

# ALPHA **E** CALL™

## 200 Series

2-Wire and/or Wireless Emergency Call System

### Installation & Configuration Manual

Alpha Communications® and Alpha Media®, Inc.



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# **CHAPTER 1 - INTRODUCTION**

## **» *What is AlphaECall™ 200?***

AlphaECall™ 200 is an Emergency Call System that can be used with wired devices or wireless devices or a combination of both in a single facility. This manual will step you through the installation and configuration process of AlphaECall™ 200. If you have any questions during installation about AlphaECall™ 200 please feel free to contact us at anytime by going to:

<https://www.alphacommunications.com/support>

## **» *Tips for a Trouble-Free Installation***

- Conduct a detailed, thorough site survey to determine precise quantity of repeater/locator modules, and exactly where they should be located.
- Carefully read this manual and follow all procedures outlined within it.
- Test each device after it is mounted in it's final location, when applicable.
- Do not mount Alpha Communications® wireless devices using Non-Alpha Communications® hardware. Metal backboxes will interfere with wireless signal transmission, as may backboxes of various other materials.

## **» *Wired AlphaECall™ 200 Installations***

Wired devices connected to AlphaECall™ 200 will communicate with each other over QwikBUS™ - a looped 2 wire bus system. Before installation it is important to know if you will be running new wiring or using existing wiring already in the facility. Wiring type, gauge and distance and the number of devices needed will all be an important part in determining the number of mixers (**MXAV333**) and where they will need to be placed for proper communication. Also, it will be important to know what other types of wires may be run alongside QwikBUS™ wiring to prevent interference. **Wiring will be explained in more detail later in the manual ("AlphaECall™ 200 QwikBUS™ Wiring Diagram" on page 13). Please contact us with any questions before wiring a facility to make sure bus wiring is run properly. Please note that BUS devices are to be wired in a looped fashion, and not home-run.**

## **» *Wireless AlphaECall™ 200 Installations***

A wide range of types of wireless devices can be connected to AlphaECall™ 200 to suite the needs of many types of facilities. Types of devices that can be used are emergency pull cords, wrist or necklace pendants, smoke detectors, door alarms, motion detectors, and many more.

All wireless signals are sent redundantly across multiple channels to avoid interference obstacles. The backbone of the wireless network uses the intelligent repeaters (**WRL511**) which can accommodate virtually any size application. See "Maximum Number of Repeaters for an Installation" on page 44.

For a wireless installation it is highly recommended that a Site Survey is done before installation. Alpha Communications provides a Site Survey Kit that can be purchased (**WSK500**) or rented (**WSK5002WR**) for this purpose. A site survey will help you determine how many repeaters will be necessary and the best location to place them for wireless signals to reach all necessary locations in a facility. The site survey will help to get the best possible communication between all your wireless devices. The site survey we be explained in more detail later in this manual.

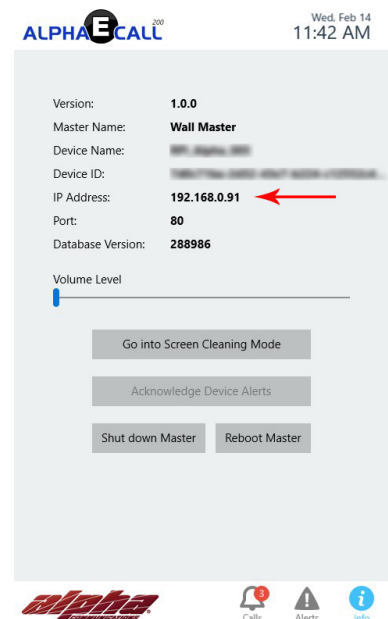
## **» *Hybrid AlphaECall™ 200 Installations***

Both of the previously mentioned systems types (wired and wireless) can operate on a single Emergency Call system seamlessly using their associated integration methods.

# CHAPTER 2 - QUICK START GUIDE

Follow these steps to get up and running quickly. Not all options and functions are covered in this quick start guide.

- Connect your masters to power and to a Local Area Network. This will initialize them for first-time-use.
- If you are using wired call devices, wire up your hardware as shown in the **AlphaE-Call™ 200 QwikBUS™ Wiring Diagram** (page 13) and connect the **TLE333 Translator** to one of the masters' USB ports using the **CA-USBSERV10** cable.
- If you are using wireless devices, connect the **WNC510 Network Coordinator** to one of the masters' USB ports using the **CA-USBSERV10** cable.
- On one of your Masters, click on the "Info" icon in the lower-right hand corner of the screen and look up the IP Address of that master. If you have only non-visual Masters, you must temporarily hook up a monitor (HDMI) and mouse (USB) to one of them in order to accomplish this.
- Connect a PC, Tablet, or virtually any other web-enabled device to the same Local Area Network that the Masters are connected to.
- In a web browser, type in the IP Address of the master that you just looked up. In the case of the master pictured to the right, you would type in "192.168.0.91". If you are using a web port other than 80, you will need to add it to the address. For example, if the web port is 8080, you will need to type the address into the web browser with a colon and then the port, in this format: "192.168.0.91:8080"
- You will be taken to the System Configuration Interface.



- Under **Setup**, Go to **General Settings** and specify the Installation/Facility Name. You can also specify what you want to call your Residents. The default value is "Residents".
- Under **Call Device Types**, specify the various types of call devices that will be used in your system. They can be called anything that makes sense for your application. Each device type has its own settings for priority level, display options, trigger actions and more. When you ultimately add a new call device, you will specify which Call Device Type it is, and that will dictate how that particular Call Device acts and is treated system-wide.
- Under **Locations**, add your locations. Typically these locations reflect a room number, common area name, or any other location that will have one or more call devices that will need to be annunciated on the masters. Any stationary call devices will be added to their respective location in this area as well.

» **NOTE:** *If you are using wireless pendants and utilizing the Fingerprinting function, you may also want to add Locations that do not have call devices, such as "Reception" or "Waiting Room". That will allow these locations to be annunciated if someone should activate a wireless pendant in that area. This Location is also where you will program the fingerprinting data for each location. See page 36 for more information on fingerprinting programming and functions.*

- Under **Masters**, specify settings for each one of your masters. Give them a name that makes sense and specify which (if any) integration devices are connected to them, such as a **TLE333** Translator or a **WNC510** Wireles Network Coordinator. One of these devices may be connected to each master.
- Under **Residents** (it may be called something else, based on your Resident label as set in the General Settings), you can add the individual residents. Specify their name, location (room number) and other settings specific to that resident. You can also add Wireless Pendant call devices to the resident at this time.
- Under **Staff Members**, you can add individual staff members. This allows various members of your staff various security clearances, and function access (such a mobile apps).

# **CHAPTER 3 - ALPHAECALL™ 200 MASTERS**

## **» Touch Screen Master and Non-Visual Master**

Each AlphaECall™ 200 Master can serve for any or all of the following purposes:

- Emergency Call and Device Alert Display on a touch screen or HDMI monitor.
- Touch or mouse interaction to see emergency call details, silence tones from emergency calls, close emergency calls, view system alerts, or master information.
- One of various hardware integrations connected through a USB or Serial-to-USB connection.
- Web browser access point to configure AlphaECall.
- Database backup.

There are two different types of AlphaECall™ 200 Masters. You must have **at least** two master stations for each system installation. It does not matter which two of the following you use. You can also use any combination of the two types of masters, depending on the needs of your installation. The reason for the 2 master minimum involves redundancy as well as the ability to plug your integration hardware into a master station that is not out in the open and subject to possibly being tampered with or accidental unplugging.

1. **AEC200DM** - 7" touchscreen display that can be placed on a desk or wall. This display does not support HDMI output. There is, however, a second amplified audio output for additional 3rd-party annunciation.
2. **AEC200PC** - This is a stand-alone master that you can connect an HDMI display to and a USB keyboard and mouse if needed. The AEC200PC does not need to have a display connected to it. It can be used to connect additional serial hardware to your AlphaECall™ 200 system or just be used to backup your AlphaECall™ 200 database.

### **AEC200DM Visual Master Station**



### **AEC200PC Non-Visual Master Station**



» **Note:** Depending on your system requirements and serial hardware, more than two Master Stations may be required.

The masters must be networked to each other on a local area network (LAN). It is recommended that the LAN uses DHCP to specify the IP addresses of each device on the network. A network router can be used to accomplish this. You can connect the AlphaECall™ 200 masters to an existing network or setup a stand alone network just for AlphaECall™ 200 Series system.

The AlphaECall™ 200 masters can be setup to use WiFi if needed, but it is recommended that the masters™ wired to the network to ensure that critical emergency calls get through to all masters.

The LAN will also be used for configuration of AlphaECall™ 200 and for viewing optional reports. Configuration and reports will be accessed through any type of web browser on the network.

If you will be using the text messaging notification option in AlphaECall™ 200 you will also need to connect your network to an internet connection as well. For further details on the text messaging options in AlphaECall™ 200 please see the System Configuration chapter (page 23).

It is highly recommended that the AlphaECall™ 200 masters, the network devices (router and any switches), and any other hardware you are using with your emergency call system are all on battery backup as well to make sure emergency calls are properly received

in the event of a power loss or power surge in the facility.

## » **Connecting the AEC200DM Master to a Network**

For the AlphaECall™ 200 Series Desk or Wall Master (AEC200DM) to function properly it must be wired to a local network. To connect a network cable to the AEC200DM you must open up the Master to plug it into the network jack located inside the housing. There are three small Phillips head screws on **each** side of the Master that will need to be take out to remove the bottom plate from the Master housing. Please see the following images to make sure you remove the correct screws.

» **IMPORTANT:** Before performing any of these steps, you **MUST** unplug the Master from its power source!!

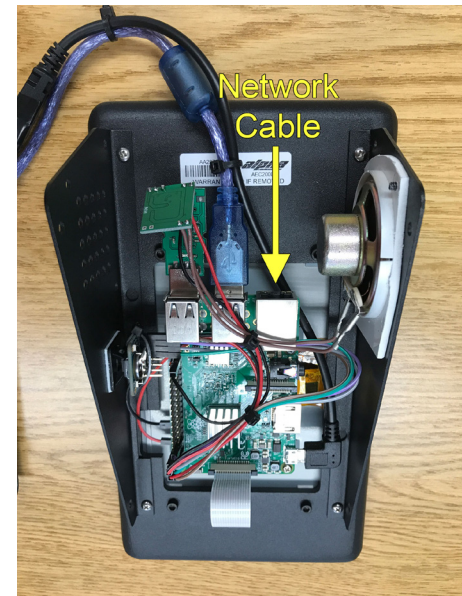
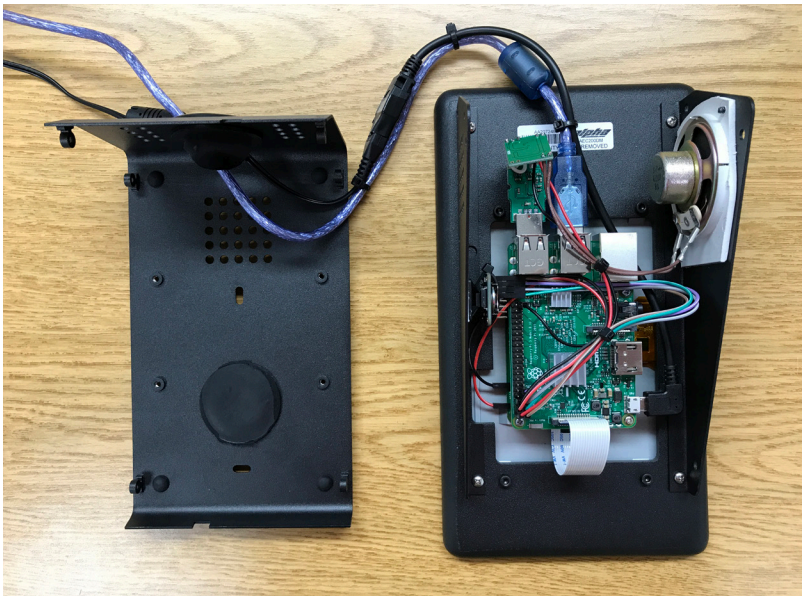
LEFT SIDE OF MASTER



RIGHT SIDE OF MASTER



Once the six screws are take out, carefully remove the bottom plate from the Master. After the bottom plate is removed, feed a network cable through one of the circular openings in the bottom plate and then plug the cable into the location shown in the following image.



Then after the network cable has been plugged in, carefully place the bottom plate of the housing back on the master, being sure not to crimp any wires or cables. Finally, screw the six screws back into place.

## » **Master User Interface**

The main purpose of the Master User Interface is to display emergency calls that come from devices connected to the AlphaECall™ 200 system. Calls are displayed in a list. The calls are sorted by priority as well as the date and time they were placed. The highest priority call and then newest calls will be at the top of the list. Each call will be displayed on a separate line. Each line will indicate the following:

- The type of input device that was used to place the call.



- An icon and color that is used to easily differentiate types of emergency calls.
- The resident and/or suite number the call was placed from.
- The time the call was placed, and duration of the call.
- If using wireless pendants with fingerprinting, the location that pendant was and when the call was placed.

On each line there will also be a close (X) button on the right side of the line to clear the emergency call off of the screen. Calls can only be cleared off the screen by masters who have access to close calls. And if the call was placed by a locking type of contact (ie. pull cord) the device must be reset locally first before you will see the close button.

Each line item can also be clicked to show further details about the call. Further details that can be viewed are:

- The “I’ll Handle This” button.
- Exact date and time the call was placed.
- Date and time the call was silenced and the duration of time since the call was placed.
- Date and time the call was reset (for locking type contacts) and the duration of time since the call was placed.
- If using wireless pendants with fingerprinting, the location that pendant was at when the call was placed.
- Resident Photo.
- Resident Phone Number.
- The Location of the call on the facility floor plan.
- Any notes that this resident has in their settings will be displayed.

Whenever an emergency call is displayed on an **AEC200DM** visual master, an emergency tone will also be played on the master. The tone will play at all masters that are configured to play tones. An icon to silence the tone on all masters will be displayed at the top of the screen as well. Once that icon is clicked, the tone will stop playing on all masters and the date and time the silence button was pressed will be stored.

At the bottom of the screen there are three tab icons displayed:

- **Calls** - clicking will display all current emergency calls. A badge icon will display on this tab indicating the number of emergency calls in the list.
- **Alerts** - clicking will display all current devices that need to be checked. See “System Alerts” below on page 9 for more details. A badge icon will display on this tab indicating the number of devices in the list.
- **Info** - clicking will display some information about this master. For example, the version number of the AlphaECall™ 200 software and the IP Address of this master. Other functions on this screen are:
  - Call Volume Level
  - Screen Cleaning Lock
  - Acknowledge Device Alerts
  - Shut Down Master
  - Reboot Master

## » **System Alerts**

AlphaECall™ 200 is constantly monitoring all devices connected to it. Any devices that are not responding or devices that have an issue (ie. low battery) that needs to be addressed will be displayed in the alerts list. If the item in the list is something that is critical and needs to be addressed right away, the emergency tone on the master(s) will play and the badge count on the Alerts icon will flash. For example, if the **TLE333** Translator or the **WNC510** Wireless Network coordinator that is connected to a master is not responding, this is considered critical because no emergency calls will be able to be received into that device. However if an apartment device is not responding or needs a new battery this is not considered critical, but it is something that should be addressed as soon as possible, because if an emergency call is placed from that location it may not get through to a master.

Once a device is responding properly to AlphaECall™ 200 then it will be automatically removed from the Alerts list.

# **CHAPTER 4 - ALPHAECALL™ 200 HARDWARE**

## **» Serial to USB Adapter**

The **CA-USBSERV10** Serial to USB Adapter allows the ability to connect a 9-pin serial device to an AlphaECall™ 200 Master.

» **NOTE:** Only one serial connection can be made to each Master. An AEC200PC can be used to connect additional serial devices to a network.

Serial hardware that can be connected to a Master are:

- **STR Translator (TLE333)** - used to receive emergency calls by wired call devices and activate dome lights. See “Wired” section below on page 10 for details.
- **Wireless Network Coordinator (WNC510)** - used to receive emergency calls by wireless devices. See “Wireless Hardware” section on page 19 for details.
- **Pager Transmitter (TX125-ENC)** - used to send emergency notifications to Pocket Pagers.
- **Central Station Dialer (SDACT-2)** - used to contact an off site central station/alarm service to automatically let them know an emergency call has taken place.
- **Relay Boards (RY008AE)** - these can be used to tie in other types of notification devices to AlphaECall. When an emergency call is received you could trigger visual or audible devices like a strobe light, horn, siren, etc.

