Room Alert™
We've got this.

User's Guide & Reference Manual

Room Alert® MAX

AVTECH Software, Inc.

AVTECH.com

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AVT-250314

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1. Room Alert MAX Hardware

1.1. MAX Base Station

Front

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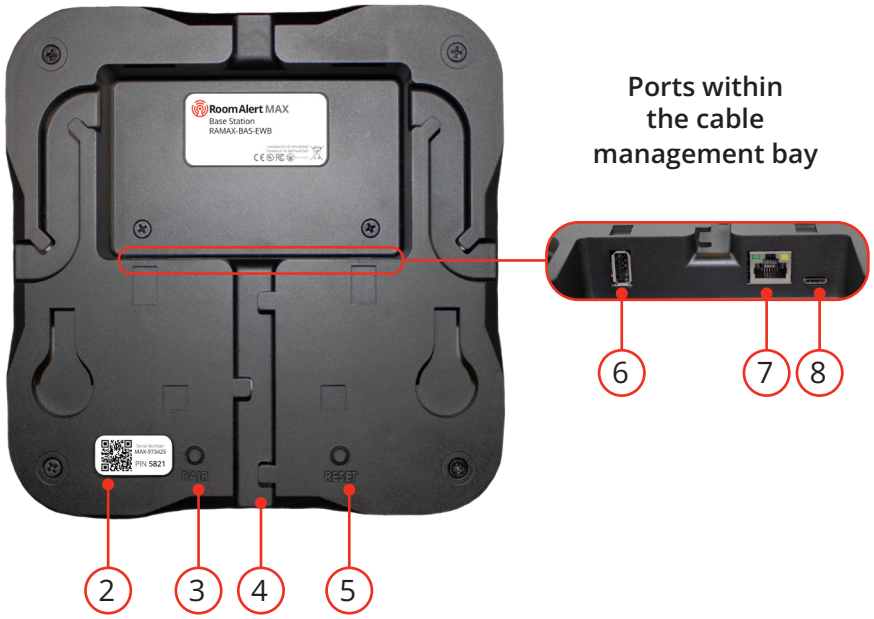


	Internal Sensor	A digital sensor monitors ambient temperature with a range of -40 to 257°F (-40 to 125°C).
1.	**Status LED**	An LED indicates the status of the device. See “1.4. LED Behaviors” on page 8.
2.	**Label**	The device’s serial number begins “MAXB-”. (The QR code & PIN are for future applications.)
3.	**PAIR Button**	A small push button puts the device into pairing mode.
4.	**Cable Channel**	4 channels—one on each side of the unit—allow routing cables in any direction.
5.	**RESET Button**	A small push button resets the Base Station to its default factory settings. Hold-in button for 10 seconds to clear settings, or 30 seconds to clear both settings & wireless sensor connections. See “1.4. LED Behaviors” on page 8 for more information.
6.	**USB-A Port**	A USB-A port for future applications.
7.	**Ethernet Port**	A PoE-enabled port connects the Base Station to your network via an RJ-45 Ethernet cable.
8.	**USB-C Port**	A USB-C power port connects to an electrical outlet via a Room Alert MAX Power Adapter.

1.2. Temperature /Humidity Sensor

Front

Back (battery cover removed)

Bottom

Internal Sensors	Digital sensors monitors ambient temperature with a range of -40 to 257°F (-40 to 125°C) and relative humidity with a range of 0% to 100% RH.
1. **Status LED**	An LED indicates the status of the device. See “1.4. LED Behaviors” on page 8.
2. **PAIR Button**	A small push button puts the device into pairing mode.
3. **Pairing Label**	This label includes a QR code and the PIN for wireless pairing.
4. **Battery Compartment**	2 non-rechargeable AA batteries power the sensor.
5. **USB-C Port**	(Optional) A USB-C power port connects to an electrical outlet via a Room Alert MAX Power Adapter.

1.3. Wired Sensor Adapter (Optional)

Front

Back

Top

Bottom

	Internal Sensor	A digital sensor monitors ambient temperature with a range of -40 to 257°F (-40 to 125°C).
1.	**Status LED**	An LED indicates the status of the device. See “1.4. LED Behaviors” on page 8.
2.	**Pairing Label**	This label includes a QR code and the PIN for wireless pairing.
3.	**PAIR Button**	A small push button puts the device into pairing mode.
4.	**USB-C Port**	A USB-C power port connects to an electrical outlet via a Room Alert MAX Power Adapter.
5.	**Digital Ports**	(2) Standard RJ-11 jack(s) connect any AVTECH wired digital sensor via a standard RJ-11 (straight through) telephone cord.
6.	**Switch Port**	Dry contacts connect to any AVTECH switch sensor or dry contact on a device (e.g., HVAC, generator, pump, fan, etc.) via standard speaker wire or low-voltage 2-wire cable.

1.4. LED Behaviors

Base Station LED Behaviors

Pattern...	Means...
Blue Solid / Flashing	Device is booting up.
Purple Flashing	RESET button held-in for 10 seconds. Release while the LED is flashing purple to clear all settings, including static IP address, alerts, and Wi-Fi configuration.
Orange Flashing	RESET button held-in for 30 seconds. Release while the LED is flashing orange to clear all device settings **and wireless sensor connections**.
Red Flashing	Device does not have a network connection on Wi-Fi or Ethernet.

Sensor & Adapter LED Behaviors

Pattern...	Means...
Single Flash	When sensor/adapter is first powered-on, a single flash indicates that it is not bonded to a Base Station.
Double Flash	When sensor/adapter is first powered-on, a double flash indicates that it is currently bonded to a Base Station.
Steady Flashing	Sensor is in pairing mode.
3 Rapid Flashes	To clear the sensor/adapter's bond, press and hold-in its PAIR button until its LED flashes 3 times rapidly.

2. How To Install Room Alert MAX

To ensure optimal wireless connectivity, configure your Base Station and sensors/adapters before mounting them. This allows you to test both:

- The Base Station's signal strength on your Wi-Fi network (if applicable)
- The wireless link quality between the Base Station and sensors/adapters

2.1. Setup Steps

This section of the manual guides you through the following steps:

1. First, connect the Base Station to your network and verify its signal strength.
2. Next, pair your sensors and adapters with the Base Station.
3. Then determine optimal mounting locations by checking for a strong, stable wireless signal.
4. Finally, securely mount your hardware in the chosen locations.

That's it! Once installed, you can configure settings and alerts.

2.2. Connect the Base Station to your network

To enable Wi-Fi (optional), the Base Station must first be configured over a wired Ethernet connection.

If Your Network Is Power Over Ethernet (PoE) Enabled...

- Connect one end of a standard Ethernet cable to the Base Station's Ethernet port.
- Connect the other end to a PoE-enabled network jack.

Your Base Station is now powered and discoverable on your wired network.

If Your Network Is Not Power Over Ethernet (PoE) Enabled...

1. Connect To Your Network First
   - Connect one end of a standard Ethernet cable to the Base Station's Ethernet port.
   - Connect the other end to a network jack.
2. Then Connect To Power
   - Plug one end of the Room Alert MAX 2A Power Adapter into the Bast Station USB-C power port.
   - Plug the other end into a surge-protected power source.

NOTE Use the Room Alert MAX 2A Power Adapter or a 5V USB-C. Other voltages could damage the Room Alert hardware and void your warranty.

Your Base Station is now powered and discoverable on your wired network.

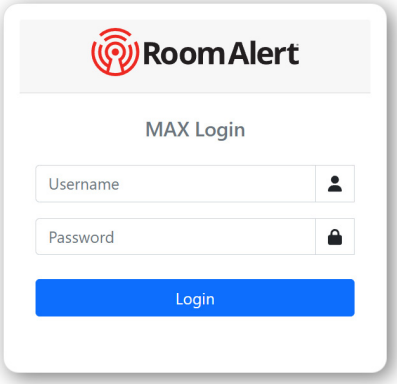
2.3. Access Base Station's web interface and (optionally) configure Wi-Fi

2.3.1. Access the Web Interface

To access the interface, type the Base Station's IP address directly into the address bar of your web browser. You may find the IP address...

- Through your RoomAlert.com account or the Room Alert App by navigating to **Devices** and clicking on your Base Station in the list to open its *Details* page.
- Using the Room Alert Discovery utility (available to download from RoomAlert.com) to scan your network for the device.

If the device is connected to a network without DHCP support, it defaults to the IP address **169.254.100.44**. In this case, to access the device, your PC must have a network interface configured with an IP address in the 169.254.x.x range.

