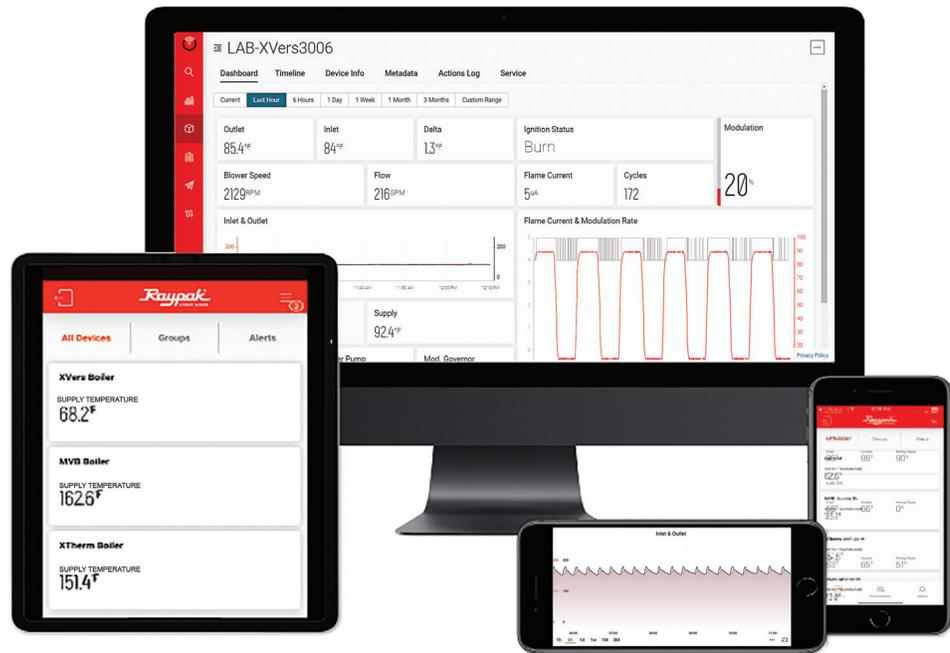


RELEASED

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SUPPLEMENTAL INSTALLATION AND OPERATION MANUAL



Raymote Wi-Fi Connectivity

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. The user is cautioned that changes and modifications made to the equipment without approval of the manufacturer could void the user's authority to operate this equipment.



CATALOG NO. 5000.721
Effective: 07-01-20
Replaces: 01-15-20
P/N 241788 Rev 2

UNCONTROLLED DOCUMENT IF PRINTED

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Revision 2 reflects the following changes:

Replaced Raypak logo on front cover page. Updated images on figures 1, 6, 8-10, 13, 16, 35. Revised section "Raymote Mobile App Navigation, page 13. New section "Automation" on page 14. New section "Search Punction" on page 18. New section "How to create an Organization" on page 19. New section "How to Create a Job Site" on page 21. New section "Analytics" on page 24. Revised section "Update Metadata on Existing Devices on page 25. New section "Transfer Users and Devices" on page 27. New section "Download Reports on page 30. New Section "Service Charts Tutorial, page 31. New section "Disabling Raymote" starting on page 39. New section "Static IP Configuration" starting on page 37. Replaced ISO logo on the rear cover page.

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1. WARNINGS

Pay Attention to these Terms

▲ DANGER	Indicates the presence of immediate hazards which will cause severe personal injury, death or substantial property damage if ignored.
▲ WARNING	Indicates the presence of hazards or unsafe practices which could cause severe personal injury, death or substantial property damage if ignored.
▲ CAUTION	Indicates the presence of hazards or unsafe practices which could cause minor personal injury or product or property damage if ignored.
CAUTION	CAUTION used without the warning alert symbol indicates a potentially hazardous condition which could cause minor personal injury or product or property damage if ignored.
NOTE	Indicates special instructions on installation, operation, or maintenance which are important but not related to personal injury hazards.

▲ WARNING: Do not use this boiler if any part has been under water. Immediately call a qualified service technician to inspect the boiler and to replace any part of the control system which has been under water.

▲ WARNING: Risk of electrical shock. More than one disconnect switch may be required to de-energize the equipment before servicing.

▲ WARNING: Should overheating occur or the gas supply valve fail to shut off, do not turn off or disconnect the electrical supply to the boiler. Instead, shut off the gas supply at a location external to the boiler.

▲ DANGER: Make sure electrical power to the heater is disconnected to avoid damage to components, potential serious personal injury or death. Make sure the gas to the heater has been shut off.

2. SYSTEM DESCRIPTION

Raymote is included as a standard feature in the XVers™, XVers L™, XTherm®, XTherm Professional Indirect®, and MVB® product lines (H, WH and P models). Raymote is an optional feature in the XFIIRE™ product lines.

Raymote enables wireless communication capability for Raypak heating products utilizing the VERSA IC® touchscreen controls. From anywhere with Internet connectivity, users can access boiler, pool or water heater information, control some functions, and receive notifications and reminders when the unit needs attention.

This manual describes Raymote components, and the process of installing, operating, commissioning, and troubleshooting the Raymote interface.

Raymote can also be added to existing units in the field utilizing the VERSA IC touchscreen.