## **» Wired STR Hardware**

The STR QwikBUS™ is a 2-wire loop that can have a virtually unlimited number of emergency call devices connected to it. Any type of device that can either make a momentary or latching dry contact closure can be used with the STR QwikBUS™. Example of these types of contacts are:

- **Momentary** - push button, motion sensor, door or window contacts, bed stations
- **Latching** - pullcords, smoke detectors, push-button stations

See the wiring diagrams starting on page 13 for specific wiring instructions.

## **» Typical Wired Call Devices and Components**



**SF117/2A**

*Wired Non-LED Emergency Pull Cord Station*



**SF154A**

*Wired Non-LED Emergency Push Type Station*



**EPS339**

*Wired LED Emergency Push Type Station*



**EPS155**

*Wired LED Emergency Pull Cord Station*



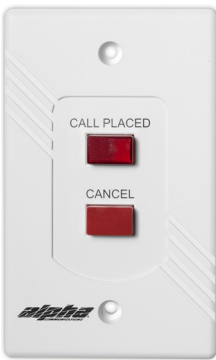
**EPS337**

*Wired LED Emergency Pull Cord Station,  
Water-Resistant*



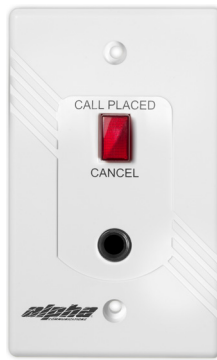
**EPS156**

*Wired LED Code-Blue Pull Cord Station*



**VSS110**

*Wired LED Visual Staff Station*



**VPS101**

*Wired LED Emergency Single-Bed Station*



**VPS102**

*Wired LED Emergency Double-Bed Station*



**SF301/8**

*8-Foot Bed Station Call Cord. Available in 10,  
15 and 20-Foot Lengths.  
Use with VPS Series Bed Stations*



**CDL101LED**

*1-Color Corridor Dome Light (White)  
Use with ECI333 Addressable Relay/Input*



**CDL102LED**

*2-Color Corridor Dome Light (White, Red)  
Use with ECI333 Addressable Relay/Input*



**ECI333**

*Addressable E-Call Interface & Relay*



**SP333**

*E-Call intelligent Controller*



**SNT333s**

*Controller / Power Supply*



**TLE333**

*Digital BUS Translator*



**MXAV333**

*Intelligent Digital Mixer*



**CA-USBSERV10**

*Serial <-> USB Converter*

## » **ECI333**

The emergency call devices connect to the bus through **ECI333**'s. Each **ECI333** can connect to any location on the bus and has a unique address setup on it. This address gets programmed to a specific resident (programming is explain in the System Configuration chapter). Every **ECI333** has two separate dry contact inputs on it (S1 and S2) that can be used for emergency calls. You can connect any type of dry contact device to the S1 and S2 inputs.

The **ECI333** also has a relay that can be activated when an emergency call has been placed. This relay can be used to activate a dome light, strobe light, siren, horn, or anything that can be turned on and off from a low-voltage relay. The relay has 4 different options.

- **Fast toggle** - can be used to flash a dome light quickly for higher priority calls.
- **Slow toggle** - can be used to flash a dome light slowly for lower priority calls.
- **Solid (closed) state** - can be used to turn a dome light on for a specified number of seconds or left on until a latching device is reset.
- **Off (open) state**

# » ALPHAECALL™ 200 QWIKBUS™ WIRING DIAGRAM

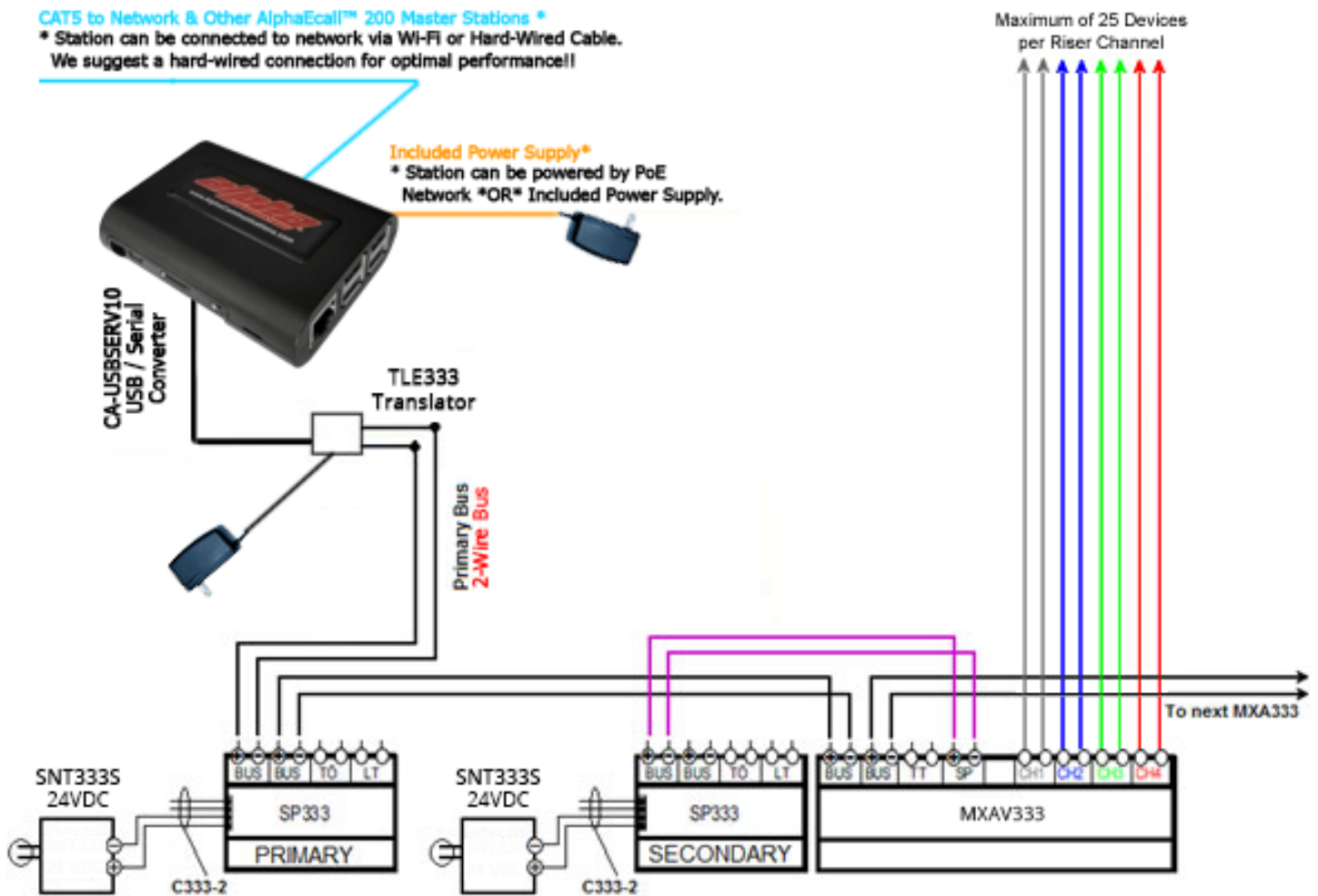
## » STR QwikBUS™ Wiring Requirements

Although digital systems are fairly forgiving in wiring requirements, they are still susceptible to RFI from unusually strong nearby transmitters, EMI from electrical lines running nearby, or existing wiring that is not twisted, in poor condition, or not of a suitable gauge. BUS lines should use a minimum of #18AWG Twisted Pair. Twisted Pair SHIELDED wire is recommended for best results.

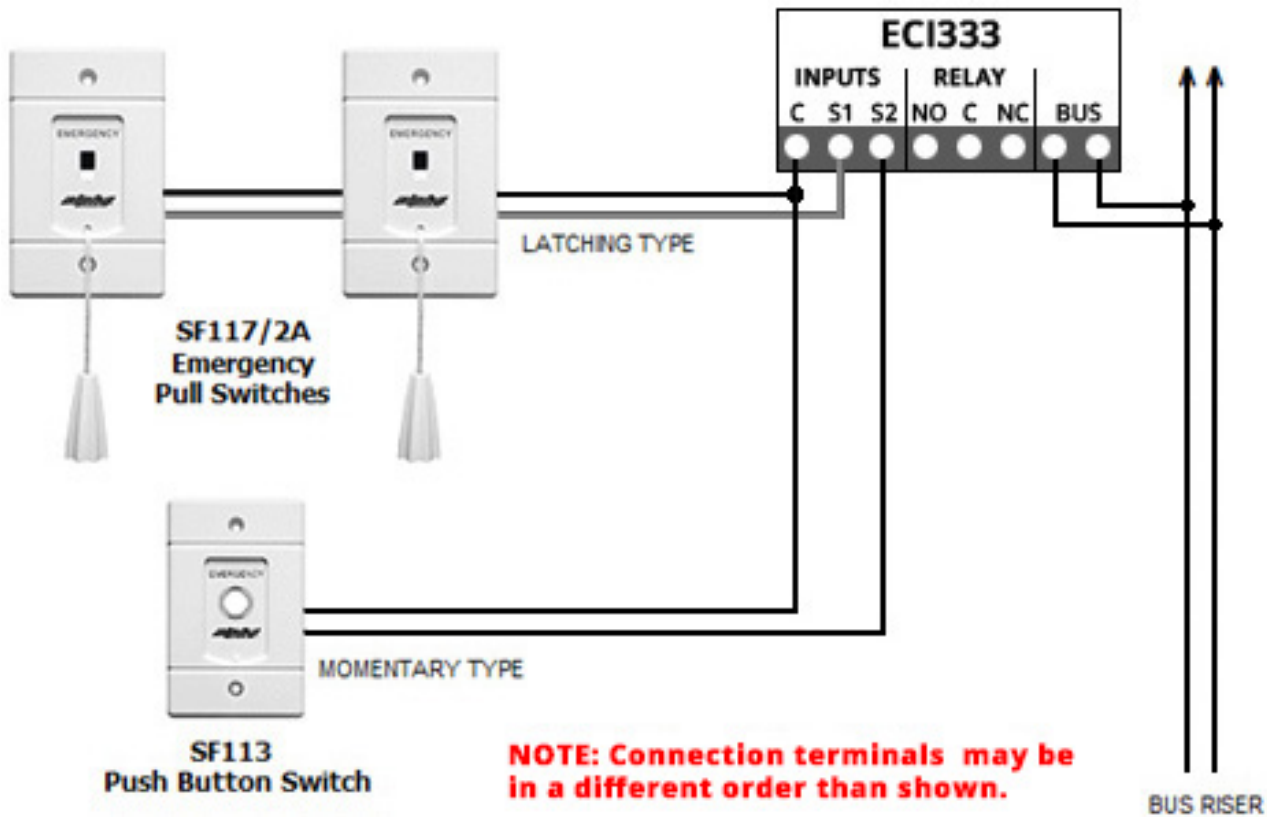
\*\* BUS devices should be wired in a looped fashion, and not home-run.

\*\* Each MXAV333 requires an SNT333S, C333-2 cable and an SP333.

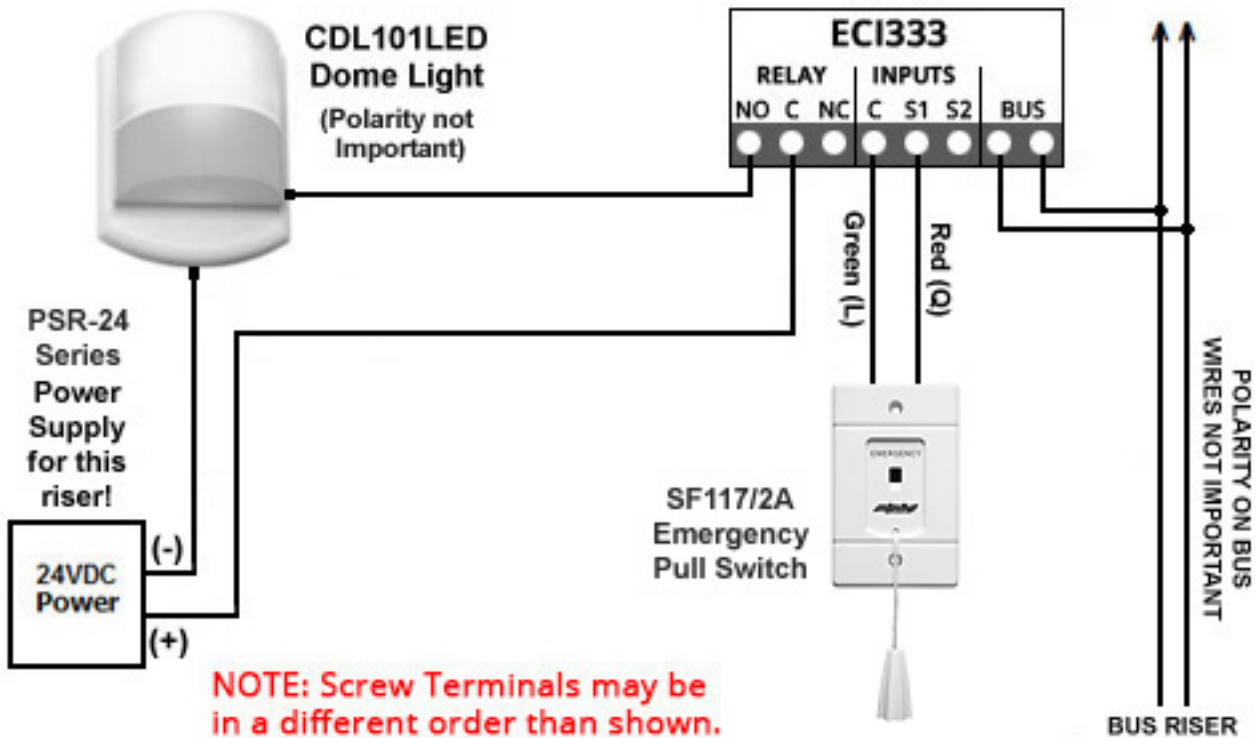
\*\* DO NOT connect the shields!



» **TYPICAL ROOM WIRING FOR DEVICES TO ECI333**



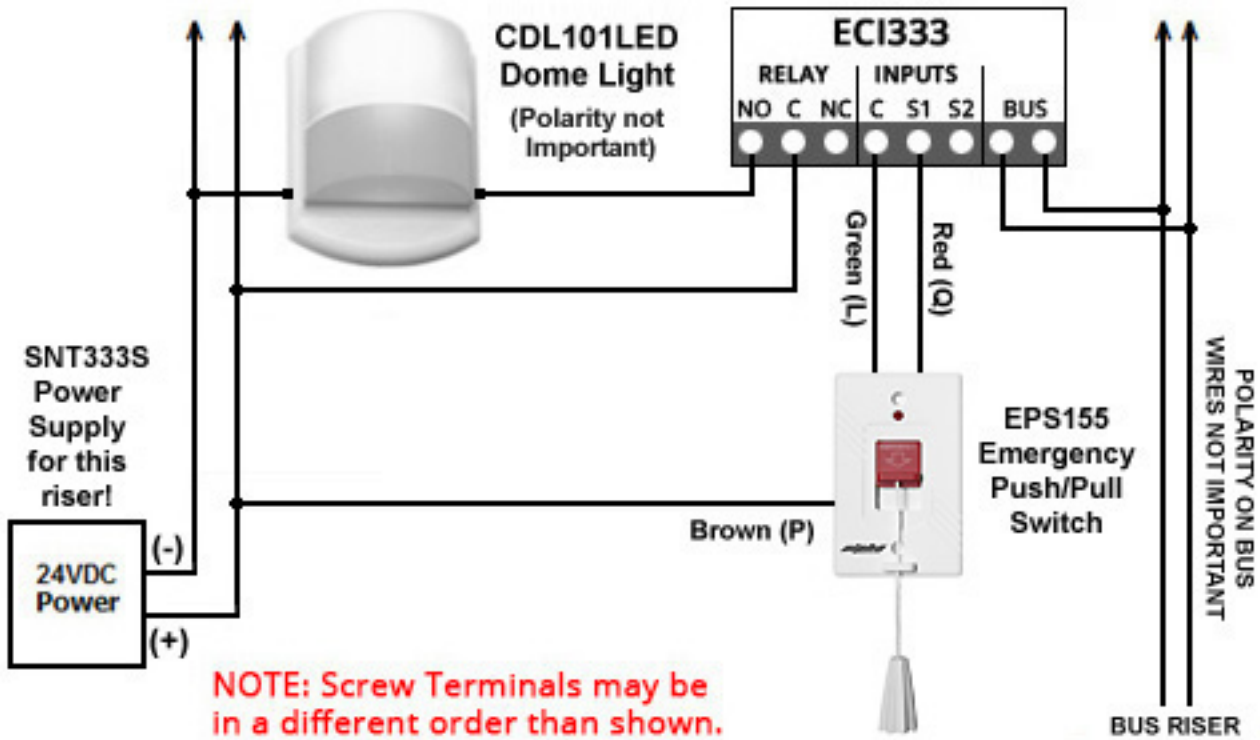
In this example, the S1 has been set for latching contacts and the S2 has been set for momentary contacts. All devices must be dry contact devices. Voltage producing signals can be used with a suitable isolation relay.



