3. After activation the pendant enters Standby mode. The alarm will be issued whenever the call button is pressed.

Calling for Assistance
1. Press the button (**1**) to call for help.
2. The Pendant emits an audio tone and the LED blinks red until a staff member comes to assist the resident and physically dismiss the alarm.

Flashing Red
LED

Pendant in
Alarm Mode

1

Clearing an Alarm from a Pendant

IMPORTANT: Before dismissing an alarm, a staff member must attend to the resident and dismiss the alarm form the Pendant.

The alarm can be dismissed with a secured dismiss sequence, as follows:

1. Double click the Pendant's call button, and wait for the red LED to turn off, the beep to sound and the green LED to light momentarily.
2. Double click the call button a second time (within 2 seconds). The Pendant emits a tone, indicating the alarm has been dismissed.
3. The alarm is automatically dismissed in Arial.

This sequence returns the Pendant to Standby Mode and sends a 'Reset' message to Arial

Specifications: P10 Wi-Fi Resident Pendant Tag (Model: TAG-P1000)

Physical and Mechanical	Dimensions (including flange): 67 mm x 35 mm x 14 mm (2.64 in x 1.38 in x 0.58 in) Weight: 33 g (1.15 oz)
Radio	802.11 b/g/n compliant (2.4 GHz) Low frequency receiver for chokepoint detection (125 kHz) Transmission power: Up to +19dBm (~81mW)

	Patented clear channel sensing avoids interference with wireless networks
Programmability	Transmission interval configurable

Channel programmable

Over-the-Air configuration and firmware upgrades |
| Environmental | Operating temperature: 0°C to 49°C (32°F to 120°F)

Humidity: 0 to 93%, non-condensing

Ingress Protection Rating: IP-67 |
| Electrical | 1200mAh, 3.0V replaceable Lithium Manganese Dioxide battery*

Battery life: From 1 to 3 years, depending on use case, configuration, and infrastructure

* Use only approved batteries (e.g., STANLEY Healthcare part # TAC-P1030) |
| Certification and Regulatory Compliance | Radio:

FCC Part 15, sub-part C class B, sub-part B

EN 300-328, EN 300-330, EN 301-489, RSS 210 (Canada)

Safety:

CE, cTUVus (EN60950) • EN 60601-1-Rev3

UL2560, UL1069 |

Supplemental Hardware Components

The supplemental hardware components may already exist in a facility from a previous Arial deployment or can be optionally added.

The following supplemental components are described in this section:
- Display Sign
- Paging Base Station
- Arial Pager

NOTE: Serial devices such as paging transmitters and LED display signs may be connected to the Arial nurse call network using a 2560-54312 Network Manager. A second network interface card is provided with the server PC in the 2560-54370 bundle for the purpose of connecting the Arial Wi-Fi Wireless Call System to a different network (such as the facility network) in order to communicate with other supplemental devices or third-party systems and applications.

WARNING! – EQUIPMENT THAT IS CONNECTED TO THE SYSTEM IS NOT CONSIDERED TO BE PART OF THE LISTED SYSTEM CONFIGURATION UNLESS THE EQUIPMENT IN QUESTION COMPLIES WITH THE STANDARD FOR HOSPITAL SIGNALING AND NURSE CALL EQUIPMENT, UL1069.

Display Sign

Model	Comments / Version
SKU: 54140	Networked Display Sign

The remote display gives staff the ability to view nurse calls while going about their normal care routine. When a resident summons for help, remote displays provide programmable information about the resident's apartment number, name and/or the device type used to call for help. Messages are cleared automatically when staff members respond to a call. Remote notification options help to maximize staff efficiency and speed staff response time. Due to their high visibility, they can be considered the equivalent to lights above doors in skilled nursing facilities.

Signs have three colors (red, green, and amber) and sixteen scroll modes. The Event Categories features of Arial are used to make different types of alarms appear in different colors. Escalation (which is setup in the 'Zone' area of the software) causes messages on the signs to change to a different scroll mode to indicate that the alarm has been going off longer than newer alarms on the sign.

Signs connect to Arial via a network connection and an IP to RS232 converter located at the sign. One-off messages can be sent manually from the software to an individual sign or pager at any time.

Signs may be mounted on a ceiling, wall or a flat work surface using the included hardware.
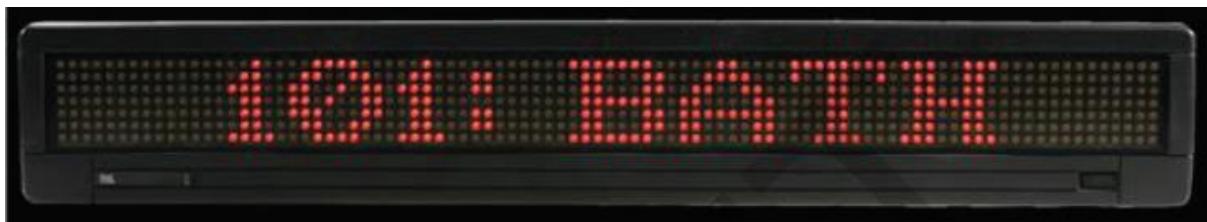
Figure 25. *Display Sign*

Specifications: Display Sign

Physical and Mechanical	Dimensions: 28.9" x 3.3" x 4.5" (73.5 x 8.4 x 11.5 cm)
	Display Dimensions: 2.1" x 27" (5.3 x 68.5 cm), Character size: 2.1" (5.3 cm)
	Weight: 6.25 lbs. (2.8 kg), includes display and external power supply
Power	120 VAC+ 10% (Optional 220 VAC)
Characters Displayed	15 maximum (single line)
Message Capacity	26 different messages can be stored and displayed

Paging Base Station

Model	Comments / Version
SKU: 52115 (WaveWare SPS-5)	Paging System

The Paging Transmitter is a completely self-contained compact integrated POCSAG Paging System. The system, which is comprised of a digital paging transmitter and embedded paging encoder, is supplied with Windows® based encoder configuration software. Connections between the PC and the SPS-5 Paging System are supported via a standard (supplied) RS-232 cable.

Figure 26. *Paging Base Station*

Specifications: Paging Base Station

Physical and Mechanical	Dimensions: 9.0 H x 8.5 W x 2 D in (22.9 H x 21.6 W x 5.1 D cm) Weight: Approximately 1.5 lb (0.68 kg)
RS-232 Serial Com Ports	Single
Paging Message Types	POCSAG Tone/Vibrate, Numeric and Alphanumeric
RF Data Rate	512, 1200, and 2400 bps Auto-switching
Pager Database	5,000 PLUS, EEPROM
Interface Protocols	TAP, COMP1, COMP2, SCOPE or WAVEWARE proprietary
Serial Port Configuration	300, 1200, 2400, 9600 Baud, Even/No parity, 7/8 data bits
Frequency	Frequency Source: Synthesizer Frequencies: UHF2 - 440-470 MHz (US) Frequency Stability: +/- 2.5 ppm
Operation Rating	Intermittent, 66% duty cycle
Power	Power Supply: 2VDC 3.75A AC/DC Adapter Power Out (watts): 2 Watts (US)
Environmental	Temperature: 0 to 28° C (32 to 82° F)
Modulation	+/- 4 kHz (Wideband) or (Narrowband)
Bandwidth	Wideband (25 kHz) or Narrowband (12.5 kHz)
Transmitter FCC ID	UHF – MMASD225U2

Arial Pager

Model	Comments / Version
SKU: 52112 (Apollo AL924)	Arial Pager

The Arial Pager is an alphanumeric device with a multi-line display and a zoom feature. Belt clip, lanyard, safety chain and battery are included. Many useful functions include: silent alarm, pager on/off, backlight on/off, auto sleep set, alarm and time set, selectable scroll speed, move to memo, delete one or all messages, lock messages, 4 selectable beep sounds, 8 selectable melodies, plus vibration and sleep mode settings.

Figure 27. *Arial Pager*

Specifications: Arial Pager

Physical and Mechanical	Dimensions: 2.5 x 1.75 x 0.75 in (6.35 x 4.45 x 1.9 cm Weight: 1.9 oz (54 g); 2.5 oz (69 g) with belt clip
Input Frequency	457.6 MHz
Power	1 AAA battery, low battery alert
Display	4-line, backlit, zoom mode, date/time, battery level
Operation	3 buttons: Function, Select, Read
Attachments	Supplied - Belt clip, lanyard, safety chain
Alert Modes	Beep, Vibrate, Melody, Sleep

Adam IP I/O Module

The ADAM 6060 is used to connect to and control dome lights via TCP/IP communication with the Arial Server and software.

Model	Comments
SKU: 54180	(ADAM 6060) Digital I/O Module with 6 Inputs and 6 Replay Outputs
SKU: 56107	(CUIINC SWI24-24-N-SC) Wall Adapter, 24 VDC, 1A, Class V1 efficiency

Pin Assignments:
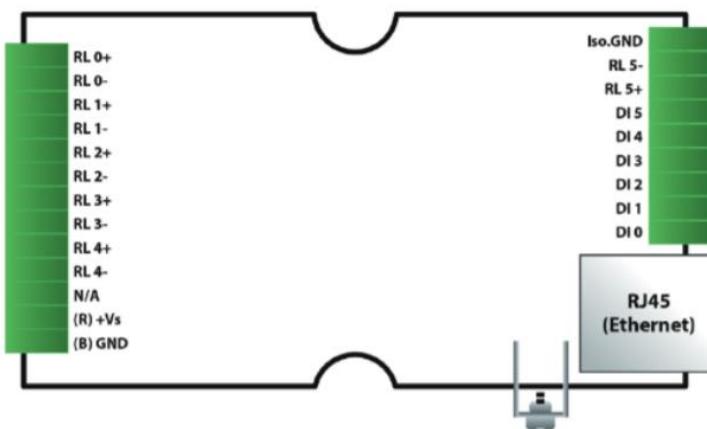
Arial Software Components

This section describes the Solution's software components.

Arial Software

The Arial system is the next evolution of wireless nurse call, giving Assisted and Independent Living Communities an advanced wireless platform for the safety and security of their residents and the ease of use for their staff and caregivers. The Arial™ system incorporates the following key functionality:

- Wireless communication platform for simple, cost effective, and flexible deployments
- Consolidated event management, with alarm queues, dynamic maps, and intelligent notification and messaging tools
- Advanced reports engine for tracking response times, compliance reporting & resident system usage, with scheduled reports and automatic forwarding to email
- Event notification to mobile devices, overhead signs, and pagers

The Arial solution delivers several key benefits to senior living organizations:

- Improved performance: tracks response times & patterns across shifts to drive higher levels of care
- Higher efficiency: pushes information directly to staff for efficient workflow
- Better resident experience: enables residents to call for help at any time.

The Arial system is designed to capture alarms and calls for help from wireless fixed call stations. These alarms are displayed in the Arial software and optionally can be sent directly to staff via a mobile app on a smart device, pagers or displayed on overhead signs.

NOTE: The Arial system supports up to 3000 call points, but the number of alarms that a Call Notification Station can display at once varies depending on system settings and hardware. Once the number of active alarms increases where they cannot all be displayed on a screen, a scroll bar appears to enable viewing of the additional alarms. Alarms are sorted by Category (highest priority on top) then by age (oldest on top).

Larger facilities use multiple Call Notification Stations to display alarms. Alarm points can be assigned to zones that match different areas of responsibility covered by each Call Notification Station. This allows the alarms that are relevant and actionable for care staff to be easily available. See the Arial Administrator Guide for additional information about using zones.

AeroScout Location Engine (ALE)

The AeroScout Location Engine works with the Gateway GW-1000 to supervise the server and sound a trouble signal when an outage is detected. Additionally, the ALE communicates with the GW3X00 gateways and is used to calculate the location information that is provided in Arial for pendant alarms.

Arial Mobile Application (Supplemental)

The Arial Mobile Application is a supplemental application designed to work seamlessly with the Arial™ Wi-Fi Wireless Nurse Call System to provide senior living caregivers with an innovative tool for handling nurse call alarms and communicating collaboratively with their coworkers. The Arial Mobile Application is packed with intuitive features to ensure community caregivers have visibility to all relevant alarms, their status and who is responding.

Solution Deployment Checklist

The following section is for STANLEY Healthcare and authorized Arial partner installers. Use the following checklist as a guide when deploying the Arial Wi-Fi Wireless Nurse Call Solution.

IMPORTANT: System shall be installed in accordance with NFPA 99 Healthcare Facilities Code and NFPA 70 National Electrical Code.

IMPORTANT: Please read the important notes regarding backing up and restoring before deploying the system. See Backing Up and Restoring.