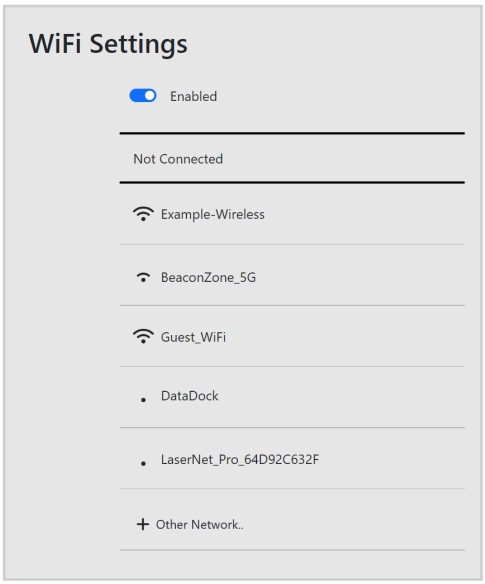


The web interface is secured with a username and password. The default credentials are:

- Username: **admin**
- Password: **password**

The web interface opens to the Readings page by default. For more information, see "3.1. Readings" on page 15.

2.3.2. Connect the Base Station to your wireless network



1. Navigate to **Settings** → **Wi-Fi** to open the *Wi-Fi Settings* screen.
2. Wi-Fi is disabled by default. Click the toggle to enable it.
3. A list of available networks will populate; select your network from the list.
4. Enter your credentials, and (optionally) IP settings.
5. Click **Connect**.
6. If the connection is successful, it will show as connected at the top of the networks list; you may check its signal strength here or in the *Readings* page.

For more information about Wi-Fi, including the supported encryption protocols, see "3.2.3. Wi-Fi Settings" on page 19.

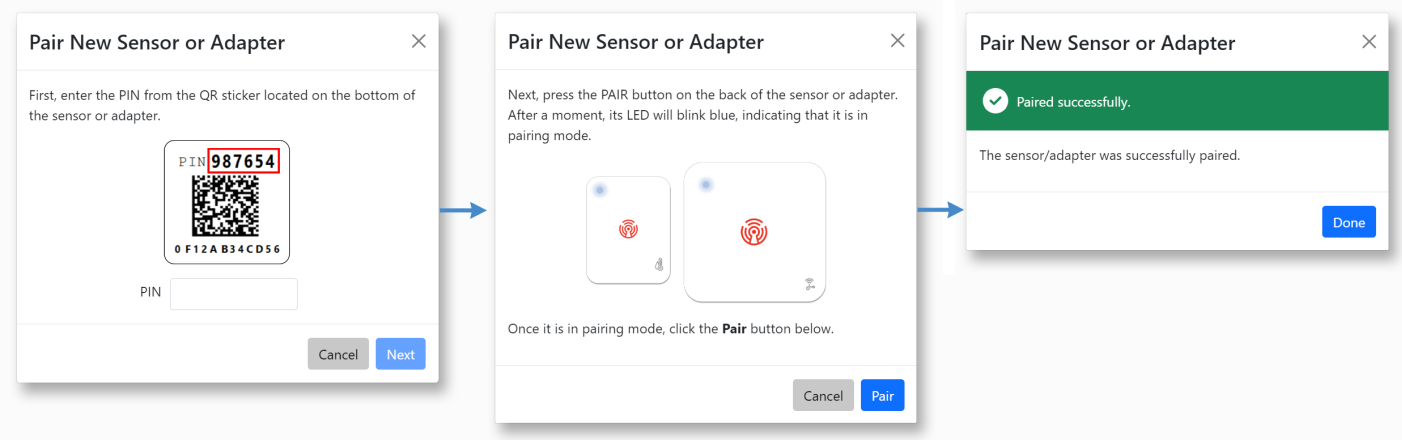
2.4. Pair Wireless Sensors & Wired Sensor Adapters

To pair a new sensor or adapter to your Base Station, first connect it to power.

Next, navigate to **Settings** → **Sensor Connections** and click the **+ Pair new sensor or adapter** button.

Then follow the on-screen prompts through the following steps:

1. Enter the 6 digit PIN listed on the sensor/adapter's sticker and click **Next**.
2. Press the physical PAIR button on the back of the sensor/adapter.
    - The LED on the front of the sensor/adapter will flash **blue** to indicate it is in pairing mode; once it is flashing, click **Pair**.
3. The Base Station will attempt to pair with the sensor/adapter, and show feedback on-screen.



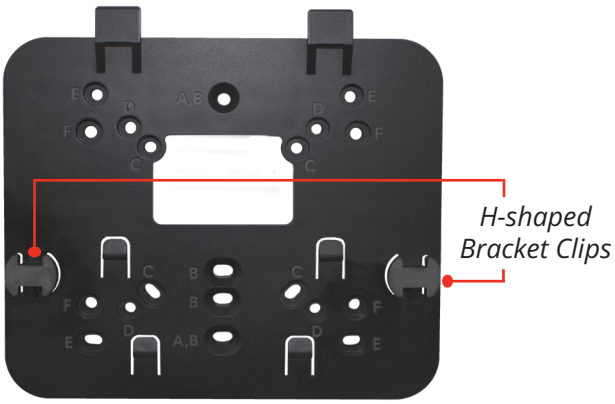
Tip If pairing fails, bring the sensor/adapter closer to the Base Station and try again.

4. Once the sensor/adapter is paired to the Base Station, you can find it in the Readings page, and check its signal strength. *For more information, see "3.1. Readings" on page 15.*
    - Bring the sensor/adapter to your desired mounting location and then check its signal strength. **Ensure a strong signal prior to mounting it in place.**

2.5. Mount Your Base Station

Before mounting your Base Station, be sure to check for a strong Wi-Fi signal and wireless link with sensors/adapters.

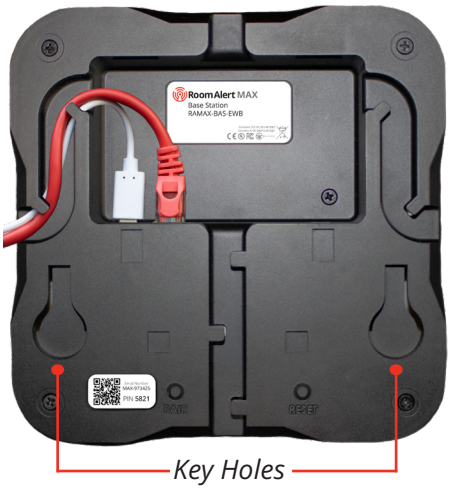
1. Install the Base Station's mounting plate directly to your wall, ceiling, or overtop a junction box.



The screw holes on the plate are labeled A - F:

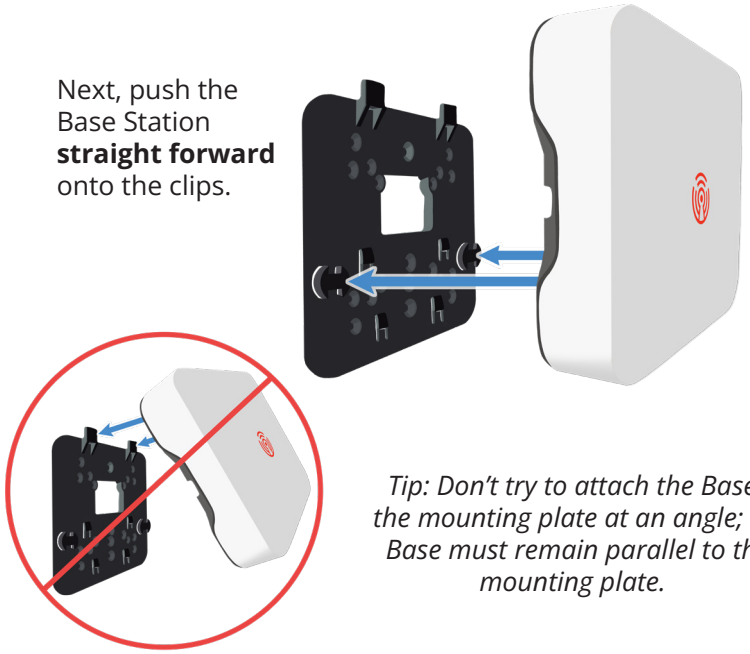
A	Single-Gang Outlet Box (US)	**B**	European Outlet Box
C	3.5" Round Junction Box (US)	**D**	4" Round Junction Box (US)
E	4" Square Junction Box (US)	**F**	(Drywall) Wall Mount

2. Connect the Base Station to power and/or Ethernet. Wires can routed out any side of the base, or through the center hole of the mounting plate directly into the wall behind the unit.



3. To secure the Base Station to the mounting plate, first align the key holes with the H-shaped bracket clips.

Next, push the Base Station **straight forward** onto the clips.



Tip: Don't try to attach the Base to the mounting plate at an angle; the Base must remain parallel to the mounting plate.

4. Finally, to secure the Base Station, slide it down until it snaps into place.

Tip: apply pressure to the front of the device while pushing downward to help guide it straight into position.