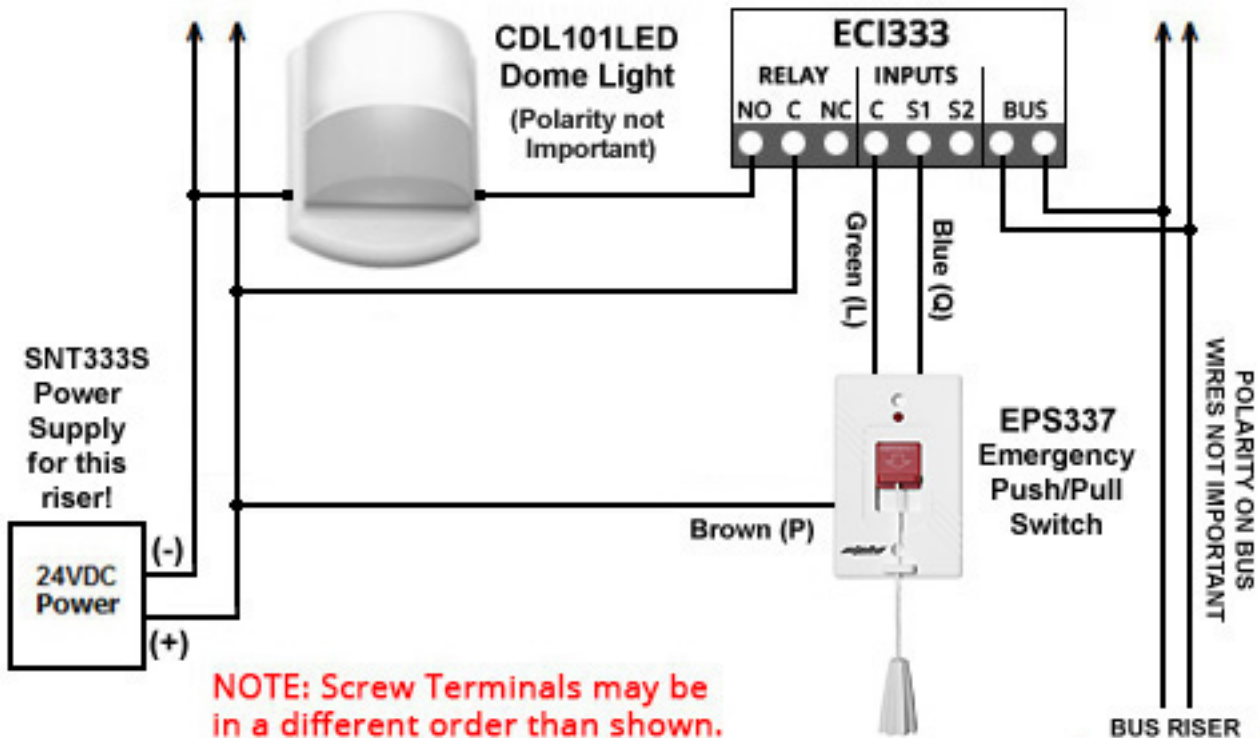
This diagram illustrates using a Double Pole Single Throw Emergency Switch (SF119/2A) to close the S1 contact on one side to send the emergency call, and also closes the connection between a dome light (CDL101LED) and its 24-volt DC power source to turn on the light. Using Dome Lights or Zone Lights will require 24VDC from a separate 24VDC power supply and requires a separate 2 conductor #18AWG.

» **WIRING ALPHA COMMUNICATIONS U.L. 1069 DEVICES TO ECI333**

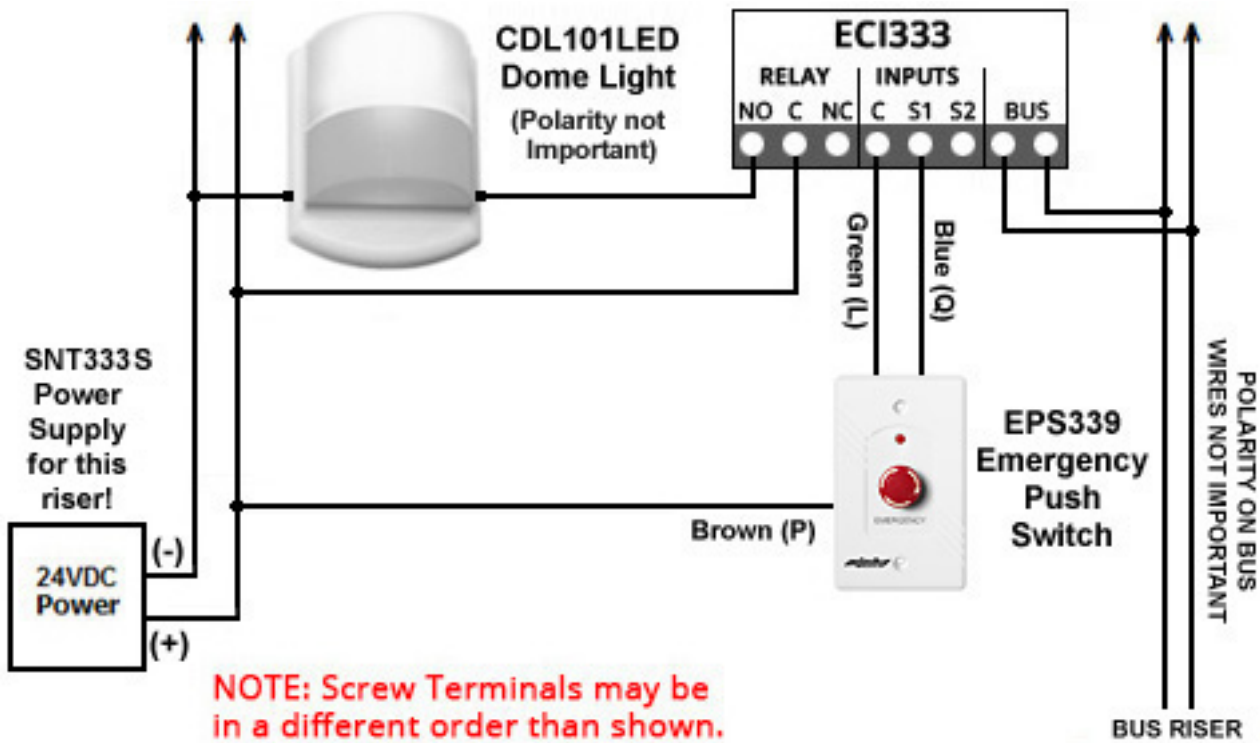
» **EPS155 Emergency Push/Pull Switch**



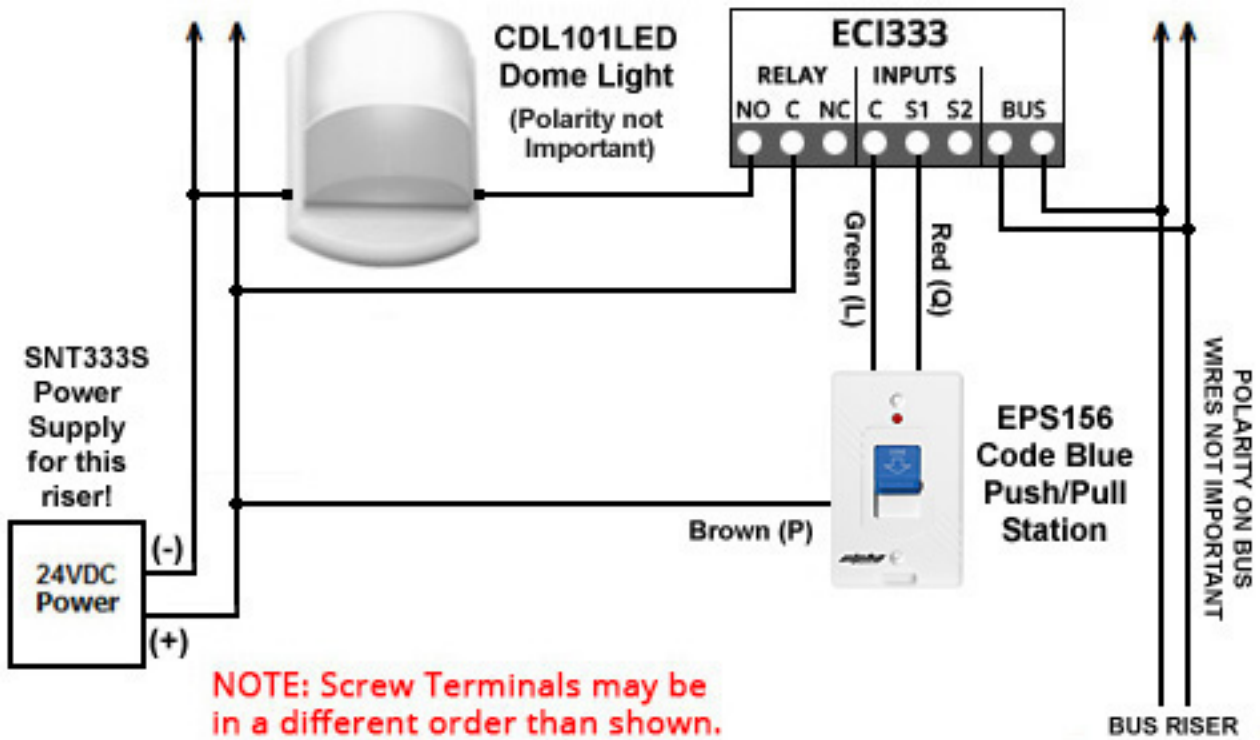
» **EPS337 Water-Resistant Emergency Push/Pull Switch**