3. COMPONENTS

The Raymote interface includes the following components:

1. **J-Box Panel Cover** - Panel cover with Wi-Fi antenna opening (MVB and XTherm only)
2. **Touchscreen Rear Cover** - Shields the electronic control
3. **Antenna Bracket** - Supports the Wi-Fi antenna installation (XVers only)

4. **Antenna Bracket** - Supports the Wi-Fi antenna installation (MVB and XTherm only)
5. **Wi-Fi Antenna** - Enhances wireless signal
6. **Wi-Fi Module** - Enables Wi-Fi connectivity (mounts to the back of the VERSA board)
7. **Power Conditioner** - Prevents power line interference

4. SERVICE KITS

The following kits are available for field service:

Service kits		Description
017198F	Swivel Antenna Kit	Wi-Fi antenna
017199F	Wireless Module Kit	Wi-Fi module
017200F	EMI Filter Kit	Power conditioner
017201F	Touchscreen Rear Cover Kit	Touchscreen rear cover and bracket
018730F	SD Card Raymote Programmed	SD Card Wifi Enable

Table A. Service Kits

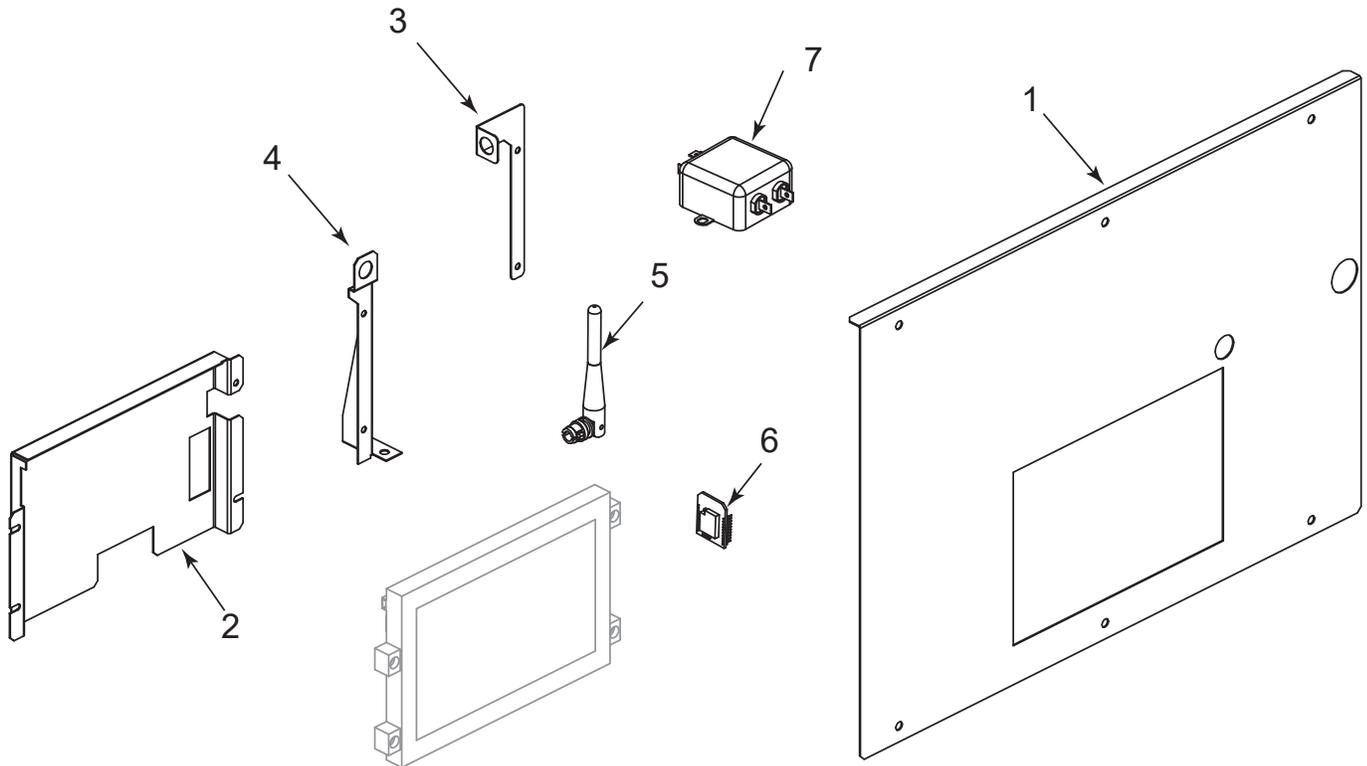


Figure 1. Raymote Components

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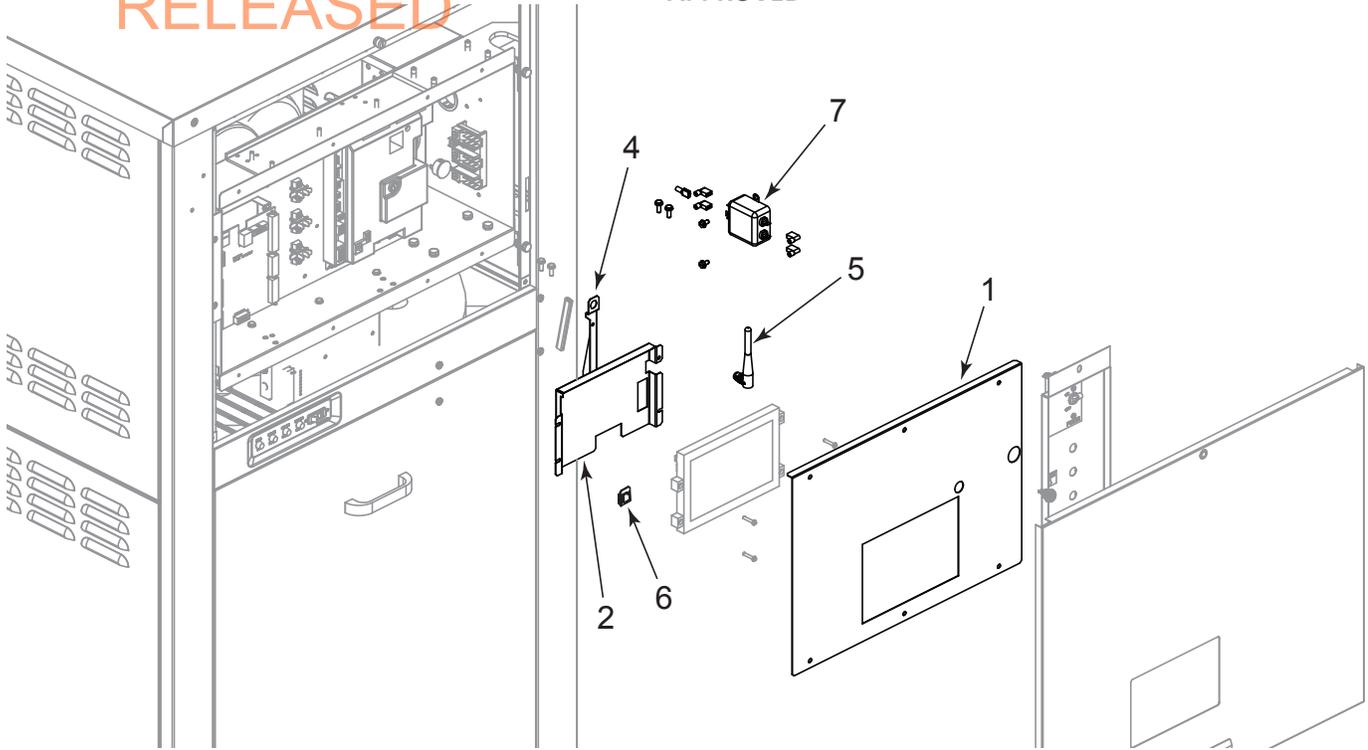


Figure 2. Raymote Installation on MVB and XTherm

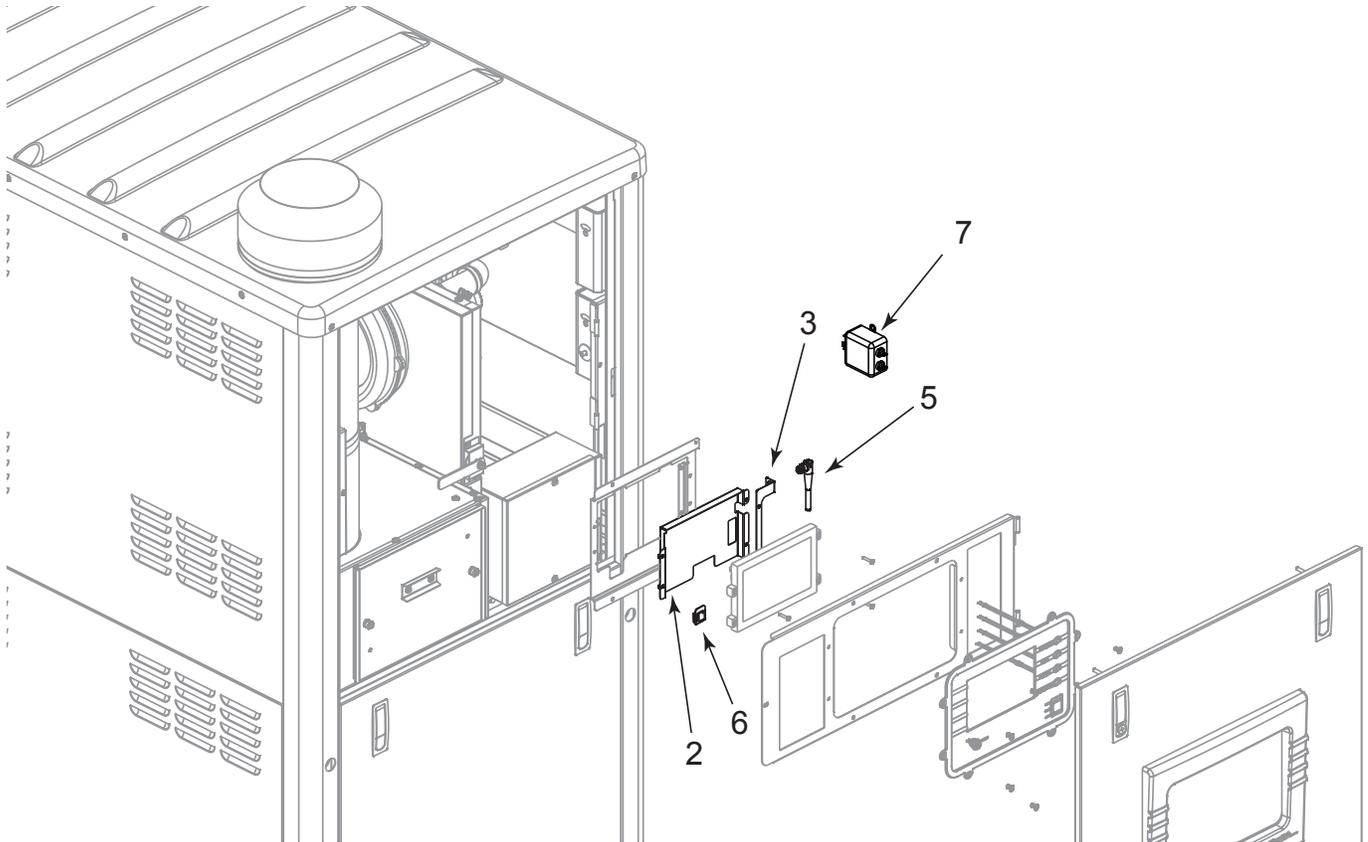


Figure 3. Raymote Installation on XVers

5. PROVISIONING PROCESS

Before initiating the provisioning process, make sure a reliable Wi-Fi access point is located near the unit or control room and a Wi-Fi network password is available.

