STANLEY
Healthcare

Empowering Caregivers

Arial® 900MHz Wireless Emergency Call System

Deployment & Maintenance Guide

Arial®

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Introduction

The STANLEY Healthcare Arial 900MHz Wireless Emergency Call System, for Assisted and Independent Living Communities, is designed to enhance the safety of senior living residents, while also providing advanced tools for event management, staff notification and reporting.

The Solution uses fixed Call Stations, in resident rooms and bathrooms, together with 900MHz wireless technology, to help provide residents throughout the senior living community a convenient way to summon help.

When a resident activates a call for assistance, an alert signal is sent over a dedicated Arial™ wireless network to the Arial Server and is displayed at a nurse's station PC with the alarm point's details and room information. Alarms are reset physically from the device that generated the alert.

Reports

Reports are available to show alarm activity, caregiver response times, as well as other maintenance and system information.

This guide covers the deployment steps, best practices, and maintenance procedures for the Arial™ 900MHz Wireless Emergency Call System.

Supervised Wireless and Electrical Data Circuits

Arial 900MHz System Power Connection Overview
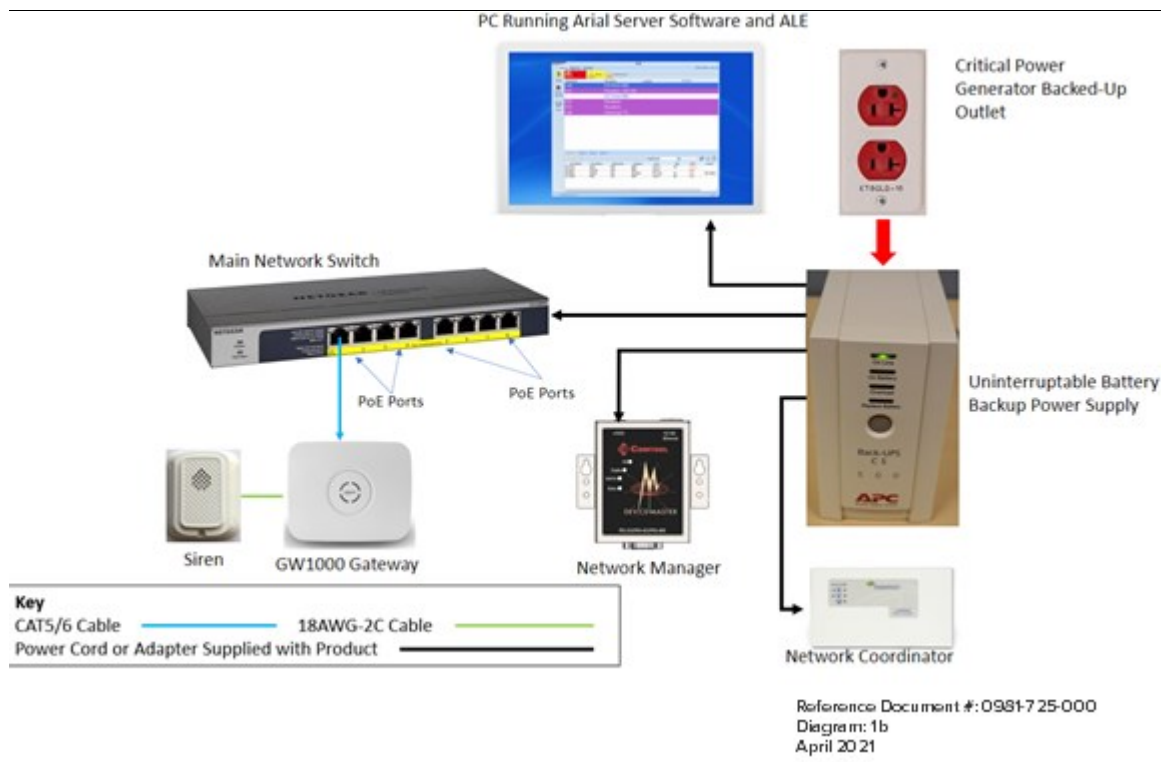
Figure 2. Arial 900 System Power Connection

Overview

Devices that connect to Battery Backup side of an Uninterruptable Power Supply (UPS):

- PC Running Arial Server and ALE Software
- Main Network Switch
- Comtrol Device Master
- Inovonics Network Coordinator

IMPORTANT: The UPS must be connected to a generator backed up outlet. The battery backup will all keep the server PC and these critical pieces of equipment running for at least five minutes while the generator starts and takes load, and once again when power from the grid is restored and the generator backed-up outlet transfers back to grid power.

NOTE: The GW1000 and Siren are backed up as well since they are powered from the POE port of the Main Network Switch, which is backed up by the UPS.
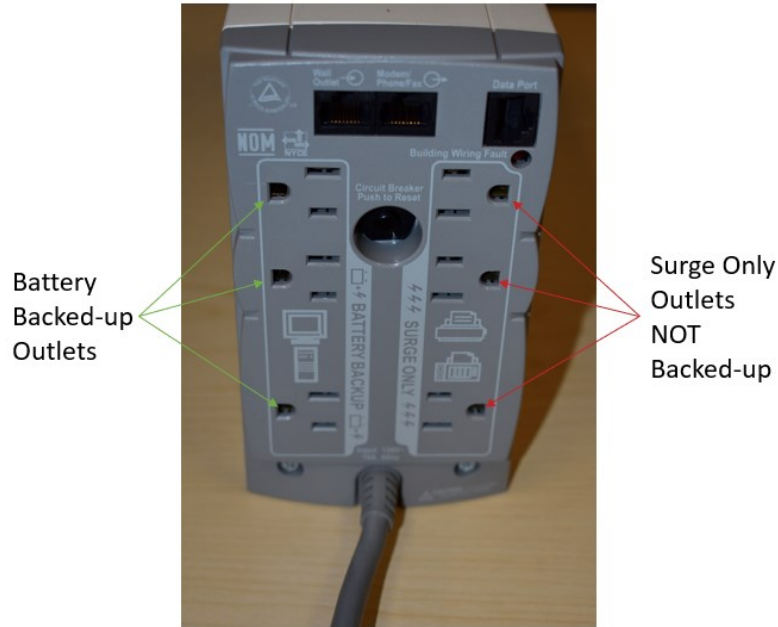
Figure 3. Backup and Surge outlet locations on the back of the UPS

Uninterruptable Power Supply

STANLEY Healthcare supplies an Uninterruptable Power Supply (sold as item number 0768-004) with systems it installs.

Manufacturer & Model	APC BK500
Output	10A Max 120VAC 60Hz +/- 3Hz
Input	98-140VAC 60Hz +/- 3Hz
Backup Time	95.5 Min @ 30W, 3.4 min @ 300W (Max Load)
Battery	Lead-acid RBC2, 106VA, 4-6 Yr. Life
Physical	3.58" x 11.18" x 6.5" (28.4 cm x 9.1 cm x 16.5cm) 13.82 lbs (6.27 Kg)
Environmental	32-104 °F (0-40 °C), 0-95% RH
Compliance	UL1778, Energy Star V2.0, FCC Part 15, RoHS

Arial 900MHz Supervised Data Connection Diagram
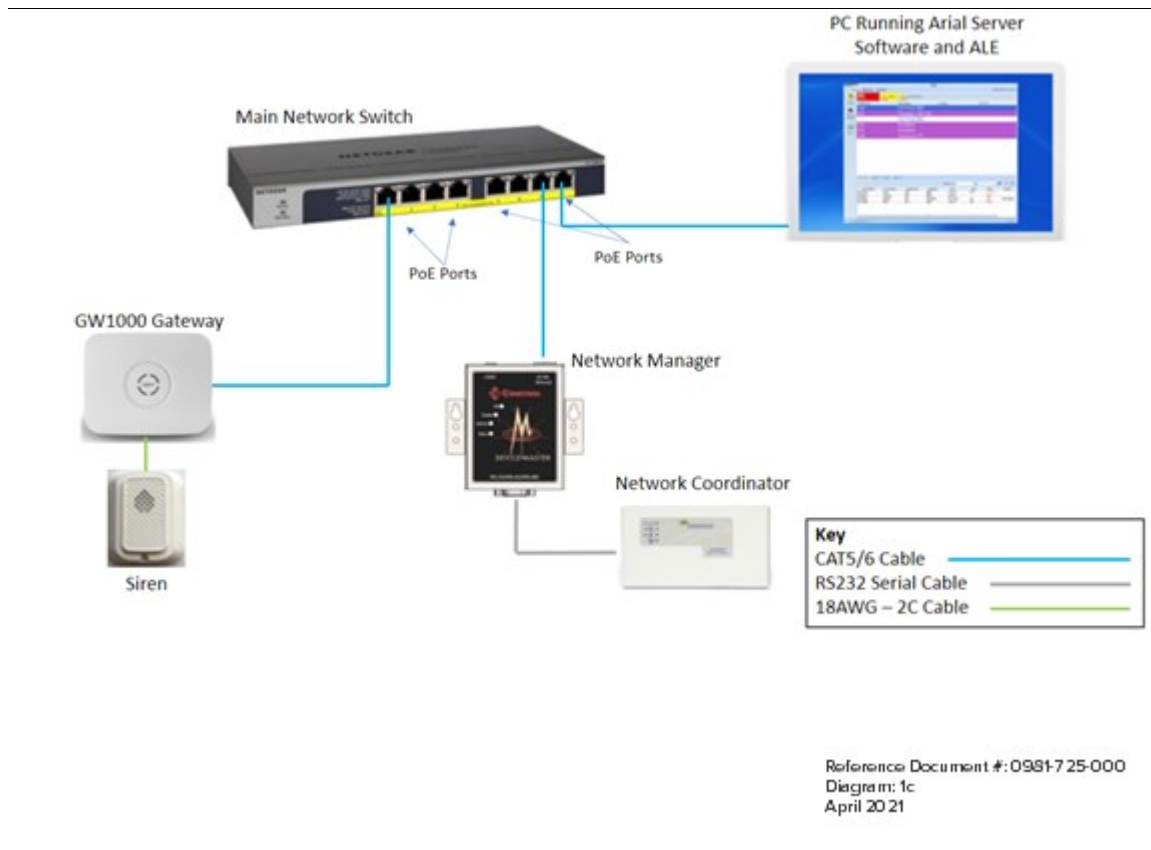
Figure 4. Arial 900 Supervised Data Connection Diagram

System Software Requirements

This section describes required software requirements for the Arial™ Wireless Emergency Call System.