» **EPS339 Mushroom-Button Emergency Push Switch**

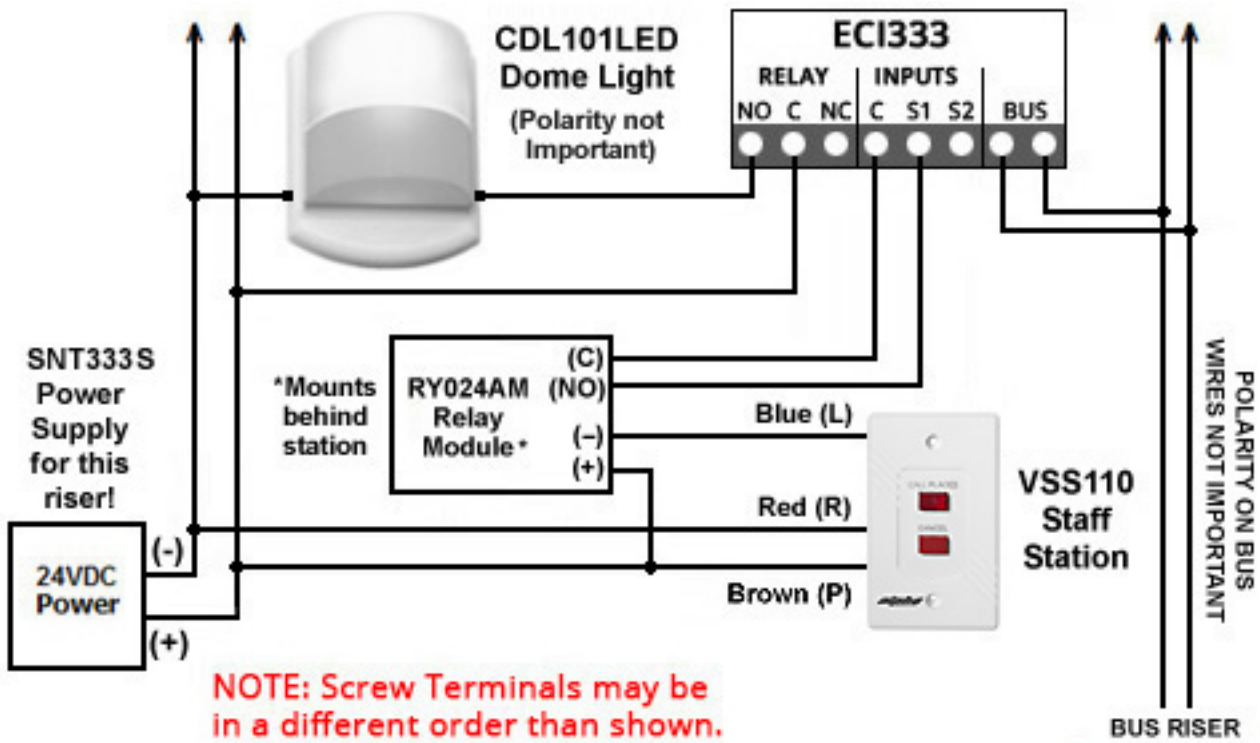


» **EPS156 Code Blue Push/Pull Switch**

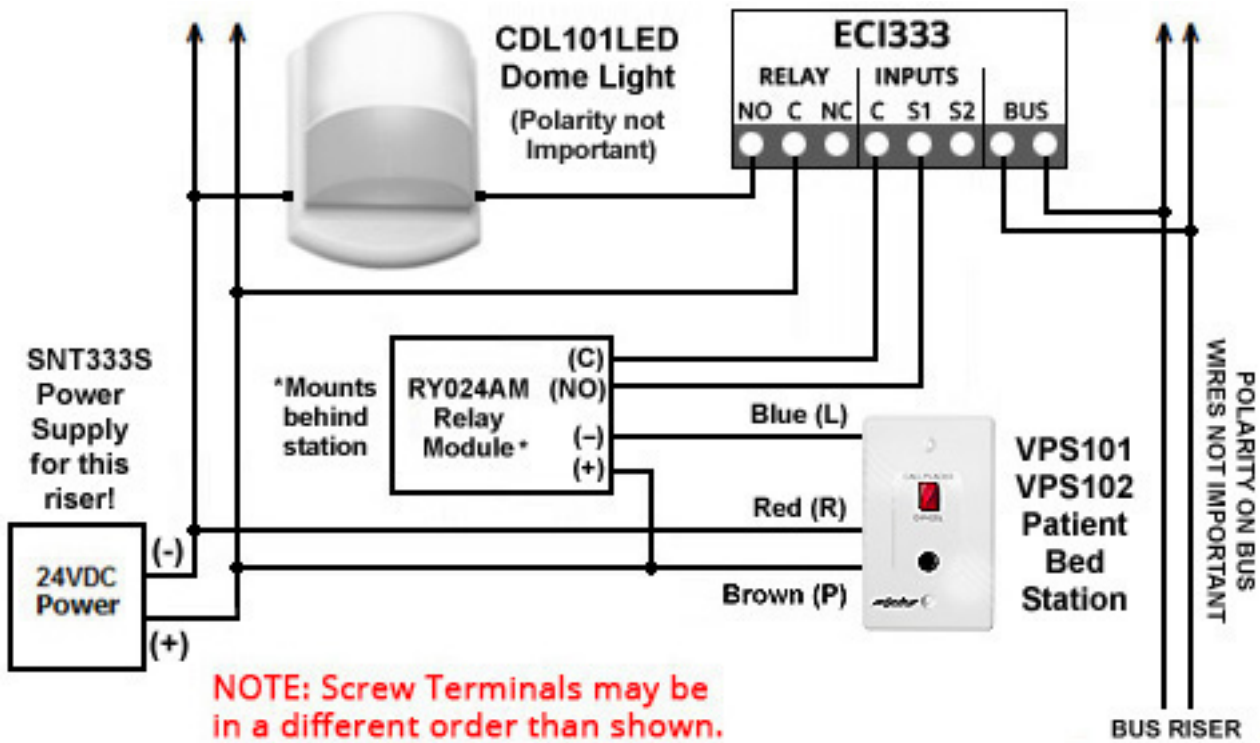




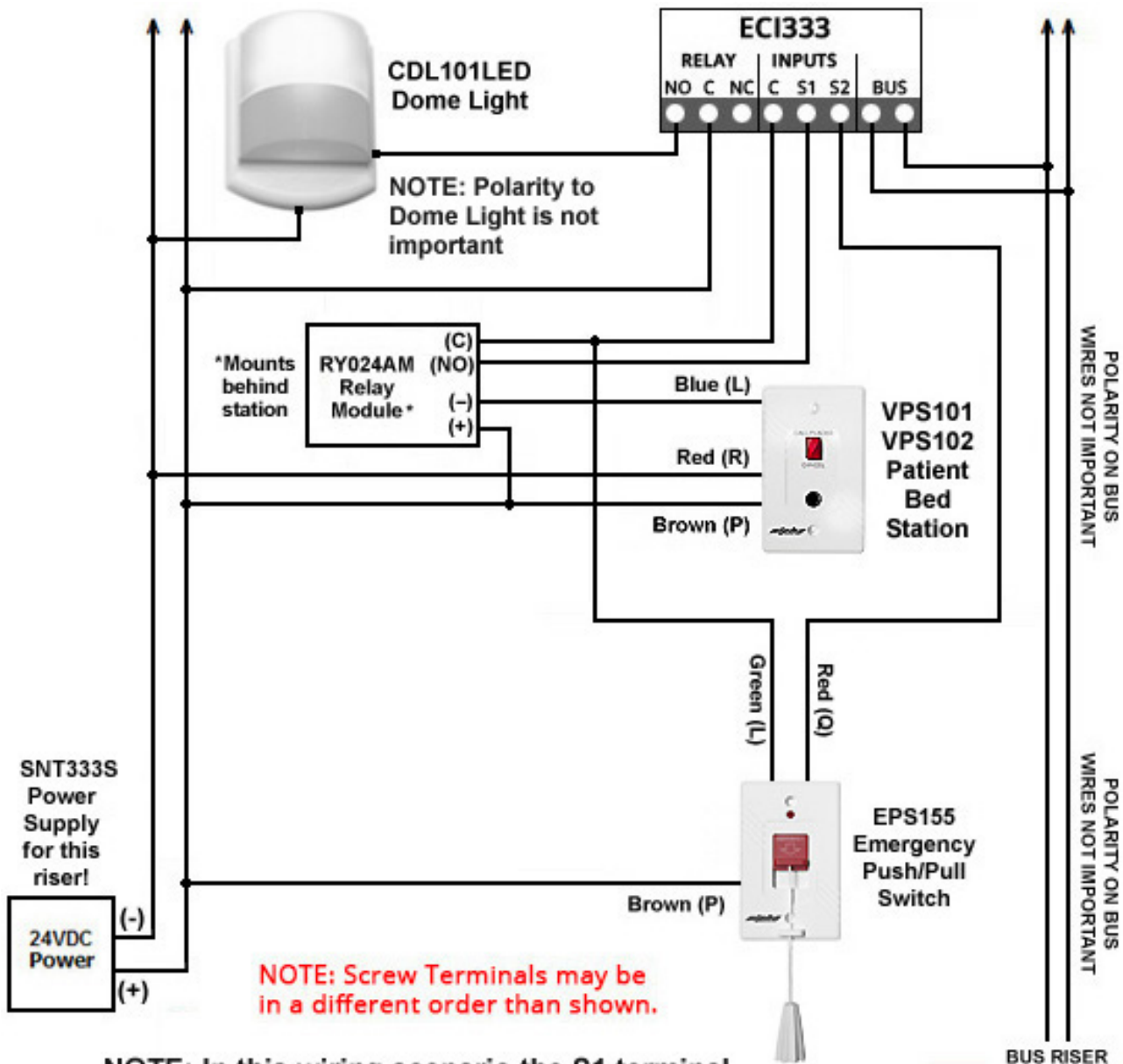
» **VSS110 Staff Station**



» **VPS101 / VPS102 Patient Bed Stations**



» **VPS101 / VPS102 Patient Bed Station with EPS155 Emergency Push/Pull Switch**



**NOTE: In this wiring scenario the S1 terminal on the ECI333 is being connected to the bed station and the S2 terminal to the bath pull station. Depending on system requirements these connections can be reversed.**

## » WIRELESS HARDWARE

The Wireless network is designed to easily place fixed wireless devices (ie. pull cords, smoke detectors) in any location you would like without having to worry about running any wires to those locations. It is also designed to use wireless devices that are carried (ie. necklace or watch pendants) to any area in the wireless network and use the intelligence of AlphaECall™ 200 to figure out where those devices are located when an emergency call is placed.

Wireless networks consist of 3 different types of hardware:

1. **Network Coordinator (WNC510)** - Only one of these is used per wireless network and is connected directly to an AlphaECall™ 200 Master. All of the signals from the Transmitters and Repeaters are sent to this device and that data is then fed into an AlphaECall™ 200 Master.
2. **Repeaters (WRL511)** - These are used for two purposes. The first is to amplify and repeat the wireless signals for large facilities such as multi-floor buildings, multi-building sites, shopping malls, campuses and other open-air installations to get the signals to the Network Coordinator. The second is to find the location of a non-fixed devices (pendants) when an emergency call is placed. The system size can be scaled as needed. Repeaters are not required in all wireless networks. If you have a small location and you are using only fixed devices, repeaters may not be needed. See “Maximum Number of Repeaters for an Installation” on page 44. WRL511 Repeaters should never be mounted inside a metal enclosure!
3. **Transmitters** - These can be pendants (ie. **WPT503** or **WPT504**), devices that receive a contact closure (**WST525**) from a pull cord or push button, or other types of wireless devices like a motion sensor (**WMD515**) or smoke detector (**WSD505**). There is no limit on the number of transmitters that are used with a wireless network. For all the different types of wireless devices that can be used please see <http://www.AlphaCommunications.com>

All wireless transmitters are battery powered by lithium batteries that have long battery life. All transmitters will display Alerts in AlphaECall™ 200 when their batteries are getting low.

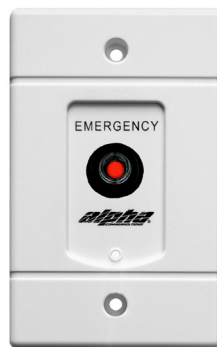
The Network Coordinator and Repeaters need to be connected to their included power supplies. Repeaters have battery backup built into them. The Network Coordinator must be connected to a separate battery backup unit.

## » Typical Wireless Call Devices and Components



**SF117/2A**

*Non-LED Emergency Pull Cord Station  
Use with WSM517 Support Module*



**SF154A**

*Non-LED Emergency Push Type Station  
Use with WSM517 Support Module*



**WES539**

*Wireless LED Emergency Push Type Station  
Use with WSM537 Support Module*



**WES555**

*Wireless LED Emergency Pull Cord Station  
Use with WSM555 Support Module*



**EPS537**

*Wireless LED Emergency Pull Cord Station,  
Water-Resistant  
Use with WSM537 Support Module*



**WES556**

*Wireless LED Code-Blue Pull Cord Station  
Use with WSM555 Support Module*



**WSM517**

*Wireless Support Module (2-Pin)*



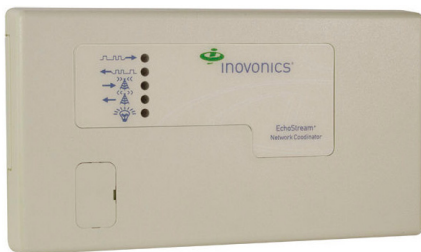
**WSM555**

*Wireless Support Module (6-Pin)*



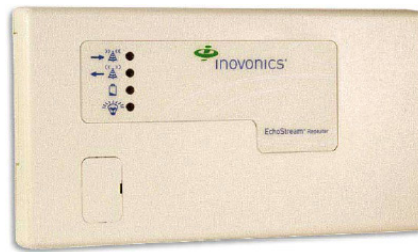
**WSM537**

*Wireless Support Module (7-Pin)*



**WNC510**

*Wireless Network Coordinator*



**WRL511**

*Wireless Repeater / Locator*



**WSK500**

*Site Survey Kit*



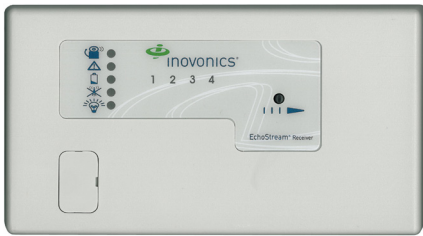
**WSD505**  
*Wireless Smoke Detector*



**CA-USBSERV10**  
*Serial <-> USB Converter*



**WSK5002WR**  
*Site Survey Kit, 2-Week Rental*



**WRR504**  
*Wireless Relay Controller (4 Relays)*



**WRR512**  
*Wireless Relay Controller (12 Relays)*



**WRR516**  
*Wireless Relay Controller (16 Relays)*



**IHS527**  
*Quick-Snap Surface Housing (2.55" Deep)*



**ACC500K**  
*Wireless Pendant Reset Cards*



**WPT501**  
*Wireless Pendant with Neck Chain - Water-Resistant Type*



**WPT502**

*Wireless Wall-Mounted Pendant Station*



**WPT503**

*Wireless Pendant with Neck Lanyard  
Water-Resistant Type*



**WPT504**

*Wireless Pendant with Wrist Band  
Water-Resistant Type*



**BA502**

*Replacement Battery for WSM Support  
Modules*



**CDL101LED**

*1-Color Corridor Dome Light (White)  
Use with WRR5XX Series Wireless Relays  
(Requires Wired Power)*



**CDL102LED**

*2-Color Corridor Dome Light (White, Red)  
Use with WRR5XX Series Wireless Relays  
(Requires Wired Power)*

## » **Pager Transmitter and Pagers**

As a secondary type of notification for emergency calls, messages can be sent to pocket pagers. A pocket pager transmitter (**TX125-ENC**) needs to be connected to one of the AlphaECall™ 200 Masters and any number of pocket pagers (PGR-AL924) can be alerted for emergency calls. When an emergency call is placed AlphaECall™ 200 can automatically then send out messages to pocket pagers with details about the emergency call (see System Configuration chapter on page 23).

## » **Central Station Dialer**

AlphaECall™ 200 can send data to an off site central monitoring/alarm service. The Central Station Dialer (SDACT-2) connects to an AlphaECall™ 200 Master and to a standard telephone POTS line. When an emergency call is placed, the dialer is activated and calls out to the central station and sends the location of the device that activated the call (see System Configuration chapter on page 23).

# CHAPTER 5 - SYSTEM CONFIGURATION

## » Web Browser Access

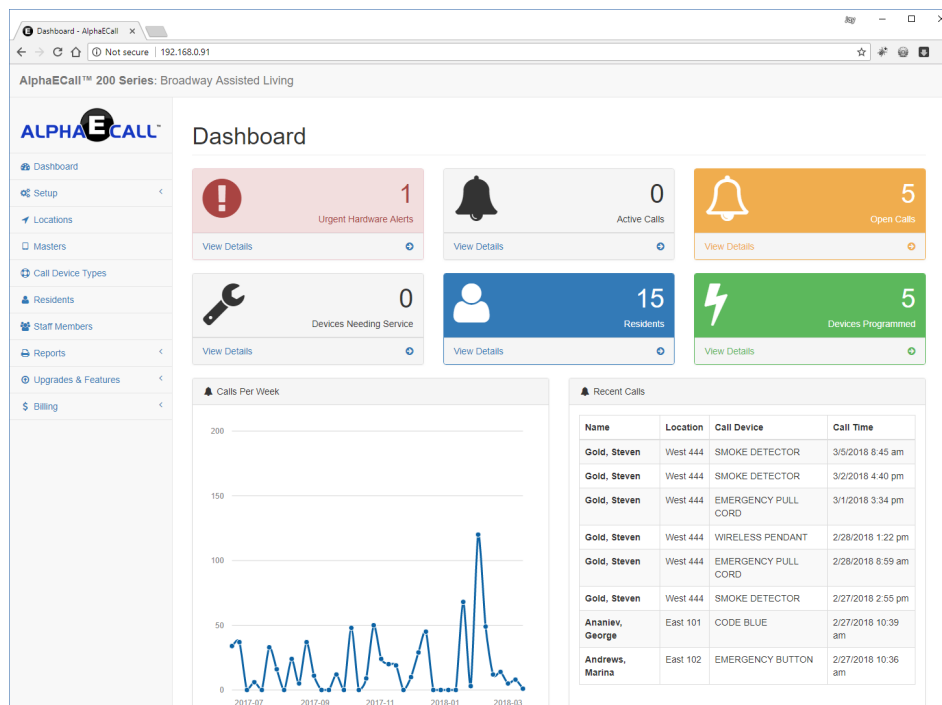
The configuration of AlphaECall™ 200 can be done through any type of modern web browser. Configuration can be from a PC, tablet, or smartphone on the same local network as the AlphaECall™ 200 Masters. In a web browser type in the IP address of one of your Masters to access the configuration area. To get the IP address of a Master just click on the “Info” tab on any Master. Once you are in the configuration area you will see a menu that lists the following items:

- **Dashboard** - An overview of current system activity. See “Dashboard” on page 23.
- **Setup** - Basic global settings for all Masters. See “Setup” on page 24.
- **Locations** - This is where you define the different locations calls might be placed from, as well as their associated floor plan locations and fingerprinting options. “Locations” on page 25.
- **Masters** - This is where you can configure the specific settings for each Master. See “Masters” on page 27.
- **Zones** - Zones can be used to split up Masters, Residents, and Staff into different groups to specify which Masters display calls and which Staff members are alerted for calls dependant on Resident location. See “Setup: Zones” on page 24.
- **Call Device Types** - This is where you will setup the different types of emergency call devices. See “Call Device Types” on page 29.
- **Residents** - This is where you can add/remove residents you have listed in AlphaECall. See “Residents” on page 31.
- **Staff Members** - Optional area to setup staff members who will have access to AlphaECall. See “Staff Members” on page 32.
- **Reports** - This is an additional software license that can be purchased for AlphaECall™ 200 to view logs and generate reports of emergency calls. See “Reports” on page 33.
- **Upgrades & Features** - Additional functions that can be added to your AlphaECall™ 200 System.

» **NOTE:** Configuration changes can be made from any master's IP address. Any changes made will be automatically synchronized to any other masters on the system.

## » Dashboard

The Dashboard shows a quick overview of current system activity counts and some of the most recent emergency calls received. When any counts are shown, you can click on the “View Details” link for that box to see specifically where that count is coming from.



**NOTE:** Some charts and the tables on the Dashboard require the AlphaECall™ 200 Reporting Package (SW-AEC200R), and will not be visible without it. See the Reporting Package chapter on page 34 for more details.

## » **Setup**

The Options in the Setup area are basic, global settings for your AlphaECall™ 200 system.

### » **Setup: General**

- **Installation/Facility Name** - This is the name you would like to give to the entire location that is using AlphaECall™ 200. This name will be used for notifications that are sent out from this location to indicate which installation the calls are coming from.
- **24 hour clock display** - By default all times are displayed in AlphaECall™ 200 in a 12 hour format (AM/PM). If you would like to use a 24 hour format just place a checkmark here.
- **Term used for “Residents”** - Define the term you wish to use for your residents. You can use terms like “Patients” or “Tenants” for example. By default, if this box is left blank, the term “Residents” will be used.
- **Port number** - This is the port number that a web browsers will use to access this configuration area. By default, port 80 is used. If this number is changed, when trying to access the configuration area through a web browser you will need to specify the port number like the following: `http://192.168.1.91:81`

» **NOTE:** We only recommend changing this port if port 80 is not allowed to be used on your network for security reasons.

### » **Setup: Zones**

Zones are used to categorize Masters, Residents, and Staff into different groups. This makes it much easier to specify which Masters and which Staff members are associated to various call types and/or locations. The usage of Zones is entirely optional.

Zone names are normally geographical areas of a facility or location types. For example, ‘East Wing’, ‘Seventh Floor’, and ‘Public Bathrooms’ are all logical zone names. You can setup as many zones as needed. Just click the ‘Add’ button and then select the newly created zone, which will be called ‘Zone #’. You will then be able to rename the zone whatever you would like. Once you have renamed the zone, be sure to click **save** to apply your changes.

You will be able to associate your various Masters, Residents and Staff to their zone(s) in their respective areas. Once you do this, you can also specify a relay board number and position this zone’s (optional) Corridor Zone Light is connected to. Zones can also be deleted at any time. Deleting a zone **does not** delete the device entities that are members of that zone.

### » **Setup: Floor Plans**

In this area, you can specify your facility floor plans. Images must be uploaded to one of your system master stations. The photo can be an image in the format of JPG, PNG or GIF. For more information on uploading your Floor Plans, please see “Uploading Images to your Master Stations” on page 28. You’ll need to add a Floor Plan item for each floor or area of your facility you have a floorplan for and name it accordingly (1st floor, 2nd floor, etc..). Then use the drop-down box to specify the file name of the floorplan image for that floor or section. To assign a Location’s coordinates on a floor plan image, see page 26.