Date: _____
Wi-Fi Network Name (SSID): _____
Wi-Fi Password: _____

Raymote User Registration Via Dashboard

Raymote user registration starts by receiving a formal invitation from another Raymote user or Raymote administrator via email. See Figure 4.

From the link in the invitation mail, the Raymote user then creates a secure user login with a valid user name (your email) and password. See Figure 5.

Once the user registration is complete, a user can begin to add new devices via the Raymote mobile app. See Figure 6.

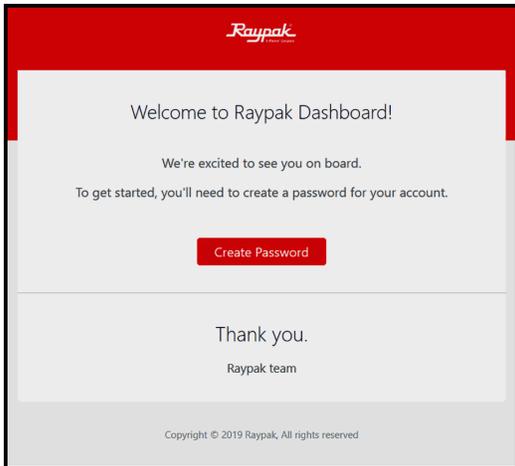


Figure 4. Welcome Raypak Dashboard



Figure 5. Create Password

Downloading the Raymote Mobile App

1. Download the Raymote mobile app from the Google Play (Android) or App Store (Apple) on your mobile device.
2. Find the Raymote mobile app icon on your device. See Figure 6.

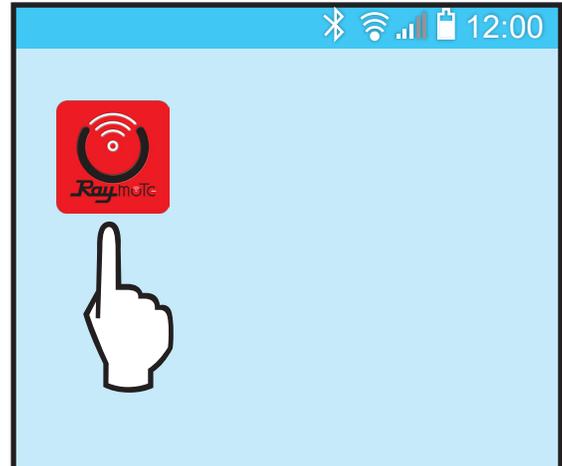


Figure 6. Find your Raymote Mobile App Icon

3. Open the Raymote mobile app and log in with your user name and password. See Figure 7.

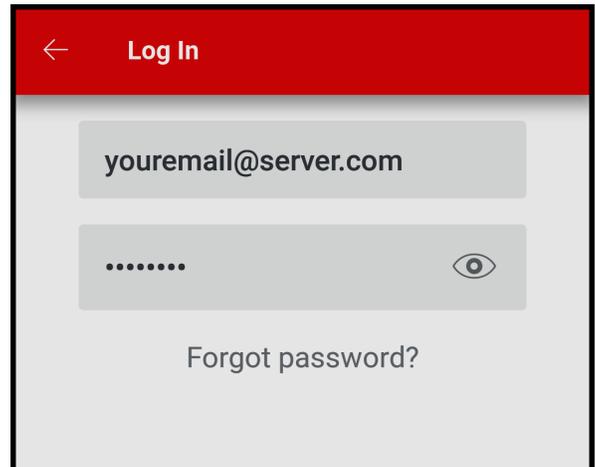


Figure 7. Log in the Raymote Mobile App

Preparing the Unit for Connection

1. Stand near the touchscreen of the unit. Press the Wi-Fi icon on the touchscreen. See **Figure 8**.



Figure 8. Wi-Fi Connection

2. The Wi-Fi status screen should display the Wi-Fi State, indicating "Initializing" wireless connection, and also the HOTSPOT identifier. See **Figure 9**.

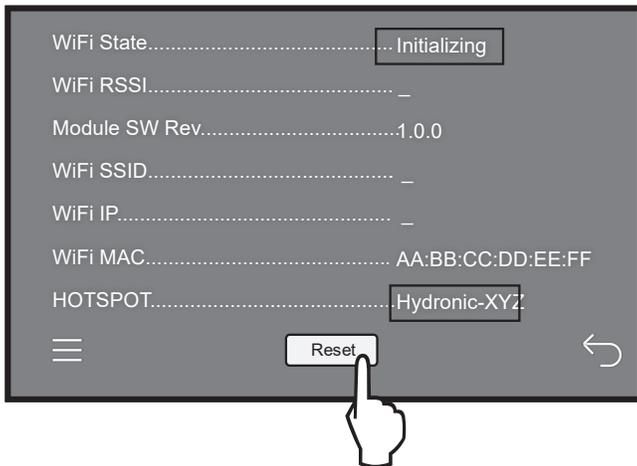


Figure 9. Wi-Fi Initializing and HOTSPOT Identifier

NOTE: If the Wi-Fi State does not indicate "Initializing", press the "Reset" button on the touchscreen. See Figure 9.

3. At this point your unit is ready for connection. The following sections provide the instructions for Android and iPhone devices.

Add a New Device on your Android

1. In the Android mobile app, press the menu button located at the top right corner of the screen, then press "+ Add new device". See **Figure 10**.