<u>Note:</u> The order may vary according to the facility.

Steps	Deployment Procedures
1	Set IP address of Arial and AES Server Network Interface that will be used for communication with UL1069 Fundamental Equipment.
2	Arial software must be installed and configured according to the site.
3	Download, install and configure the AeroScout Location Engine. See <u>Deploying the AeroScout Location Engine.</u>
4	Integrate Arial with the AeroScout Location Engine. See <u>Arial and ALE Integration.</u>
5	Install Switches.
6	Install GW1000 and GW3X00 devices.
7	Install sirens (Model: 56108). See <u>Installing and Configuring Sirens.</u>
8	Wire Dome Lights to Gateways or ADAM Module
9	Configure Gateways to activate sirens. See Configuring Gateways to Activate Sirens.
10	Register Call Stations to Arial with descriptions to indicate the room and location where they will be installed. Configure outputs to turn on dome light for call station alarms.
11	Install and Each Test Call Station. Verify Correct Dome Lights Illuminate. See Deploying Call Stations.
12	Verify all Call Stations were tested by viewing Arial Device Activity Report and comparing to room list.

Assigning IP Address for PC to Communicate on Fundamental Network

1. Go to Control Panel of the PC where Arial Server and AES will be installed. This procedure assumes the same PC will be used for both pieces of software.

2. Navigate to the IP Ver4 Network Properties Window

3. Choose **Use the following IP** address and enter **IP address:** 192.168.1.2 and 255.255.0.0 for the **Subnet mask**.
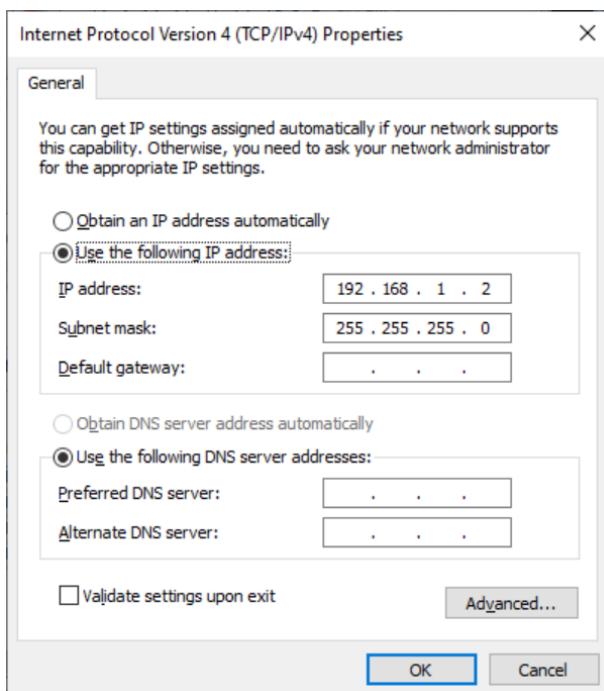
4. Click **OK** to apply the change.

> *Note: This IP address is needed to allow the AES to be able to configure the GW1000 and GW3X00 devices in later steps. The Gateways use 192.168.1.178 as its default IP address. If the customer's network will be involved and these IP addresses cannot be used permanently, they can be changed once the gateways are added and new IP addresses are assigned in later steps.*

Deploying the AeroScout Location Engine

The Arial software communicates with a GW-1000 and GW-3X00 gateways over a dedicated call nurse system network.

The ALE consists of the following components:

- AeroScout Engine Server (AES): Designed to process and forward messages between the GW1000 and GW3X00 gateways and Arial.

- AeroScout Engine Manager (AEM): Administration and configuration tasks for the AeroScout Engine Server are centralized in the AeroScout Engine Manager. The AEM is used to configure network communication with the GW1000 and GW3X00 gateways.

The Arial Wi-Fi fundamental components must be installed on a separate and dedicated network.

Important ALE Solution Deployment Notes

- Mobile Units and other non-STANLEY Healthcare Wi-Fi components are not supported

- A HA (High Availability) setup is not supported

- The Engine Server (AES) and Manager (AEM) can be installed on the same machine as Arial

- The ALE must be licensed using the STANLEY Healthcare support portal. See AeroScout Engine Deployment Guide for more detail

- All access points do not need to be added to the AES for Gateway-only deployments

ALE Deployment Checklist

For full ALE deployment details refer to the following resources from the STANLEY Healthcare knowledge base:

KB #	Document Name
12271	AeroScout Location Engine 5.5.4 Deployment Guide
12274	Location Engine 5.5 MR1 for Non-Cisco Download

Use the checklist below as a guide during the AeroScout Location Engine deployment process.

Steps	Deployment Procedures
1	Download the AeroScout Location Engine 5.5.4 MR1 software version for Non-Cisco.
2	Install the Engine Server (AES) and Engine Manager (AEM) on the same machine as Arial Server. *Refer to the Location Engine Deployment Guide > Installing* *AeroScout Location Engine in a Non-Cisco Environment & Installing AeroScout* *Engine Manage sections.*
3	Register the ALE in the STANLEY Healthcare support portal in-order to receive a license.
4	Apply the license in the Engine Manager.
5	Configure the Engine according to the site's infrastructure: • Setup Campus, Building and Floor • Add Map • Mark 0.0 • Calibrate Map • Apply Calibration • Add Cells *Refer to the Location Engine Deployment Guide > Defining Maps section.*
6	Configure the Gateway 1000 and 3X00 devices on the maps in the Engine. See *Adding and Configuring Gateways in Engine*
7	Configure the ALE Collection Time and SNMP Trap Interval. See instructions in this document.

Configuring the ALE Collection Time

The ALE Collection Time determines how long the Engine Server will wait to receive the location data for a tag. After this timeout, the Engine Server starts calculating the location of the tag.

Collection Time in the AeroScout Engine Manager (AEM) must be configured to 500 msec.

1. Open the **AeroScout Engine Manager** (AEM).

2. From the Menu bar click on **Configuration** and select **Server Parameters > System Parameters** in the submenu.
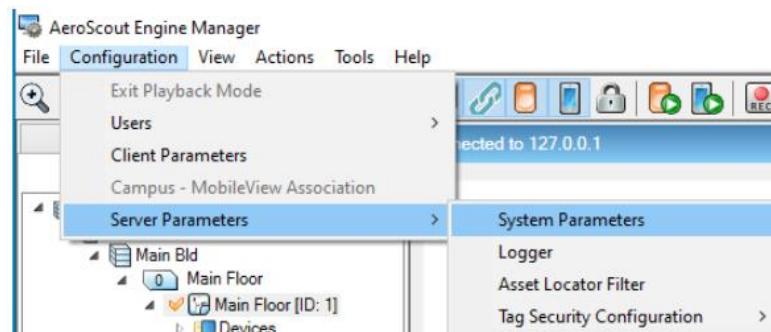
3. Select the **General** tab.

4. Under **Location Reports – Collection Window** set the Collection Window time to 500msec.
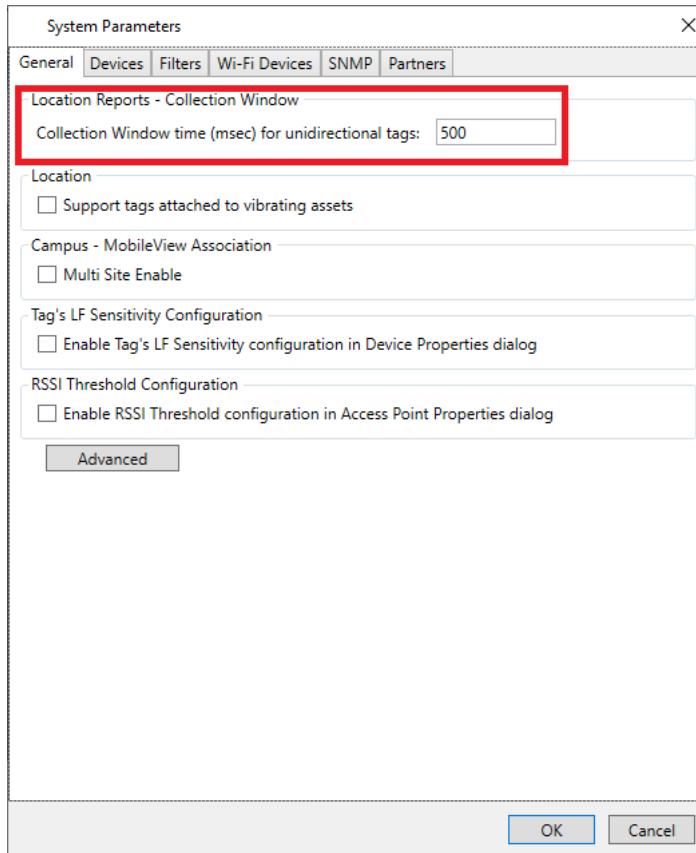
5. Click **OK.**

SNMP Trap Interval

When a device is down, such as a dome light, a trap is immediately sent from the Engine to Arial, and then resent every 5 minutes (Engine default value). This default value needs to be changed, in the Engine Server's *PeProperties* file, to every 60 seconds (4 cycles) for UL1069 deployments.

The following procedure is for Non-Cisco (Standalone) systems only:

1. Stop the AeroScout Engine Server.

2. From the Engine Server PC, navigate to the **AeroScout Engine** folder: *C:\Program Files (x86)\AeroScout\AeroScout Engine*

3. Locate and open the *PeProperties.properties* file.

4. Scroll down to **[SNMP]**.

5. Set the '*SnmpSendDevicesStatusCount*' parameter to 4 and save the file.

```
#[SNMP]
#Number of SNMP check cycles between
SnmpSendDevicesStatusCount=4
#Sets the connection timeout. This ti
TcpTransportConnectionTimeout=120000
```

6. From the Engine Server PC, navigate to the **AesBackup** folder: *C:\Program Files (x86)\AeroScout\AesBackup*

7. Locate and open the *PeProperties.properties* file in the backup folder.

8. Scroll down to **[SNMP]**.

9. Set the '*SnmpSendDevicesStatusCount*' parameter to 4 and save the file.

```
#[SNMP]
#Number of SNMP check cycles between
SnmpSendDevicesStatusCount=4
#Sets the connection timeout. This ti
TcpTransportConnectionTimeout=120000
```

10. Restart the AeroScout Engine Server.

Location Engine Map Configurations

The following steps must be completed in the Location Engine before continuing:

✓ Make sure the facility and resident floors have been defined.
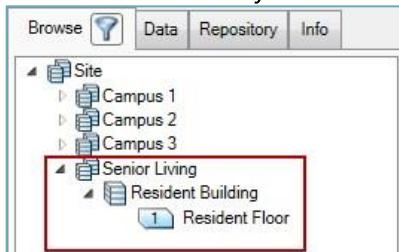
✓ Make sure the GW1000 has been added to a map in the AES.

The map is a central element of the Wi-Fi based system. Maps are used to mark the position of installed devices across the site and to monitor the Wi-Fi Devices

and Tags moving within the site. A map represents one floor or part of a floor. One floor may include several maps.

See the *Arial Administrator Guide for Version 10.6 MR1* in the Knowledge Base Article #12137 for additional details about adding maps in Arial.

Note: One map which can be any .png, .bmp or jpg file with the GW1000 placed on it is required. The GW1000 is used as a watchdog appliance for the Arial Server.

Steps for Adding Maps in AES

Note: For Wi-Fi deployments, maps that are drawn to scale are required. Accurate maps and precise placement of Gateways on maps in the following steps is required to help produce the most accurate location of pendants and other portable devices when the installation is complete.