2.6. Install Your Sensors

Sensor Placement

Choose a suitable mounting location for your sensor in the area you want to monitor. Avoid high-traffic areas, as people passing by can interfere with signal strength.

First, Insert Batteries

- Remove the battery compartment door by sliding it downward; this will serve as the mounting bracket.
- Insert the included (2) AA batteries, ensuring proper polarity.

NOTE Use **only non-rechargeable** batteries. In most installations, batteries last at least 2 years under normal use.

- (Optional) If desired, the sensor can be powered via its USB-C port; in this setup, batteries can serve as backup during power outages.

Next, Mount The Sensor

The sensor can be mounted using either screws or the included dual-lock tape. For optimal airflow, mount the sensor with its ventilated side facing upward.

A. Screw Mounting

- Secure the battery compartment door to the wall using screws.
- Attach the sensor onto the mounted door by pushing it straight forward onto the 4 notches. (Tip: when aligned, you'll see approximately 3 mm of the mounting door overhanging the bottom of the sensor, as pictured.)
- Press the sensor downward approximately 3 mm to snap it into place.

B. Tape Mounting

- Close the battery compartment door on the sensor by aligning the 4 notches and sliding it into place.
- Attach the double-sided latch tape to the back of the door.
- Press the entire unit firmly against the mounting surface, holding it in place for a moment to set.

Removing The Sensor

The sensor can be removed from the mount to access its PAIR button or replace batteries. To remove it, first slide the sensor upwards approximately 3 mm to release it from the mount latches. Then pull the sensor toward you and off of the mount.

2.7. Install Your Wired Sensor Adapters

Adapter Placement

Choose a suitable mounting location for your adapter based on the wired sensors you intend to connect. Avoid high-traffic areas, as people passing by can interfere with signal strength.

Mount The Adapter

You may hang it from a nail, screw or hook through the key hole slots, secure it with dual-lock tape, or simply place it on a flat surface.

Connect Power

- Connect the Room Alert MAX 2A Power Adapter to the adapter's USB-C power port.
- Plug the other end into a surge-protected power source.

NOTE Use the Room Alert MAX 2A Power Adapter or a 5V USB-C. Other voltages could damage the Room Alert hardware and void your warranty.

Then connect external sensors

Install up to (2) digital sensors and (1) switch sensor according to the sensors' Installation Notes, available at https://avtech.com/support/.

3. How To Use The Room Alert MAX Web Interface

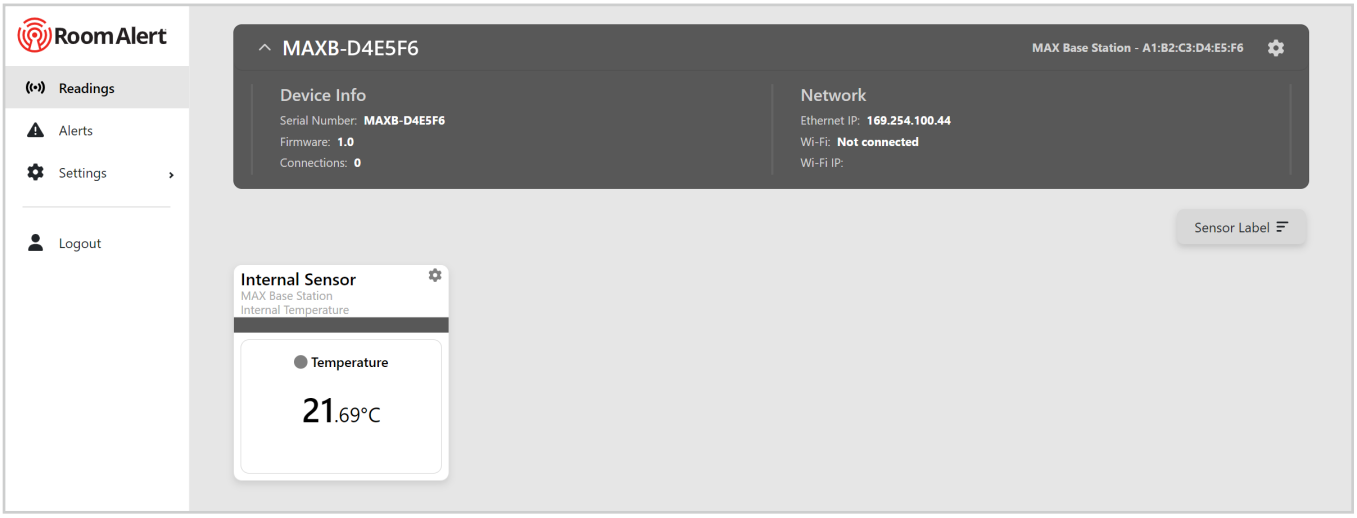
For information about accessing the Base Station's web interface, see "2.3.1. Access the Web Interface" on page 10.

Your Room Alert MAX web interface has 3 tabs:

- Readings
- Alerts
- Settings

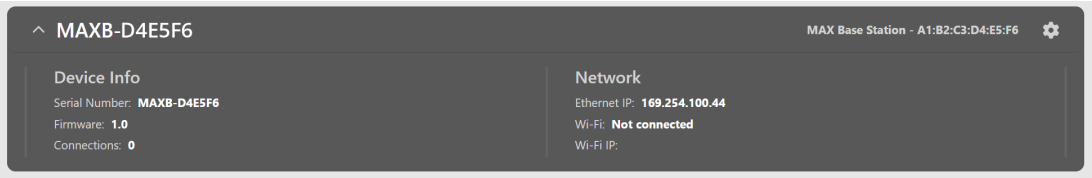
3.1. Readings

The Base Station's web interface opens by default to the **Readings** page, where you may view all sensor statuses.



Header

At the top of the page is the header, where you may view basic information about your device, including its name and MAC Address.



If you expand the header, you may view additional information, including:

- Device Info, such as serial number, firmware version, and number of wireless connections
- Network details, like Ethernet IP address, connected Wi-Fi network, and Wi-Fi IP address.

Tip You may change the device name by clicking the cog icon ⚙ in the upper right corner.

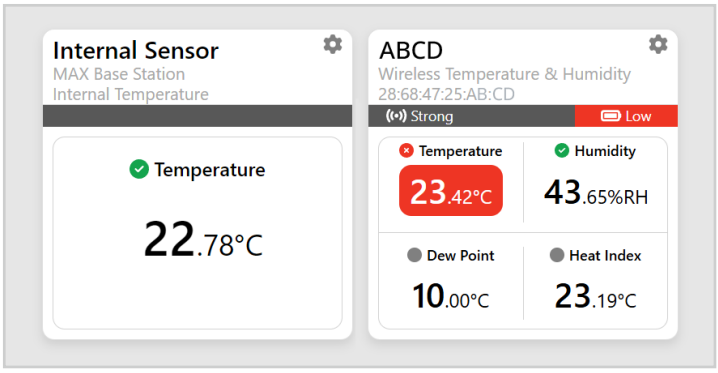
Navigating Sensor Readings

Your Base Station displays sensors in the following order:

- The Base Station's internal sensor
- Wireless sensor(s)
- Wired sensor adapter(s)

Sensor Display Area

Below the main page header is the sensors section where you may view your sensor data.



Sensor Cards

Each sensor card includes the following information:

- The sensor label, type and MAC address
- The strength of the signal to the Base Station (if applicable)
- The battery level (if applicable)
- Readings for all of the sensor channels

Tip You may change the sensor label, adjust readings and change other settings by clicking the cog icon ⚙ in the upper right corner of the sensor card.

Alarm Status Icons

Status icons are displayed for sensor channels associated with alert thresholds.

Status icon...	Means...
Green circle with "✓" mark	The sensor channel is associated with one or more alert thresholds, and **all** of those alerts are currently in a clear state.
Red circle with "X" mark	The sensor channel is associated with one or more alert thresholds, and **at least 1** of those alerts is currently in an alarm state.
No status icon	The sensor channel is not associated with any alert thresholds.

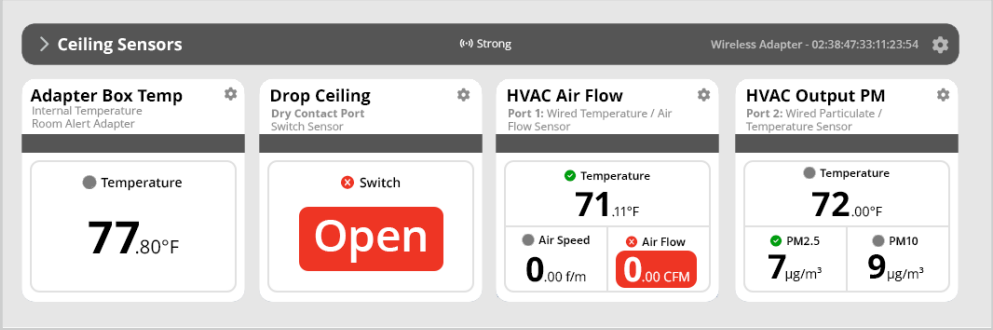
For more information about Alerts, see "3.3. Alerts" on page 28.