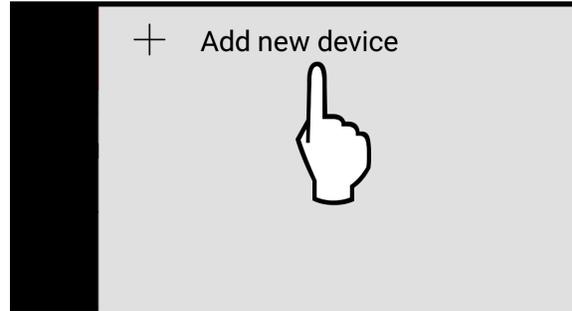


Figure 10. Add New Device

NOTE: The first time you use a new phone, the Raymote mobile app will require you grant permission to access data. See Figure 11.

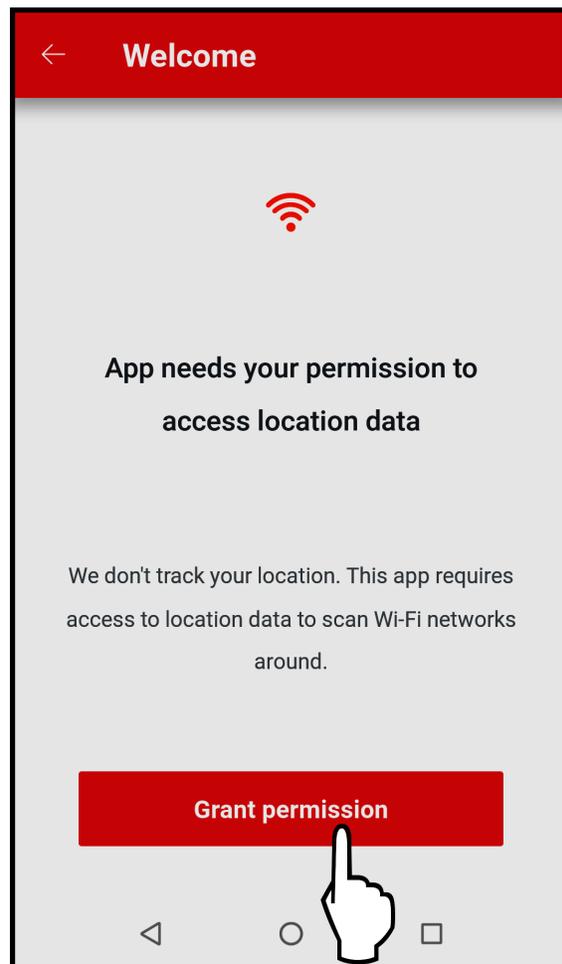


Figure 11. Grant Permission

2. The "Wi-Fi setup" screen will appear. Select or enter the Wi-Fi network you want your unit to be connected to and enter the network password. See **Figure 12**.
3. Press the "Continue" button and log in to the Wi-Fi network.

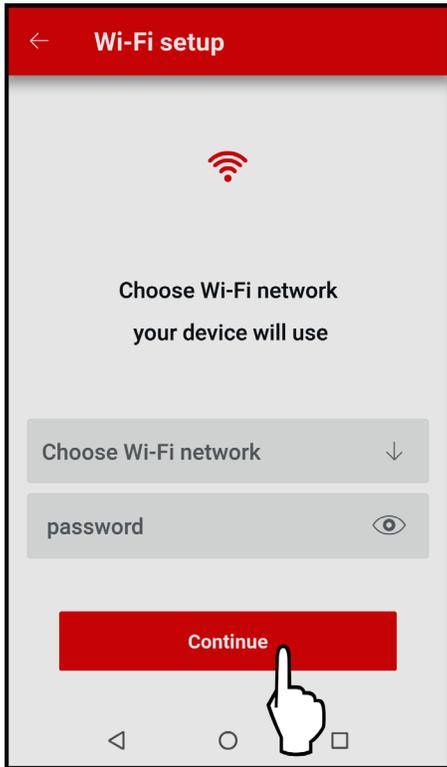


Figure 12. Choose Wi-Fi Network

4. Depending on your configuration, one or more hotspots will appear on the screen of your mobile device. See **Figure 13**. Select the **HOTSPOT identifier that matches the unit's touchscreen as shown in Figure 9**.

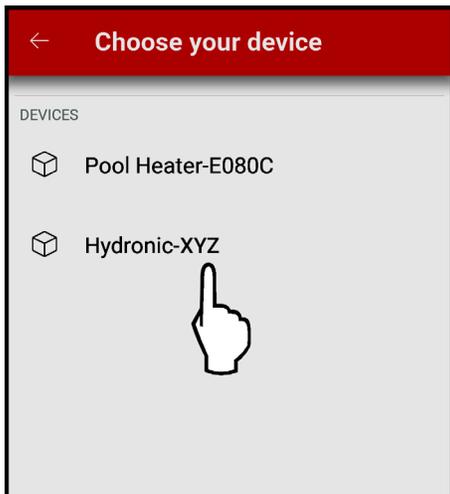


Figure 13. Choose Your Device

5. After selecting your device, the Raymote mobile app will provide the Wi-Fi network credentials to your unit. See **Figure 14** and **Figure 15**.