1. An image file for the map must be saved to a known drive location on the machine running AES, typically somewhere on the C: drive. Accurately scaled drawings are required.
2. Open AEM and connect to AES by selecting the **File** menu, then **Connect to AeroScout Engine Server.**
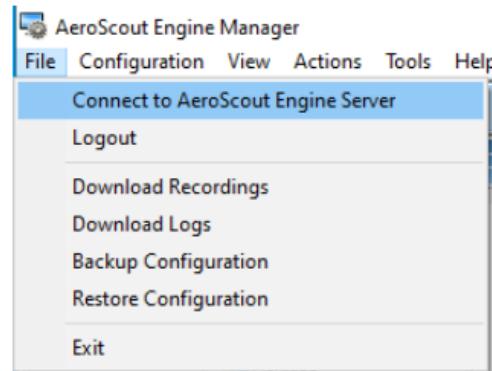
3. Enter the Admin User Name and Password. If the AeroScout Engine Server (AES) is installed on the same machine as the Arial hardware and the AeroScout Engine Manager (AEM), the Host Name / IP Address can be set to 127.0.0.1. If the AES is installed on a different system, use the hostname or IP address of the other system.
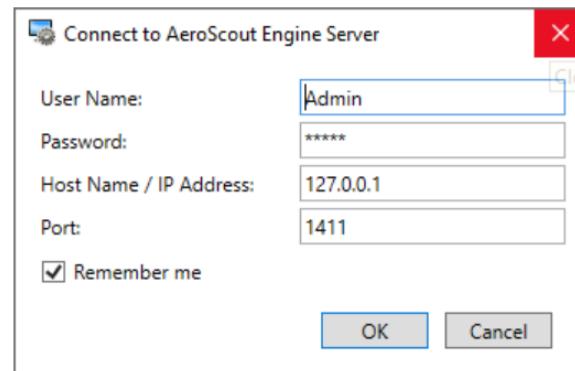
4. Add Campus, Building, Floor, and Map by right-clicking and selecting the option to add each layer staring with Site under the Browse pane. The final layer will be Add Map.
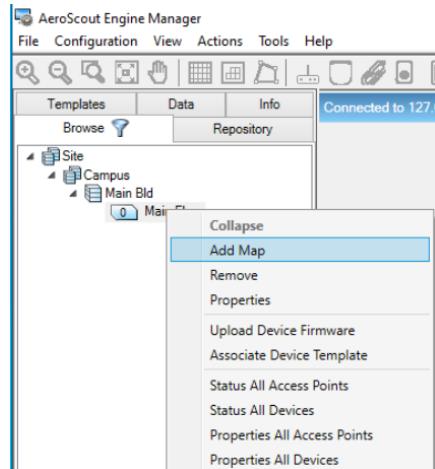
5. Enter a Name for the Map in the dialog that appears, then click OK.
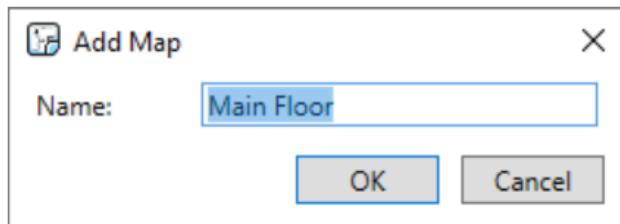
6. Browse to the location where the map file was saved using the window that appears.
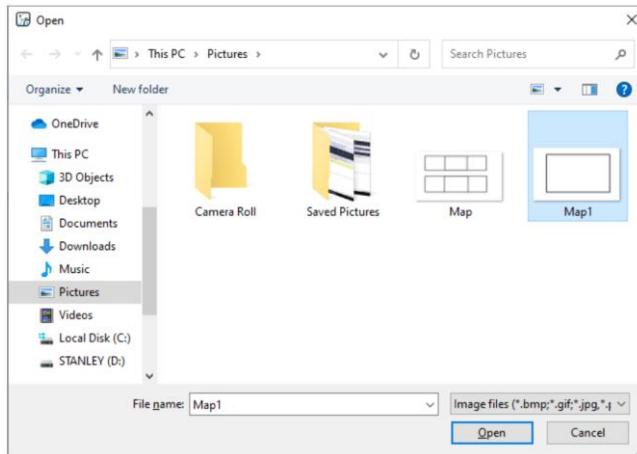
7. The map is displayed in the large section of the window. Right-click on a location on the map (typically the lower- left corner) and select Mark 0,0 from the menu that appears.
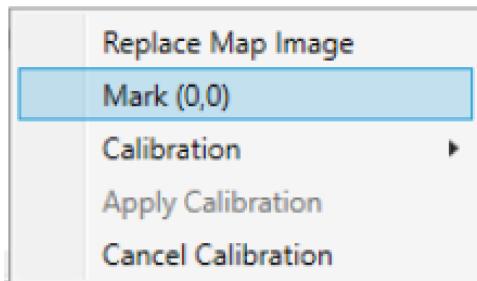
8. Locate a hallway or other longer length span on the map where the distance is known between two points. Right-click at the first point on the map image where you know the distance to another point. Select Calibration > Calibrate Distance from the menus that appear.
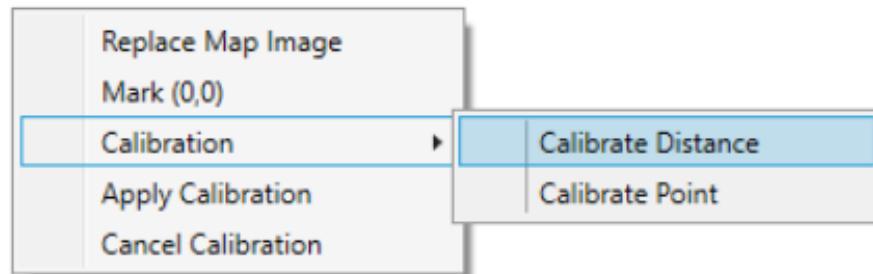
9. Click and hold to draw a line to the second point on the map where the distance is known.
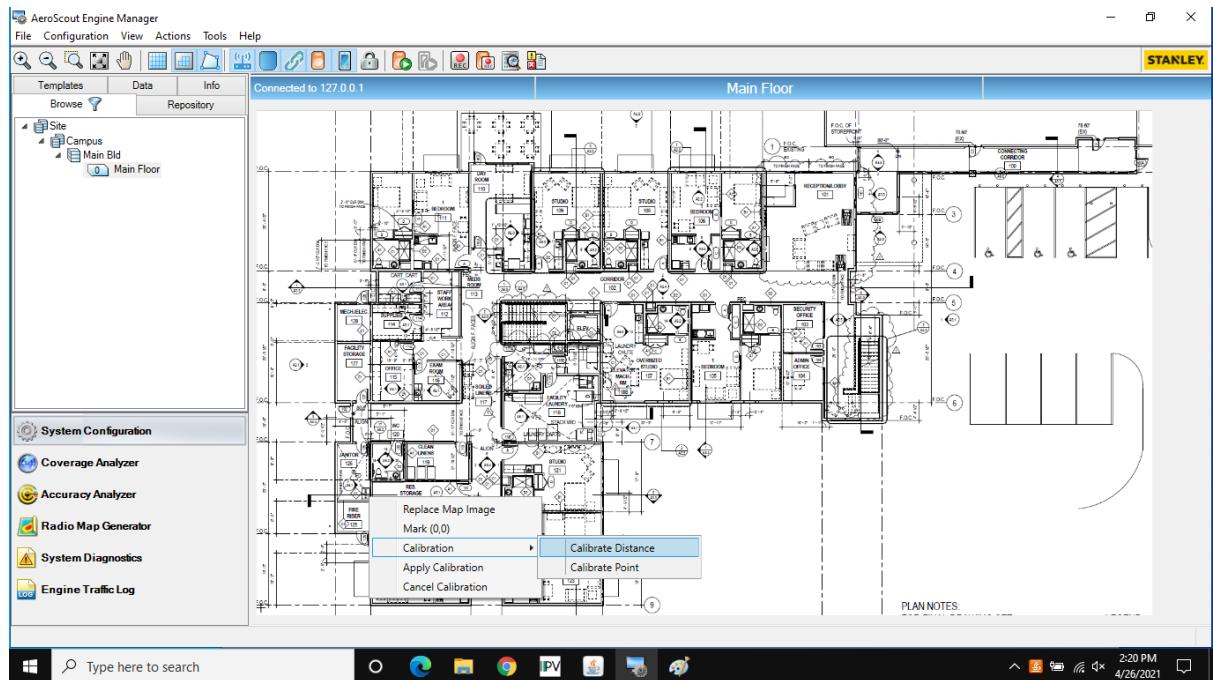
10. Enter the distance between the two points in meters in the dialog window that appears. Click OK.
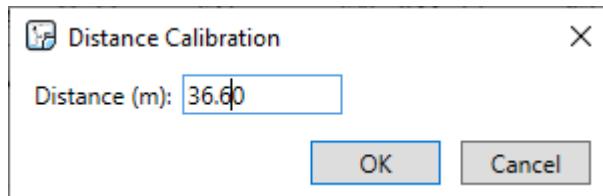
11. Right-click on the map a final time, then select Apply Calibration.
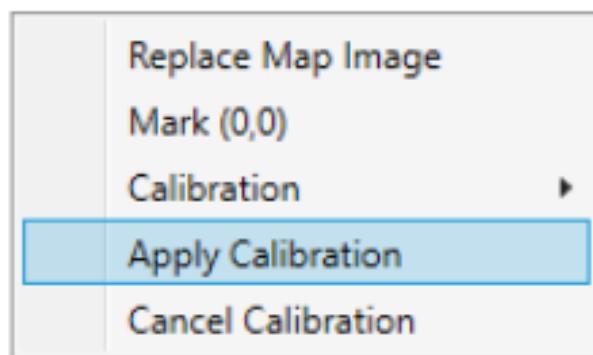
12. Verify your map appears under the floor in the hierarchy under the Browse pane.
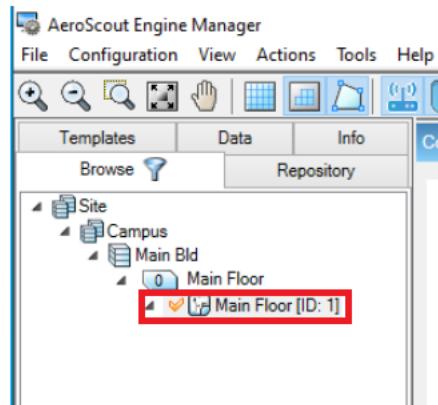
13. Right-click in the map then select Add > Add Cell.
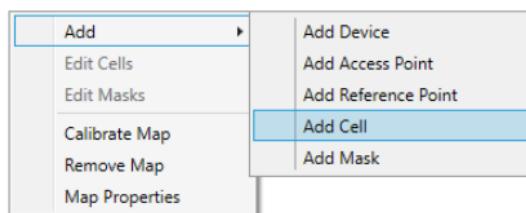
14. Draw a cell around the perimeter of the map. Make sure to close the cell.
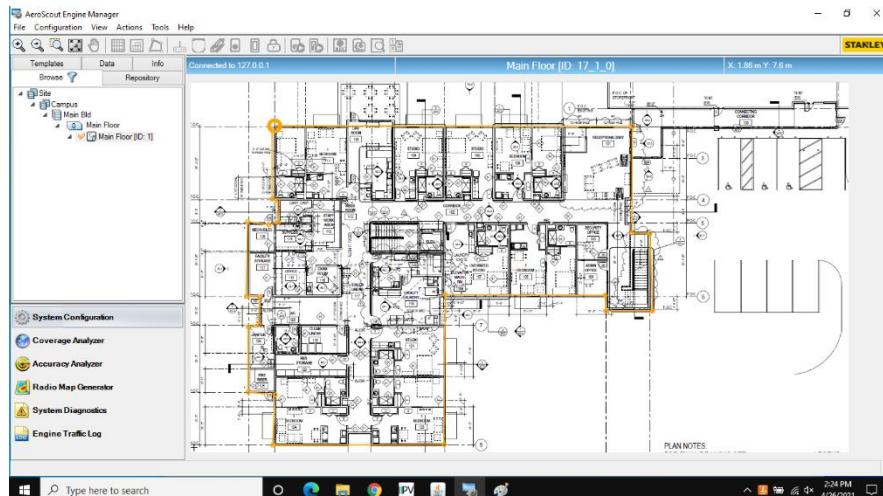
15. Enter a Name for the cell in the space provided, then click OK on the Cell Properties dialog box.
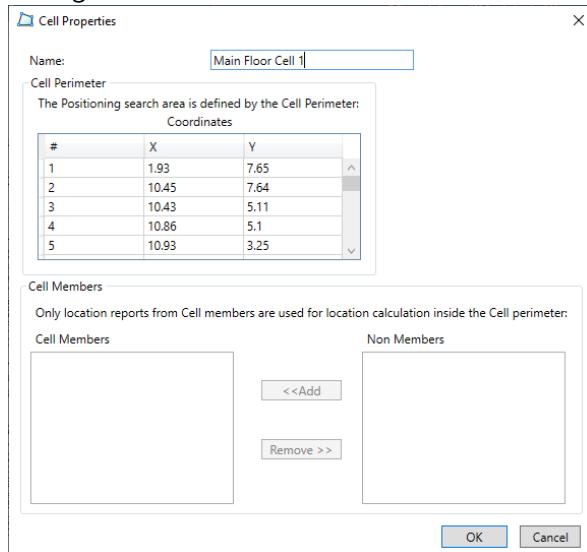
16. Repeat the steps above to add buildings, floors, and maps for all resident areas of the campus.