Wired Sensor Adapters

Wired sensor adapters have their own header, which includes the adapter's label, the strength of the signal to the Base Station, and the MAC address.

Below this header, the adapter's internal and external sensors are displayed.

Note that the switch sensor (dry contact) port is disabled by default. You may enable it by clicking the ⚙ in the upper right corner of the adapter header.



Tip

You may change the adapter label, set sensor types and change other settings by clicking the cog icon ⚙ in the upper right corner of the adapter header.

3.2. Settings

To adjust your Base Station's settings or to pair new sensors/adapters, select **Settings** in the navigation bar to the left of your screen; then choose a sub-tab to open the corresponding settings.

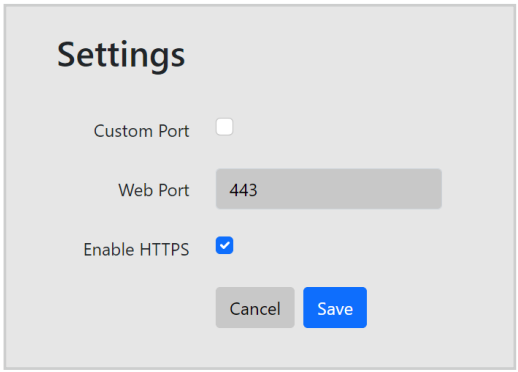
Saving Settings

To save a setting, click out of the field you just modified. Notice 2 buttons below the settings.

- A **Save** button applies your settings.
- A **Cancel** button re-loads the page without any unsaved changes you've made.

3.2.1. Web Interface Settings

You may set defaults for the *Status* screen:



- In *Web Port*, you may change the port number your web browser uses to connect to your Room Alert's web interface. By default, it uses port 80 for HTTP and port 443 for HTTPS.
- To change the web port, select the **Custom Web Port** check-box above the *Web Port* field.
- Select the **Enable HTTPS** check-box to enable your Room Alert to use HTTPS for its local web interface. For information about the certificate that secures the web interface, LINK .

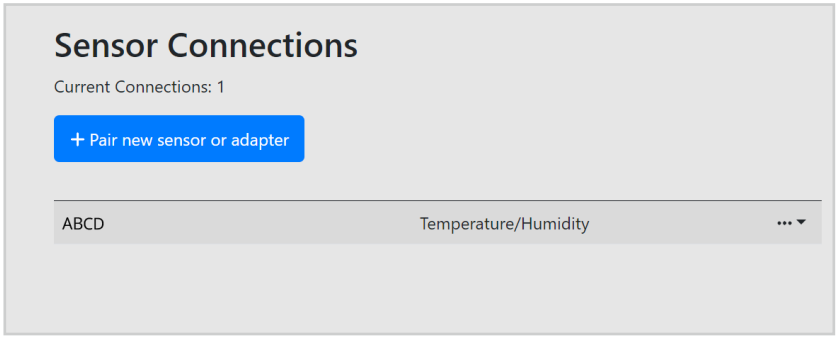
When you're done making changes, select **Save**.

3.2.2. Sensor Connections

On the *Sensor Connections* screen, you can pair new sensors/adapters, view a list of all paired devices, and unpair devices.

The Room Alert MAX Base Station supports up to 10 sensor/adapter connections.

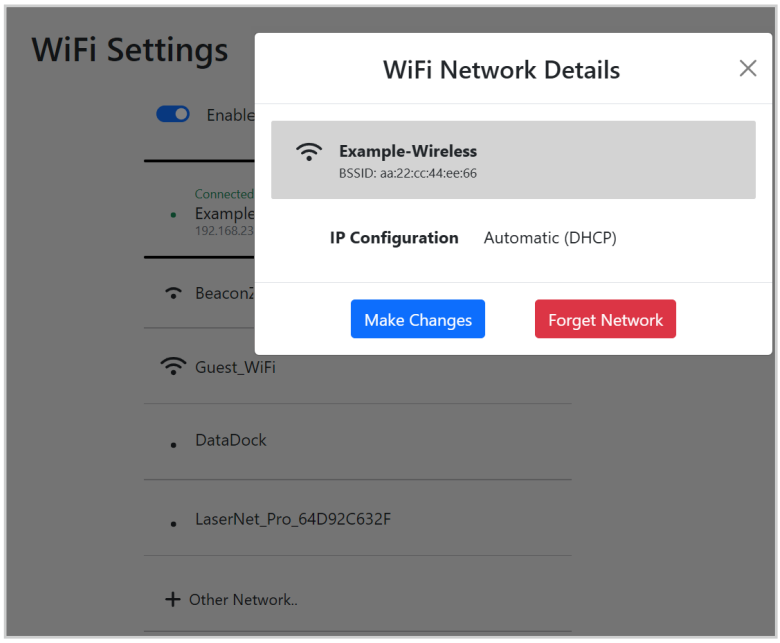
- All wireless sensors and adapters that are currently paired with the Base Station are listed with their Device Name and Type.
- To unpair a sensor/adapter, click on its ellipses and then click **Forget**.



For more information about pairing a device, see "2.4. Pair Wireless Sensors & Wired Sensor Adapters" on page 11.

3.2.3. Wi-Fi Settings

On the **Settings** → **Wi-Fi** page, you may...



- Enable or disable Wi-Fi functionality using the toggle control.
    - Disabling Wi-Fi while connected to a network causes the device to drop the connection without losing its credentials or IP settings.
- Connect to a Wi-Fi network.
    - See the supported network types listed below.
- Modify the device's Wi-Fi connection settings.
    - Click on your connected network, and then click **Make Changes**.
- Forget your Wi-Fi network.
    - Click on your connected network, and then click **Forget Network**. This will drop the connection and delete any saved credentials or IP settings.

For more information about connecting to a Wi-Fi network, see "2.3.2. Connect the Base Station to your wireless network" on page 10.

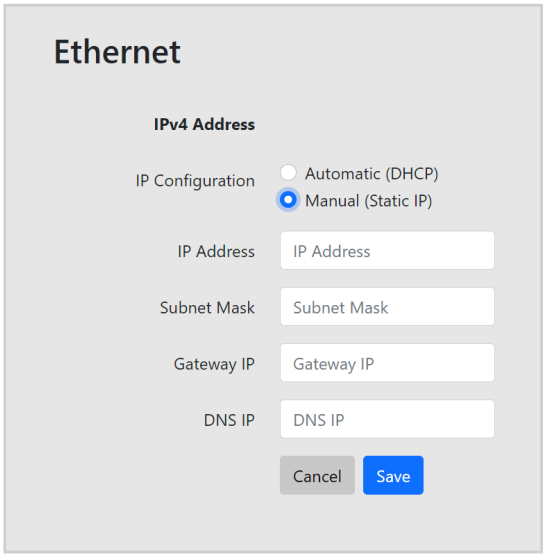
Supported Wi-Fi Encryption Protocols

Room Alert MAX supports the following types of Wi-Fi networks:

- WPA2 Personal, WPA2 Enhancements
- WPA2 Enterprise
- WPA3 Personal
- Mixed Mode (WPA/WPA2)
- WPA3 Personal Transition Mode (WPA2/WPA3)

3.2.4. Ethernet Settings

Navigate to **Settings** → **Ethernet** to configure Ethernet IP settings.



IP Address Configuration—DHCP

To obtain an IP address automatically using DHCP:

1. Select **Automatic (DHCP)**, which is the default setting.
2. Select **Save**.

IP Address Configuration—Static IP

To assign a static IP address:

1. Select **Manual (Static IP)**.
2. In *IP Address*, enter the new static IP address.
3. In Subnet Mask, enter the subnet mask.
4. In *Default Gateway*, enter the gateway IP address.
5. In *DNS Server IP*, enter the DNS server IP address.
6. Select **Save**.

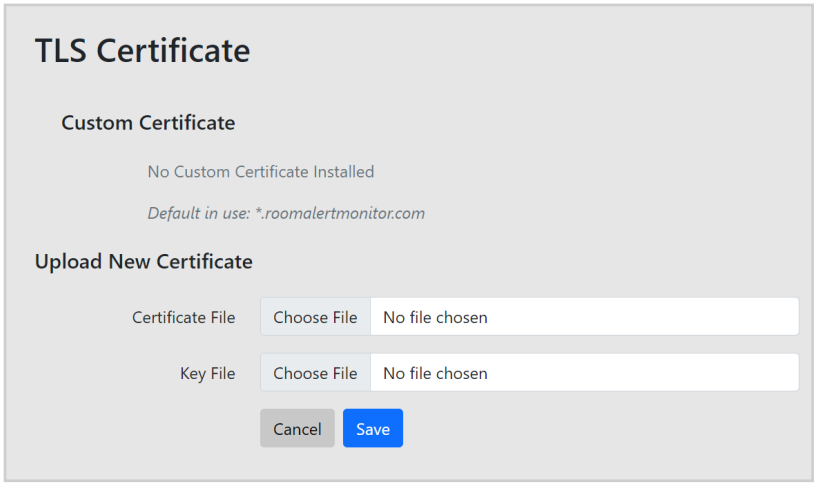
Tip

Make sure you do not use an IP address that is already assigned to another device. Also be sure to set the IP address within your current subnet range; otherwise, you may not be able to discover your Room Alert Base Station.