Software	Minimum Requirements & Notes
Arial	10.6.1 and above
AeroScout Location Engine (ALE)	5.5 (5.5.3.106) and above *Refer to the AeroScout Location Engine 5.5 Deployment Guide for full ALE system requirements.*

Wireless Infrastructure Compatibility

The Arial™ Wireless Emergency Call system uses a dedicated proprietary 900MHz wireless infrastructure that uses a network of repeaters to receive transmissions and relay them to the Arial™ software.

The Arial™ Wireless Emergency Call system's software and fundamental components must be installed on a separate and dedicated network that connects to the Network Coordinator and Repeaters. Other network connections can be made to the Arial server, provided it is not part of the UL2560 network.

Reference Documents & Software

The following articles can be accessed by logging into the STANLEY Healthcare Support Community site at the following
URL: https://stanleyhealthcare.force.com/HomePage.

KB #	Documents
12371	Arial Wireless 900MHz Nurse Call System Deployment and Maintenance Guide
12138	Arial 10.6 Quick Reference Guide
12137	Arial 10. 6 Wireless Nurse Emergency Call Solution Admin Guide
12139	Arial 10.6 Software Installation Guide
12372	UL2560 900MHz Call Station Series Data Sheet
10203	Gateway GW1000 Data Sheet
10202	Gateway GW1000 Installation & Configuration Guide
10334	Arial Siren Datasheet
12271	AeroScout Location Engine 5.5 Deployment Guide
1100	Product Versions Compatibility Matrix Reference Guide
7870	Arial Paging Transmitter Installation Guide
12141	Arial 10.6 Mobile Application User Guide

KB #	Software
12322	Arial 10.6 Software Download
12274	Location Engine 5.5 for Non-Cisco Environment Download

Solution Component Overview

This Chapter describes the fundamental and supplemental hardware and software components used for the Arial 900MHz Wireless Emergency Call System.

Fundamental Components
The fundamental components are the <u>required</u> components for the Arial Emergency Call System.

NOTE: It is required that one of the 2560-54336, 2560-54337, or 2560-54357 call stations be assigned to each resident apartment and be permanently located in the bathroom of that apartment. At least one of either the 2560-54322 or 2560-54324 call notification stations serving the property must be permanently placed and continually operating at a fixed location.

Supplemental Components
The supplemental components may already exist in a facility from a previous Arial deployment or can be optionally added. They are not required for the Arial™ 900MHz Wireless Emergency Call System.

NOTE: The emergency call system must not share its nurse call communication network with any other network or system. All transmitters using the same frequency or channel and that are within range of a receiver of a wireless system, must be compatible with the emergency call system and evaluated for the intended purpose. Supplementary devices not evaluated for the intended purpose are permitted only if their connection to the network utilizes a compatible device evaluated for the purpose.
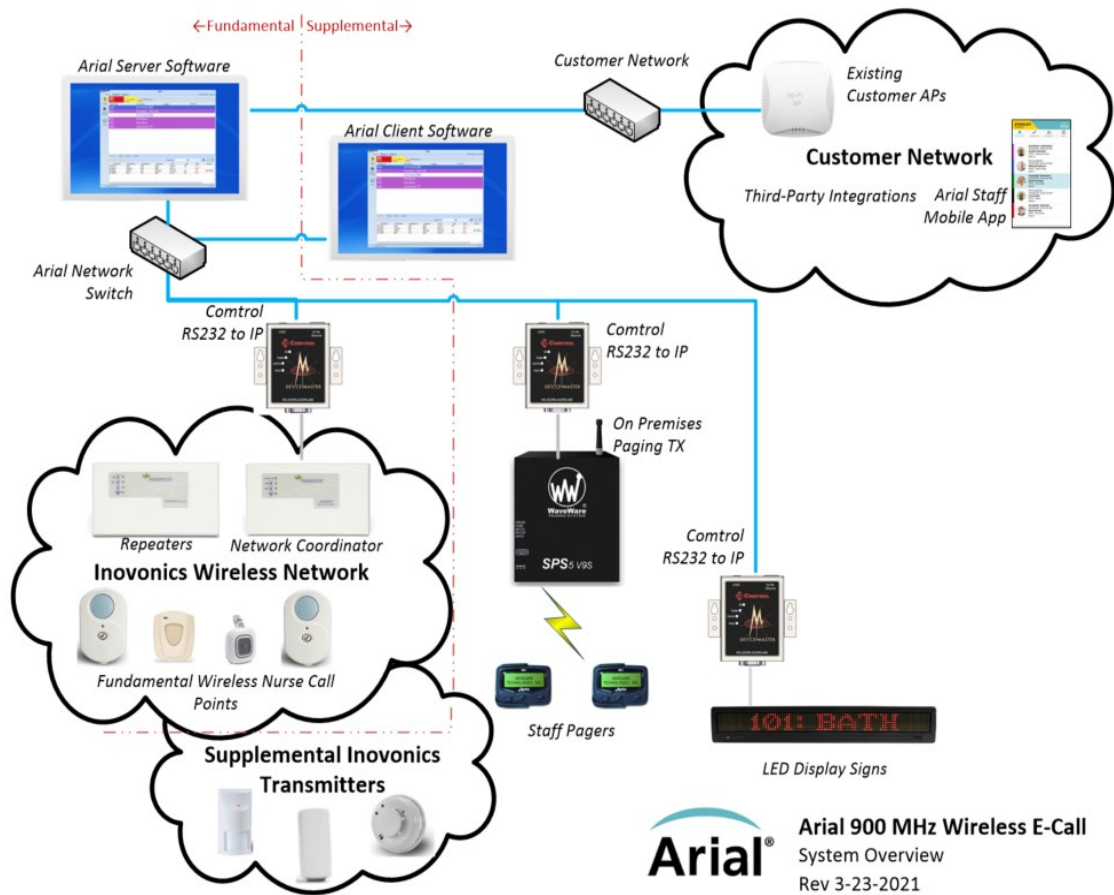
Figure 5. Arial 900MHz Wireless E-Call System Overview

Fundamental Arial 900MHz Wireless Emergency Call System Components

This section describes the following fundamental software and hardware components.

- Server Software
- Ethernet Switches
- Gateway 1000
- System Sensor Siren (Chime)
- 900MHz Call Stations
- Remote Push Button Call Cords
- Network Manager
- Network Coordinator
- Repeater
- Pendants

NOTE: Each of the sub-components listed above are part of the Call System, Arial Wireless.

Server Software

Model	Comments
SKU: 54302 Arial Software	10.6.1 or later of Arial Server Software
SKU: 2560-54304 Arial UL2560 License	License that grants customer the right to use one instance of the Arial Server Software in their community. Application of license automatically adjusts key settings for compatibility with UL2560 devices.
SKU: ENG4100 Arial Wi-Fi and Location Engine Integration License and Software	5.5.3.70 or Later version of AeroScout Location Engine software. License that grants customer the right to use one instance of the AeroScout Location Engine software in their community. License is required to support GW1000 and Trouble Siren that are required for UL2560

The Arial Server software runs on a Windows PC. The Arial Server receives alarm and status signals from call stations, processes this information, and relays it to Client computers and messaging devices such as IP and mobile phones, pagers and display signs. The Server also stores the database of system activity. Note that the Server can

also act as a Client PC, displaying the Arial software for alarm annunciation and other day-to-day tasks.

Arial 10.6 supports the integration of the Arial software with the AeroScout Location Engine (ALE).

Ethernet Switches

Models	Comments
SKU: SWC-POEP8-1000 8 Port Switch	Unmanaged 8-Port Ethernet Switch with PoE Outputs UL 60950 Listed
SKU: SWC-POEP16-1000 16 Port Switch	Unmanaged 16-Port Ethernet Switch with PoE Outputs UL 60950 Listed