Arial and ALE Integration

The following section explains how to integrate Arial software with the AeroScout Location Engine. The integration is done after the ALE deployment.

Applying the UL1069 License in Arial

Arial must be licensed for UL1069 to set defaults in the software to match requirements for UL1069. The following procedure must be performed by an Arial Administrator.

1. Install Arial and HPS Server on the PC that will act as the Arial server (if this has not been completed already). Refer to the latest version of the *Arial Software Installation Guide* for requirements and steps to install the newest version of Arial.

2. An Activation Code and License File are required for this procedure. They are generally supplied on a USB drive included with the system. Contact Technical Support at 800-380-8883 if you need assistance locating these files.

3. Launch Arial and login as an Admin if needed. Go to System > System > Server, then click Update License.
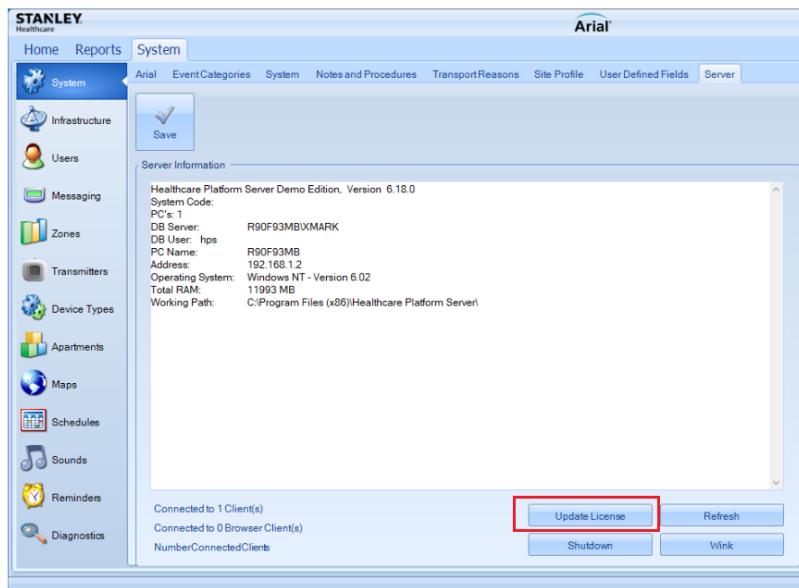
4. A Check License window opens. Locate your Activation File and copy the System Code and paste in the System Code area, then copy the Activation Key and paste in the Activation Key area. When finished, click Activate.
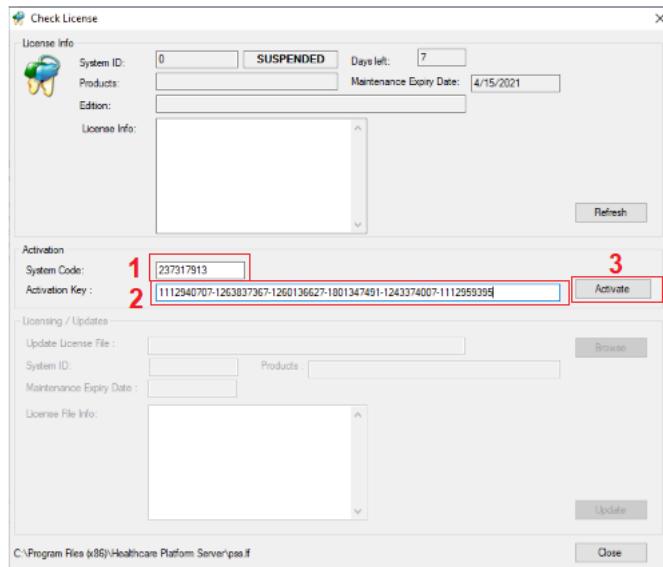
5. If a dialog appears prompting you to Restart Healthcare Platform Server, click OK, but do not restart just yet.
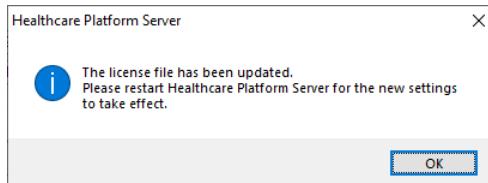
6. Click Browse next to Update License File and locate the .lic file for your system with the provided license information, then click Open on the Open window.
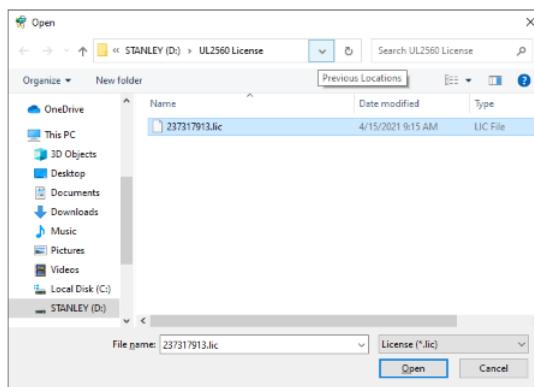
7.   Click Update.
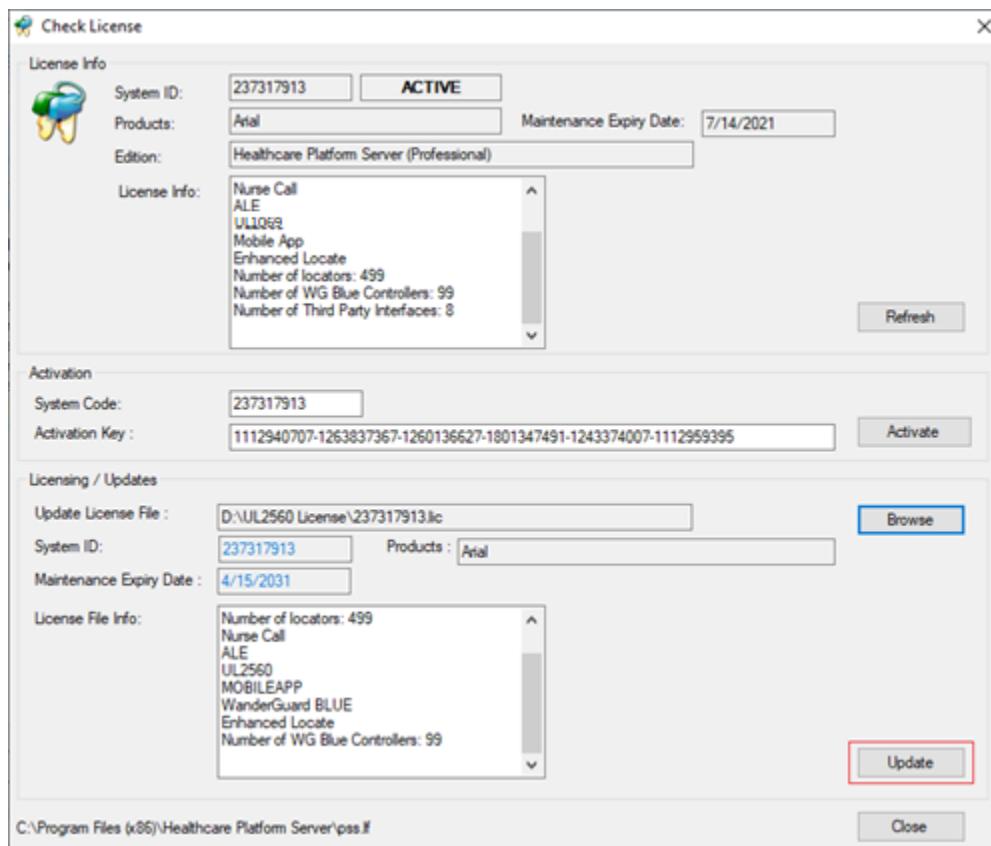
8.   If a dialog appears prompting you **to Restart Healthcare Platform Server** again, click **OK**, then click **Close** to close the **Check License** window.

9.   Shutdown Arial by clicking on the main **STANLEY Menu** in the upper left corner of the Arial window, then select **Exit**.
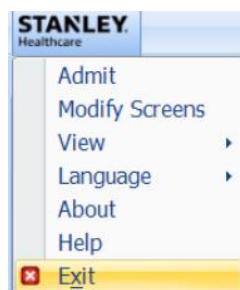
10. **Restart the PC** by clicking on the **Windows Menu** in the lower left corner of the PC screen, then selecting **Restart** under the Power options.
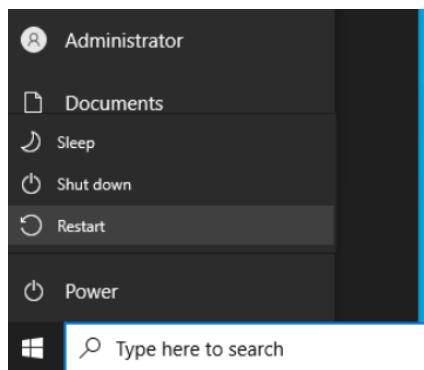
11. Wait for the PC to shutdown and boot back up. Arial should load after a few moments. Log in as an Admin if necessary, then navigate to **System > System > Server** and **verify UL1069 appears** as a listed license item.
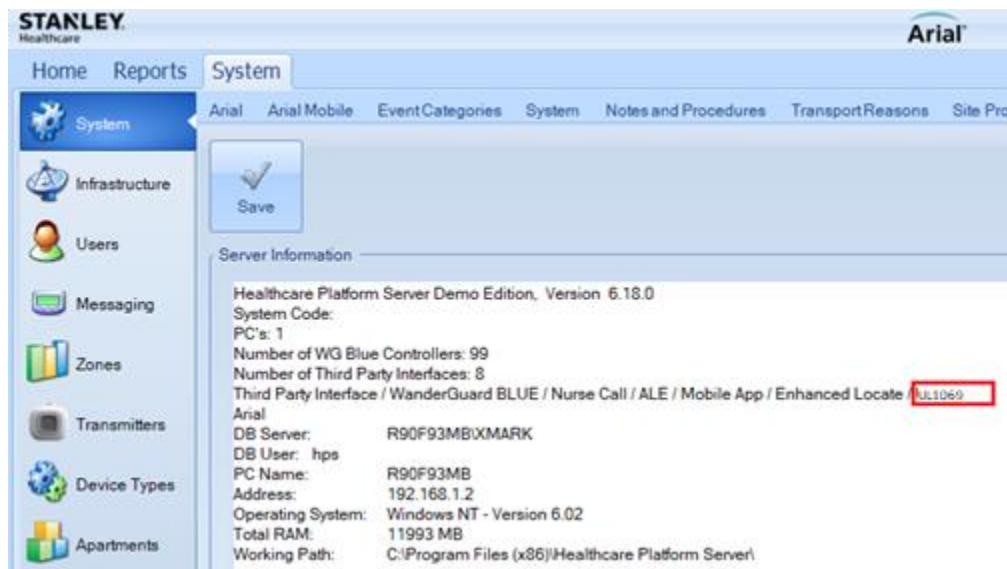
12. Click **Home** to return to the **Main Arial Screen**.

Configuring Arial for ALE

The following procedure must be performed by an Arial administrator.