3.2.5. TLS Certificate Settings

When HTTPS is enabled, the Base Stations' web interface uses a certificate issued to *.roomalertmonitor.com. If desired, you may upload your own custom certificate instead. To use your own certificate:

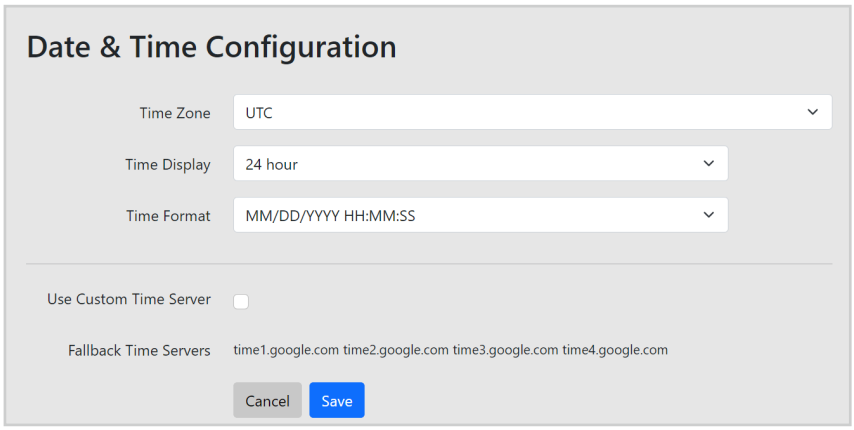
1. First, upload your Certificate File, which must be in PEM format.
2. Then upload your Key File, which must also be in PEM format.
3. Then select **Save**. Room Alert MAX will verify that the certificate and private key match each other and are correctly formatted. If so, the web interface will redirect to use the new certificate.
4. You may uninstall the custom certificate at any time by clicking the **Remove** button and then clicking **Save** to apply your changes.



3.2.6. Date & Time Settings

You may configure the date and time defaults for your Room Alert Base Station.

- In *Time Zone*, select your time zone from the drop-down list. UTC is the default.
- In *Time Display*, you may select the AM/PM or 24 hour format from the drop-down list. The 24 hour setting is the default.
- In *Time Format*, you may select either the MM/DD/YY or DD/MM/YY date format from the drop-down list. Month first (MM/DD/YYYY) is the default.



Time Server

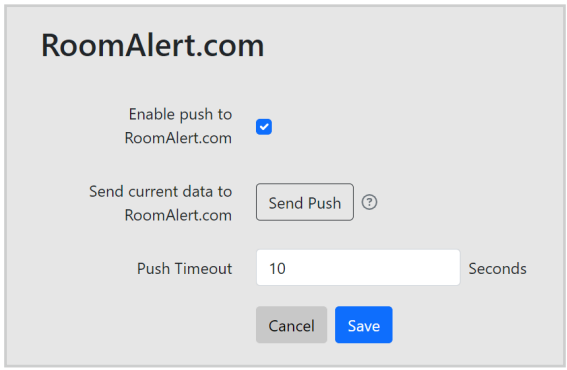
By default, Room Alert uses the Network Time Protocol (NTP) server, time1.google.com.

- To use a different time server, select the **Use custom time server** check-box.
- In *Domain Name/IP*, enter your time server's domain name or IP address.

When you're done making changes, select **Save**.

3.2.7. RoomAlert.com Push Settings

Room Alert Monitors with push to RoomAlert.com enabled automatically update your Room Alert Account with sensor data at defined intervals.

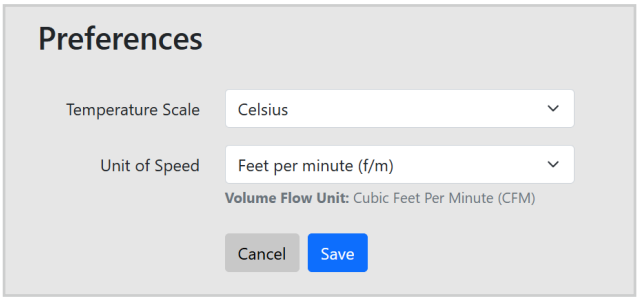


- Push to RoomAlert.com is enabled by default.
- If you wish to disable push to RoomAlert.com, un-check the **Enable push to RoomAlert.com** box.
- Select **Send Push** to manually send sensor data to RoomAlert.com.

When you're done making changes, select **Save**.

3.2.8. Preferences

You may change the temperature scale, as well as the unit of speed (used for the wired Digital Air Flow sensor). These preferences are reflected in the display of data within the web interface and in email notifications.



- In *Temperature Scale,* you may choose **Fahrenheit** or **Celsius** from the drop-down list. **Celsius** is the default.
- In *Unit of Speed*, you may choose **Feet Per Minute (f/m)** or **Meters Per Second (m/s)** from the drop-down list. **Feet Per Minute (f/m)** is the default.

When you're done making changes, select **Save**.

3.2.9. Email Settings

You may configure Room Alert MAX to send alert notifications via email. To send the notification, you must configure your mail server.

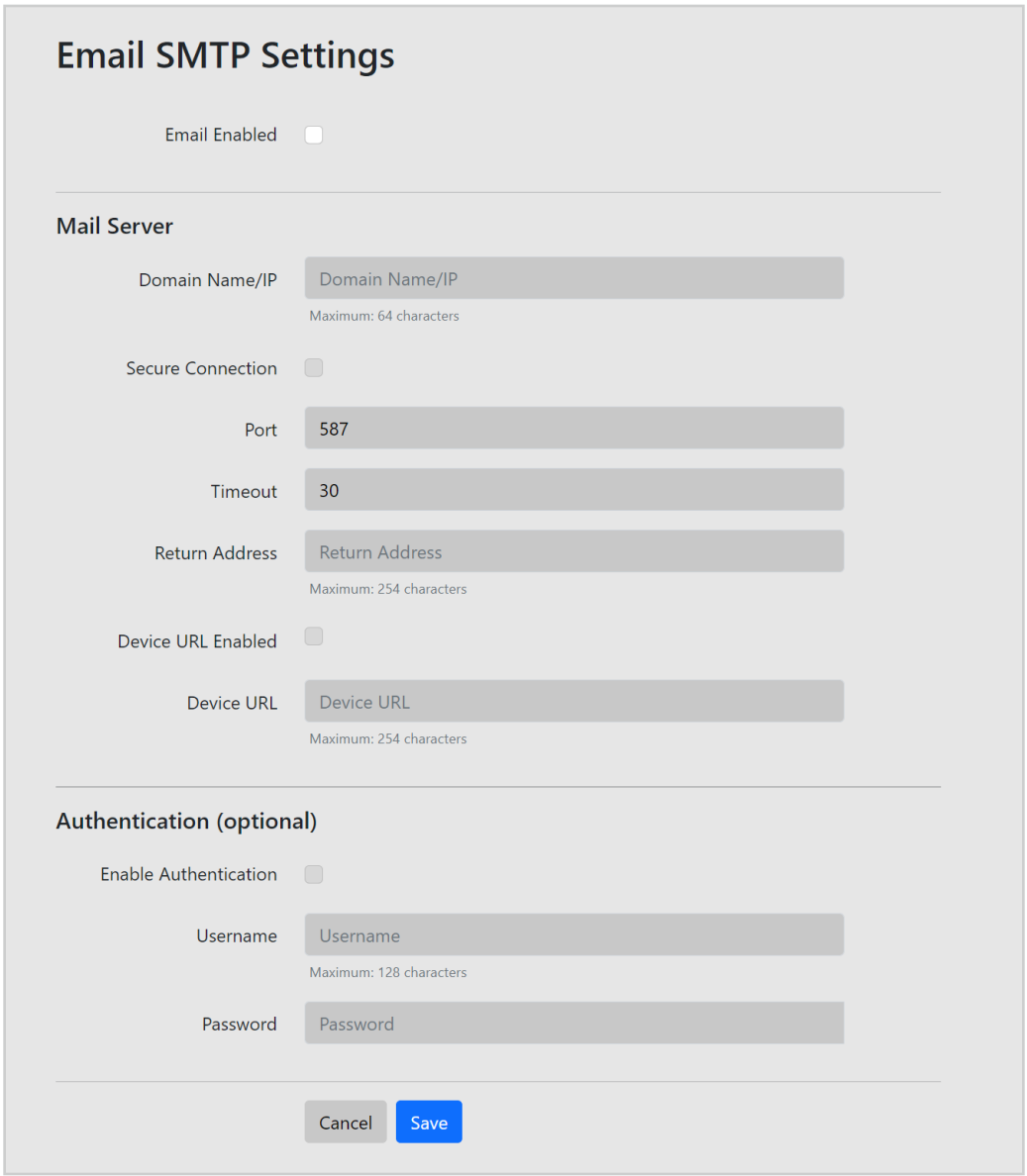
1. Check **Email Enabled**.
2. In *Mail Server*:
   - In *Domain Name/IP*, enter the domain name or IP address of your mail server.
   - In *Secure Connection*, select the check-box if your mail server requires SSL or TLS encryption.
   - In *Port*, enter your mail server's SMTP port. The default is 25, a commonly-used port.
   - In *Timeout*, you may leave the default, 30 seconds, or enter another interval.
3. In *Return Address*, enter an email address that resides on your mail server. This is the address alert messages will come from.
4. The *Device URL* field controls what IP or URL displays in email alerts. You may leave the default, a disabled, blank field, or enter a custom IP address or URL. To make a custom entry, first check **Device URL Enabled**.
   - When this field is left at the default (disabled, blank), your email alerts will contain the device's current IP address and HTTP or HTTPS port number in the body of the email.