The Ethernet Switch is the 'central hub' for the solution's components and must conform to UL60950 or UL62368 standards.
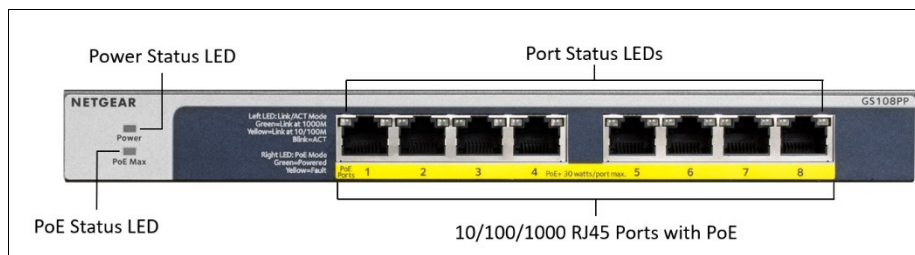
Figure 6.8-Port Switch Front View
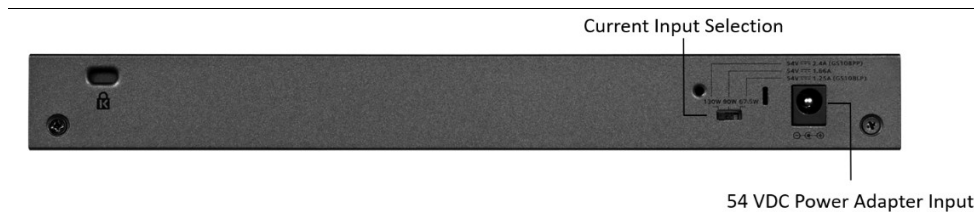
Figure 7. 8-Port Switch Back View
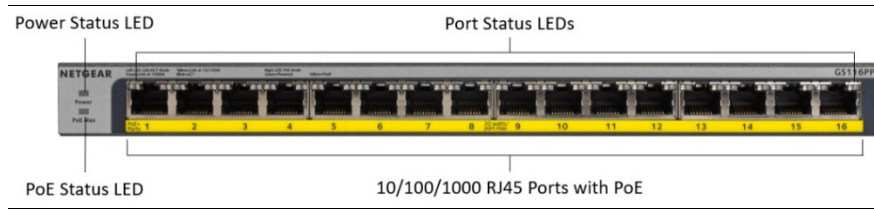
Figure 8. 16-Port Front View
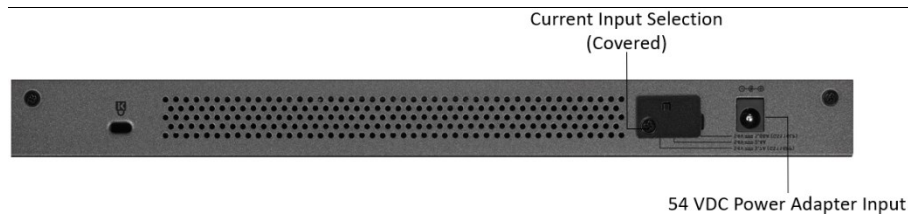
Figure 9. 16-Port Back View

Gateway GW1000

Models	Comments / Firmware Version
SKU: GW-1000 (GW-1000)	Wi-Fi receiver and dome light and siren controller Firmware Version: 415.15 or higher

The GW1000 monitors the software on the PC, acting as a watchdog. If the PC or software stops running, the GW1000 activates an output to turn on a siren that is controlled by the output. This siren serves as a trouble signal and will activate within 90 seconds should the Engine software or PC stop executing.

Figure 10.   Gateway GW1000
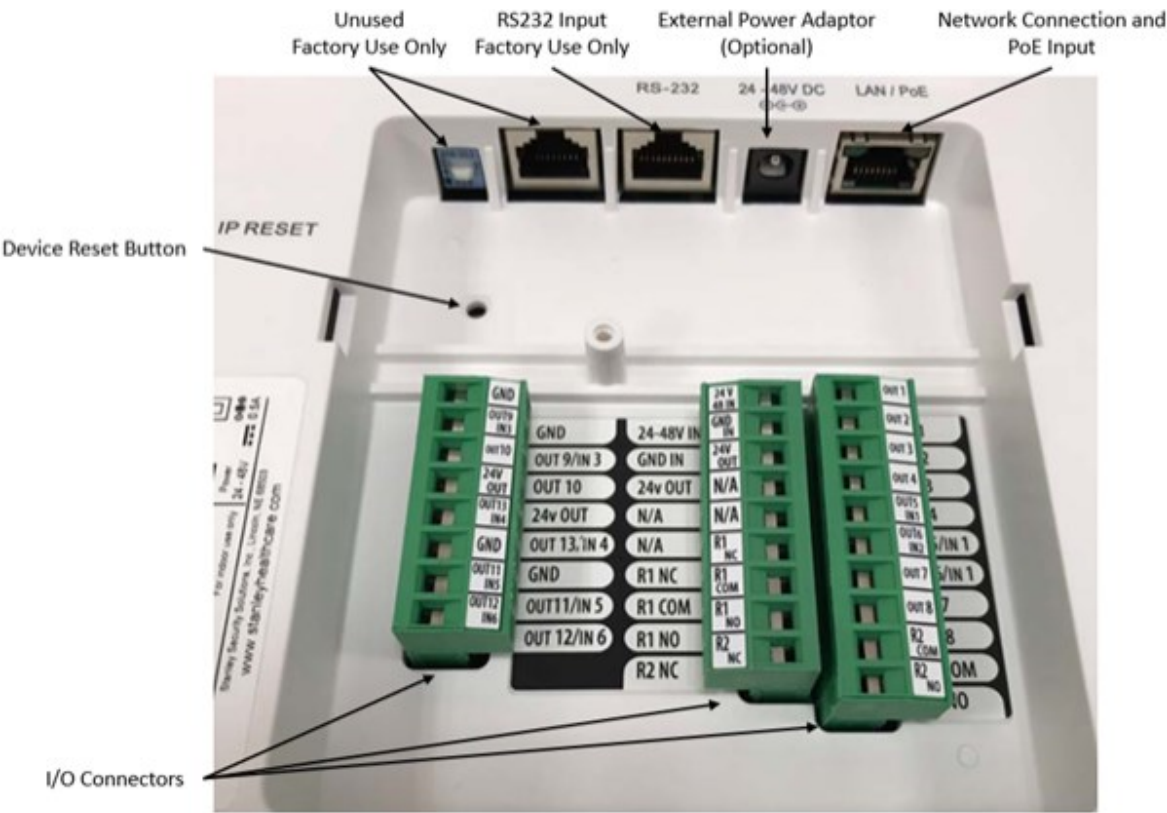
*Figure 11.GW1000 Connections and Controls –
Viewed from Back*
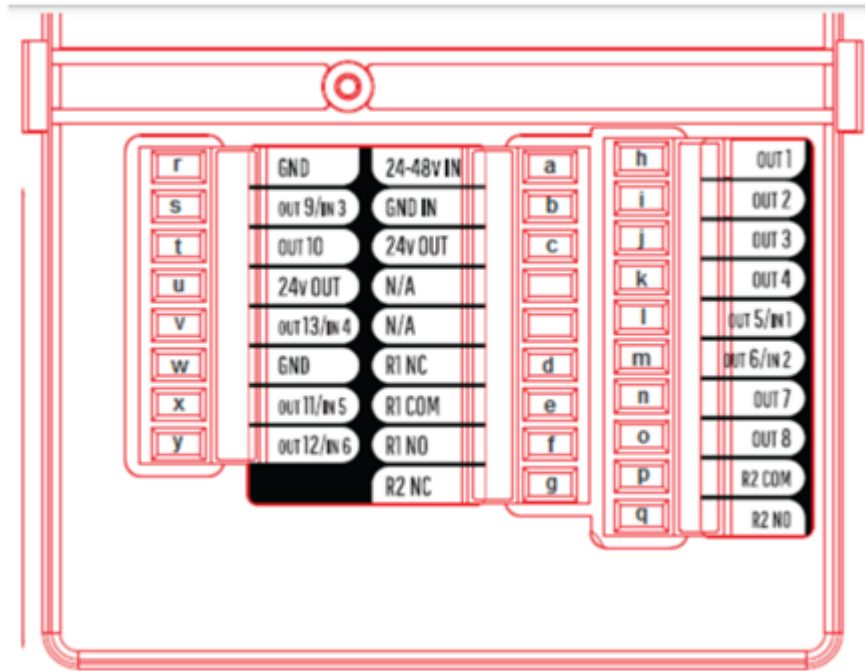
Figure 12.   GW1000 I/O Connectors

IO Connector Descriptions

Letter	Description
a	24-48 IN: Power connection accepts 24-48 V Direct Current
b	GND IN: Ground/Earth
c	24V OUT 1: 24V output
d	R1 NC: Relay 1 normally closed connection
e	R1 COM: Relay 1 common connection
f	R1 NO: Relay 1 normally open connection
g	R2 NC: Relay 2 normally closed connection
h	OUT1: Open drain output 1
i	OUT 2: Open drain output 2
j	OUT 3: Open drain output 3
k	OUT 4: Open drain output 4
l	OUT 5/IN 1: Open drain output 5 / Input 1
m	OUT 6/IN 2: Open drain output 6 / Input 2
n	OUT 7: Open drain output 7
o	OUT 8: Open drain output 8

Letter	Description
p	R2 COM: Relay 2 common connection
q	R2 NO: Replay 2 normally open connection
r	GND: Ground Input connection/Earth
s	OUT 9/IN 3: Open drain output 9 / Input 3
t	OUT 10: Open drain output 10
u	24V OUT 2: 24V output
v	OUT 13/IN 4: Open drain output 13 / Input 4
w	GND: Ground Input connection/ Earth
x	OUT 11/IN 5: Open drain output 11 / Input 5
y	OUT 12/IN 6: Open drain output 12 / Input 6

Specifications: GW1000

Physical and Mechanical	Dimensions: 245mm X 200mm X 60mm (9.6in x 7.9in x 2.4in) Weight: 865g (31oz) Housing: Polycarbonate and ABS
Network Interface	Ethernet (RJ-45) Wi-Fi 802.11b/g/n
Firmware	DSP: 415415 or higher, BOOT: 61515 or higher
Power	Input voltage: 24-48VDC PoE (802.3af) 48VDC Maximum power consumption: 10W.
Environmental	Operating temperature: 0°C to 49°C (32°F to 120°F) Humidity: 0 to 93%, non-condensing
Relays	Two: 220 VDC/ 250 ACD, 1 Amp, NO (Normally Open) or NC (Normally Closed) 24VDC Output, up to 300mA 13 Open-Drain Outputs (up to 100mA each)
Certification and Regulatory Compliance	UL2560, UL1069

System Sensor Siren (Chime)

Model	Comments
SKU: 56108 (System Sensor CHWL)	Chime with selectable chime tones and volume settings. 24V, UL approved.

Sirens (Chimes) produce a distinctive chime tone for alerting trained personnel to investigate Server Software or Hardware failures.