1. Login to the Arial software.

2. Click on the **System** tab.

3. Select **Infrastructure**.

4. Click on the **ALE** tab.
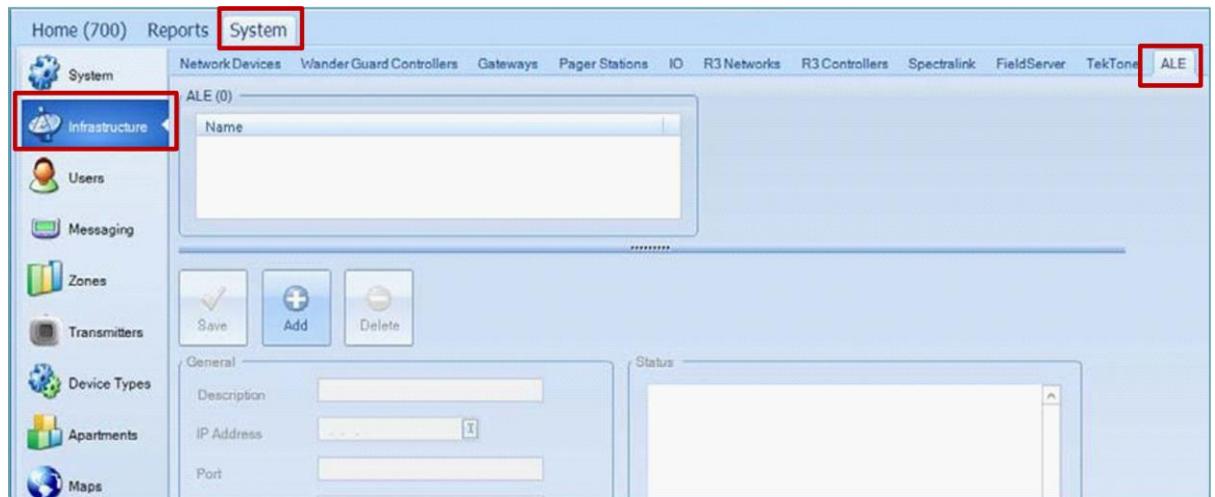
5. Click **Add.**
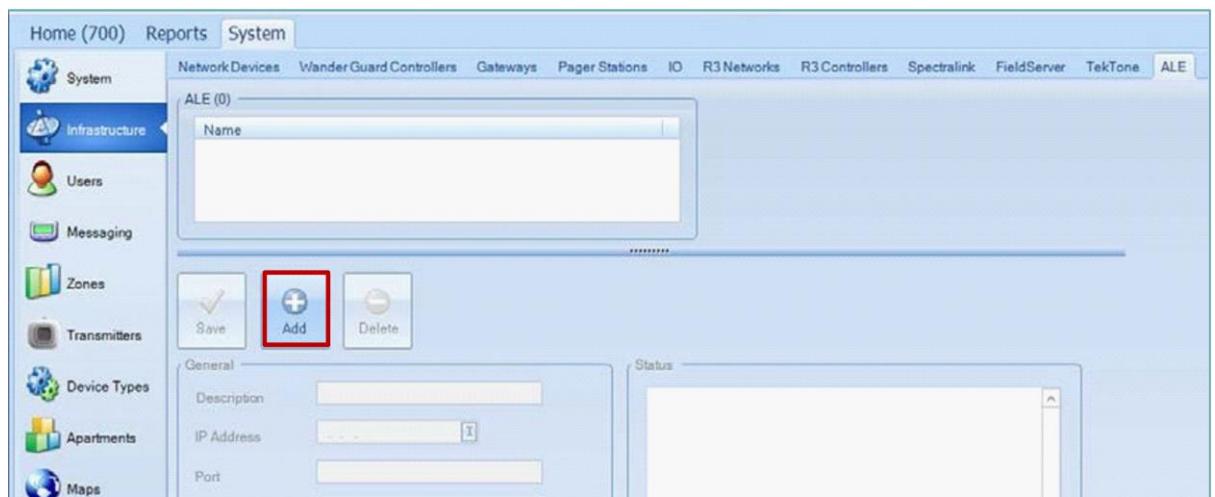
6. Under the General section perform the following:

    a. Enter in the **Description** as ALE.

    b. Enter in the **IP Address** of the ALE Server (use 127.0.0.1 if AES is installed on same machine as Arial Server software).

    c. Enter in the **Port** (Default is 1411).

    d. Enter in the **User** and **Password** for the ALE.

    e. Check that system **Status** is **Connected.**

f. Leave **Event Configuration** as is.
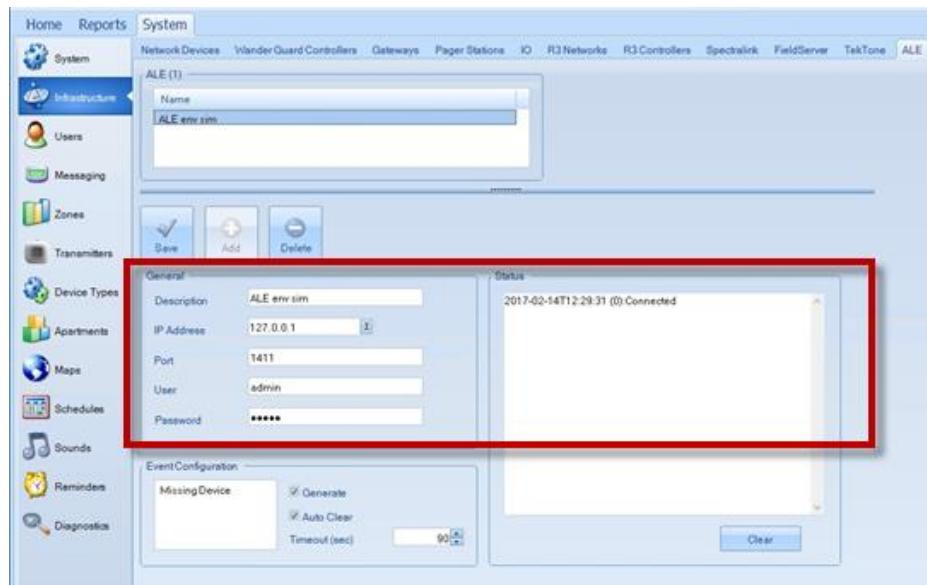
7. Click Save.

Adding and Configuring Gateways in Engine

Note: Gateways must be connected to the network one at a time when completing the steps in this section.

The following sections explain how to add and configure Gateways in the Engine. Refer to the **AeroScout Location Engine Deployment Guide** for more details.

Adding the GW1000 Gateway

One GW1000 is required on the Arial system. This gateway is used to detect messages from call stations, pendants, and other Wi-Fi transmitters. In addition, the GW1000 serves as a watchdog appliance to monitor the Arial software. In the event that Arial is not running, the GW1000 can activate a siren to draw attention to the outage.

1. Connect the GW1000 to the Arial network and allow it to boot.

2. Click on the **Repository** tab, then click on the **Scan** button.
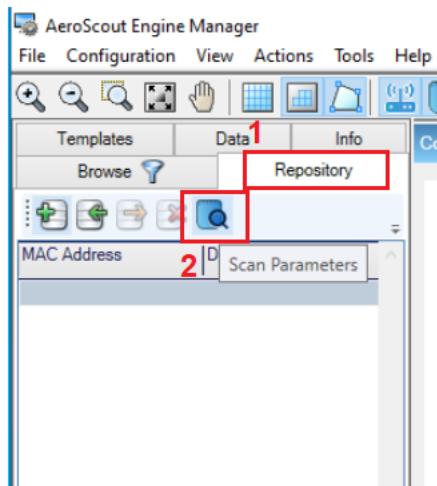
3. Click on the **Scan** button on the **Repository Scan Parameters** dialog that appears.
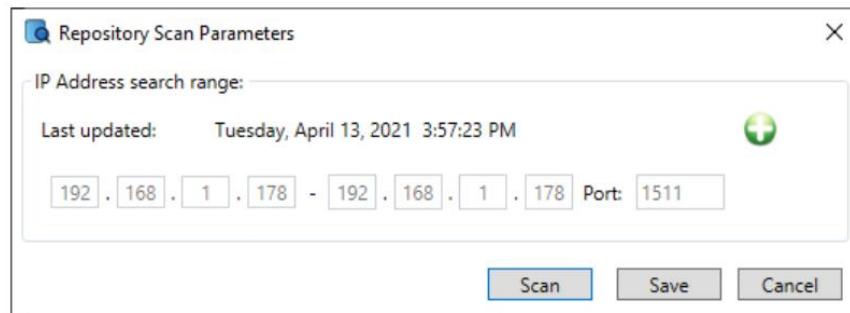
4. After a moment, verify a new device with **Device Type** of **GW1000/GW1200** appears in the **Repository**. Confirm the **MAC Address** matches the one listed on the label on the back of your gateway.
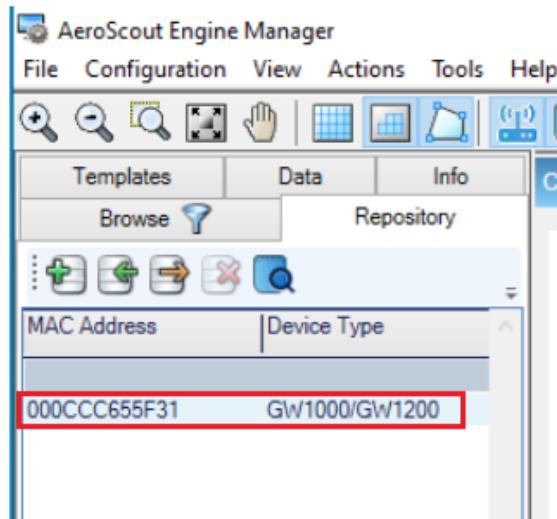
5. Click **OK** on the **Add Device** dialog box.
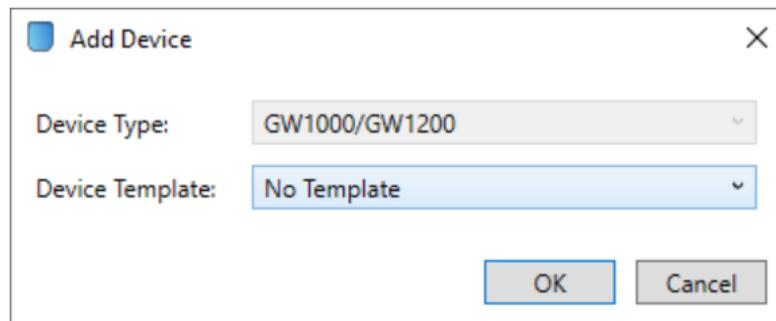
6. A **Device Properties** dialog box appears. Verify the boxes for **Enable Wi-Fi Receiver 1** and **Receiver 2** are both checked, then click **OK**.
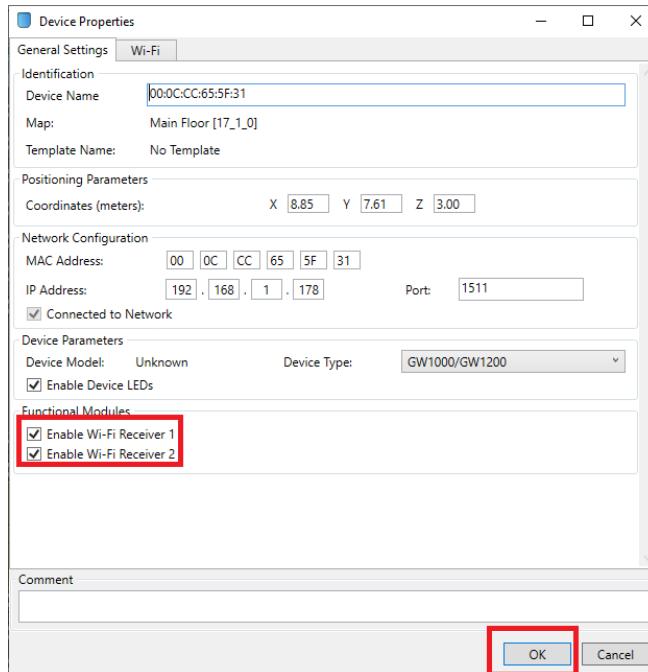
7. A blue icon for the Gateway where you placed it on the map appears. Right-click the icon and select **IP Settings**.
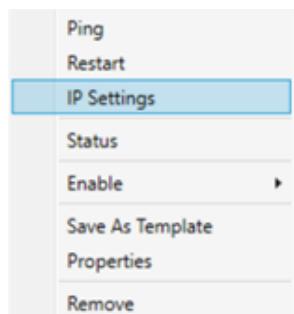
8. A TCP/IP Settings dialog box appears. Enter an **IP Address** for the GW1000 that will be unique on the network segment being used (see note below). When

finished, click **OK**.
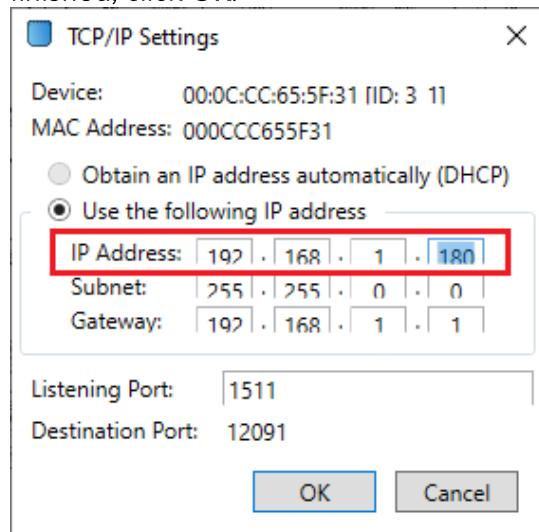
Note: If you are continuing with 192.168.1.2 for the AES PC, then you can change the last byte of the IP so it is no longer .178. This helps prevent problems if another Gateway needs to be added in the future. If you will be changing the IP address of the AES PC, then the IP Address, Subnet, and Gateway need to match the requirements for the LAN you will be using.

