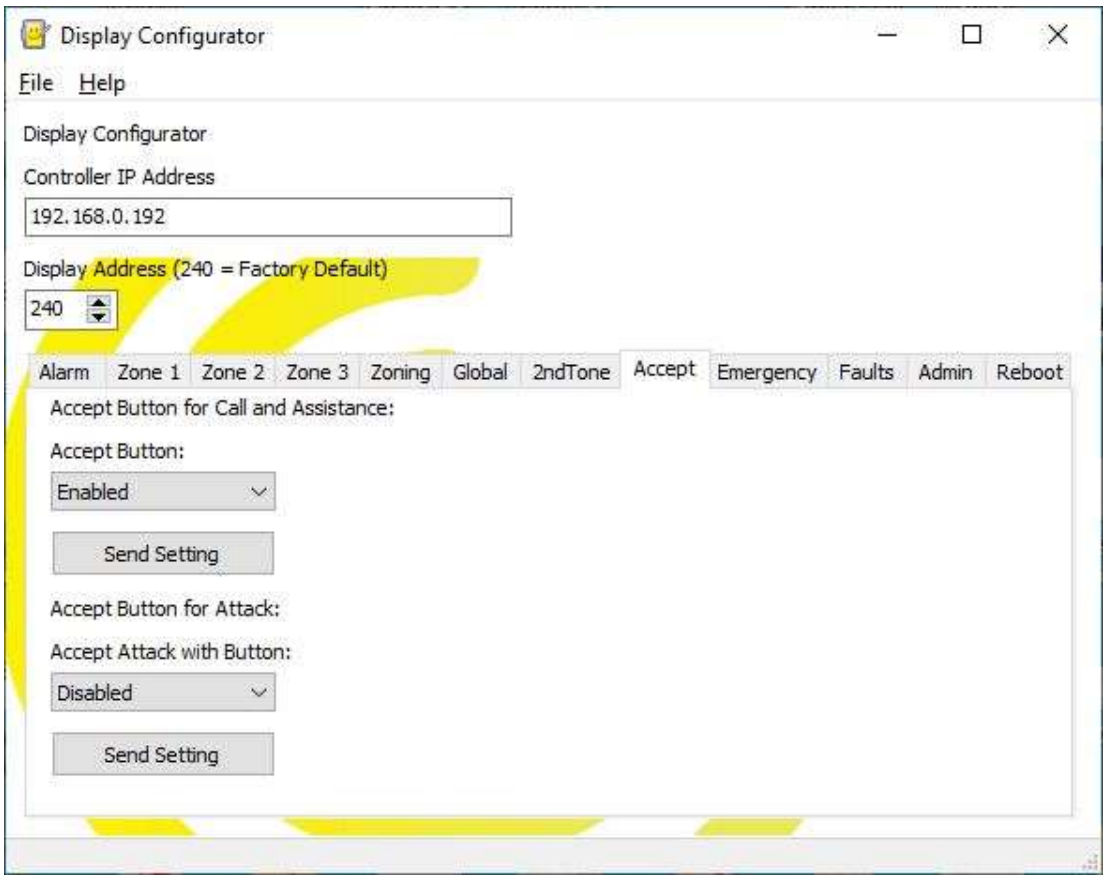
4.13.7 Accept

The Accept tab controls the Accept Button functionality on the selected Display.