Specifications: Sensor Siren

Physical and Mechanical	Dimensions: 5.6 in L × 4.7 in W × 1.25 in D (143 mm L × 119 mm W × 32 mm D) Wall Surface Mount Black Box (SBBWL): 5.6 in L × 4.7 in W × 4.3 in D (142 mm L × 119 mm W × 109 mm D)

Environmental	Operating temperature: 0°C to 49°C (32°F to 120°F)
	Humidity: 0 to 93%, non-condensing
Voltage	Nominal Voltage: Regulated 12VDC or regulated 24DC/FWR
	Operating Voltage (includes fire alarm panels with built -in sync): 8 to 17.5V (12V nominal) or 16 to 33V (24V nominal)
	Operating Voltage with MDL3 Sync Module: 8.5 to 17.5V (12V nominal) or 16.5 to 33V (24V nominal)
Input terminal wire gauge	12 to 18 AWG
Candela Settings	15, 30, 75, 95, 110, 135, 185
Certification and Regulatory Compliance	UL2560, UL1069

The rotary switch must be set to position 4
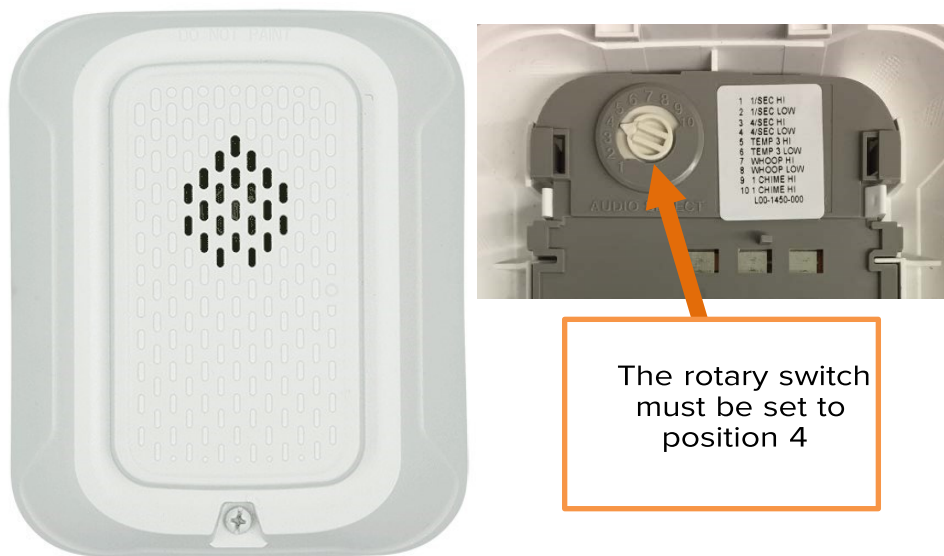
Figure 13.   Sensor Siren
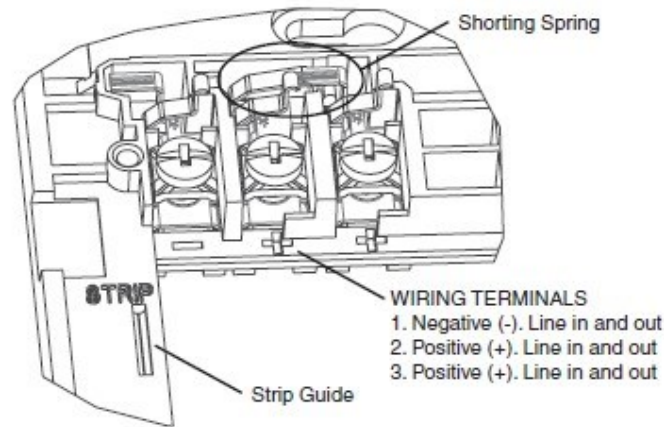
Figure 14.   Sensor Siren Wiring Illustration

The siren only requires two wires for power and supervision.

900MHz Call Stations (2560 and CSK200-900 Series)

It is required that one of the Call Stations assigned to each resident apartment should be permanently located in the bathroom of that apartment.

2560 Series

Models	Comments
SKU: 2560-54336	Resident Call Station with Pull String, Accessory Jack, and Resident Check-in Button
SKU: 2560-54337	Resident Call Station with Pull String, Accessory Jack, and Reset Button
SKU: 2560-54357	Resident Call Station with Pull String

These wireless, battery-operated fixed-location devices are designed to trigger an alarm when the call button is pressed, the pull cord is pulled, or when an optional remote push-button is used.

The Call Stations are equipped with a large call button, a durable pull string and a Reset/Check-In button for dismissing alarms and daily resident check-ins. See Figure 15.

Triggered alarm information is shown in Arial, and includes a description describing where the device is located, the category of the alarm, and time the alarm was generated.

Key features:

- 900MHz Wireless Communication

- Large and Tactile Alarm Button

- Multiple Alarm Activation Options

- Reset/Check-In Button

- Battery Powered

- Visual Indications

- Fully Supervised via Arial

- Easy Installation

54336 Call Station Shown
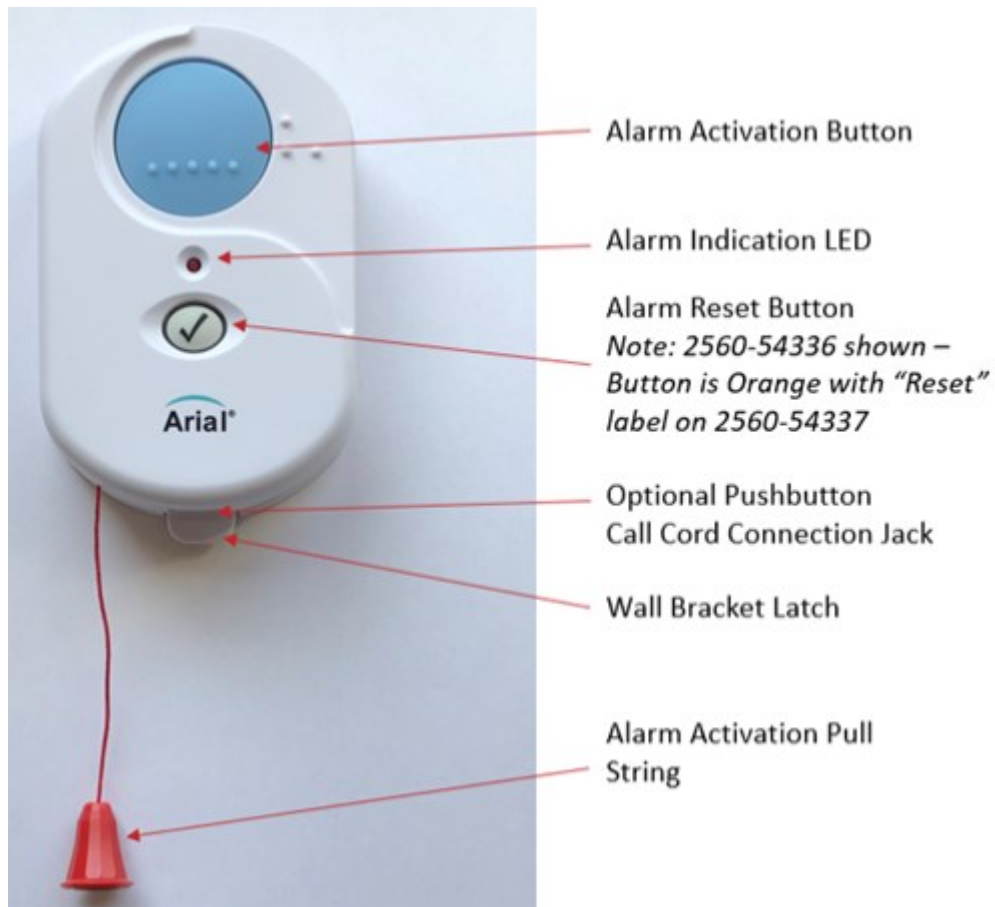
Figure 15.   Call Station Features and Controls

Specifications (2560-54336 and 2560-54337):

Physical and Mechanical	Dimensions: 5 x 3.25 x 1.5" (12.7 x 8.25 x 3.8 cm)
Frequency	902-928 MHz Frequency Hopping Spread Spectrum
Battery	3VDC, 1.3AH Lithium, Size CR123A Battery Life: 3 years typical
Environmental	Operating temperature: 0°C to 49°C (32°F to 120°F) Humidity: 0 to 93%, non-condensing
Visual Indicators	Red LED indicates alarm active (on while alarm latched) and 2.5 second blink for Resident Check-In

Features Activation	Alarm Activation: Push button, pull cord, or remote button
	Resident Check-in Activation: Press check/reset pushbutton on call station
	Alarm Cancel: Press check/reset pushbutton on call station
Connections	1 - RJ45F for connection pushbutton cord
Certification and Regulatory Compliance	UL2560
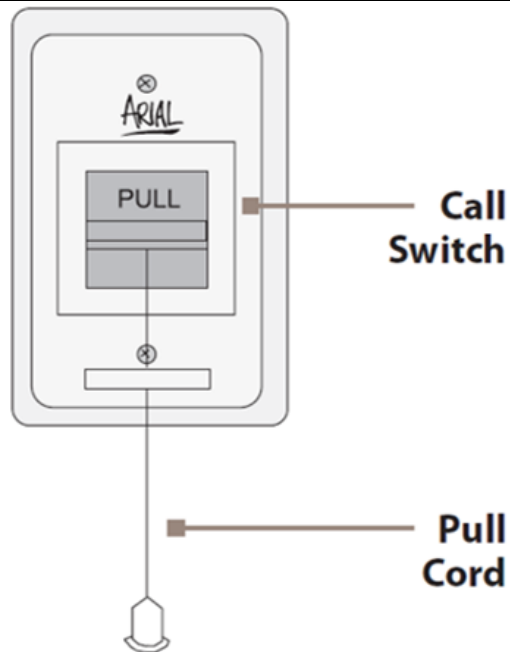
Figure 16.   Call Station Controls (2560-54357)

Specifications (2560-54357):

Physical and Mechanical	Dimensions: 3.3 x 5.0 x 2.25 " (8.4 x 12.7 x 5.7 cm)
Frequency	902-928 MHz Frequency Hopping Spread Spectrum
Battery	3VDC, 1.3AH Lithium, Size CR123A
	Battery Life: 3 years typical
Environmental	Operating temperature: 0°C to 49°C (32°F to 120°F)
	Humidity: 0 to 93%, non-condensing

Features Activation	Visual Indicators: Slide Switch in Down Position for Alarm and Up Position for Standby Alarm Activation: Pull Cord, Slide Alarm Switch down to Alarm Position Alarm Cancel: Slide Alarm Switch up to Standby Position
Connections	1 - RJ45F for connection pushbutton cord
Certification and Regulatory Compliance	UL2560

CSK200-900 Series Call Stations

| Models	Comments
CSK200-900	Standard Call Station – 900MHz Systems
CSK200-900MR	Moisture Resistant Call Station – 900MHz Systems

It is required that one of the Call Stations assigned to each resident apartment should be permanently located in the bathroom of that apartment.