- When this field is overwritten with a custom IP or URL, your email alerts will contain that custom IP or URL in the body of the email.

Authentication (Optional)

5. If your mail server requires SMTP authentication, check **Enable Authentication**.
6. In *Username*, enter a valid username for your mail server that will facilitate authentication.
7. In *Password*, first select the **Change** button to enable the field. Then enter a valid password for your mail server that will facilitate authentication.
8. Select **Save** to apply your changes

After saving your settings, select **Send Test Email** to confirm your settings are working as expected.



3.2.10. SNMP

Because your Room Alert MAX is fully SNMP-compliant, you have the option to monitor it with a 3rd-party monitoring application capable of performing SNMP queries. You may configure Room Alert to send SNMP Traps in response to a change in alarm states to host systems running 3rd-party SNMP monitoring applications.

If you use a 3rd-party SNMP monitoring application:

- Obtain the Room Alert MIB files and load them into your SNMP monitoring application. Otherwise, your application cannot properly translate the data it receives in the SNMP Trap.
- Confirm that your application uses SNMPv3.
- Note that your Room Alert communicates with your SNMP monitoring application using the standard port for the SNMP protocol, 161.

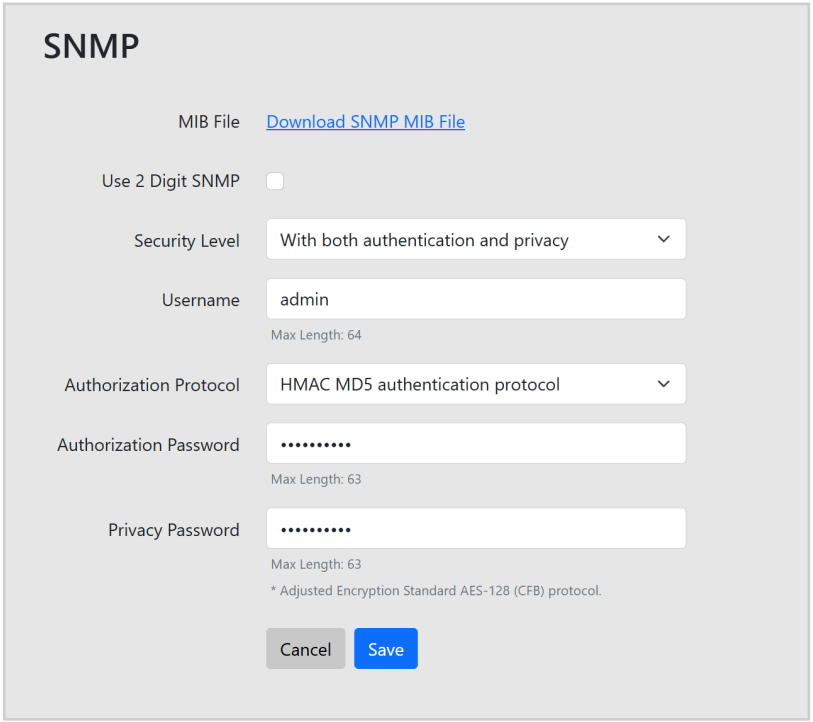
To begin configuring your Room Alert for SNMP v3:

1. Select **Download SNMP MIB File** to download the Room Alert MIB files.
2. You may select **Use 2 Digit SNMP** if you prefer to receive values in 2-digit rather than 4-digit format.

Tip

Room Alert sends values to your 3rd-party SNMP monitoring application in 4-digit format by default. 78.55° F, for example, appears as 7855. In 2-digit format, values are truncated, not rounded to the nearest number, so 78.55 would appear as 78.

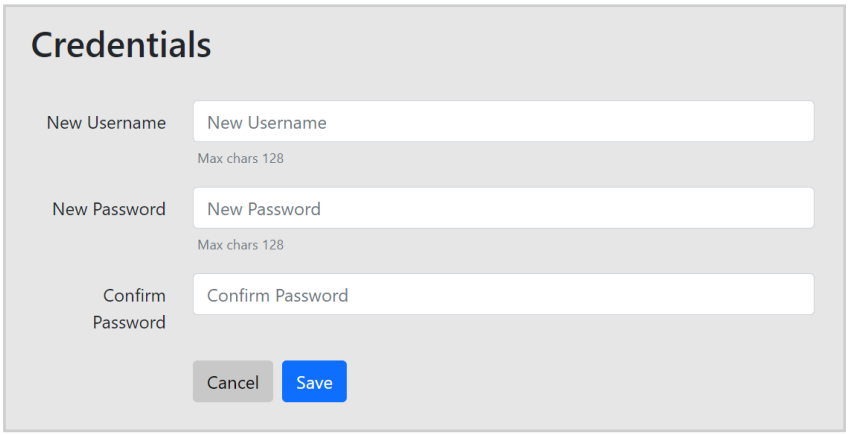
3. Select a Security Level from the drop-down menu.
4. If you select **With authentication but no privacy** or **With authentication and privacy**, you'll see some or all of these additional fields:
   - In *Username*, enter the username that's configured in your SNMP monitoring program.
   - In *Authorization Protocol*, select the protocol that your SNMP monitoring program is configured to use. The default is *HMAC MD5 authentication protocol*.
   - In *Authentication Password*, enter the authentication password that's configured in your SNMP monitoring program.
   - In *Privacy Password*, enter the privacy password that's configured in your SNMP monitoring program.
5. Select **Save** at the bottom of the page.



3.2.11. Credentials

The username and password on your Base Station protect all of its web interface pages. To change the credentials:

1. In *New Username*, you may create a username up to 128 characters.
2. In *New Password*, you may create a password of up to 120 characters.
3. Re-enter the password in the *Confirm Password* field to verify.
4. Select **Save** at the bottom of the page.



3.2.12. Maintenance

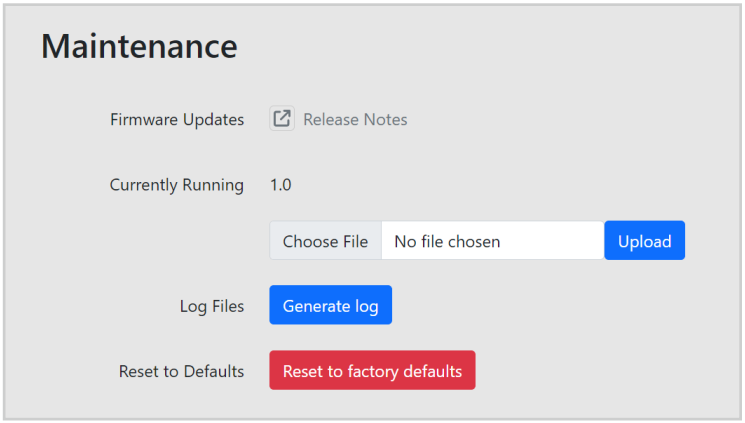
On the *Maintenance* page, you may update the device's firmware, download logs for troubleshooting, or reset the device to factory defaults.

Firmware Updates

Click **Release Notes** to view information about the firmware version, including features, improvements, and bug fixes included in the update.

The *Currently Running* field shows the firmware version that's installed on the device.