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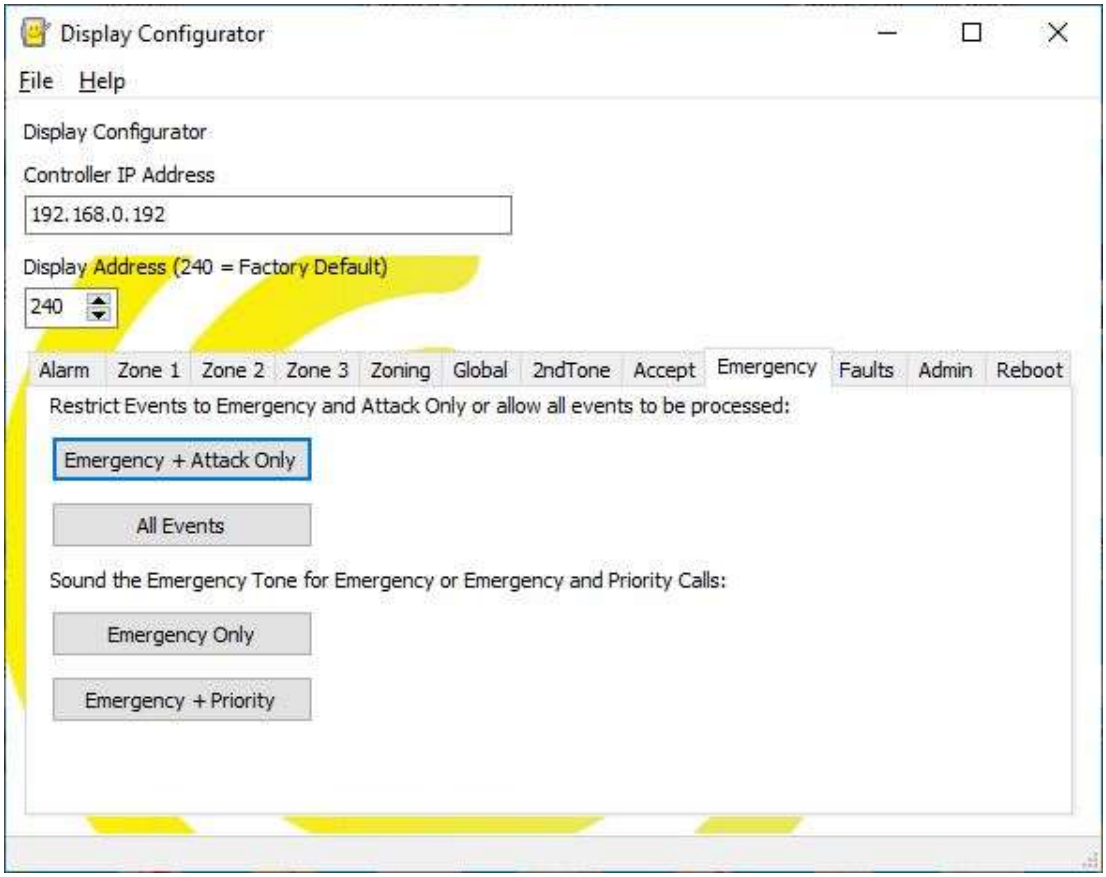
4.13.8 Emergency

By default, the display will alarm for all events, the Emergency Tab allows the display to be restricted to Emergency and Attack calls only. This page also allows Priority Calls to sound as Emergency Calls if required.



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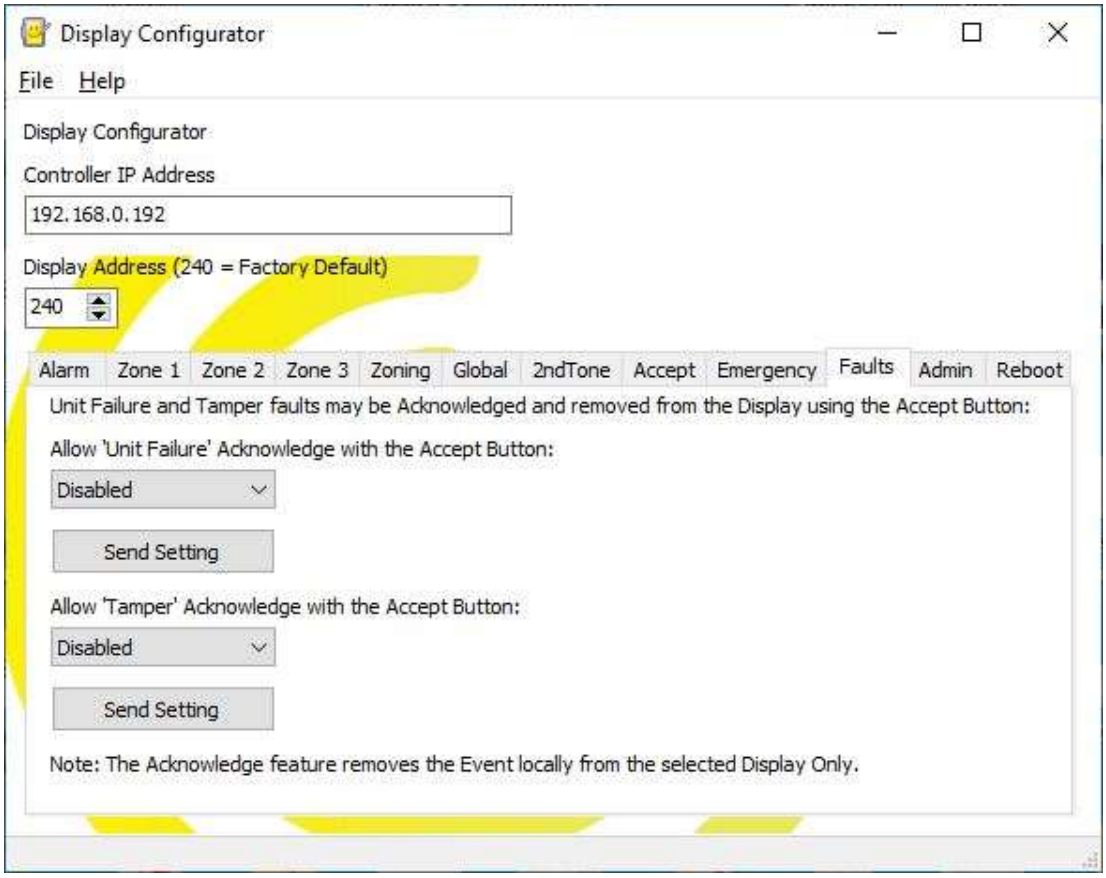
4.13.9 Faults