The CSK200-900 and CSK200-900MR (Moisture Resistant) Wi-Fi Call Stations are components of STANLEY Healthcare's Wireless Call Solutions. The wireless, battery-operated fixed-location devices are designed to trigger alarms when the call button is pressed, the pull cord is pulled, or when an optional remote push-button (56115 and 56116) is used.

The Call Stations are equipped with a large call button, a durable antibacterial pull cord and a dual-purpose Dismiss/Check-In button for dismissing alarms and daily resident check-ins. Triggered alarm information is shown in Arial and includes the device's fixed location and event times. Additionally, response time and resident check-in reports can be generated by the Arial software.

CSK200-900 Series Key features:

- Wi-Fi Compatible
- Large and Tactile Call Button
- Durable Antibacterial Pull Cord
- Battery Power
- Visual Status Indication
- Resident Check-Ins
- Fully Supervised by Arial
- Easy Mounting
- Moisture Resistant Option

Front View

Back View

Mounting Slots

MAC:0E3FE4

Secondary Alarm Wire Access

Mounting Slot

¼" Accessory Pushbutton Cord Jack
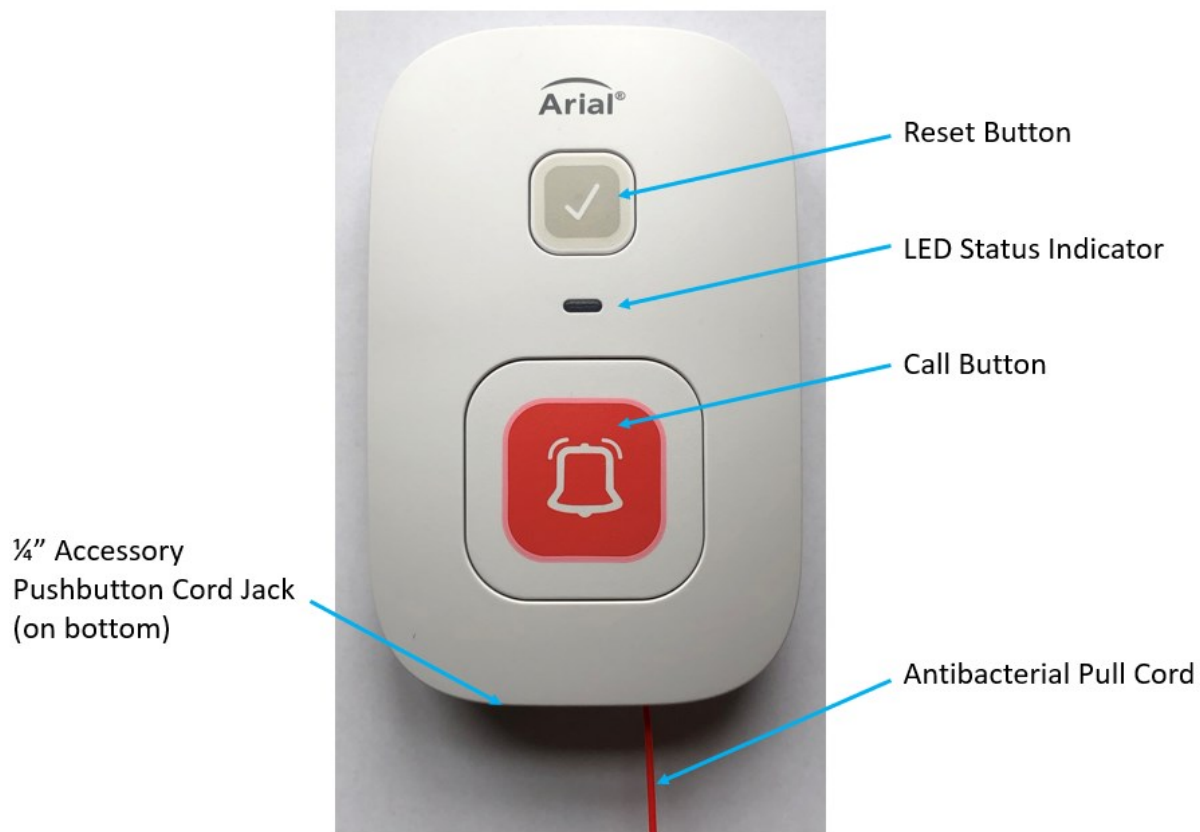
Antimicrobial Pull Cord
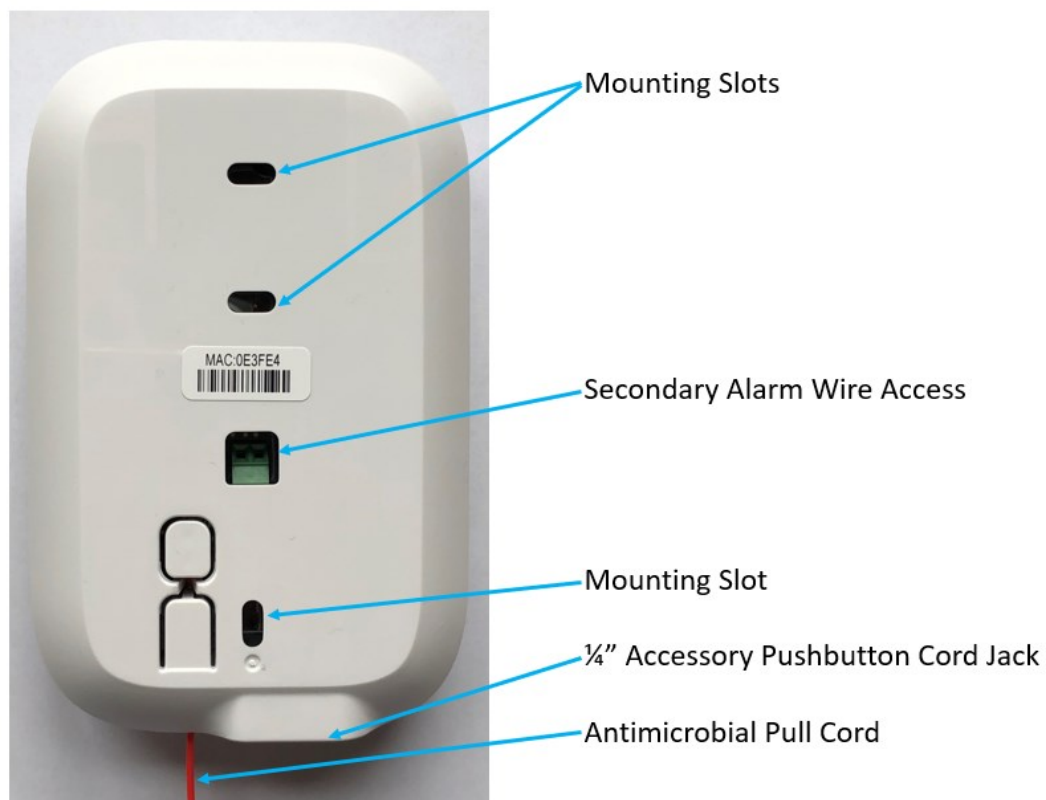
Bottom View
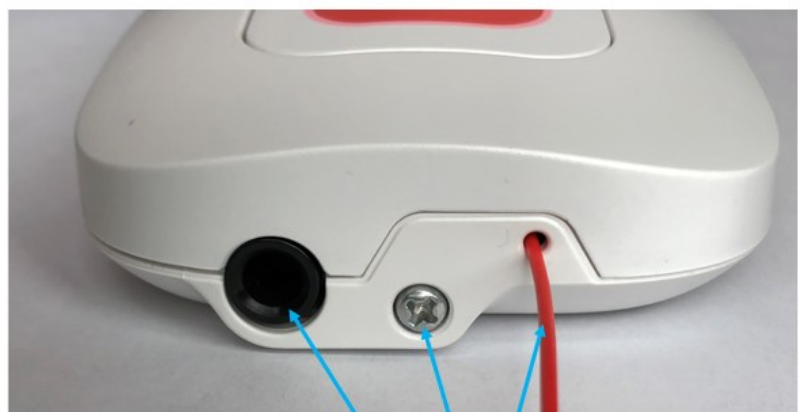
Antimicrobial Pull Cord

Case Retaining Screw

¼" Accessory
Pushbutton Cord Jack

Battery Location (Inovonics)