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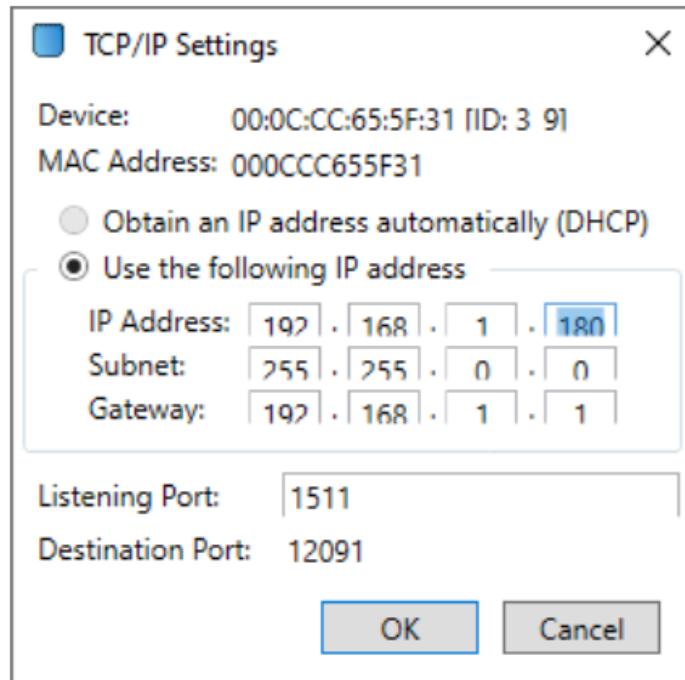
9. The gateway should still appear on the map. It will be blue in a few moments if the PC and the Gateway are both using 192.168.1.X IP addresses. If this is not the IP address range you programmed, then the Gateway will not appear blue until you change the IP address of the AES PC in the control panels. You will want to wait until all GW3X00 devices are configured before changing the AES PC IP address.

10. The Gateway is added.

Adding the GW3X00 Gateways

1. Connect the GW3X00 to the Arial network and allow it to boot.

2. Click on the **Repository** tab, then click on the **Scan** button.
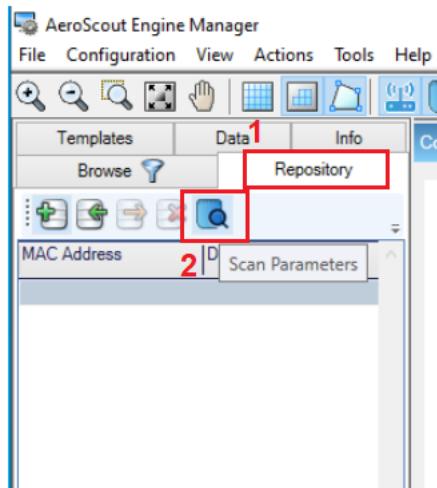
3. Click on the **Scan** button on the **Repository Scan Parameters** dialog that appears.
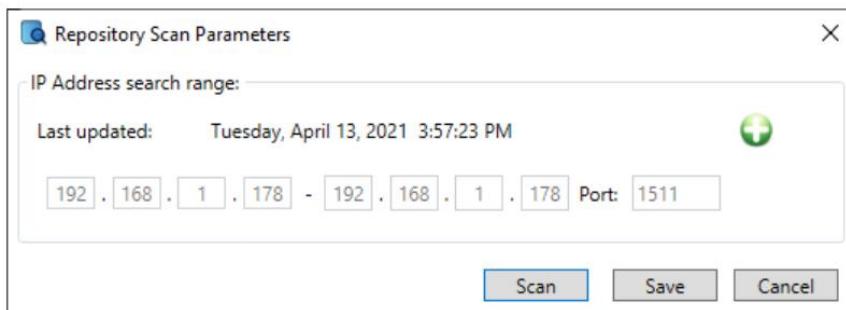
4. After a moment, verify a new device with **Device Type** of **GW3000** appears in the **Repository**. Confirm the **MAC Address** matches the one listed on the label on the back of your gateway.
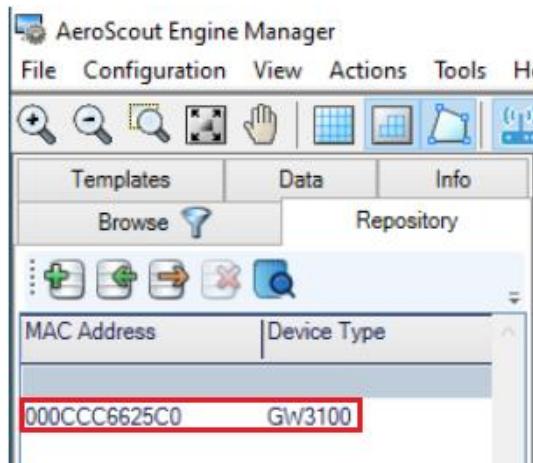
5. Click **OK** on the **Add Device** dialog box.
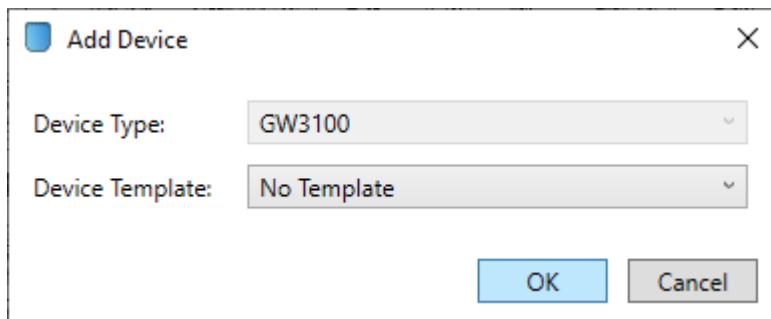
6. A **Device Properties** dialog box appears. Uncheck the boxes for **Enable Wi-Fi Receiver 1** and **Receiver 2** then click **OK**.
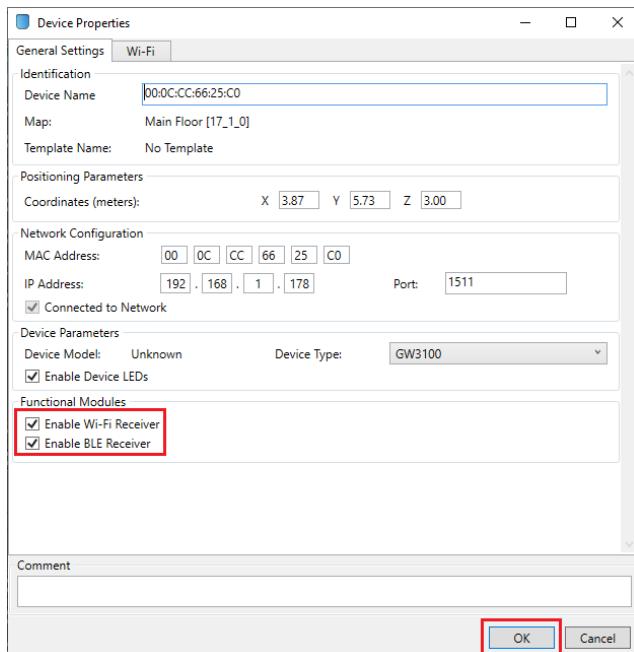
7. An icon for the Gateway where you placed it on the map appears. Right-click the icon and select **IP Settings**.
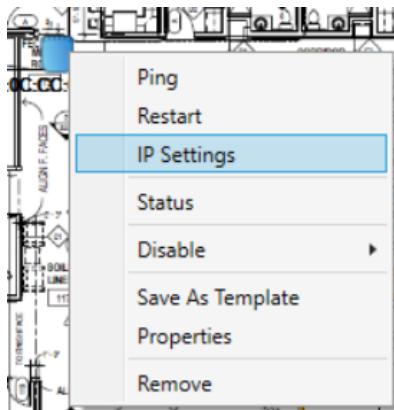
8. A TCP/IP Settings dialog box appears. Enter an **IP Address** for the GW3X00 that will be unique on the network segment being used. When finished, click **OK**.

Note: If you are continuing with 192.168.1.2 for the AES PC, then you can change the last byte of the IP so it is no longer .178. This helps prevent problems if another Gateway needs to be added in the future. If you will be changing the IP address of the AES PC, then the IP Address, Subnet, and Gateway need to match the requirements for the LAN you will be using.
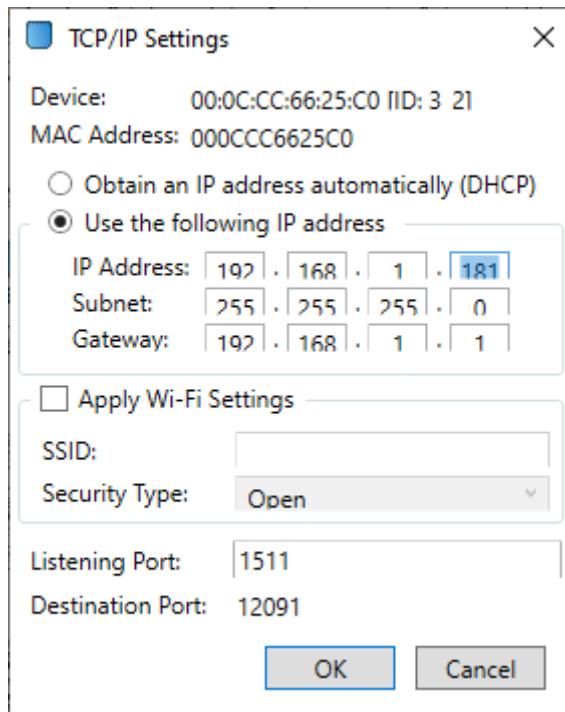
9. The gateway should still appear in on the map. It will be blue in a few moments if the PC and the Gateway are both using 192.168.1.X IP addresses. If this is not the IP address range you programmed, then the Gateway will not appear blue until you change the IP address of the AES PC in the control panels. You will want to wait until all GW3X00 devices are configured before changing the AES PC IP address.

10. The Gateway is added.

Installing Gateways

Position and mount each GW3X00 in the site according to the site survey recommendations. The attached Siren needs to be placed where caregivers can hear the alarm should a system failure occur.

GW3X00 Wall Mounting Parts

| Part Letter	Part Name	Qty	Image
A	Tile Mounting Bracket (with Latch)	1	
B	Wall Mounting Bracket	1	
C	2 Hex Bolts & Nuts	2	
D	Wall anchors and screws		

Mounting the Gateway on a Wall

1. Place the Wall Mounting Bracket (B) with its back on the wall in the desired mounting location. Make sure to align the Wall Mounting Bracket's (B) cable

cutout so that there is enough cable length to connect the Gateway.

Cutouts
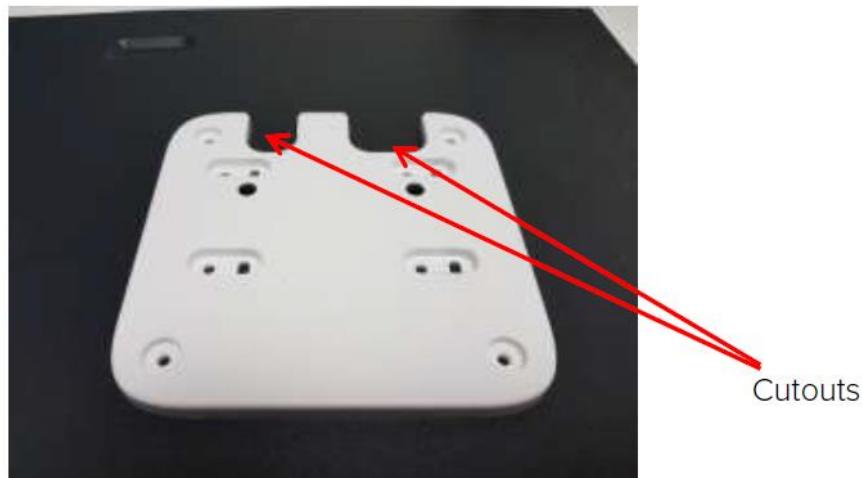
2. Mark the 4 screw holes.
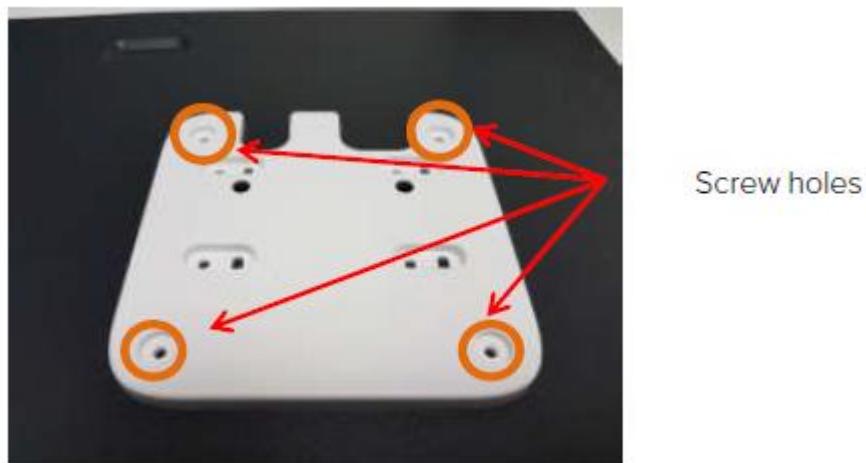
Screw holes

3. Drill the 4 screw holes in the wall and tap in the wall anchors. Do not screw the Wall Mounting Bracket (B) into the wall at this time.