By default, the user cannot acknowledge Unit Failure or Tamper alarms with the accept button. The Faults tab controls the Accept Button functionality on the selected Display, allowing Faults to be acknowledged using the Accept button. Note: Acknowledge feature silences the alarm and removes the Event locally from the Selected Display only.



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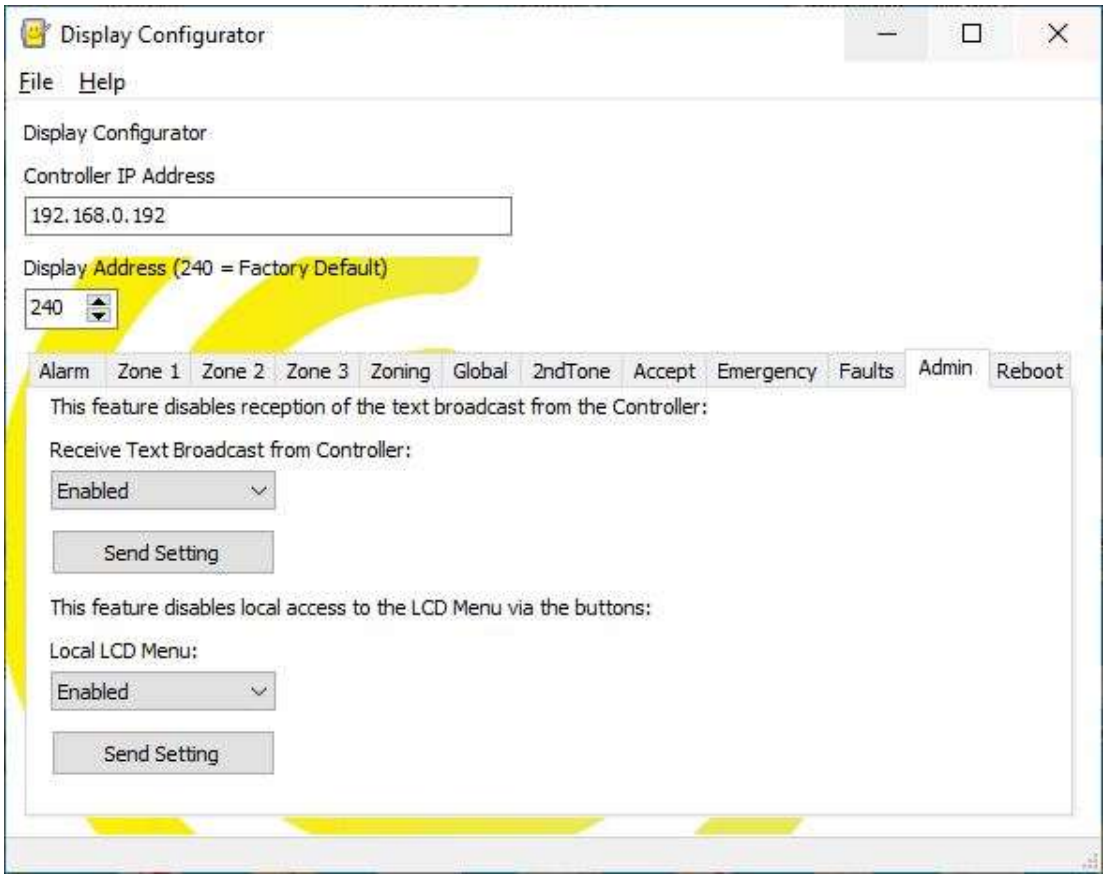
4.13.10 Admin

The Administration Tab may be used to lock the display to prevent text updates and menu access using the front panel buttons.