Battery Positive "+" Contact

3V CR123A Battery

Battery Negative "-" Contact

Secondary Alarm Input Terminal Block
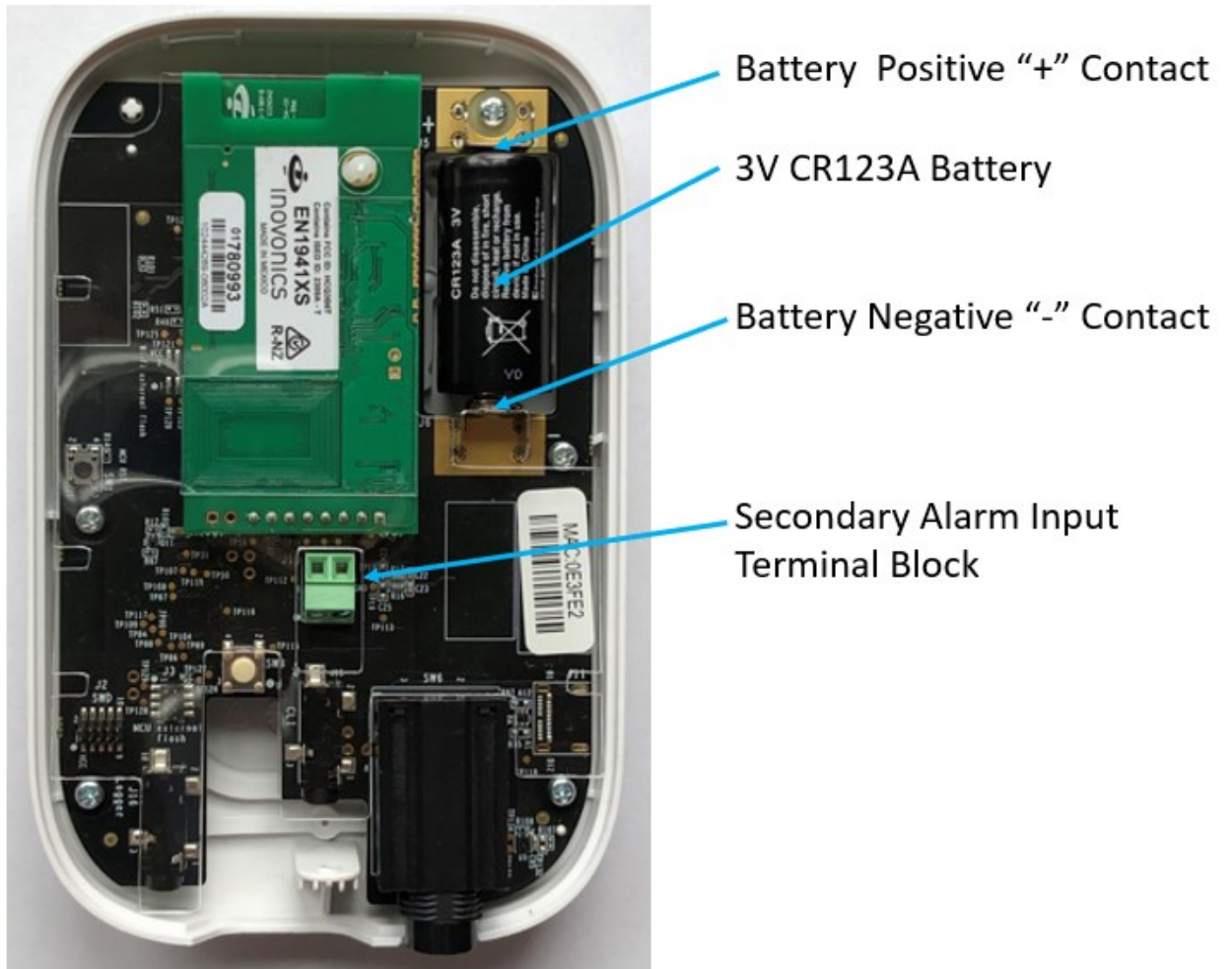
Battery Location (Wi-Fi)
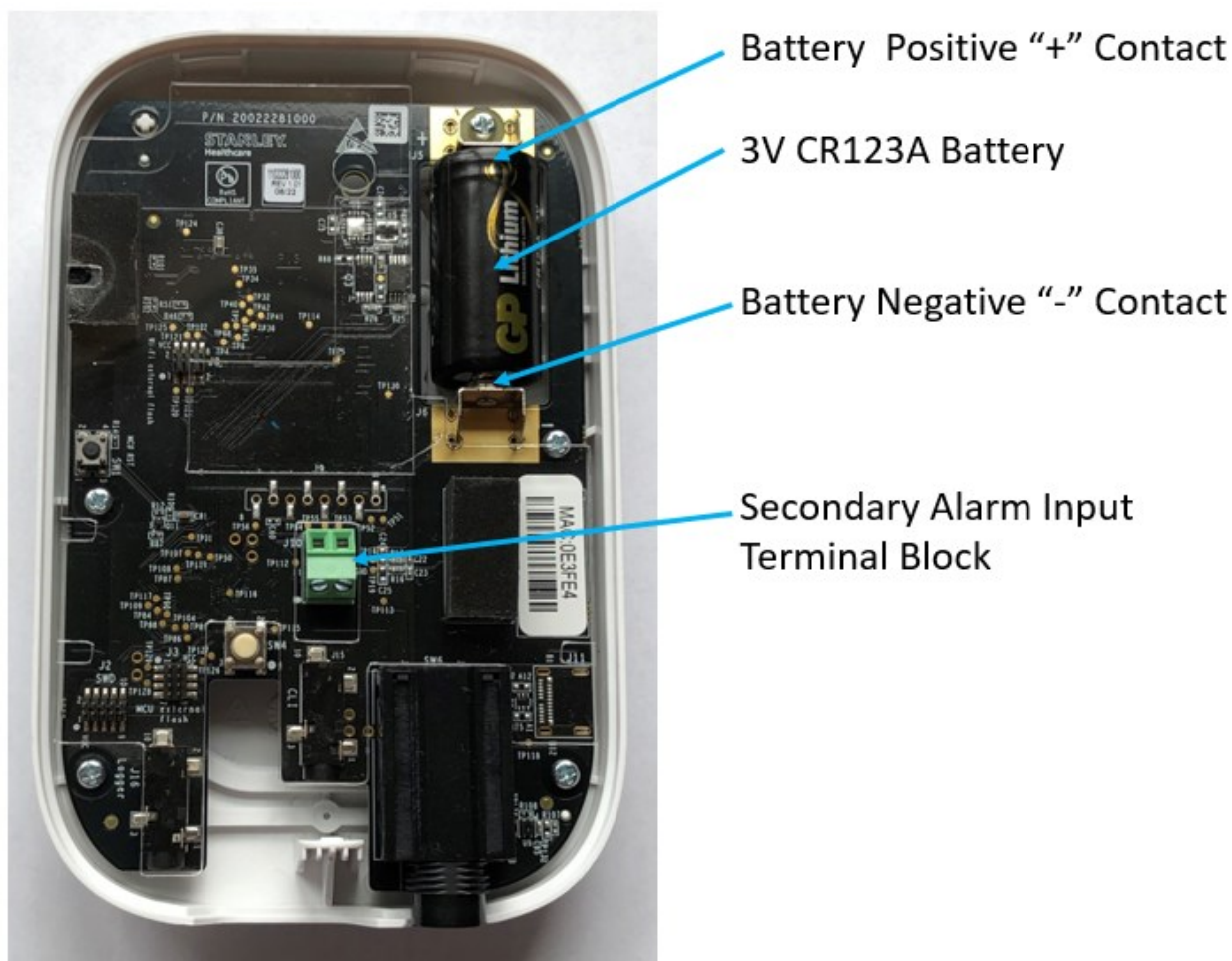
How to Use a Call Station (CSK200-900 Series)

The Call Station turns on automatically and is ready for use once power is supplied by inserting the battery. To turn the Call Station Off, simply remove the battery.

Activating a Call Station Alarm
The Call Station alarm is activated by performing any of the following:

- Pressing the large call button (1)
- Pulling the pull cord (2)
- Optional: Pushing the remote push-button

The alarm is confirmed by a flashing red LED indicator (3). An alarm message is sent to Arial. The Call Station remains in alarm mode (flashing red LED) until the alarm is physically dismissed by pressing the reset button (4).
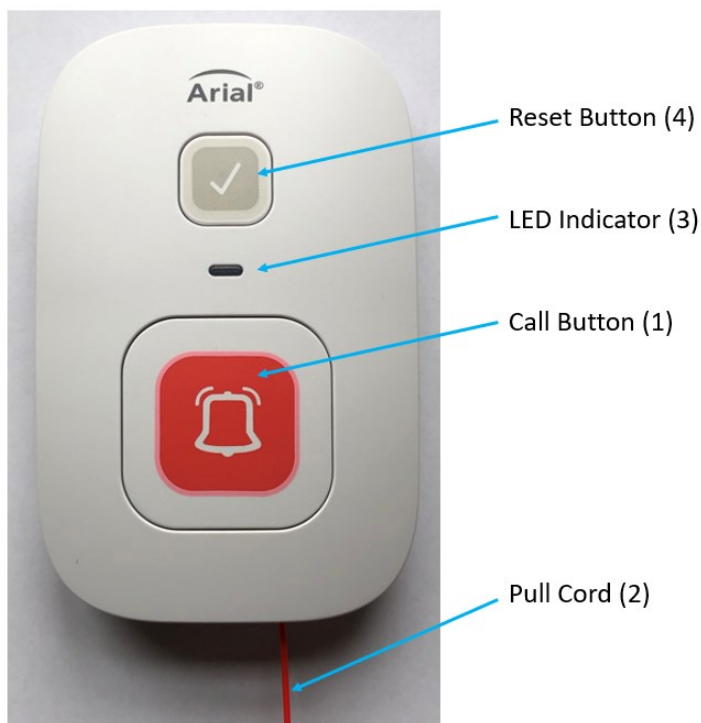
Dismissing a Call Station Alarm

IMPORTANT! Before dismissing an alarm, a staff member must attend to the resident and dismiss the alarm on the Call Station.

Press on the Dismiss/Check-in button (**4**) to dismiss the alarm. The LED stops flashing red. The alarm is automatically dismissed in Arial.

IMPORTANT! If an optional remote push button cord is used, verify the cords are securely connected. Failure to correct a loosened connection may prevent the remote cord from placing an alarm. A cord out notice will be active in Arial if the cord is disconnected.