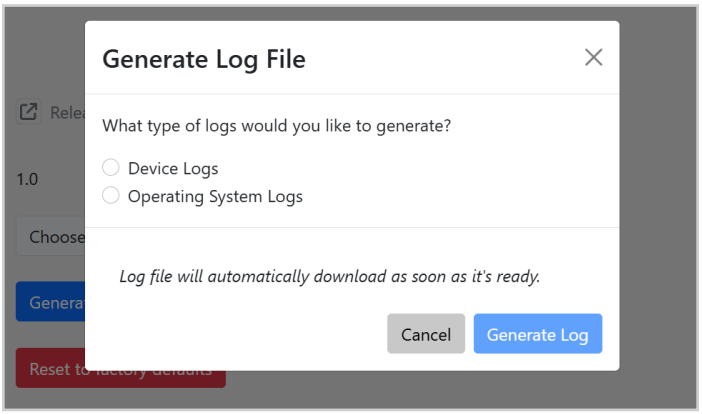
You may download the latest firmware through your account at RoomAlert.com. Browse to the downloaded file, and click **Upload** to apply it to your device.



Log Files

To download Log Files for troubleshooting, first click **Generate log**. Then select either **Device Logs** or **Operating System Logs**, as instructed by Tech Support.

The log file will automatically download as soon as it's ready. It will be saved to the default download location specified in your web browser settings.

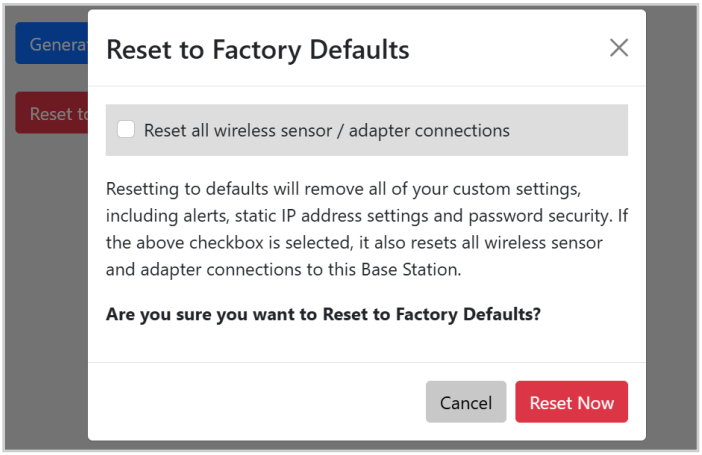


Reset to Defaults

Resetting to defaults removes all of your custom settings, including alerts, static IP address settings, Wi-Fi connections, and password security.

If the **Reset all wireless sensor / adapter connections** check-box is selected, it also resets all wireless sensor and adapter connections to the Base Station.
To reset your device to defaults:

1. Select the **Reset To Factory Defaults** button.
2. To reset all wireless sensor connections, click the **Reset all wireless sensor / adapter connections** check-box.
3. Click **Reset Now** to proceed with the reset process, or select **Cancel** to close the window.

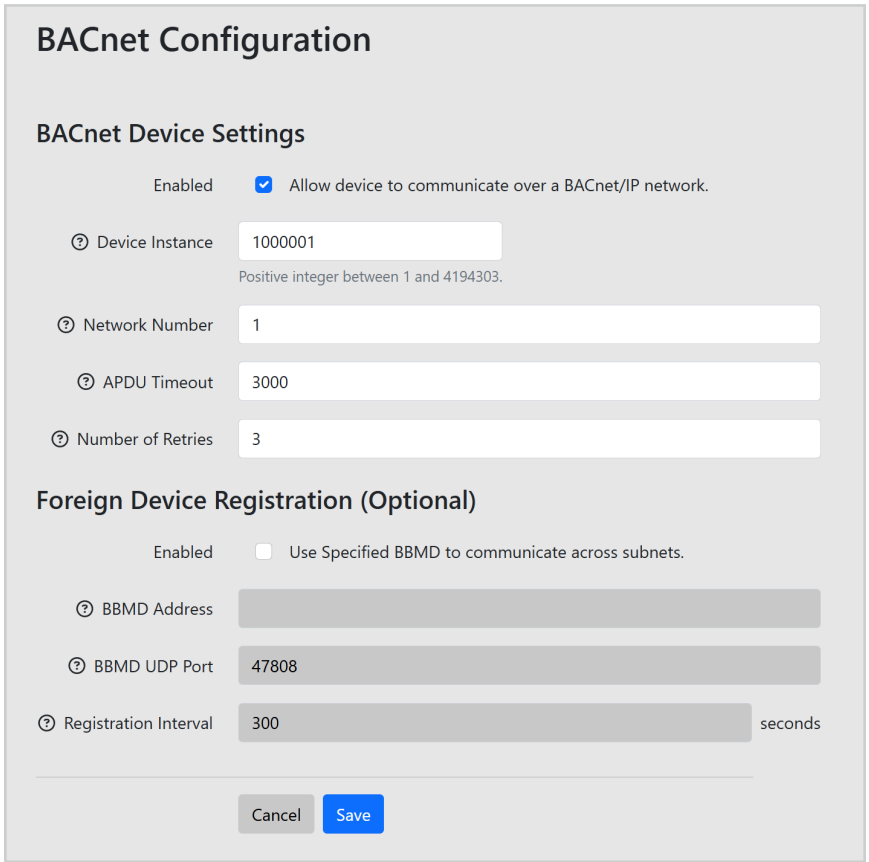


For information about resetting to defaults using the device's physical reset buttons, see "1.1. MAX Base Station" on page 5 and "1.4. LED Behaviors" on page 8.

3.2.13. BACnet Configuration

You may configure your Room Alert MAX Base Station to communicate using BACnet/IP, enabling seamless integration with your existing Building Management System (BMS) or Building Automation System (BAS).

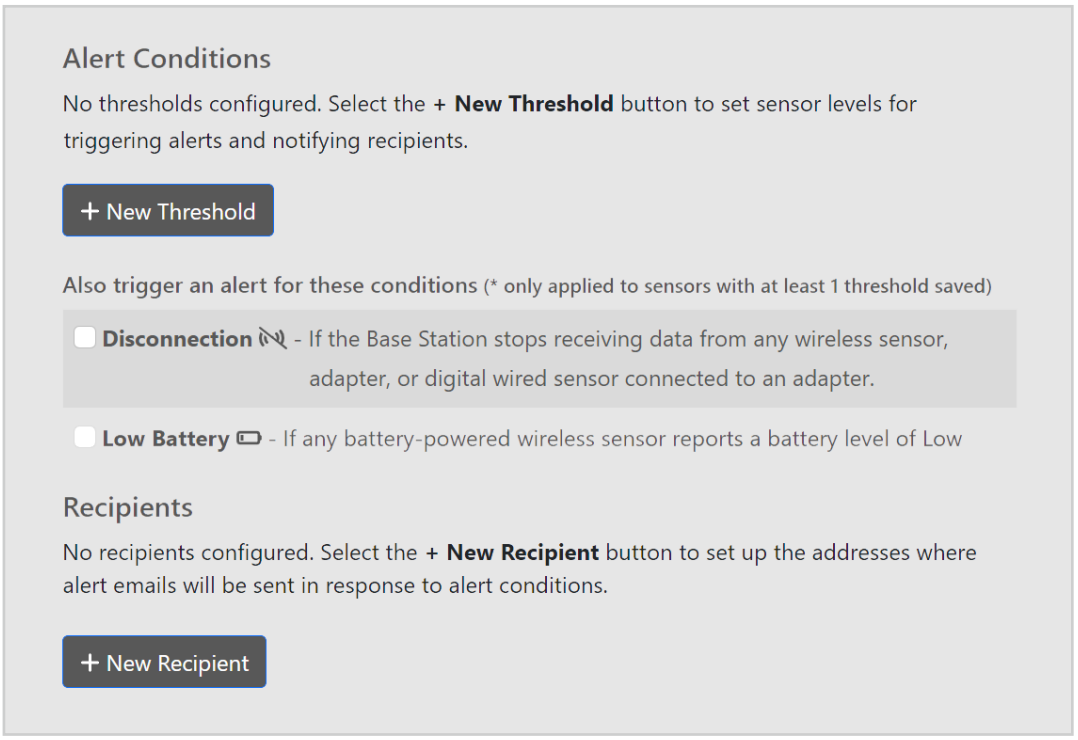
1. Check **Enabled** and fill-in the following *BACnet Device Settings*:
   - In *Device Instance*, enter a unique number to identify this device on the BACnet network.
   - In *Network Number*, enter the BACnet network identifier assigned to this segment of your system.
   - In *APDU Timeout*, you may keep the default value of 3000 milliseconds or enter a different value to adjust the amount of time the device waits for an acknowledgment of a confirmed request.
   - In *Number of Retries*, you may keep the default value of 3 or enter a different value to change how many times the device attempts to send a confirmed request if no acknowledgment is received.
2. (Optional) In *Foreign Device Registration*, check **Enabled** to allow the device to communicate across subnets.
   - In *BBMD Address*, enter the IP address or hostname of your BACnet Broadcast Management Device (BBMD).
   - In *BBMD UDP Port*, enter the UDP port number used by the BBMD device. The default is 47808, a commonly-used port.
   - In *Registration interval,* you may keep the default value of 300 seconds or enter a different value to adjust how often the device re-registers with your BBMD.
3. Select **Save** at the bottom of the page.