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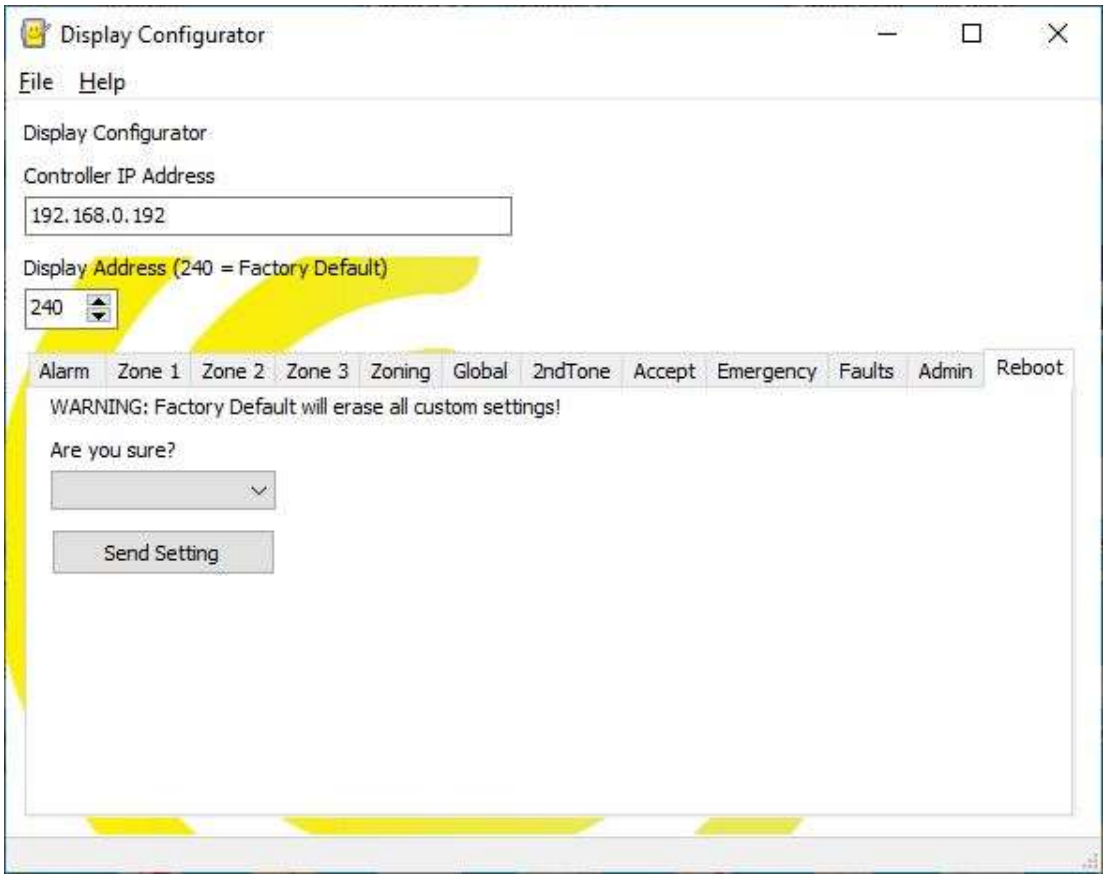
4.13.11 Reboot

The Reboot Tab allows the display to be rebooted or reset to factory default as required. Warning: Factory Default will erase all custom settings !



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4.14 Intercall One Pendant

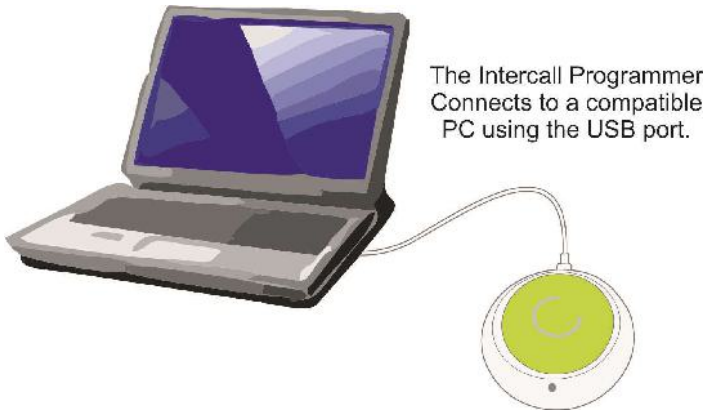
The Intercall One Pendant provides wireless access to the Call system while the resident is a away from the Call Point.