CSK200-900 Series LED Indications

Action	LED Indication
Alarm Active	Red LED – "Fast" 3Hz Flash
Standby (No Active Alarm)	LED Off
Staff Presence	Red LED – "Slow" .5Hz Flash Note: LED Stops after 10 minutes
Resident Check-in	Red LED – Single Flash

Daily Check-in

A check-in is performed by pressing and releasing the Dismiss/Check-In button (1) once. The Red LED (2) will flash once to provide feedback that a check-in event was sent to Arial.

Staff Presence

Staff presence can optionally be used by facilities to indicate when staff enter a resident room to respond to an active alarm. A caregiver presses and holds the Dismiss/Check-In button (1) for at least two seconds on the Call Station that the resident used to place an alarm. The LED (3) changes from the fast-flashing rate of an alarm to a slower flashing rate indicating a staff presence. A staff presence message is

sent to Arial. Once the caregiver is finished assisting the resident, they press and release the Dismiss/Check-In button to end the alarm and staff presence events.

Note: After 10 minutes, the Call Station LED indicator stops flashing for staff presence to extend the battery life, but the alarm and staff presence events remain active in Arial until the Call Station is reset using the Dismiss/Check-In button.

Characteristic	CSK200-900 Series Specifications (900-MHz)
Physical and Mechanical	Dimensions: 132mm x 85mm x 33mm (5.2in x 3.3in x 1.3in)
	Weight: 153 g (5.4 oz)
Radio	902-928 MHz Frequency Hopping Spread Spectrum
Visual Indicator	Red LED Indicates alarm (3Hz), Staff Presence (.5HZ) and 2 second blink for Check-In
Features Activation	Primary Alarm Activation: Push button, pull cord, or remote button Staff Presence: >2 second press of check/reset pushbutton while in Primary Alarm Resident Check-in Activation: Press check/reset pushbutton on call station Primary Alarm Cancel: Press check/reset pushbutton on call station Secondary Alarm: Closed condition across secondary alarm input terminals (Not for use on UL call points) Secondary Alarm Cancel: Open condition across secondary alarm input terminals
Field Connections	One 1/4 inch mono jack for pushbutton or accessory cord Primary Alarm input Two position terminal block for Secondary Alarm input
Environmental	Operating temperature: 0°C to 49°C (32°F to 120°F)
	Humidity: 0 to 93%, non-condensing (CSK200-900)
	Humidity: Condensing (CSK200-900MR)
	IP 20
Electrical	Battery: 1x 3.0V CR123A Lithium batteries (replaceable)
Certifications	FCC ID: HCQ3B6T ISED ID: 2309A - T
	UL 2560

Accessories

Models	Comments
CSK200-PLATE	Plate to cover paint/wallpaper lines exposed by removing old call stations when displacing older system or call points.
CSK200-AH	Cover that fits around call station for use in rooms where ligature resistance is required.

CSK200-PLATE Specifications

Characteristic	Specification
Dimension	137mm x 90mm x 3mm (5.4in x 3.5in x .1in)
Weight	8.5g (.3 oz)

Figure 17.   CSK200-PLATE

CSK200-AH Specifications

Characteristic	Specification
Dimension	145mm x 90mm x 22mm (5.7in x 3.5in x .9in)
Weight	28 g (1 oz)

Figure 18.   CSK200-AH Cover

Remote Push Button Call Cords

Model	Comments / Version
SKU: 0900-240 SKU: 0900-241	Single Call Station Remote Push Call Button Cord Double Call Station Remote Push Call Button Cord

This optional Remote Push Button Call cord can be used for Residents to quickly call for help by pushing the call button to trigger an alarm.

Figure 19.   Remote Push Button Call Cord
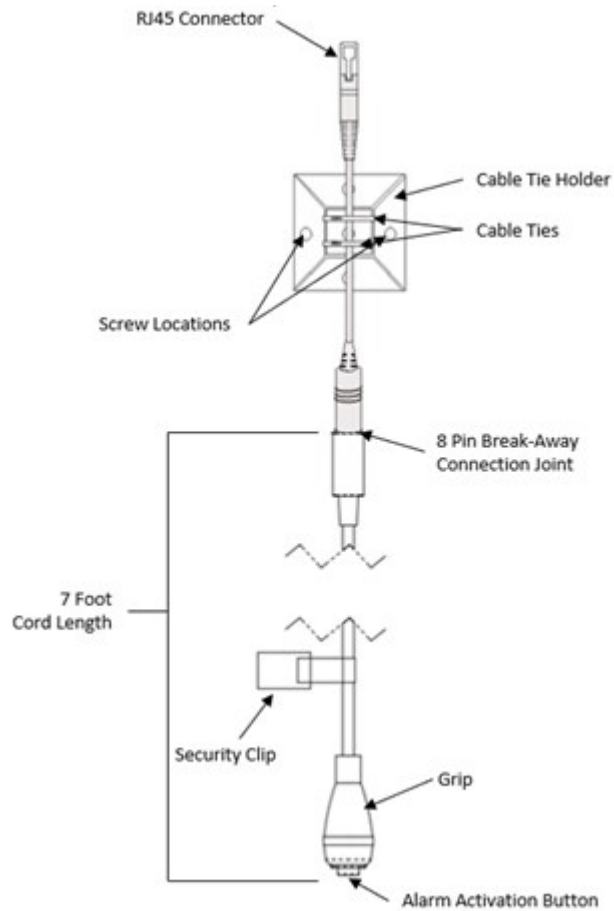
*Figure 20.   Remote Push Button Call Cord
Component Details (0900-240 Single Cord
shown)*

Specifications: Remote Push Call Button Cord

Physical and Mechanical	Size (Call Cord): Length: Approximately 7 feet Diameter: 1.25" (at widest point) Button Life: 100,000 cycles Switch Type: Normally Open SP/ST
Electrical	Max Voltage Rating: 30 VDC
Latex information	This Product is Latex Free
Certification and Regulatory Compliance	UL2560

Network Manager

Model	Comments
SKU: 54312 2560-54312 (Arial 10.6.1 and above)	Serial to IP Converter

The Network Manager is used to convert serial data from the 900MHz Network Coordinator and serial data for other supplemental devices to TCP/IP for connection to the Arial Network. TCP/IP information from the Network Manager is exchanged with the Arial Server Software.
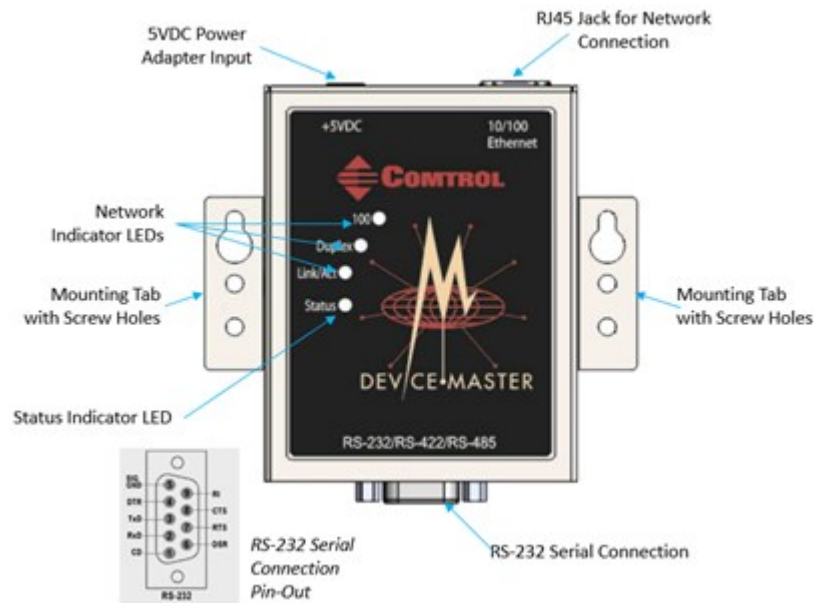
Figure 21.   2560-54312 Network Manager
Connection and Indicator Descriptions

Specifications: Network Manager

Physical and Mechanical	Dimensions: 3.6" x 0.8" x 2.8" Enclosure: Stainless steel Install method: Panel Mount with screws
Memory	SDRAM 16MB, Flash 8MB
Firmware	Socket Server 11.11 or Higher
LED Indicators	100MB Ethernet, Duplex, Ethernet Link/Activity, and Status
Power Requirements	200mA @ 5VDC

Device Consumption	2.1 Watts
Included External Power Supply	Output: 5VDC @ 2A
Environmental	Operating temperature: 0°C to 49°C (32°F to 120°F) Humidity: 0 to 93%, non-condensing
Serial Connector Type	DB9M
Number of Serial Ports	1
Software Selectable Serial Interfaces	RS-232, RS-422, RS-485
Serial Baud Rate	300 bps to 230.4 kbps
Ethernet Connection Type	RJ45F
Number of Ethernet Ports	1
Emissions	FCC Part 15 Subpart B Class A limit Canadian EMC requirements ICES-003 European Standard EN55022 CISPR-22 AS/NZS-3548
Certification and Regulatory Compliance	Immunity Standard: European Standard EN55024 Safety: IEC 60950/EN60950 CSA C22.2 No. 60950/UL60950 European Standard: 2015/863/EU (RoHS 3) Directive. NEMA TS2 Compliant UL2560, UL60950

Network Coordinator

Model	Comments
SKU: 2560-54311	Receives Wireless Messages from Repeaters, Call Points, Pendants, and other supplemental sensors and converts to Serial Data

The Network Coordinator receives 900MHz wireless data that is forwarded by the repeater network or directly from call point and sensor transmitters. The Network Coordinator converts the wireless information to serial data that is sent over the Arial Ethernet network to the Arial Server software where it is processed.