### » **Setup: SMS Messaging**

**Twilio Config** - To send SMS text messages from AlphaECall™ 200 you will need to sign up for an account with Twilio ([www.twilio.com](http://www.twilio.com)). Twilio is a low cost service that allows the sending of text messages from a software applications. Once you have signed up for an account you will just need to enter your Twilio Account SID, Auth Token, and a phone number that the text messages will come from. This phone number will be provided to you from Twilio when setting up your account.

### » **Setup: Central Station**

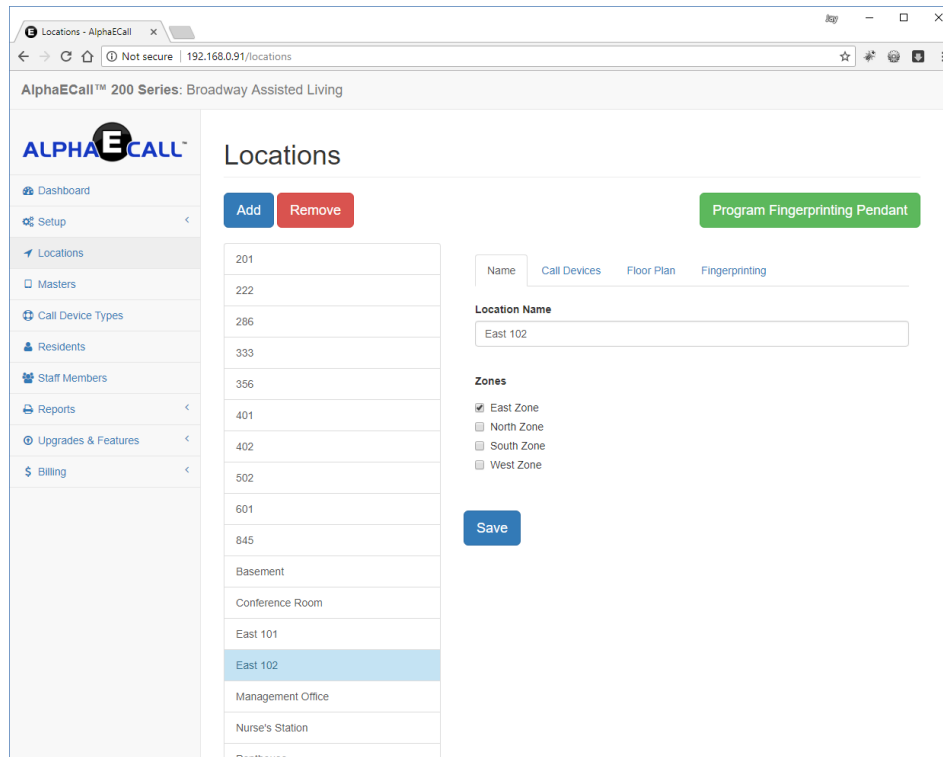
When one of the AlphaECall™ 200 Masters has a Central Station Dialer (**SDACT-2**) connected to it you can use this screen to configure the phone number of the central station monitoring service that will be dialed when an emergency call is received. Then type the facility’s 4-digit account code, as assigned by central monitoring facility (Valid: 0-9 and B-F). This 4-digit code is sent with every event to the central monitoring facility to assist in identifying the event’s origination. Your Central Station Dialer must be connected to an AlphaECall™ 200 Master Station. See “Masters: Setup” on page 27 for more information.



## » **Locations**

This is where you will specify the various locations of your facility that a call may be placed from. If you are using only stationary devices (pull cords, bed stations, etc), you will only want to specify Locations for the areas these devices are placed in (Room 101, Room 102, etc..).

In Contrast if you will be using ambulatory devices like wireless pendants or wrist-bands, you will want to add locations for any area a resident might be in when they activate their device (Room 101, Room 102, Cafeteria, Reception, etc..). If you are using ambulatory devices, and are utilizing the fingerprinting function, you must first click **Program Fingerprinting Pendant**. See “Fingerprinting to Establish Your Wireless Map” on page 42 for more information on programming your Fingerprinting Pendant. If you have not yet programmed your fingerprinting pendant, the Fingerprinting options **will not be visible** in this area. If you do not see the **Program Fingerprinting Pendant** button, that means you have not added any call devices types with the “Find Location” option enabled. See “Call Device Types: Setup” on page 29 for more information on setting up call devices type.



To configure the settings for a specific location, first select it in this list. You will see **at least two** (“Name” and “Call Devices”) appear. If you are using Floor Plans and/or ambulatory device fingerprinting, you will see a “Floor Plan” and/or “Fingerprinting” tabs as well.

### » **Locations: Name**

- **Location Name** - This is the identifier for the location in question. If the location is for Room 101, name the location “Room 101”.
- **Zones** - Place a checkmark next to any of the zones this location belongs too (West Wing, 3rd Floor, or any other relevant zones).

### » **Locations: Call Devices**

This is the area where you will be setting up your Stationary Devices that are permanently associated to a specific location. If we are programming for Room 101, you will set up any pullcords, bed stations or other stationary devices. If you are trying to add an ambulatory device, such as a wireless pendant or wrist-band, see “Residents: Wireless Pendants” on page 31.

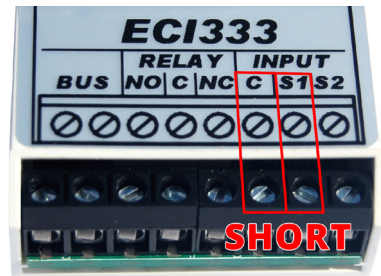
To setup a new Call Device for each Location, select the Type of Input (Wired ECI33 for wired devices, or a Wireless Device) and then click the **Program** button.

## **Programming & Configuring a Wired ECI333**

Make sure the ECI333 you wish to program is connected to your BUS. Once you click **Program**, you will be prompted:

> On the ECI333 you would like to program, momentarily short the 'S1' and 'C' screw terminals.

The programming frame will automatically close once an address from the device is received. Once this is done, Specify which type of devices will be in the S1 and S2 inputs and click **Save**. The device on S1 should then be connected to S1 and C. The device on S2 should then be connected to S2 and C.

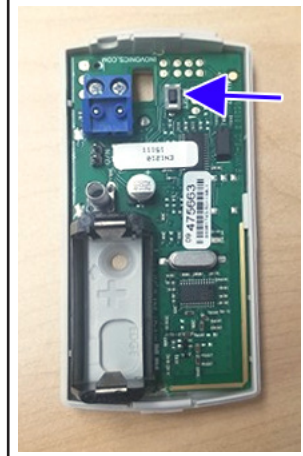


## Programming & Configuring a Stationary Wireless Device

Make sure you have the wireless device's support module handy and have opened the housing. Locate the rectangular reset button, pictured in the photograph to the right. Once you click **Program**, you will be prompted:

> On the wireless device you would like to program, press and release the 'Reset' button.

The programming frame will automatically close once an address from the device is received. Once this is done, Specify which type of Call Device this wireless devices will be treated as and click **Save**.



### » **Locations: Floor Plan**

If you are using Floor Plans, you can specify where on the Floor Plan this location is. Select the Floor Plan image from the drop-down box, and then click on the map where that Location is. When a call is placed from this location, an image of your floor plan with the master's location beacon will be displayed. After setting the correct floor plan image and clicking a coordinate, click on the **Save** button. See "Setup: Floor Plans" on page 24 for more information.

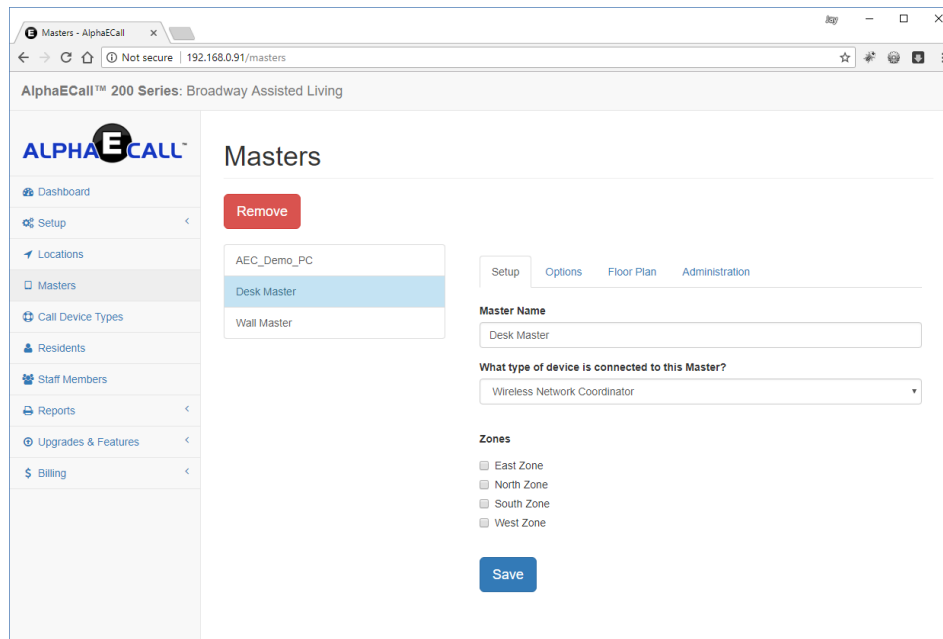
### » **Locations: Fingerprinting**

If you are using ambulatory devices such as wireless pendants or wrist bands, and are using the fingerprinting function to triangulate the calls placed by these devices, you will also need to program a fingerprinting pendant and then Fingerprint each location as instructed here: "Fingerprinting to Establish Your Wireless Map" on page 42

**After making any changes in the Locations area you must click the 'Save' button to apply them to that Location.**

## » **Masters**

The first thing you will see is a list of all Masters that have been setup on this local network. Whenever a new AlphaECall™ 200 Master is connected to this network, you will be prompted as to whether it should be added in to this list automatically as a new Master, or if it will be used to replace another master. You will never need to manually add a master to the list. Use the Remove buttons to delete Masters that are no longer being used.



To configure the settings for a specific master, click the list item with that master's name and you two tabs ("Setup" and "Options") appear.

### » **Masters: Setup**

**Master Name** - This is the name you would like to call this master.

**What type of device is connected to this Master?** - This is where you specify any serial hardware that may be connected to this Master. Each Master can only have one serial device connected to it. The option to select from are:

- None
- STR Translator
- Wireless Network Coordinator
- Pager Transmitter
- Central Station Dialer
- Relay Board(s)

**Zones** - If you have any Zones setup you will see a list of checkboxes. One for each zone. Zones are optional. When using

zones, these checkboxes lets you specify which zone(s) you want this master to display calls for.

## » **Masters: Options**

- **Call tone is played on this Master** - Place a checkmark here to play the emergency sound when an emergency call is received on this Master.
- **Call tone can be silenced from this Master** - Place a checkmark here if you will like to give this master the ability to silence the emergency tone on all masters that is played when a call is received.
- **Calls can be closed from this Master** - Place a checkmark here if you would like to give this master the ability to close an emergency call listed on all masters.
- **Volume Level** - This lets you select the volume level (1-10) that emergency call tones are played on this master.
- **Screen Layout** - On each master you can specify the orientation of the screen. This is used if you have a screen mounted vertically or horizontally or you are using a desk or wall mount cabinet. Your options are *Portrait*, *Landscape*, *Portrait Flipped* and *Landscape Flipped*

## » **Masters: Floor Plan**

If you are using Floor Plans, you can specify where on the Floor Plan this master is located. Select the Floor Plan image from the drop-down box, and then click on the map where that master is located. After setting the correct floor plan image and clicking a coordinate, click on the **Save** button. See “Setup: Floor Plans” on page 24 for more information.

## » **Masters: Administration**

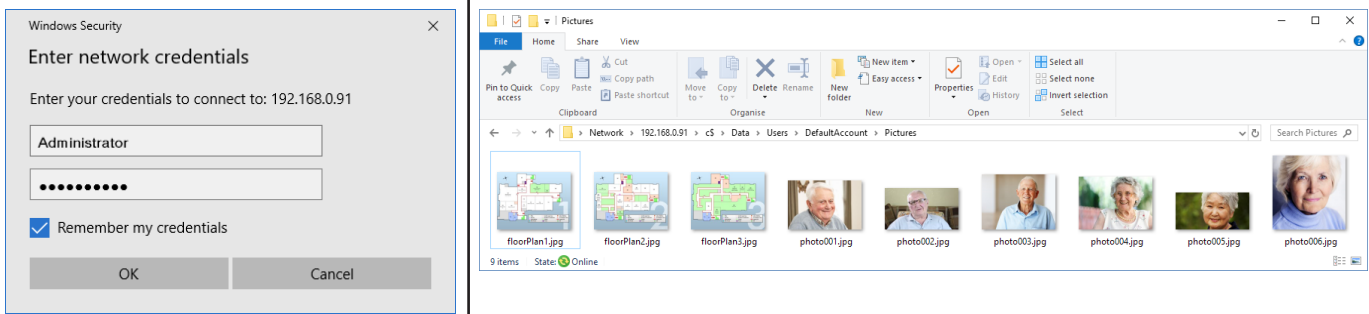
This area simply displays information about this master, including the device name, unique device ID, IP address and current status.

After making any changes in the Master area you must click the ‘Save’ button to apply them to that Master.

## » ***Uploading Images to your Master Stations***

In order to use your custom images to AlphaECall™ 200 System, please follow the following steps. Custom images are used for both Resident Photos as well as Facility Floor Plans.

- From any Windows based PC on the same local network as an AlphaECall™ 200 Series Master, click on the Windows Start button and type in “run” and hit enter to bring up the Windows Run box. In the Run box type in two backslashes, then the local IP address of a Master, another backslash followed by **c\$** and hit enter. So, it would look something like the following: **\\192.168.0.100\c\$**
- If you are prompted to login, use the username “Administrator” and the administrative password that was provided to you from the factory. If you can not recall your login password, please contact Alpha Communications.
- Next, go into the “Data” folder, “Users”, “DefaultAccount”, and “Pictures”.
- This is the location where you can place any user images.



## » **Call Device Types**

The Input Device Types area is where you will specify the types of emergency call input devices that you will be using. Each Call Device Type can be configured to do different things depending on your requirements. For example, they can play different sounds, trigger relays, send text or pager notifications, plus many more. Use the Add and Remove buttons to create new input device types or delete ones no longer needed.

The screenshot shows the 'Call Device Types' configuration page for the AlphaECall™ 200 Series. On the left is a navigation menu with options like Dashboard, Setup, Locations, Masters, Call Device Types (selected), Residents, Staff Members, Reports, Upgrades & Features, and Billing. The main area has 'Add' and 'Remove' buttons and a list of device types: CODE BLUE (selected), EMERGENCY BUTTON, EMERGENCY PULL CORD, SMOKE DETECTOR, and WIRELESS PENDANT. The configuration form for 'CODE BLUE' is shown with tabs for Setup, Display, Relays, Notification, and Central Station. The 'Setup' tab is active, showing fields for Description (CODE BLUE), Priority (High), Type of input (Wireless Device), Find Location (checked), Type of contact closure (Locking/Maintained/Self-Resetting), This is a "Normally Closed" type contact (checked), Automatically close call when device is reset (checked), Delay before activation (seconds (1-60, optional)), and Play reminder tone (seconds (optional)). A 'Save' button is at the bottom.

To configure the settings for a specific input device type, first select them in this list. You will see five tabs (“Setup”, “Display”, “Relays”, “Notification” and “Central Station”)

### » **Call Device Types: Setup**

- **Description** - This is the name you would like to give to this input device type. If you have pullcords in a unit’s living area and its associated bathroom, you might want them to behave differently. The descriptions could be something along the lines of “Living Area Pullcords” and “Bathroom Pullcord”. This description will show on the master station(s) that annunciate calls from these devices.
- **Priority** - You have an option to select from Low, Medium, and High. The priority is used for two things. First, to specify the sound that is played on a Master when a call is received from this device type. Second, depending on the priority, a higher priority call will take precedence over a lower priority call if multiple input call types are active at the same time.
- **Type of input** - You will have two options to select from. “Wired ECI333” or “Wireless Device” to indicate how this device will communicate with AlphaECall™ 200 Series.
- **Find Location** - When using wireless devices that are not in a fixed location, for example, necklace or wristband pendants, you can specify that you want AlphaECall™ 200 to try and figure out the location of this device when an emergency call was placed. For more information on this please see the Wireless Location chapter on page 36.
- **Type of contact closure** - You will have two options to select from. “Locking/Maintained/Self-Resetting” or “Momentary” to indicate the physical action that is done by this emergency input when a call is placed. A Locking/Maintained/Self-Resetting device would be something like a pullcord, smoke detector, or any type of device that will hold a contact closed when a call is active. A Momentary device would be something like a push button that only stays closed for the moment that it is pressed and does not need to be physically reset.
- **This is a “Normally Closed” type contact** - For this type of contact closure you can also specify if this contact inactivate state is normally closed. This could be for a contact on a door that is supposed to always remain closed, but you want to know when it has been opened in an emergency.
- **Automatically Close Call when Reset** - This will allow you to specify whether this call type should be cleared from the screen as soon as the device is reset, as opposed to having to clear it from a master station.
- **Delay before activation** - This is an optional setting that lets you specify a number of seconds before anything is done when

this emergency input device has been activated. For example, on a pull cord you could set a 10 second delay. This delay would allow the device to be reset within 10 seconds before any calls, relays, or notification are made. This is useful if you often have accidental emergency calls placed that are often reset a few seconds later. If the device is reset within this number of seconds it will be as if the call was never placed.