4. While the Wall Mounting Bracket (B) is still off the wall, insert the short hex bolts (C) through the bolt holes on the back of the Wall Mounting Bracket (B).

5. Place the Wall Mounting Bracket (B) with the hex bolts extended outward on its wall mounting location and aligned with the wall anchors.

6. Screw the Wall Mounting Bracket (B) into the wall anchors with the wall screws (D) in place and tighten. The two bolts should be facing straight outward when done.

7. Place the Tile Mounting Bracket (A) over the Wall Mounting Bracket (B) and tighten with the hex bolt nuts.

8. Attach the Gateway to the RJ45 cable.

9. Place the Gateway over the keyhole mounting clips of the Tile Mounting Bracket (A).
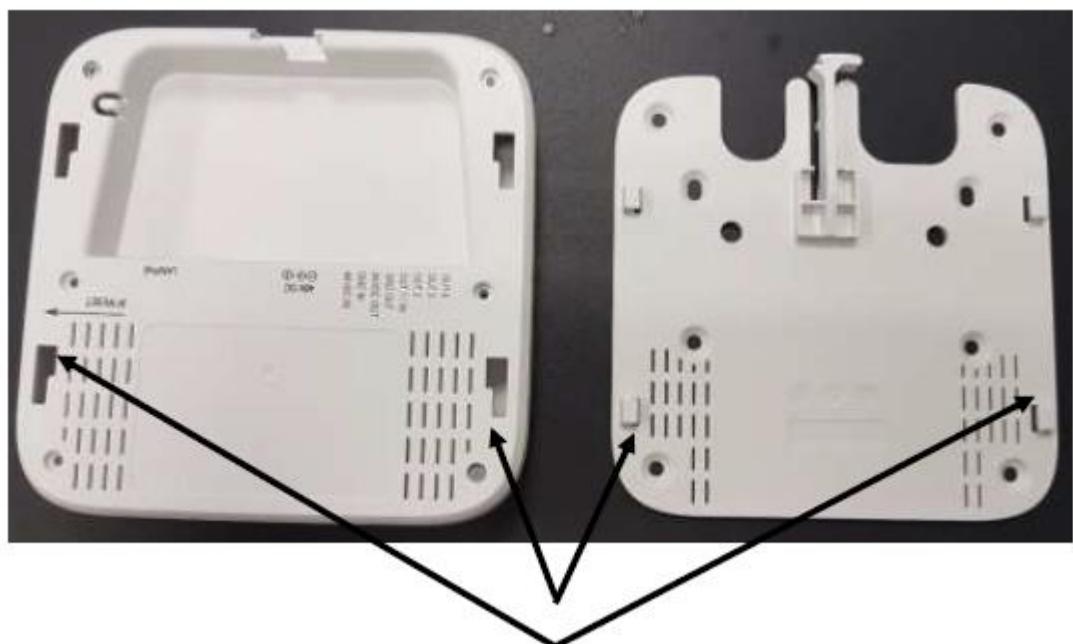
10. Slide the Gateway onto the Tile Mounting Bracket (A) until it clicks into place.
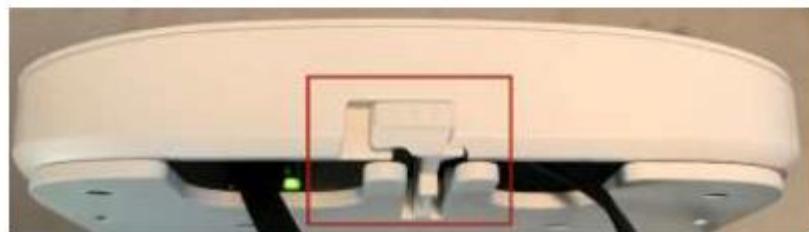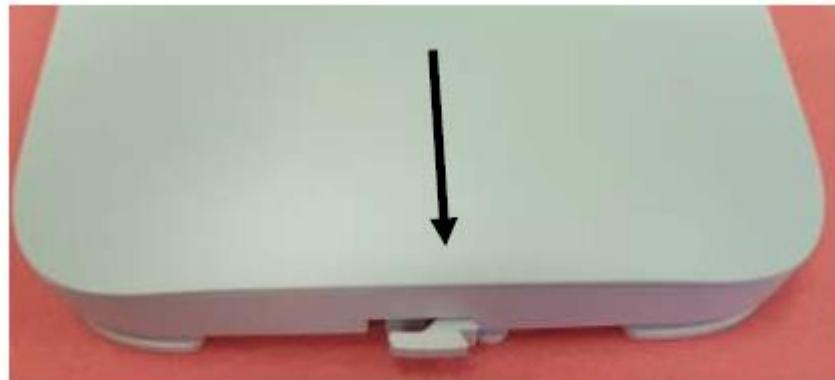
11. The Gateway can be removed from the Tile Mounting Bracket (A) using the bracket's Latch. Push the Latch to the side and slide the device off the Tile Mounting Bracket (A).

Note: Alternative mounting kits are available if the Gateway must be mounted on a drop ceiling.

Installing and Configuring Sirens

Sirens (Chimes) are configured to produce a distinctive chime tone for alerting staff to Server and Client application failures.

- The Arial Wireless Nurse Call Solution requires the installation of a siren for monitoring for Server failure. The siren will be connected to a Gateway GW1000.

- The GW1000 Gateway is configured in Arial to trigger the siren when the Arial Server Software or PC is not communicating with the gateway, such as occurs when the software or computer are not running.

    Connection Notes:

- A siren used for HPS Server failures **MUST** be connected to the Gateway's Relay (N.C Terminal).

See Appendix for Wiring Diagrams for the GW1000 and Sirens.

Selecting 56108 Siren Audio

Each siren has a rotary switch for tone and volume selection on the back of the unit. Each siren must be set to position 4.


AUDIO SELECT

| Chime Patterns		
Setting	Repetition Rate	dB Level
1	1 Second Chime	High
2	1 Second Chime	Low
3	¼ Second Chime	High
4	¼ Second Chime	Low
5	Temporal Chime	High
6	Temporal Chime	Low
7	5 Second Whoop	High
8	5 Second Whoop	Low
9	Coded**	High

**For chime only.

Mounting a 56108 Siren

Sirens (Model: 56108, CHWL) can either be mounted over a gang box or wall mounted using a Wall Surface Mount Back Box (Model: 56109, SBBWL). In both cases a standard mounting plate is used.
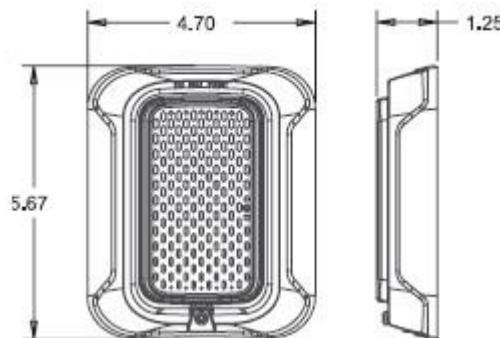

Wall Siren
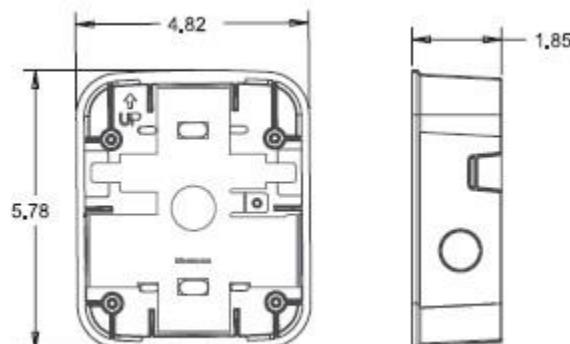
Wall Surface Mount Back Box
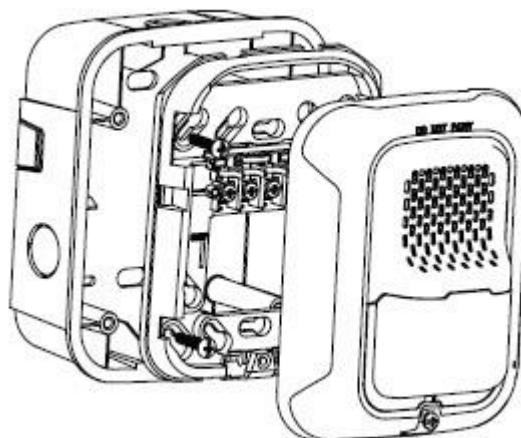
Wall Mount Siren with Wall Surface
Mount Back Box

56108 Gang Box Mounting

1. Attach mounting plate to junction box. The standard mounting plate is compatible with 4" square, single gang, double gang, and 4" octagon junction boxes.
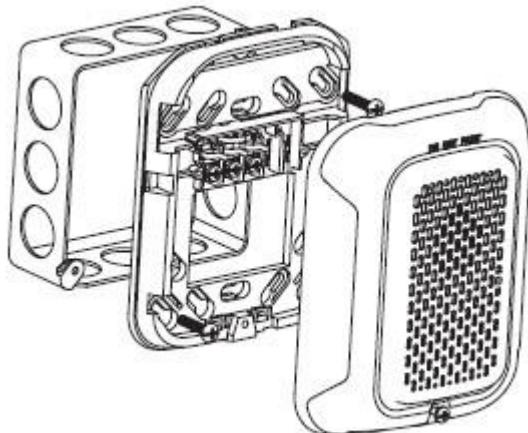
2. Connect field wiring according to terminal designations. The siren only requires two wires for power and supervision.


Shorting Spring

NOTE:The Shorting Spring must be fully engaged. It is therefore recommended to use the far Right plus (+) terminal.

STRIP

WIRING TERMINALS
1. Negative (-). Line in and out
2. Positive (+). Line in and out
3. Positive (+). Line in and out

Strip Guide
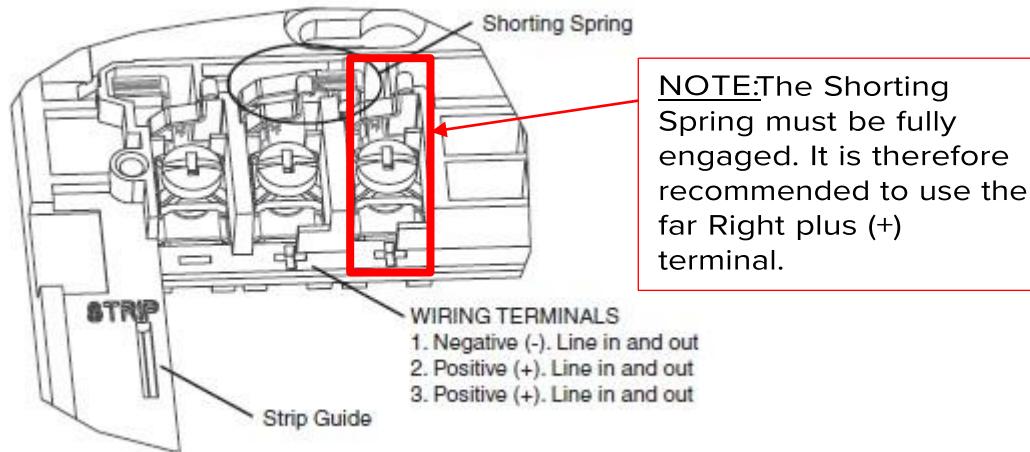
3. If the siren is not to be installed at this point, use the protective dust cover to prevent contamination of the wiring terminals on the mounting plate.

4. To attach the siren to the mounting plate, hook tabs on the top of the siren housing into the grooves on mounting plate. Then, hinge the siren into position to engage the pins on the siren with the terminals on the mounting plate. Make sure that the tabs on the back of the siren housing fully engage with the mounting plate.