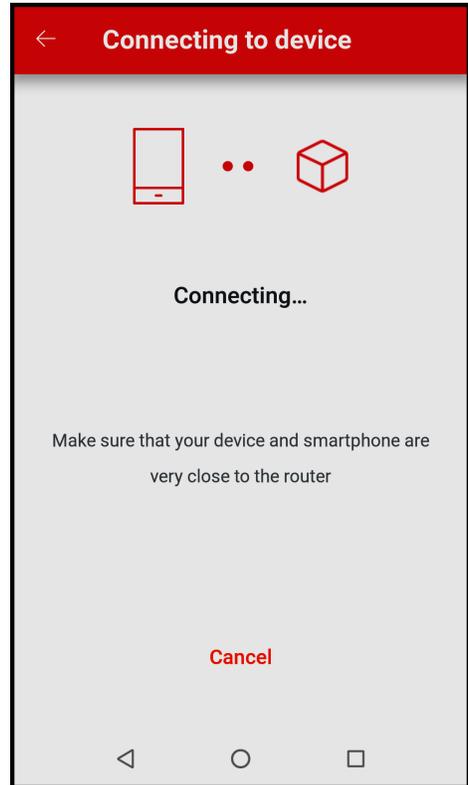


Figure 14. Connecting to Device

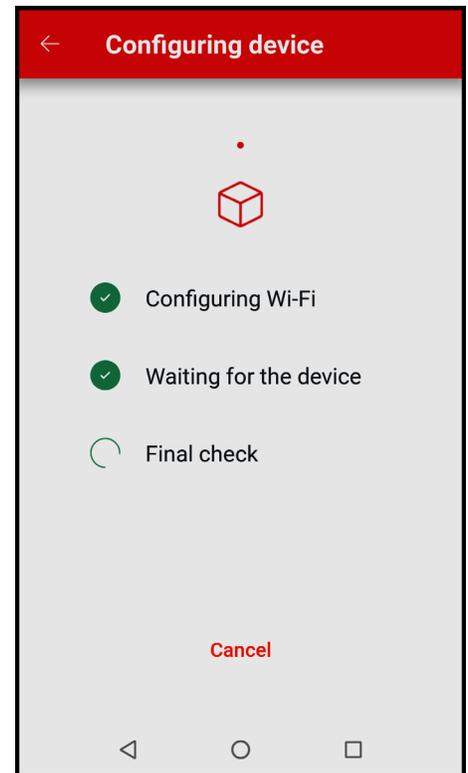


Figure 15. Configuring Device

Add a New Device on your iPhone

1. In the iPhone mobile app, press the menu button  located at the top right corner of the screen, then press "+ Add new device". See **Figure 16**.

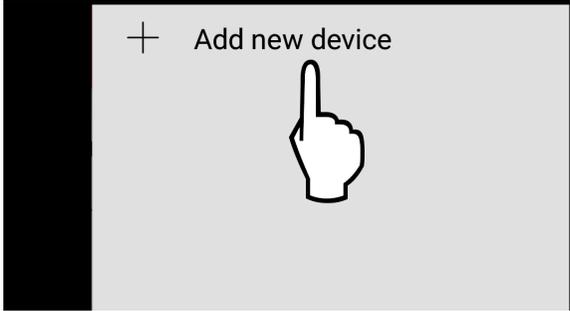


Figure 16. Add New Device

NOTE: The first time you use a new phone, the Raymote mobile app will require you grant permission to access data. See Figure 17.