- **Play reminder tone** - This option will automatically turn the tone back on for an emergency call that has been silenced, but has not been reset or closed from the list of calls. The tone will turn back on after the number of seconds specified has passed since the tone was last silenced. The tone for a call can be then silenced again after it is turned back on and will play again after the specified number of seconds passes.

### » **Call Device Types: Display**

- **Icon Image** - On the Master(s) this emergency call is displayed on you can select from a list of icons that will be shown.
- **Icon Color** - On the Master(s) this emergency call is displayed on you can select the color that will be used for the icon.

### » **Call Device Types: Relays**

**ECI333 Relay** - Only if this type of input is for a **Wired ECI333** will you see this box. The ECI333 input has a relay built into it that can be triggered when an emergency call is placed. The relay has four different states that can be selected from:

- **Off (open)** - select this option to not use the relay.
- **Toggle Slow** - select this option to flash a dome light slowly for lower priority calls.
- **Toggle Fast** - select this option to flash a dome light quickly for higher priority calls.
- **On (closed)** - select this option to hold the relay closed to turn on a dome light or other device.

**Only activate relay for this many seconds** - With the ECI333 relay if you would like to only activate the slow, fast, or on state relay for a specific number of seconds enter that number in this text box. This is optional and if not used the relay will remain active until the call is reset/closed.

**Activate Relay (RY008AE)** - With AlphaECall™ 200 you can connect external relay boards to trigger up to two relays per activation when any type of emergency call is received. To configure these relay boards you need to specify the Relay Board # (1-16) and the Relay # (1-8) that you would like to trigger. The relay will stay active until the call is reset/closed or you can specify the number of seconds you would like the relay to stay active for, using the 'Active Seconds' option. Also, you can specify a delay in the relay activation. For example, if a call is not reset/closed in 300 seconds (5 minutes), it can then trigger a relay for a strobe or a siren to alert staff of an emergency call.

### » **Call Device Types: Notifications**

- **Text Message Notification** - When an emergency call is received for an input device type you can set a specific text message to send a notification to or you can select from any Staff Members who have cell phone numbers configured in their settings. Text messages can also be used as an elevated notification, by using the delay option for a specified number of seconds, if you do not want text messages sent out right away.
- **Pager Notification** - When an emergency call is received by AlphaECall™ 200 a notification can be sent to pagers at an installation. You can either specify an 8 digit Capcode to send the notification to or select from a list of Staff Members who have pagers configured in their settings. Paging can also be used as an elevated notification, by using the delay option for a specified number of seconds, if you do not want pages sent out right away.
- **Family Notification** - If you want to allow this type of input device to be able to alert family members of a resident place a checkmark next to this option. Any residents who then have a cell phone number of a family member configured in their settings will be notified automatically when an emergency occurs. Family notifications also have a delay option for a specified number of seconds, if you do not want family text messages sent out right away.

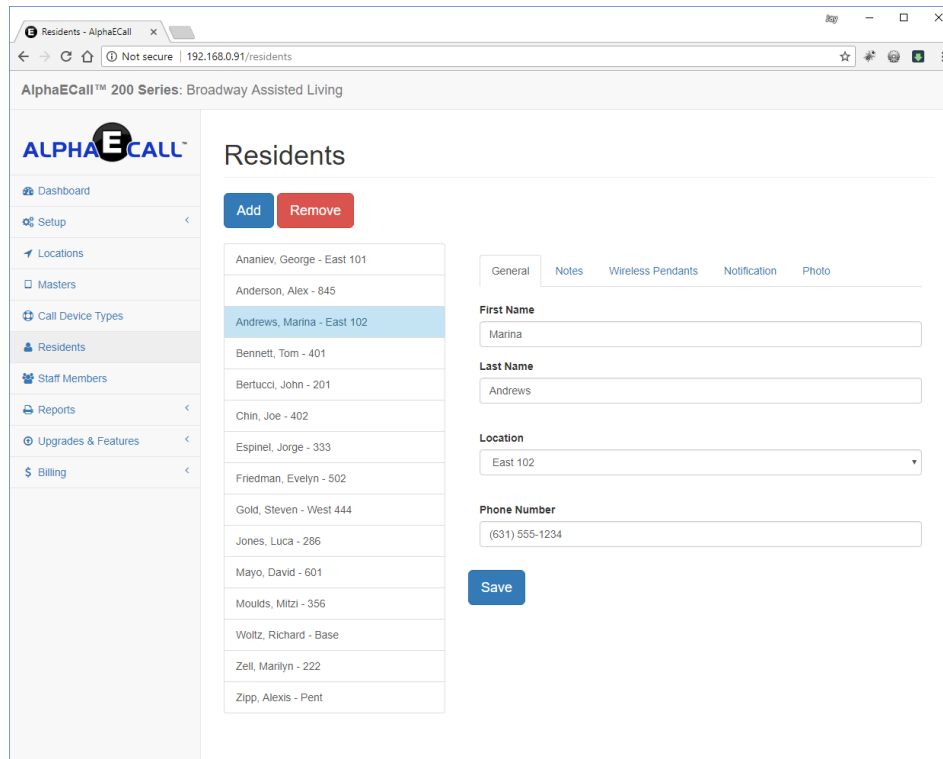
### » **Call Device Types: Central Station**

To enable the ability for this type of input device to communicate to a Central Station/Alarm Monitoring service place a checkmark next to this "Contact Central Station". The phone number that is configured in the Central Station menu item will be used to send data when an emergency call is received. Central Station communication can also be used as an elevated level of notification, by using the delay option for a specified number of seconds, if you do not want central station dialing to be done right away.

**After making any changes to an Input Device Type you must click the 'Save' button to apply them.**

## » Residents

The Residents area lets you enter in all the residents in your facility. For each resident you will be able to setup names, locations, notes, wireless pendants and notifications. Use the Add and Remove buttons to create new residents or delete ones no longer needed.



To configure the settings for a specific Resident, first select the resident's name from this list and you will see four tabs ("General", "Notes", "Wireless Pendants", "Notification" and "Photo") appear.

### » **Residents: General**

- **Location** - This can be a name or number to identify the location of this Resident.
- **First Name** - Enter the person's first name.
- **Last Name** - Enter the person's last name.
- **Phone Number** - A resident's phone number will be displayed when viewing a call's details from both a visual Master or the AlphaECall™ 200 Series app. From the AlphaECall™ 200 Series app if a phone number is clicked on it will place a phone call to that location.

» **Note:** *The first and last name are optional for use in general locations like, Lobby, Office, Cafeteria, etc.*

### » **Residents: Notes**

**Resident Notes/Comments** - This area lets you type in any notes or details they may need to be known if an emergency call comes in from this resident. For example, you may want to put a family member's contact information or any specific medical info that may be needed for this resident.

### » **Residents: Wireless Pendants**

This area is where you will program ambulatory call devices, such as wireless pendants or wrist-bands, to a resident. Multiple pendants can be programmed to one resident. To program a new pendant to a resident, first click the 'Program' button to put AlphaECall™ 200 into programming mode. A dialog box will display showing the following. "On the wireless device you would like to program, press and release the 'Reset' button."

Each wireless device either has a reset button, a button press combination, or a magnet card to send the device address to

the AlphaECall™ 200 Series System. Depending on the wireless device it will have its own instructions on sending a reset code. Once the reset code is received by AlphaECall™ 200 the address of that device will be stored for that specific device.

This frame will automatically close once an address from the device is received.

### » **Residents: Notification Tab**

**Family Cell Phone number** - This option enables AlphaECall™ 200 to automatically send a text message to a family member to let them know when an emergency call has been placed by their relative. As long as you have the text message option enabled in AlphaECall™ 200 all you need to do is enter the cell phone number of the family member that would like to be notified when there is an emergency call activation.

### » **Residents: Photo**

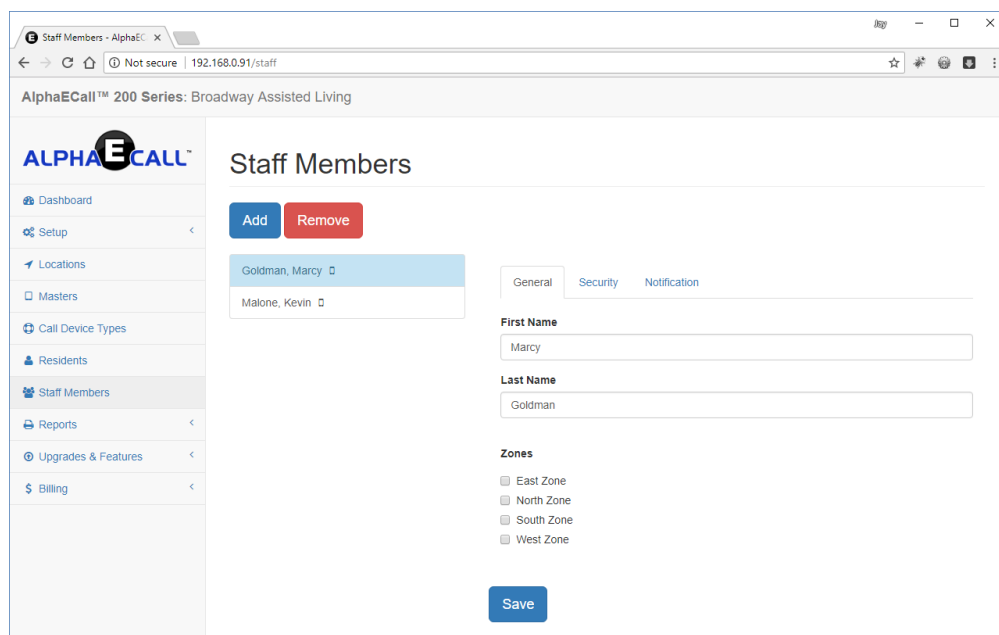
This option allows you to specify the filename for a photo for a resident. The photo can be an image in the format of JPG, PNG or GIF. For more information on uploading your custom resident photos, please see “Uploading Images to your Master Stations” on page 28.

**After making any changes in the Residents area you must click the ‘Save’ button to apply changes.**

## » **Staff Members**

AlphaECall™ 200 allows you to setup Staff members. Staff members have the ability to do the following:

- Receive text messages when an emergency call is placed.
- Receive pager messages when an emergency call is placed.
- Login to the AlphaECall™ 200 Mobile Application (licenses required).
- Setup security codes in AlphaECall™ 200 to prevent unauthorized access to system configuration settings.



Use the Add and Remove buttons to create new Staff members or delete ones no longer needed.

To configure the settings for a specific Staff member, select their name from the list. You will see three tabs (“Staff”, “Security” and “Notification”) appear.

### » **Staff: General**

- **First Name** - Enter the Staff member’s first name.
- **Last Name** - Enter the Staff member’s last name.
- **Zones** - If you are using Zones place a checkmark next to the zone(s) that you would like this Staff member to be included



in. Staff members Zones indicate which zones this staff member should be alerted for.

## » **Staff: Security**

**Security Code** - If you would like to block/allow access to certain areas in AlphaECall™ this can be done by using Security Codes. You can setup a code for each staff person. The code can be used for any of the following four levels.

- Administrator - allows access to all configuration settings including the ability to add/change security codes
- Residents/Directory - allows only access to add/edit residents
- Reports - allows only ability to view optional reports
- Mobile App - allows ability to login to the optional AlphaECall™ 200 Application

By default, there are no security codes in AlphaECall™ 200. As soon as you enter in an Administrator security code for any Staff person it will then require anyone who tries to go into the config area to enter a security code. You can just setup a security code for one Staff person or multiple people. Security codes are not required when creating Staff members.

Security Codes can also be used for login to the AlphaECall™ app. When the AlphaECall™ app is started up for the first time on a phone you will be shown a login screen. The staff person needs to enter the security code that has been configured for them.

## » **Staff: Notification**

- **Cell Phone Number** - If you would like this Staff member to receive text messages for emergency calls enter their full cell phone number.
- **Pager Capcode** - If you would like this Staff member to receive pager messages enter the capcode number for their pager.

**After making any changes in the Staff area you must click the 'Save' button to apply them to that Staff Member.**

## » ***Reports***

AlphaECall™ 200 has an add-on package for Reports (**SW-AEC200R**). When this additional package is purchased for an AlphaECall™ 200 installation you will have full access to all the reports in this menu option.

**See the chapter on Reporting Package on page 34 for details on how to view and create reports.**

# **CHAPTER 6 - REPORTING PACKAGE**

The AlphaECall™ 200 Reporting Package (SW-AEC200R) is an add-on to the base system. The Reporting Package gives you detailed and summary reports on system wide activity.

To access the Reports you first need to be on the same local network as your AlphaECall™ 200 Masters. Then point a web browser to the local IP Address of any one of your AlphaECall™ 200 Masters. You will see the Reports area in the menu in the left column. The items you will see in the Reports menu are:

1. Call Details
2. Call Response
3. Call Activity by Resident
4. Call Activity by Hour
5. Urgent Hardware Alerts
6. Device Service
7. Programmed Devices
8. Residents/Directory
9. Call Analysis

With each report type you will have different options to filter and sort the data. Select the date spans, residents or rooms, input device type, etc. and then click the 'Filter List' button. This will display all the data that meets those filters into tables and/or charts. To print any report just click the 'Print Report' button and a new table will open up with a page that you will be able to send to your printer.

## » **Explanation of Reports**

- **Call Details** - This report displays all call details of every emergency call. It will display the name of the resident, their room number, the type of input device used, the initial call time, the time the call was silenced at a master, the time the input device type was reset (if it is a locking device - like a pull cord), and the time the call was closed off of the masters (when the call was cleared from the screen). The report can be sorted by initial call time, resident name, or room number.
- **Call Response** - This report displays a list of emergency calls with the response time from when the call was placed to when the call was reset. It will display the name of the resident, their room number, the type of input device used, the initial call time, the time the input device type was reset, and the time difference from the initial call time to the reset time.

The report can be sorted by initial call time, resident name, room number, or response time. Below the table you will also see a list of the Average, Longest, and Shortest Response Times for the selected filters.

» **NOTE:** *This report will only show emergency calls for input device types that have a locking device (like a pull cord) because their are no reset times for momentary input device types.*

- **Call Activity by Resident** - This report gives you a list of emergency call counts by each resident. It will display the name of the resident, their room number, and the call count for the selected filters. The report can be sorted by call count, resident name, or room number.
- **Call Activity by Hour** - This report will let you know the time of day when most emergency calls are placed. It will break down the calls by hour and display the total number of calls placed each hour. The report can be sorted by hour or call count. This report will also show you a chart to visually indicate when most emergency calls are being placed.
- **Urgent Hardware Alerts** - This report will display any urgent hardware issues that may currently be occurring in AlphaE-Call™. Types of issues displayed in this report are:
  - STR Translator not responding
  - Wireless Network Coordinator not responding
  - Master offline

Once any of these issues shown in this report are fixed and you go back to view this report that item will be removed from the report. This report will not show past issues, just ones that are currently occurring.

- **Device Service** - This report will display any input device types on the system that are currently not functioning properly.

Types of issues displayed in the report are:

- ECI333 not responding
- Wireless device not responding
- Wireless device with a low battery
- Wireless device that is in tamper mode (device housing is open).