5. Secure the siren by tightening the single mounting screw in the front of the siren housing.

Tamper Screw

For tamper resistance, the standard captive screw may be replaced with the enclosed Torx screw.

1. To remove the captive screw, back out the screw and apply pressure to the back of the screw until it disengages from the housing. Replace with the supplied Torx screw.
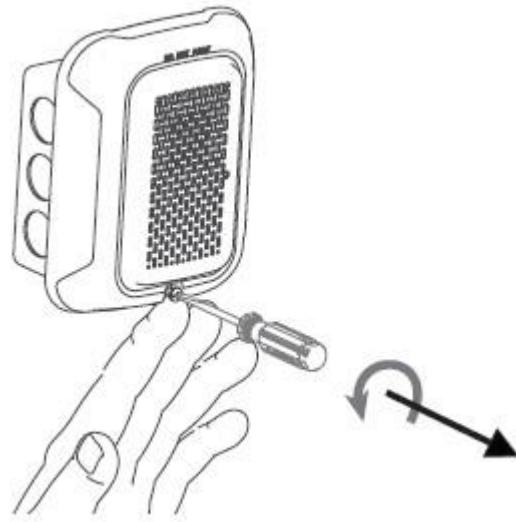

56108 Surface Mounting

1. The optional 56109 surface mount back box may be secured directly to the wall or ceiling. A grounding bracket with ground screw capability is provided if needed.
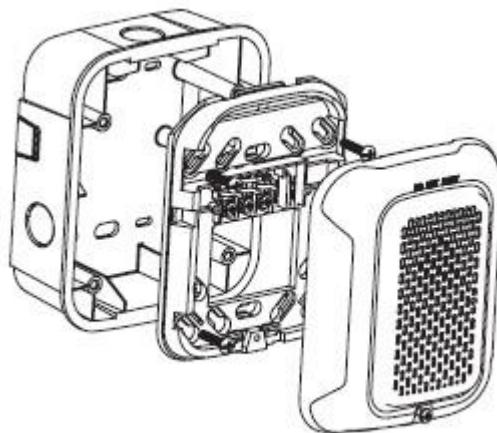
2. The wall mount box must be mounted with the up arrow pointing up.
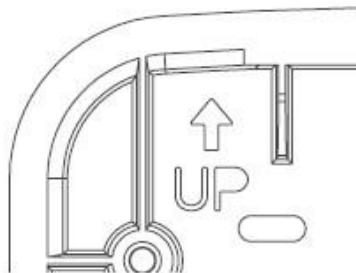
3. Threaded knockout holes are provided for the sides of the box for ½ inch conduit adapter. Knockout holes in the back of the box can be used for ½ inch rear entry.

4. To remove the ½ inch knockout, we recommend you use a flat head screwdriver, place the blade of the flat head screwdriver in the inner edge of the knockout. Strike the screwdriver as you work your way around as shown below.
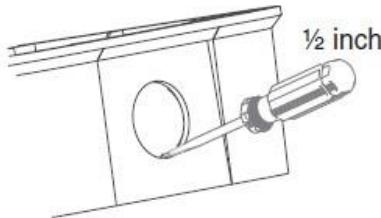

NOTE: For ½ in. installation, use caution not to strike the knockout near the top edge of the surface mount back box.

5. V500 and V700 raceway knockouts are also provided. Use V500 for low profile applications and V700 for high profile applications.

6. To remove the knockout, turn pliers up, as shown below.
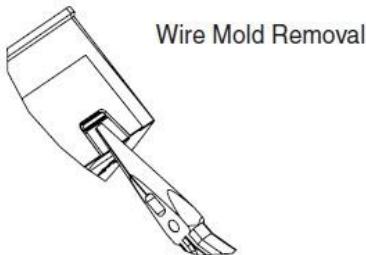
NOTE: Use caution not to strike the knockout near the top edge of the wall version of the surface mount back box.

Siren 56108B Mounting Instructions

1. The siren is designed to mount to a 2-inch-deep single-gang electrical box.
2. Route two-conductor cable from the GW1000 to the electrical box.
3. Connect the two wires from GW1000 to the positive (+) using the red wire and negative input (-) using the black wire to the marked terminals on the siren. See wiring diagram in appendix.
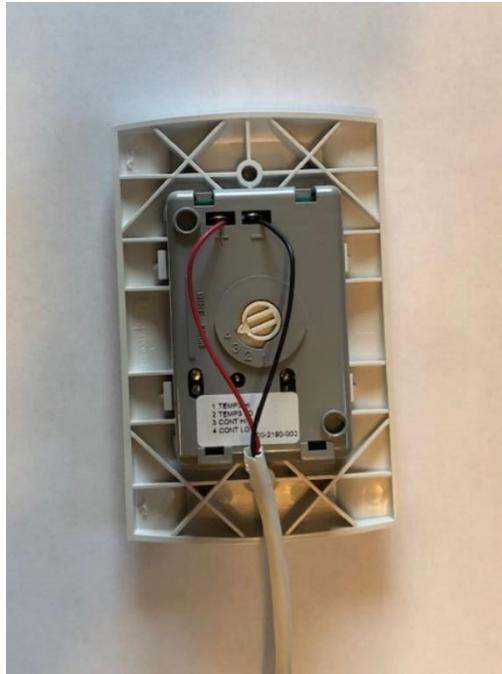
Connect wires – red to +, black to -

4. Secure the siren to the electrical box with the two supplied machine screws.

5. Insert cable into electrical box. Align siren screw holes to holes in electrical box.

6. Secure siren to electrical box with supplied screws.

Configuring Gateways to Activate Sirens

The following section explains how to configure the GW1000 Gateway's output settings in Arial for HPS Server supervision. These settings activate the siren when an essential program service has failed on the Arial HPS Server.
This is a UL2560 requirement.

Prerequisites

- The siren must be connected correctly to a Gateway.

- The Gateway connected to siren must be added to the ALE.

- Gateway must be added to the ALE map.

- Arial and ALE must be integrated and correctly configured.

Configuring HPS Server Supervision

1. Open **Arial** and navigate to **System** > **Infrastructure** > **IO**.
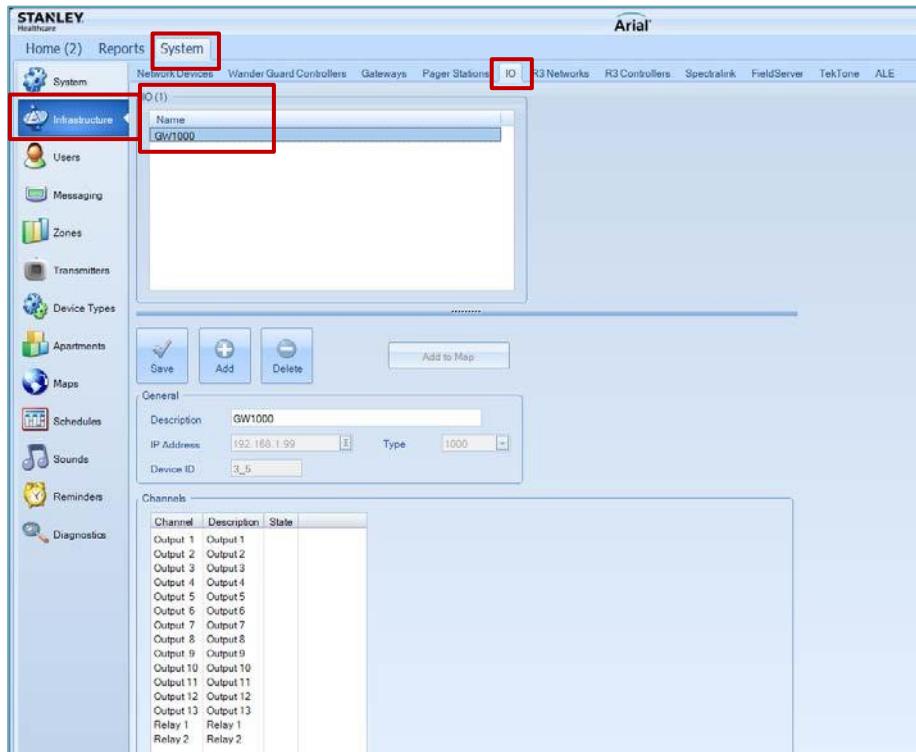
2. Select the Gateway (IO) that you want to configure for 'Supervision Alert'.

3. Under the **Channels** section, select **Relay 1** which is the relay that is connected to the siren.
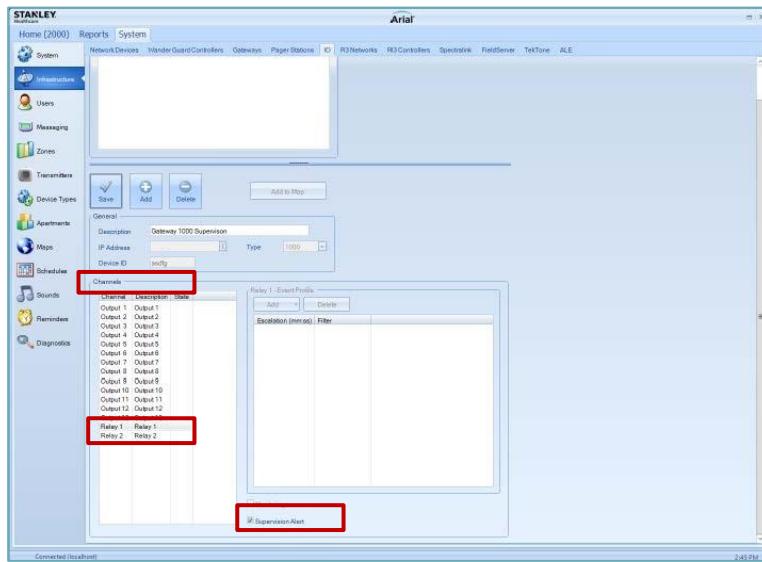
4. Select the **Supervision Alert** checkbox.

5. Click the **Save** button on the IO tab.
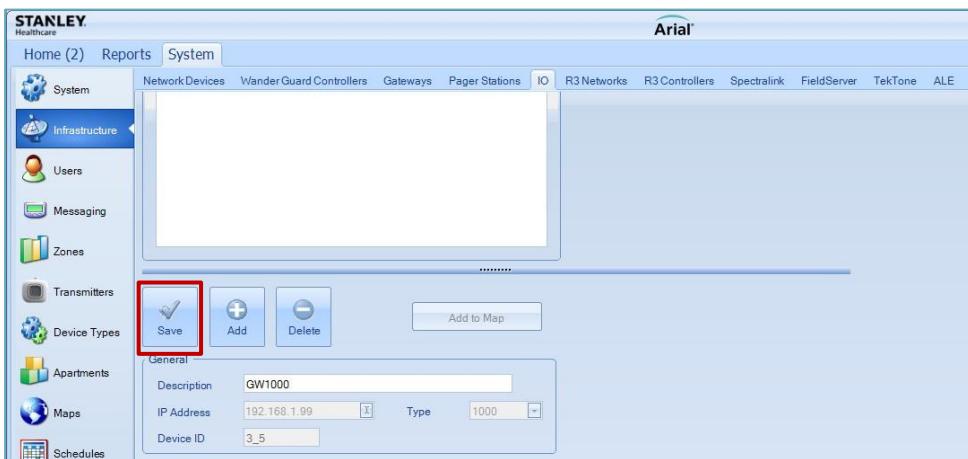
Deploying Arial Wi-Fi Call Stations

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.

This section applies to the following Wi-Fi Call Station models: CS100, CS100MR CS100CD, CSK200 and CSK200-MR.

Activating the Call Station

Call Stations are activated when batteries are inserted, or an external power supply is connected and remain in Standby mode with a default transmission rate of 120sec. A Call Station activation message is transmitted to Arial.

Call Station Alerts

Pressing the Call Station's call button triggers an emergency message that is sent to Arial and changes the Call Station's status to Alarm Mode. The Call Station remains in Alarm mode (flashing red LED) until the alert is physically dismissed.

Dismissing Call Station Alerts

Alarms are dismissed by staff members at the device that triggered the alert, by pressing on the Call Station's Dismiss/Check-in button. A confirmation tone is heard and LED stops flashing red. Dismissing an alert sends a 'Reset' message back to Arial.

NOTE: An alarm dismissed in Arial will reoccur until the alarm is dismissed at the actual Call Station that triggered the alert.

Batteries and External Power

The Call Stations are supplied with three (3) CR123A batteries pre-installed.

Note: *We strongly recommend that you remove the batteries if the Call Station will not be used for an extended length of time.*

Preparing the Batteries

The battery isolation strip must be removed from the battery compartment prior to Call Station operation.