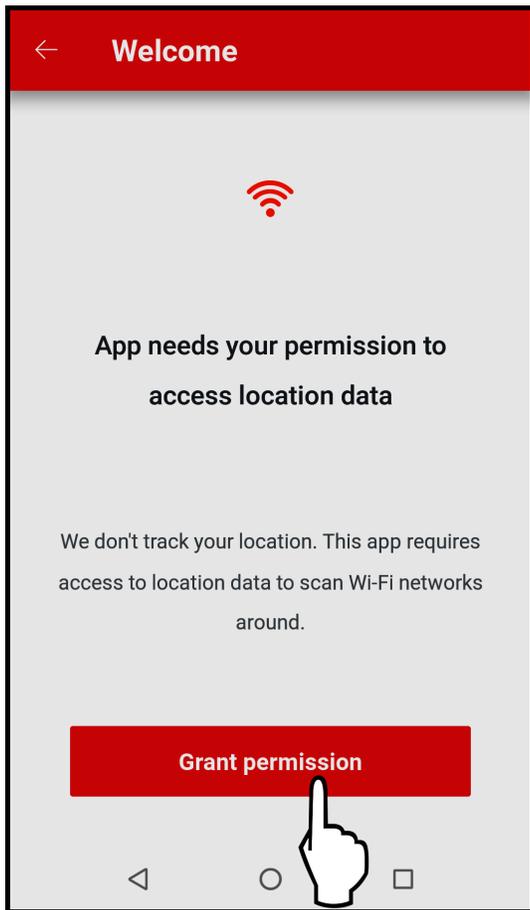


Figure 17. Grant Permission

APPROVED

2. Press the "Go to Settings" button on the Choose your Device screen. See **Figure 18**.

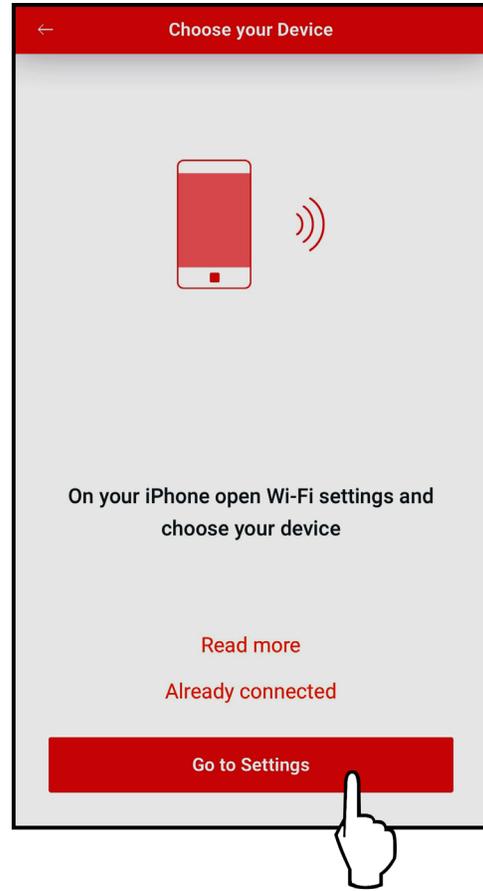


Figure 18. Go to Settings

3. On the top left corner of the screen, press the "Setting" button to go the Setting menu. See **Figure 19**.

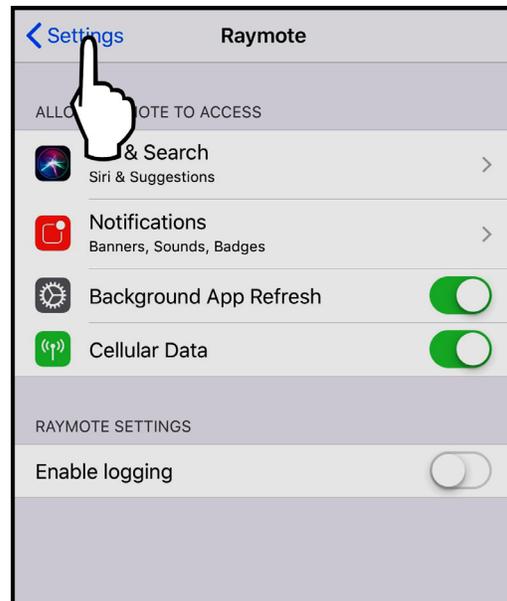


Figure 19. Select the Settings Menu

4. **RELEASED** Select the Wi-Fi network on the Setting menu, See **Figure 20**. **APPROVED**



Figure 20. Select Wi-Fi Network

5. Select the HOTSPOT identifier that matches the unit's Touchscreen as shown in **Figure 9**.



Figure 21. Select the HOTSPOT Identifier

6. A notification tab will confirm that iPhone is now connected to the unit. Press the notification tab or manually go back to the Raymote mobile iPhone app to continue.



Figure 22. Connection Notification

Configure your Device

1. Your device is now connected to Wi-Fi. You can change the name of your device here. See **Figure 23**.

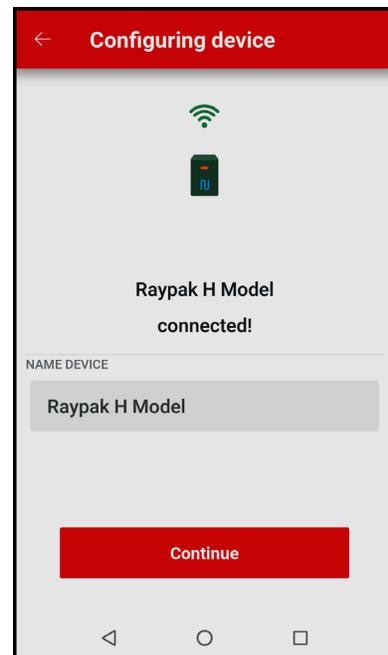


Figure 23. Configuring Device

2. Press the "Set up as new" button to enter new identification and service information. Press the "Apply recently used profile" button to use information already provided. See **Figure 24**.

NOTE: This information can be updated at anytime from the Raymote mobile app or the web dashboard. It is strongly recommended to make sure this information is completed.

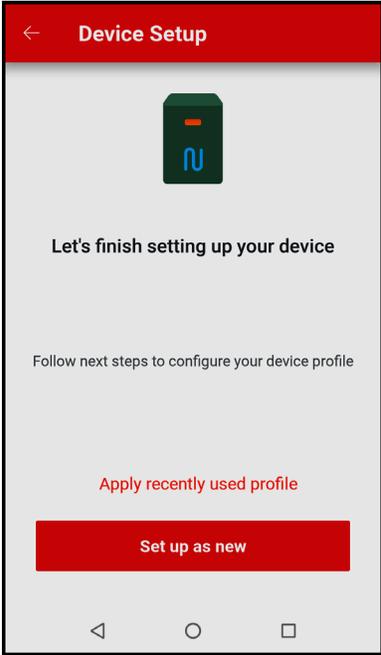


Figure 24. Device Setup as New

3. During device configuration, basic reference information about the unit will be requested, including service provider, site location, and user requirement. See **Figure 25** and **Figure 26**.

NOTE: This information can be added at any time, and it is highly recommended to provide as much detail as possible to facilitate ease of use and customer service.