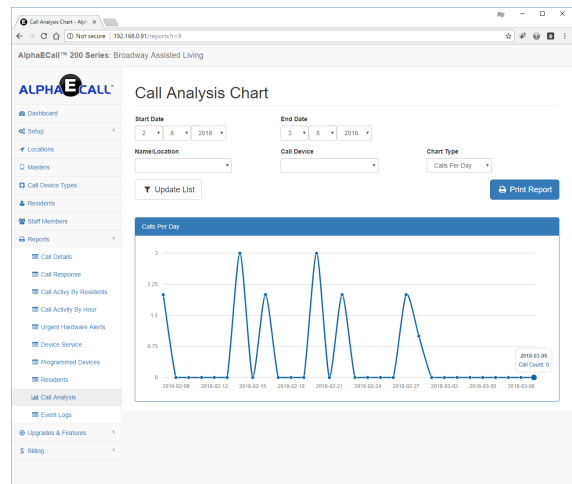
The report will show the resident name, room number and the input device type this issue is for. It will also indicate at what date and time this issue was originally noticed by AlphaECall.

Once any of these issues shown in this report are fixed and you go back to view this report that item will be removed from the report. This report will not show past issues, just ones that are currently occurring.

The report can be sorted by resident name, room number, or input device type.

- **Programmed Devices** - This report will give you a current list of all input devices programmed into AlphaECall™. The report will show the resident name and room number the device was programmed for and the input device type. The report can be sorted by resident name, room number, or input device type.
- **Residents** - This report will display a list of all residents and their room numbers setup in AlphaECall™. The report can be sorted by resident name or room number.
- **Event Logs** - This Report will display a full dump of activity data between two date ranges. You can also search for specific terms within the data using the search box.
- **Call Analysis** - This chart will display the total number of Calls Per Day, Week, or Month over a selected period of time. The chart can also be broken down by resident name/room and input device types.

Name	Location	Call Device	Call Time	Silenced	Reset	Closed
Gold, Steven	West 444	WIRELESS PENDANT	2/26/2018 1:22 pm	2/26/2018 1:22 pm	2/26/2018 1:23 pm	
Ananay, George	EAST 101	CODE BLUE	2/27/2018 10:39 am	2/27/2018 10:40 am	2/27/2018 11:11 am	
Andrews, Marina	EAST 102	EMERGENCY BUTTON	2/27/2018 10:36 am	2/27/2018 10:36 am	2/27/2018 10:36 am	
Andrews, Marina	EAST 102	EMERGENCY BUTTON	2/22/2018 8:42 am	2/22/2018 8:42 am	2/22/2018 8:42 am	2/22/2018 8:42 am
Andrews, Marina	EAST 102	EMERGENCY BUTTON	2/22/2018 8:38 am	2/22/2018 8:38 am	2/22/2018 8:38 am	2/22/2018 8:39 am
Gold, Steven	West 444	WIRELESS PENDANT	2/20/2018 4:58 pm	2/20/2018 4:58 pm	2/20/2018 4:58 pm	2/20/2018 4:58 pm
Gold, Steven	West 444	WIRELESS PENDANT	2/20/2018 1:43 pm	2/20/2018 1:43 pm	2/20/2018 1:43 pm	2/20/2018 1:42 pm
Gold, Steven	West 444	WIRELESS PENDANT	2/20/2018 1:41 pm	2/20/2018 1:42 pm	2/20/2018 1:42 pm	2/20/2018 1:42 pm
Gold, Steven	West 444	WIRELESS PENDANT	2/16/2018 12:10 pm	2/16/2018 12:11 pm	2/16/2018 12:11 pm	2/16/2018 12:11 pm
Ananay, George	EAST 101	CODE BLUE	2/16/2018 12:05 pm	2/16/2018 12:05 pm	2/16/2018 12:05 pm	2/16/2018 12:09 pm



# **CHAPTER 7 - WIRELESS LOCATION**

## **» Overview**

In AlphaECall™ 200 when a wireless location is setup, AlphaECall™ 200 can determine the approximate location of wireless input device types that are not in a fixed location (ie. necklace or wristband pendants). This can provide emergency responders with critical information needed to quickly find someone in need of assistance. Location is established by using an algorithm applied to signal strength from the alarming pendant.

A wireless network coordinator and wireless repeaters mounted in fixed locations will receive signals from an alarming pendant at different signal strengths. Using those signal strengths AlphaECall™ 200 can triangulate where a pendant is located when it is activated.

In the Wireless Map area you will be able to teach AlphaECall™ 200 the layout of your facility by sending wireless signals from numerous location throughout the facility. The signal strength from each location in your wireless map will be recorded in a database and when an actual emergency call comes in from a pendant, the signal will be compared with the data in your wireless map to determine the approximate location of that pendant. This process is called “Finger Printing”.

## **» Repeater Location**

The wireless repeaters (**WRL511**) provide the backbone of the location functionality used in the AlphaECall™ 200 Series system. It is at the repeaters where signal strength information from an alarming pendant is measured and compared to your wireless map to determine the location of a pendant. As such, repeaters must be configured with more care in a location finding facility than in a facility where repeaters are used solely for increased transmission coverage.

When mounting repeaters it is important to place them so they are at different distances from locatable areas in your facility. AlphaE-Call™ 200 may have difficulty discerning between two alarming pendants that are roughly the same distance from a repeater. A pendant activated 100 feet to the west of a repeater will appear exactly the same as a pendant activated 100 feet to the east.

For instance, the repeater shown in Figure RL-1 would have a difficult time differentiating between the two pints. The signal provided by both will be similar, as they are both of a roughly equal distance from the repeater and the obstacles between each repeater are almost the same.

The repeater shown in Figure RL-2, however has been installed such that there is enough difference in the obstacles and distance between the two points that differentiating between the signals should be easier.

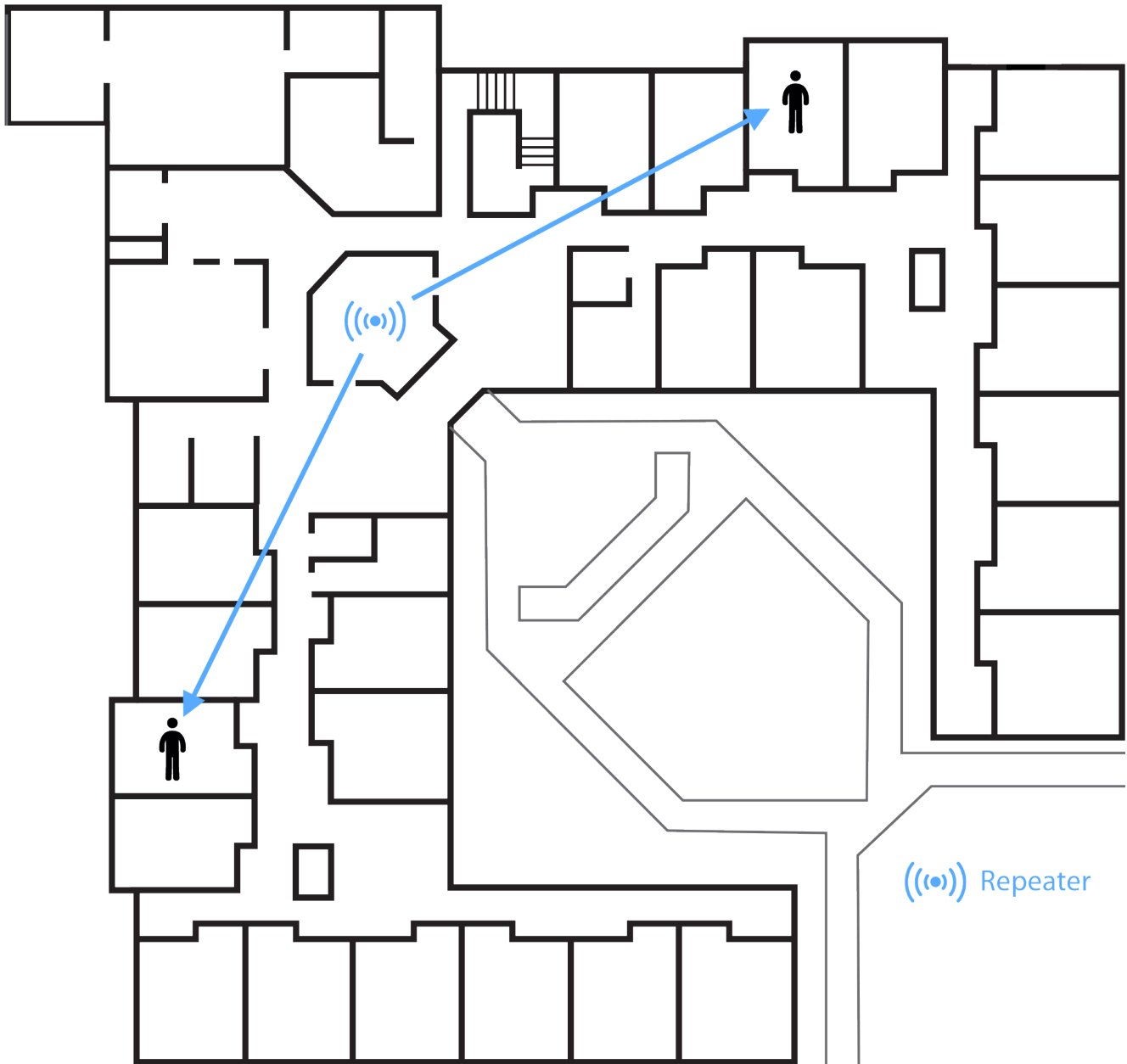
Repeaters used for location should be mounted away from immediate obstacles, large metal objects, and as high as possible so they can receive call transmission data easily. **Repeaters should NEVER be mounted inside of a metal enclosure!**

One simple way to create configurations that promote good signal quality is to arrange the repeaters in triangle patterns, such as in Figure RL-3.

If mounting repeaters in a building with more than one floor, use offset triangles from floor to floor as shown in Figure RL-4. Stacking repeaters vertically from floor to floor will not create the signal diversity necessary to establish location.