4.14.1 Programming

The Intercall One Pendant is supplied from the factory un-programmed, this means it will generate 'Call' without a 'User Number' so will activate all Call Points within range. The pendant may be assigned to a user, with the Intercall Programmer available separately.

4.15 Intercall Programmer

The Intercall Programmer is a USB device which connects to a Windows PC or Laptop and programs the Care Cards and Pendants. **Important**: The must be installed prior to connecting the hardware.



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Fault Finding

5 Fault Finding

Fault Finding Guide spreadsheet can we bring an excel spread sheet in here or do it in corel.

DU128 Red LED and System Fault on Display (no sound)

No Device Fault

Tamper

Common Call Point Faults

User tracking does not work - User 0 , double address.

Fault

5.1 Call Point Faults

FAULT	CAUSE	CURE
Unit does not Start up and/or Red LED pulsing every second.	Illegal Switch Setting Address DIP Switches can only be set to addresses 1 through 254. Network Device Voltage below minimums.	Set Call Point Switches Refer to Device Addressing Check network voltage at device with device calling.
Unit does not start up & blue LED lights continuously when call and reset buttons pressed simultaneously.	Non-compatible network protocol	Devices are not compatible with the Intercall Touch or Intercall 600/700 systems.
Call Point cannot be cancelled	Ceiling pull switch faulty (i.e. shorted) Ceiling pull switch wiring /Short Circuit Latching pull switch fitted in error. Pear Lead faulty (i.e. shorted)	Disconnect or eliminate pull switch Disconnect or eliminate pull switch & wiring. Must be momentary pull switch Remove Pear Lead
Call Point does not show or sound on Display Call Point address shows as "No Device" on Device Check Page.	Two call points set to the same address Call Point not connected to Network.	All call points *must* have a unique address Check Network Voltage at Device.
Standard Call - Call Point Red Led flashes magenta twice then solid Magenta (ie Call is accepted) Emergency Call behaves normally.	Call point receives accept signal from the network	Partial short on Network Cabling. Damp Network Cable Damaged Network Cable Call Accepted at display

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		Damaged Display accept button stuck down
Call Point shows as incorrect call type (Eg Call displays as Assistance)	Two call points set to the same address. Damp Network cables or Devices. (Eg Water Leak) Damaged Network Cables. Network Device Voltage below minimums.	Check Device Address Page Check Cabling integrity Break system cabling down to isolate fault. Check network voltage at device with device calling.
Incorrect description displayed when Call Point calling	Wrong or no text has been programmed for that address DIP Switches incorrectly set on call point	If this is on all displays check programming. If only on one display, perform Broadcast.
Call Point randomly "Ghost Calls"	Pull switch damp (condensation or water leak) Damaged wiring on "X" connection Damaged pear lead or plug Excessive electrical 'noise' or static on site	Disconnect or eliminate Pull Switch & wiring. Remove or replace pear lead Check site or contact supplier for filter units.

5.2 Display Faults

FAULT	CAUSE	CURE
Display Blank	No Power to the Display	Check with Meter
Device Continually Reboots	Network Voltage below minimums Unable to calibrate RFID loop	Check with Meter Ensure unit is not located near metallic objects. Ensure cables are kept away from loop area
Display does not show a Call Point (see Call Point Faults)	Display Zone setup error Display set to Emergency/Attack Calls Only	Review Display settings using the Display Menu or Display Configurator application.
Incorrect description displayed when Call Point calling	Incorrect or missing text has been programmed for that address.	Review Address Descriptions page If this is on all displays check programming. If only on one display, perform Broadcast.
Display will not accept Broadcast Command	Broadcast feature disabled in the Display Menu	Review Display settings using the Display Menu or Display Configurator application.
Display alarms and reads "Unit Failure" on the lower line of the LCD	Network Devices are continuously monitored by the	Investigate missing units. This can be caused by 'hot swapping' devices on a live system. Display may be

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	display units. Should a device be removed from the system, it will alarm as a Unit Failure. This feature may be disabled in system settings.	cleared by disabling then re-enabling the feature on the system settings page.
Display reads "SYSTEM FAULT" on the lower line of the LCD and the LED illuminates red.	The Intercall Controller monitoring circuits have detected a fault or out of limits condition.	Investigate the fault using the status LEDs on the Intercall Controller (E.g Mains Failure, Battery Charge, Earth Fault etc)
Cannot access Display menu locally	Display menu disabled.	This can only be re-instated with the use of the Display Configurator application.
Sounder Volume too loud/quiet	volume setting set incorrectly	volume may be set using Display Menu or the Display Configurator application.

5.3 Controller Faults

Enter topic text here.

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