Figure 22.   Network Coordinator LED
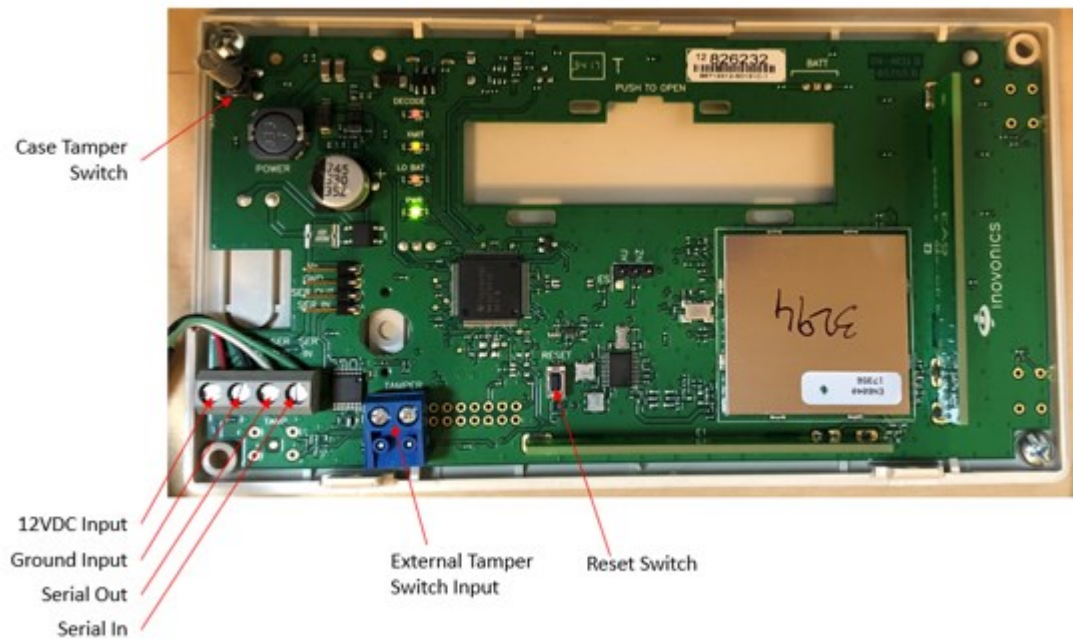Indicator Descriptions (2560-54311)

Figure 23.   Network Coordinator Internal
Connections and Controls (2560-54311)

Specifications: Network Coordinator

Physical and Mechanical	Dimensions: 6.5" x 3.5" x 1" (16.5 cm x 8.9 cm x 2.5cm)
Power requirement	10-14 VDC at 200 mA

Environmental	Operating temperature: 0°C to 49°C (32°F to 120°F) Humidity: 0 to 93%, non-condensing
Frequency	902-928 MHz, frequency hopping spread spectrum
Serial Communication	RS232 – Cable Provided
Certification and Regulatory Compliance	FCC, RoHS, C-Tick, UL2560

Repeater

Model	Comments
SKU:2560-54321	Receives and Wirelessly Forwards Wireless Messages from Repeaters, Call Points, Pendants, and other supplemental sensors

Repeaters are used to extend the reach of the wireless 900MHz network. They receive messages from call points and other 900MHz wireless sensors and retransmit these messages. Wireless signals are forwarded to the Network Coordinator where they are converted to serial data that can be sent to the Arial Server Software and processed.
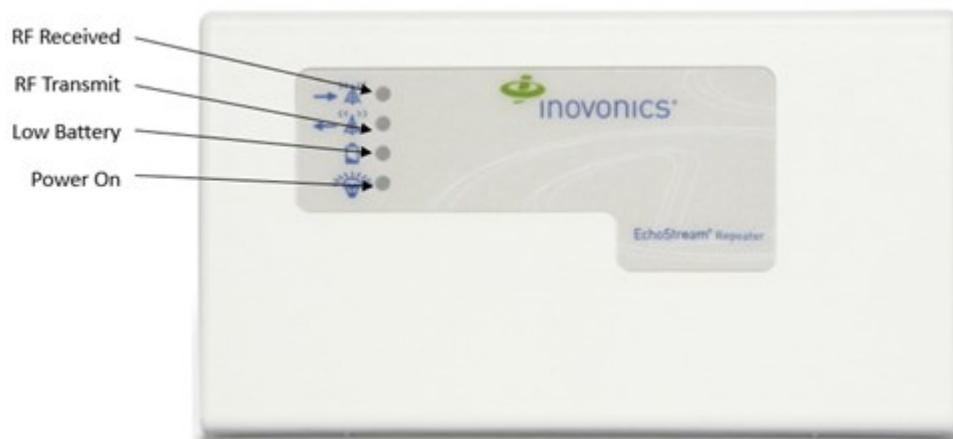

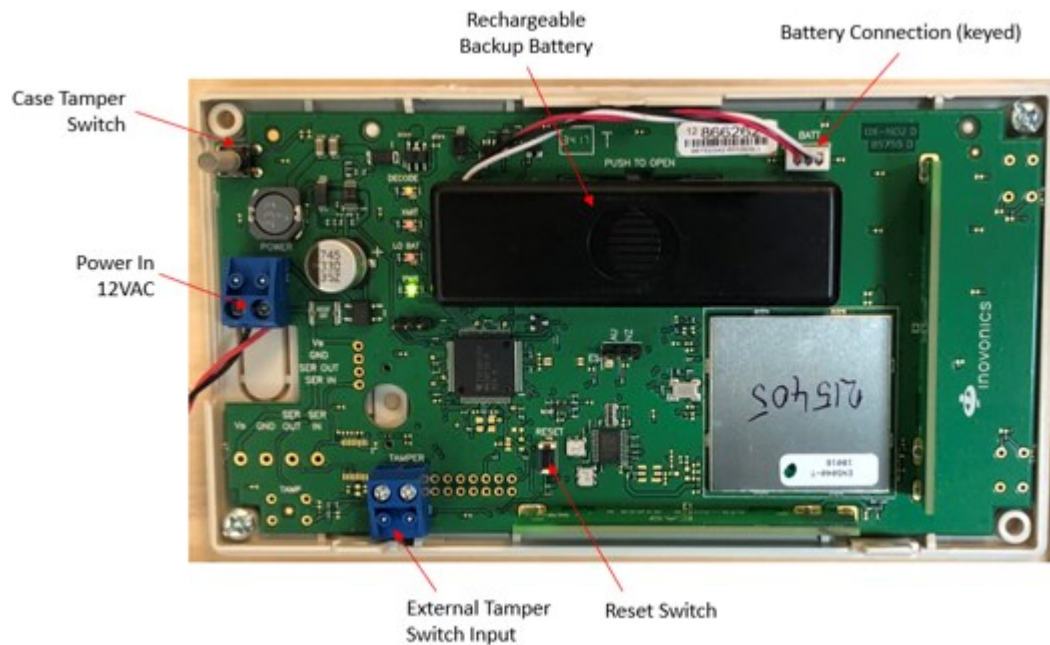*Figure 24.   Repeater LED Indicator Descriptions (2560-54321)*

Figure 25. Repeater Internal Connections
and Controls (2560-54321)

Specifications: Repeater

Physical and Mechanical	Dimensions: 6.5" x 3.5" x 1" Accessories: 57300: weather resistant plastic enclosure for outdoor installations; BAT850: replacement lithium-ion backup battery assembly
Power Requirement	12-14VAC, 250 mA, transformer included
Battery Capacity	3.6V, 2900 mAhr
Typical runtime on back-up battery	24 hours
Environmental	Operating temperature: 0°C to 49°C (32°F to 120°F) Humidity: 0 to 93%, non-condensing
Frequency	902-928 MHz, frequency hopping spread spectrum
Supervision Frequency	20 minutes
Certification and Regulatory Compliance	FCC, RoHS, UL2560

IMPORTANT: To achieve 99.99% alarm message reliability required for UL2560 compliance, system installations must operate within the following limits for end device and repeater counts.

Maximum Number of Call Points and Repeaters for UL2560 Installations

Max Call Points	Max Repeaters
150	397
250	386
350	375
500	360
1000	313
2000	238
3000	184

Pendants

Model	Comments
SKU:2560-59350	Standard pendant.
SKU:2560-59360	Small pendant with neck cord.
SKU:2560-59361	Small pendant with standard wristband.
SKU:2560-59362	Small pendant with long wristband.

The Arial pendant allows the Resident to move about the facility and know that by pressing a single button, they can alert staff that they need assistance. The Arial pendant can be used with the neck clip and plastic chain around the neck, attached to a belt with the belt clip, or around the wrist with the optional wrist band and clip.

Model 2560-59350 – Standard Pendant

The Standard Pendant is small, light, and versatile, weighing only 1.2 oz (35g). It comes with a neck cord and belt clip. With a single-button, one-second press and hold activation, and a compact design, this is an ideal resident call transmitter for assisted living facilities. The pendant is fully supervised, which helps safeguard against

undetected loss of signal due to damage such as breakage, and extremes of temperature or moisture. Supervision may be configured in the Arial software to alert staff after a certain time without signal detection, or to allow departures as required.


Figure 26.   Standard Pendant – 2560-59350

How to Use the 2560-59350 Pendant:

Placing a Call

1. Press the alarm button on the front of your pendant. Press only the alarm button. Be careful not to press the reset button on the back of your pendant accidentally. If you accidentally press the reset button, wait a few seconds, and press the alarm button again.
2. After you press the alarm button, the flashing red light indicates your call has been sent.
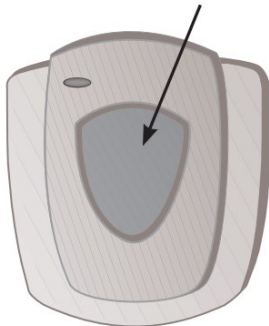
Resetting the Pendant

The Arial pendant must be reset by a staff member at the facility after each call.

1. To reset the Arial pendant, place a pen or a similar shaped object into the recessed reset button.