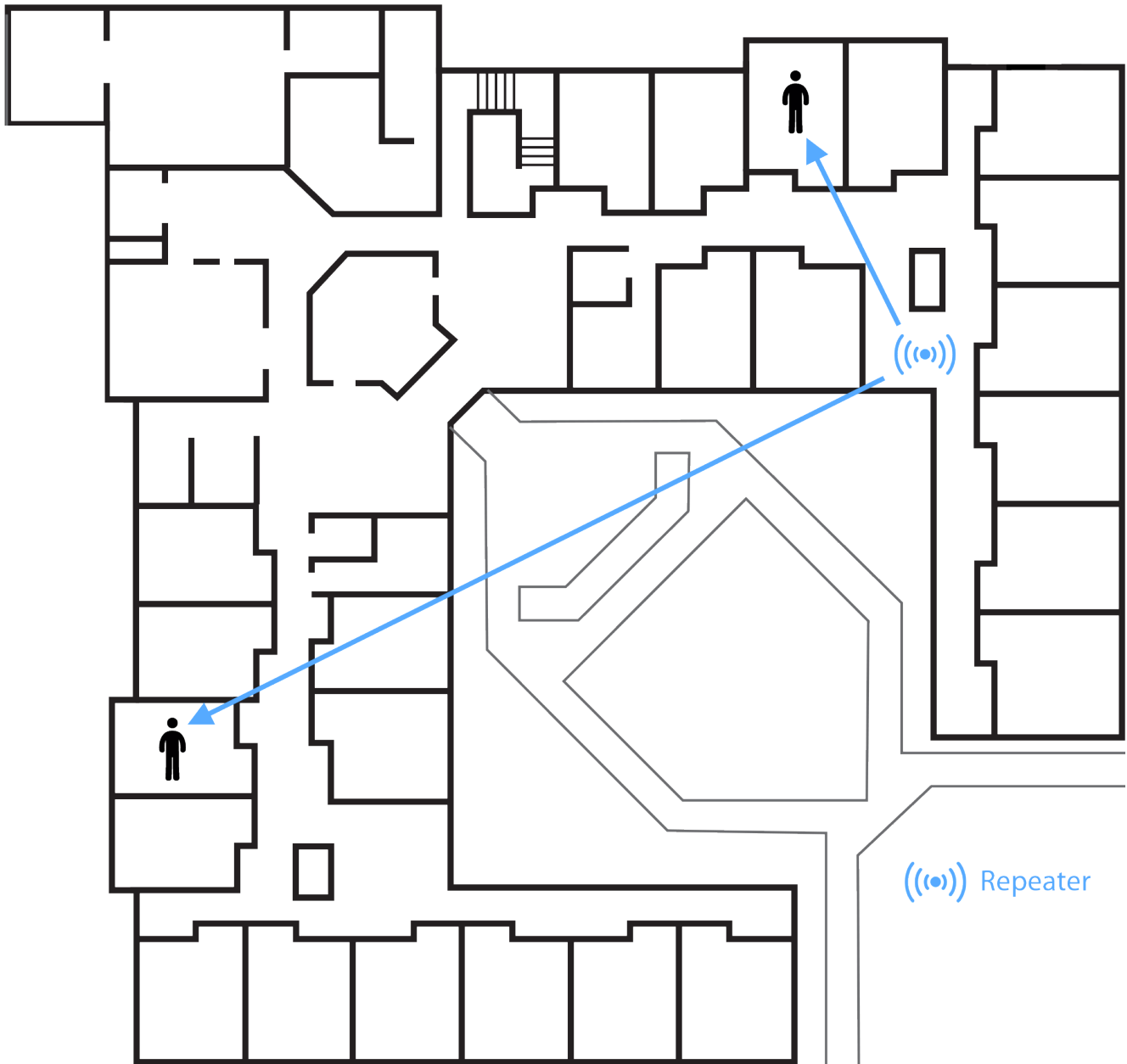
» **FIGURE RL-1**

**In this configuration, the repeater may have difficulty differentiating between the two locations.**



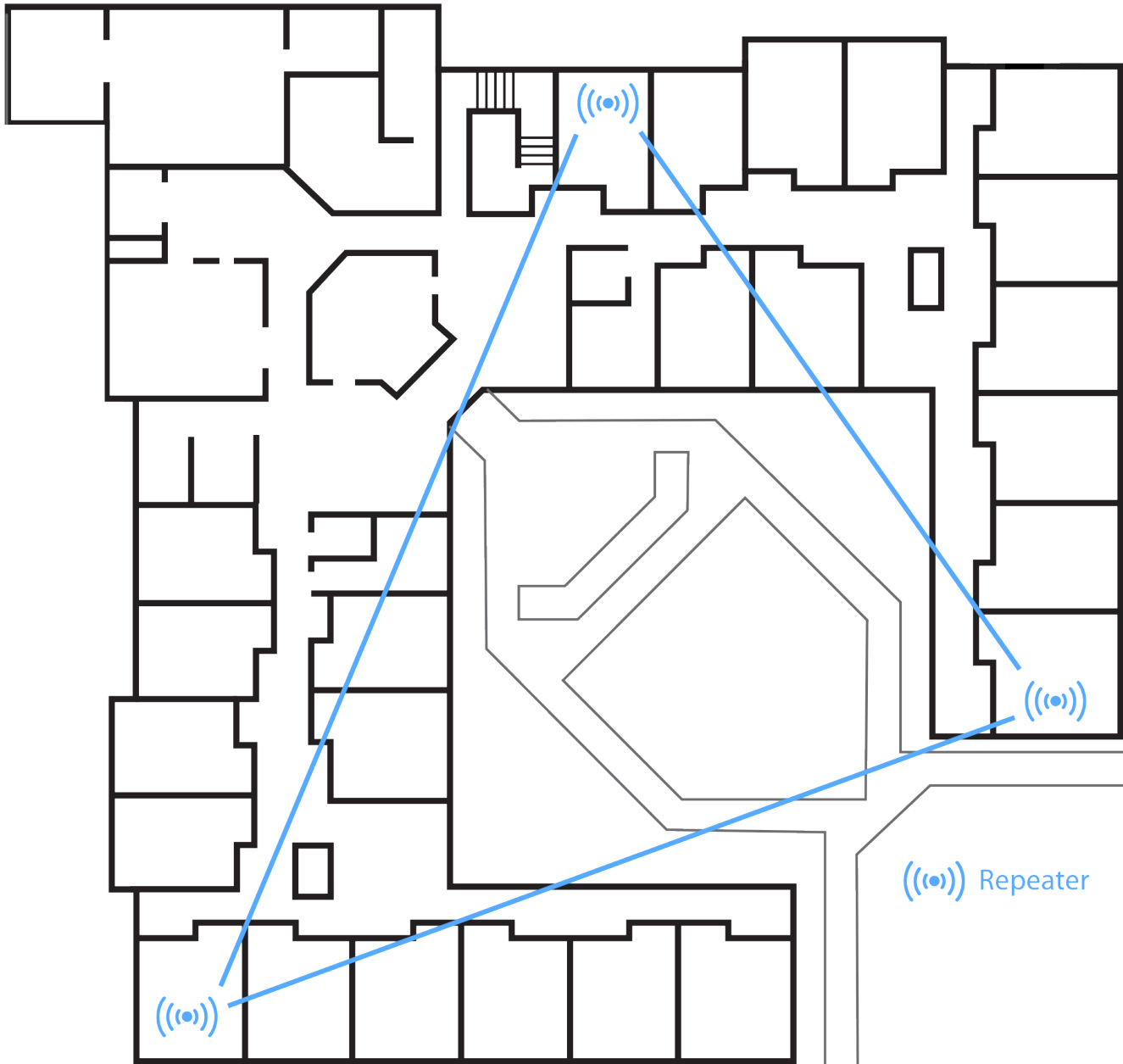
» **FIGURE RL-2**

**In this configuration, the repeater will have an easier time differentiating between locations.**



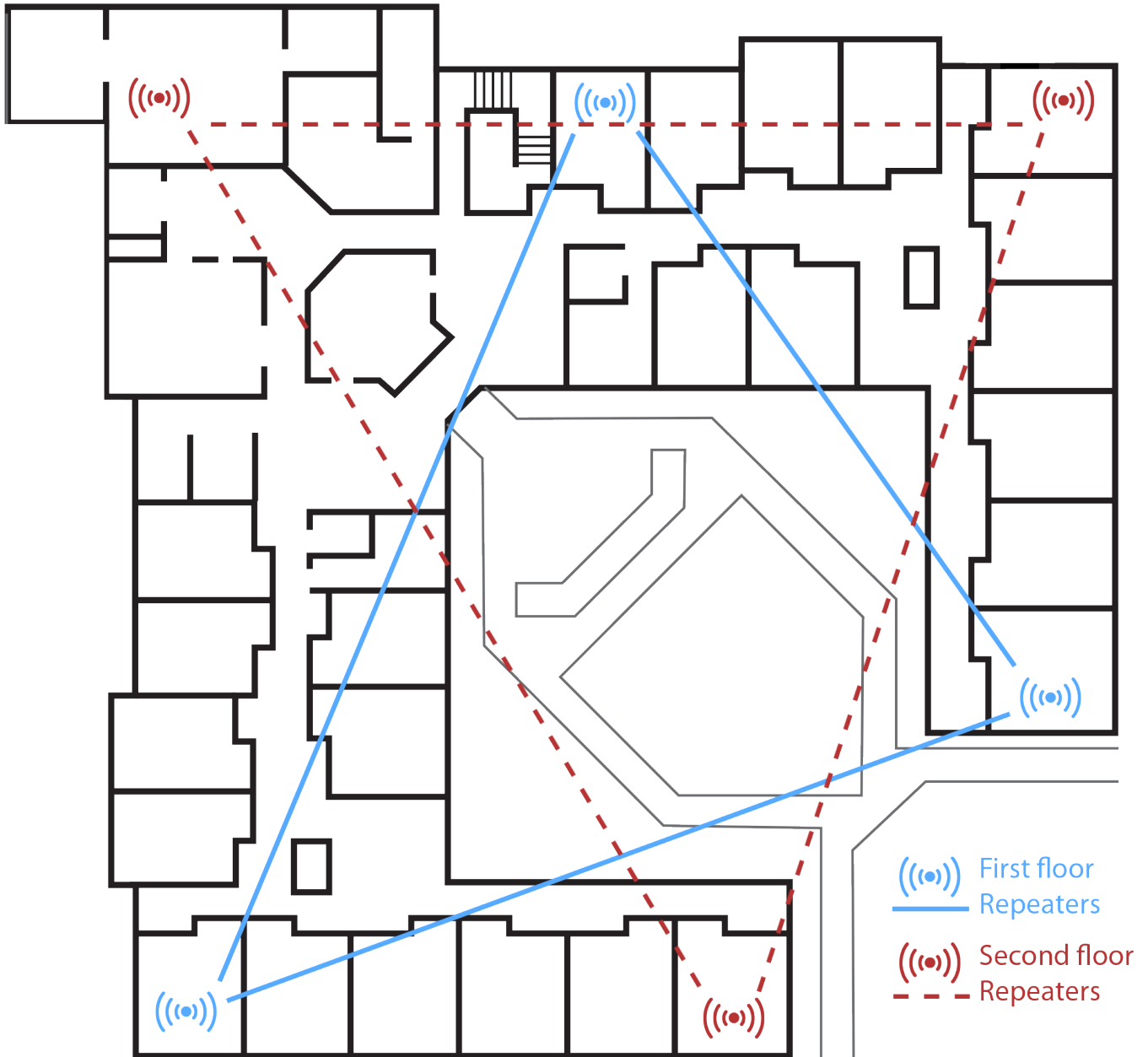
» **FIGURE RL-3**

**Arrange repeaters in triangle patterns to promote signal strength.**



» **FIGURE RL-4**

**Offset triangles from floor to floor for maximum signal strength efficiency.**





## » FINGERPRINTING

You will use a wireless pendant to establish the signature that makes up the wireless map of your facility. Fingerprinting can be done with any wireless pendant (WPT501). You will first specify a location in your facility that you would like to fingerprint. The button on the pendant will then be pressed from multiple areas at that location. The same steps will be done for each location you would like to add to your wireless map. AlphaECall™ 200 will store all these “Fingerprints” from various locations and they will be used to identify where a pendant is located when an emergency call is placed.

Depending on how precise you want the accuracy of location finding to be you can create more locations in the Wireless Map area to be more specific or less locations to just get a general idea of where a pendant is located when it is alarmed.

The accuracy of your location will depend on how many finger prints are created for a specific location and the types of orientations used. Too few may leave dead spots the will not match the wireless map.

Removing or moving a repeater invalidates all finger print information. If a repeater is moved or removed, you will need to repeat the fingerprinting procedure. Adding a repeater may or may not affect existing fingerprints. If a repeater is added, your locations will need to be tested.

The screenshot shows the 'Locations' page in the AlphaECall™ 200 Series web interface. The page title is 'AlphaECall™ 200 Series: Broadway Assisted Living'. The left sidebar contains navigation links: Dashboard, Setup, Locations (selected), Masters, Call Device Types, Residents, Staff Members, Reports, Upgrades & Features, and Billing. The main content area is titled 'Locations' and features an 'Add' button and a 'Remove' button. A table lists various locations, with 'West 444' selected. To the right of the table, there is a 'Program Fingerprinting Pendant' button. Below this, there are tabs for 'Name', 'Call Devices', 'Floor Plan', and 'Fingerprinting' (selected). The 'Fingerprinting' tab shows 'Number of Fingerprint signals received for this location: 0'. There are three main action buttons: 'Start Receiving Fingerprints' (green), 'Stop Receiving Fingerprints' (red), and 'Clear Fingerprints for this Location' (orange). A 'Save' button is located below these actions.

Name	Call Devices	Floor Plan	Fingerprinting
201			
222			
286			
333			
356			
401			
402			
502			
601			
845			
Basement			
Conference Room			
East 101			
East 102			
Management Office			
Nurse's Station			
Penthouse			
West 444			

## » **Fingerprinting to Establish Your Wireless Map**

**Program a Fingerprinting Pendant** - A Fingerprinting pendant is a pendant specially designated to provide wireless signal information to AlphaECall™ 200. To specify a pendant that you will be using as your fingerprinting pendant, go into the **Locations** area in the AlphaECall™ 200 configuration. You will see a button to “Program Fingerprinting Pendant”. Click that button and then on the pendant you will be using for finger printing click the reset button.

**Adding Locations** - To add a location to your Wireless Map, first click the ‘Add’ button. You will see an item called ‘New’ at the top of the list of locations. Select that item and give it a name (ie ‘Lobby’, ‘Room 301’, etc..) and then click the ‘Save’ button. See “Locations” on page 25 for more information on adding locations.

**Receive Fingerprinting Data For a Location** - Follow these steps to map a location in your facility:

1. In your list of locations, select the location you would like to finger print.
2. Select the “Fingerprinting” tab.
3. Click the “Start Receiving Fingerprintings” button.
4. Take the pendant you have setup as your Fingerprinter Pendant to this location.
5. Activate the pendant using either the “compass” or the “corner and centers” method (see below) depending on the size of the room.
6. Wait 10 seconds.
7. Activate the pendant again using the method chosen.
8. Repeat the waiting and activating of the pendant until you have finished the mapping method for that location.
9. Return back to your browser screen and click the button “Stop Receiving Fingerprints”.

**Test Location Finding** - Perform a location test immediately after fingerprinting by activating a pendant in each locatable area and ensuring the appropriate location is shown on an AlphaECall™ 200 Master. If a test is not satisfactory add additional Fingerprinting Data for a location or clear out the Fingerprinting Data for a location and use a different method to map that location.

**Clear Fingerprinting Data For a Location** - If for any reason you need to remap the Fingerprinting Data in a location you can use the “Clear Fingerprint Data” button to remove all the finger prints for the selected location.

» **NOTE:** *If the location your are mapping has a metal door or metal window shades, collect Fingerprinting Data with the door open and then closed, and the window shades up and then down. Fingerprinting Data should be collected in every possible configuration in which the location can be used if there are materials that can absorb or reflect wireless transmission.*

### » **The Compass Method**

For small areas with obstacles in the corners or along the walls, use the compass method. Activate the finger printer while facing the center of each wall and at each corner, as shown in Figure RL-5.

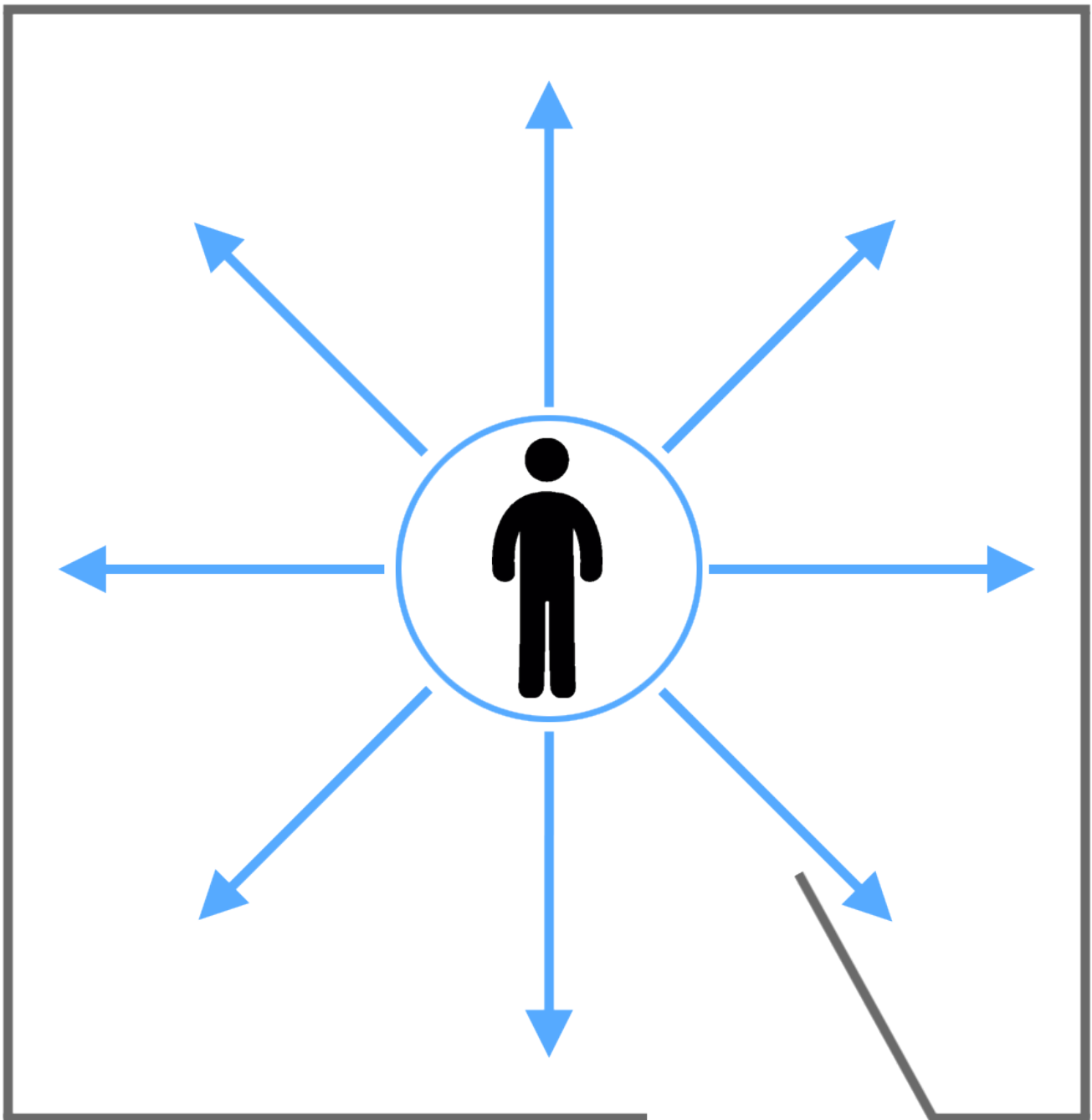
### » **The Corners-and-Centers Method**

For larger rooms, or rooms where you do not have access to the middle, us the corners-and-centers method. Activate the finger printer towards the center of the room while standing in each corner and at the center of each wall, as shown in Figure RL-6.

» **IMPORTANT:** *For best location finding results, at least five repeaters need to be able to receive all fingerprint activation transmission data.*

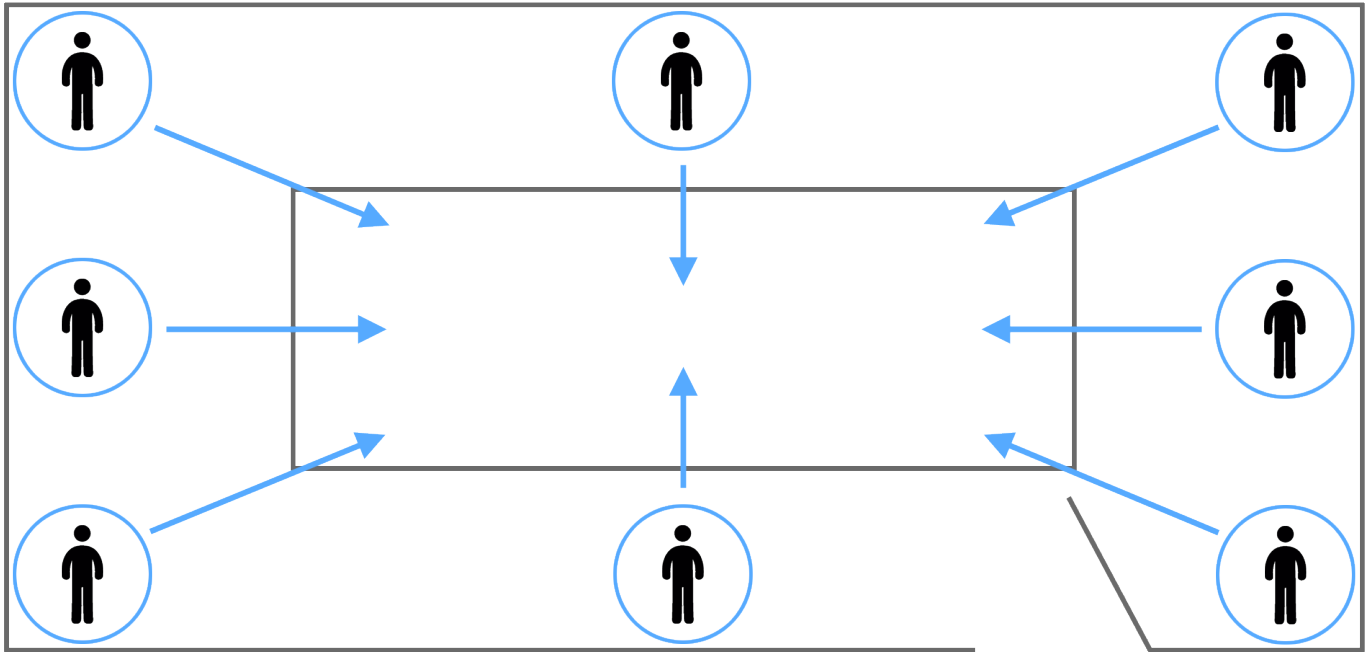
» **FIGURE RL-5**

**The Compass Method of Fingerprinting**



» **FIGURE RL-6**

**The Corners-and-Centers Method of Fingerprinting**



» **Maximum Number of Repeaters for an Installation**

To achieve the 99.99% alarm message reliability, system installations must operate within the following limits for end device and repeater counts:

End Devices	Maximum Repeaters
150	397
250	386
350	375
500	360
1000	313
2000	238
3000	184