3.3. Alerts

With the Room Alert MAX built-in alerting features, you may configure multiple thresholds for any of your sensor readings. You may also configure as many alert recipients as you'd like to be notified when a threshold is exceeded.

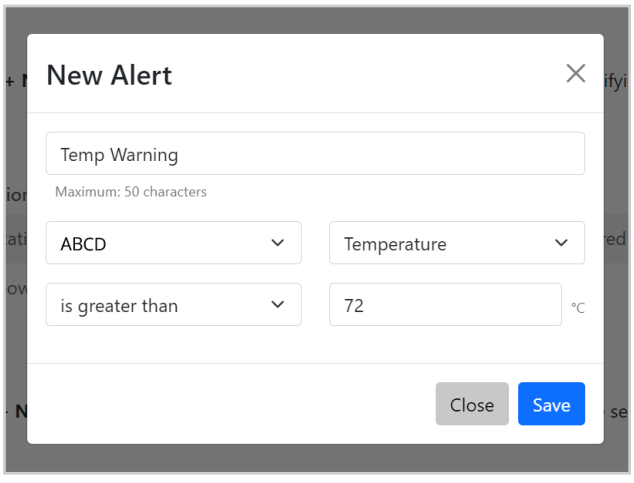
To get started, select **Alerts** in the navigation bar to the left of your screen.



Alert Conditions

To configure a threshold:

1. Click **+ New Threshold**.
2. Label your threshold. It defaults to "New Alert X."
3. Select your sensor (or adapter).
    - Additional fields will populate based on your initial selection. For example, you may be prompted to select the adapter port and/or sensor channel.
4. Select the operator and input your threshold value.
5. Select **Save**.



Your new threshold will now appear in the *Alert Conditions* table.

- Triggered alerts get displayed in red.
- To delete a threshold, click on its ellipses and then click **Delete**.

Tip

The *Thresholds and Recipients* tables each displays up to 10 entries by default. Use the < and > symbols in the upper right corner of the table to view more entires. You may change the number of entries displayed by selecting the cog icon ⚙.

Also trigger an alert for these conditions

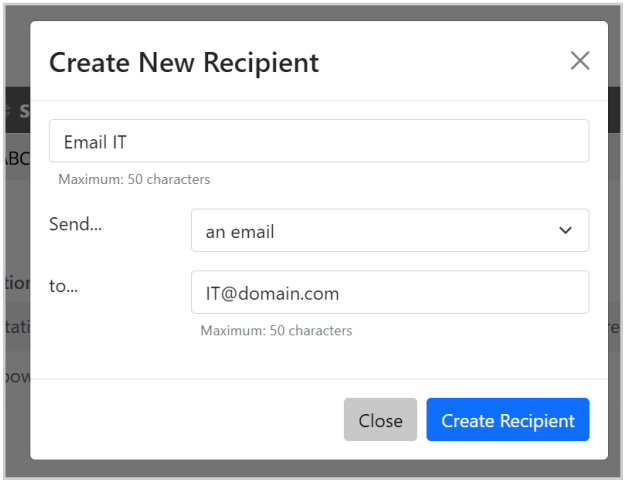
The Base Station can notify you if any* of your connected sensors has a low battery or stops reporting data to the Base Station. To alert on these conditions, select the check-boxes.

(**Only applies to sensors that have at least one threshold saved on any of the sensor's readings.*)

Recipients

You can configure as many recipients as you'd like to be notified if any of your alert conditions go into alarm state. To configure an alert recipient:

1. Click **+ New Recipient** below the *Recipients* table.
2. Label your Recipient. The label defaults to "New Recipient X."
3. In *Send...*, choose either an email or an SNMP Trap.
4. In *to...*, enter the address where you want the alert notification sent.
5. Select **Create Recipient**.



Your new recipient will now appear in the Recipients table.

- To delete a recipient, click on its ellipses and then click **Delete**.

Tip

If you set up Email Recipients, be sure to configure your mail server under Settings > Email. If you set up Trap Recipients, be sure to configure your settings under Settings > SNMP.

4. For More Information...

Visit our Support Center.

Go to https://AVTECH.com/Support/ to view our collection of:

- How To Guides
- Installation Notes
- Product Tours
- and more

Find us on YouTube.

Go to the AVTECH Software, Inc. YouTube Channel for product overviews, How-To's, and more.

Common Questions

- How To Discover Devices With Room Alert Discovery
- How To Register For A Room Alert User Profile
- What Triggers A Push To RoomAlert.com
- How To Update Firmware On Room Alert Monitors

5. Technical Specifications

5.1. MAX Base Station

Wireless Connectivity	Wi-Fi (802.11 a/b/g/n, 2.4 GHz & 5 GHz) & Low-Energy Wireless
Security Features	WPA2/WPA3-Personal, WPA/WPA2-Enterprise
Operating Temperature	-40°F to 185°F (-40°C to 85°C) Do not place unit inside condensing environments like refrigerators & freezers.
Ports	1 USB-C power jack 1 RJ-45 Ethernet port (PoE-enabled) 1 USB-A peripheral slot (for future applications)
Power Supply	Room Alert MAX USB-C power adapter (120/240 VAC) or PoE (IEEE802.3af compliant) or any 5V USB-C
Power Adapter Included	Yes
Dimensions	6.5" x 6.5" X 1.5" (16.5cm x 16.5 cm x 3.8cm)
Weight	9.42 oz (without mounting plate), 11.68 oz (with mounting plate)
Internal Temperature Sensor	Indoor ambient temperature
Range	-40°F to 257°F (-40°C to 125°C)
Accuracy	+/- 0.3°C
Resolution	0.01°C
External Sensor Compatibility	Room Alert MAX Temperature & Humidity Sensor Any Room Alert digital or switch sensor via Wired Sensor Adapter

5.2. MAX Temperature & Humidity Sensor

Type Of Sensor	Wireless
Wireless Range	Up to 150’ (45 m) from Base Station
Wireless Connectivity	Low-Energy Wireless (2.4 GHz)
Security Features	Secure Boot, Hardware Cryptographic Acceleration (AES-128/256, SHA-2, ECC)
Operating Temperature	-40°F to 221°F (-40°C to +105°C) Do not place unit inside condensing environments like refrigerators & freezers.
Power Supply	(2) AA Batteries or 5V USB-C power
Average Battery Life	5+ years
Power Adapter Included	No
Dimensions	2.5" x 3.25" X 1.125" (6.3cm x 8.3cm x 2.8cm)
Weight	2.68 (without batteries), 4.37 oz (with batteries)
Environment Condition Monitored	Indoor ambient temperature & humidity
Temperature Range	-40°F to 257°F (-40°C to 125°C)
Accuracy	+/- 0.2°C
Resolution	0.01°C
Humidity Range	0% to 100% relative humidity (RH), non-condensing
Accuracy	+/- 1.8% RH
Resolution	0.01% RH
Compatible Products	Room Alert MAX Base Station

5.3. MAX Wired Sensor Adapter

Type Of Sensor	Wireless
Wireless Range	Up to 150’ (45 m) from Base Station
Wireless Communication	Low-Energy Wireless (2.4 GHz)
Security Features	Secure Boot, Hardware Cryptographic Acceleration (AES-128/256, SHA-2, ECC)
Operating Temperature	-40°F to 221°F (-40°C to +105°C) Do not place unit inside condensing environments like refrigerators & freezers.
Ports	1 USB-C power jack 2 digital sensor port (RJ-11) 1 switch sensor port (spring terminal block)
Power Supply	Room Alert MAX USB-C power adapter (120/240 VAC) or any 5V USB-C
Power Adapter Included	Yes
Dimensions	4.5" x 4.5" X 1.25" (11.4cm x 11.4cm x 3.2cm)
Weight	4.59 oz
Internal Temperature Sensor	Indoor ambient temperature
Range	-40°F to 257°F (-40°C to 125°C)
Accuracy	+/- 0.2°C
Resolution	0.01°C
Compatible Products	Room Alert MAX Base Station
External Sensor Compatibility	Any Room Alert wired digital or switch sensor

5.4. Wireless Safety & Compliance Information

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body or nearby persons.

Base Station

- Contains FCC ID: XF6-M7DB7
- Contains IC ID: 8407A-M7DB7

Wireless Sensors & Wired Sensor Adapter

- Contains FCC ID: QOQ-GM220P
- Contains IC: 5123A-GM220P