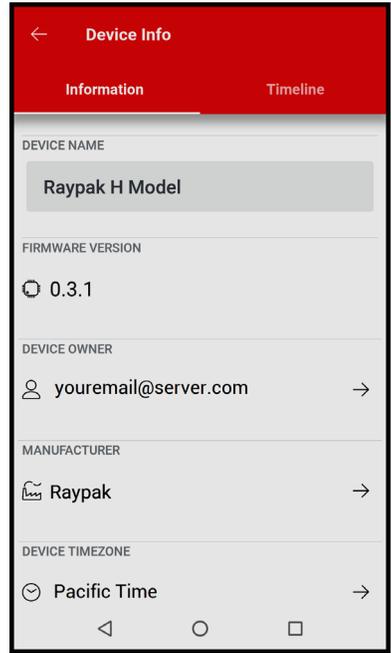


Figure 25. Device Setup, Naming

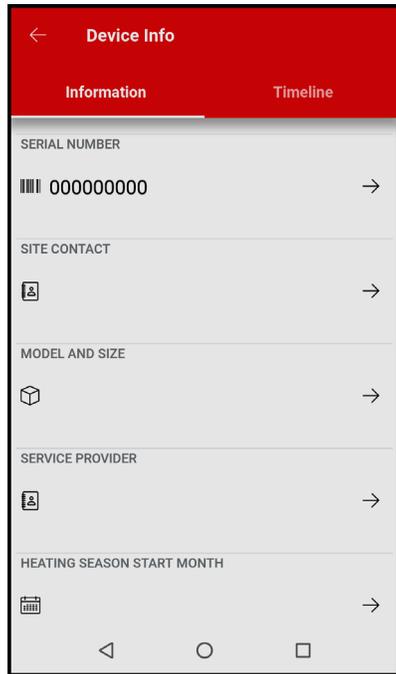


Figure 26. Device Setup, Details

After completing the Raymote configuration, the unit will start broadcasting data to the Raymote cloud.

6. RAYMOTE MOBILE APP

Raymote Mobile App Navigation

1. Once Raymote App is opened, click on top left icon. See **Figure 27**.
2. Once it is clicked it will show the main menu. See **Figure 28**.
3. Main menu will appear to choose from options to view (see **Figure 29**):
 - a. My Profile (i.e. Name, email, and time zone)
 - b. Current selected organization
 - c. Settings (alerts and notification preference selection)
 - d. Help
 - e. About Raymote App
 - f. Session Log Out from Raymote App



Figure 27. Icon

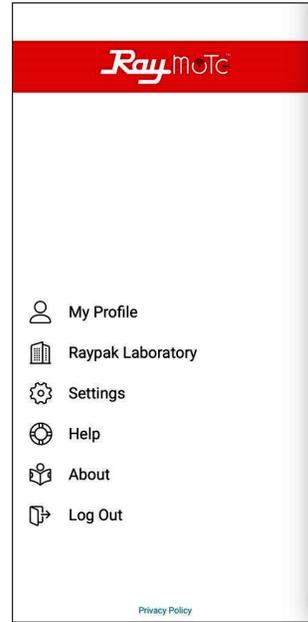


Figure 29. Options

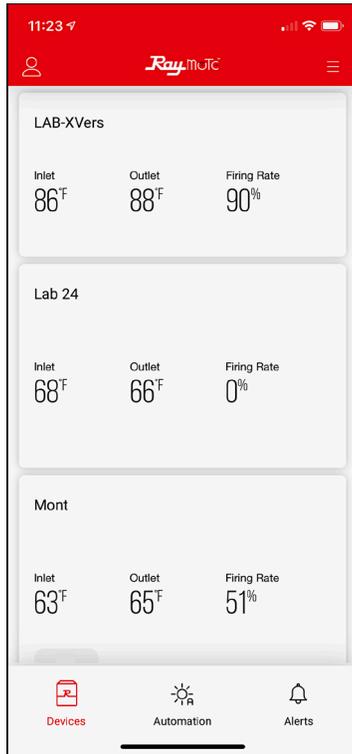


Figure 28. Main Menu

Welcome Screen - Devices

All registered units are listed on this screen as a block with the name of the unit and a quick overview of unit operation. By pressing one of the blocks, users can access that unit's information and can adjust some of its parameters. See **Figure 30**.

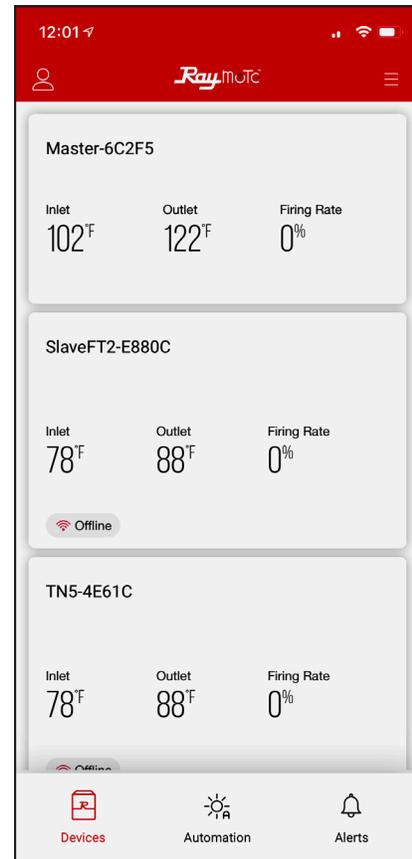


Figure 30. Welcome Screen - Devices

RELEASED

At the bottom of the welcome screen is the Alerts access point. By pressing this icon, users can access a summary of alerts and events for a given time frame, for all the registered units. See **Figure 31**.

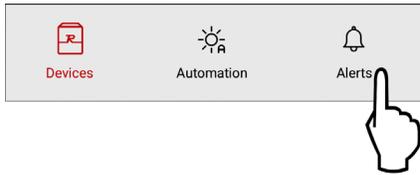


Figure 31. Welcome Screen - Alerts

Alerts, events and diagnostic notifications are listed, with different colors for easy identification.

- Green – Device online
- Blue - OTA (Over the air) update performed
- Yellow – Diagnostic warning
- Black – Device offline
- Red – Error notification

Each event can be selected to provide quick access to the mobile view page of the unit that presented the incident.

APPROVED Automation

Raymote automation offers the ability to select a variable of interest and customize a specific condition that could trigger a notification, the notification message could also be editable. See **Figure 32** and **Figure 33**

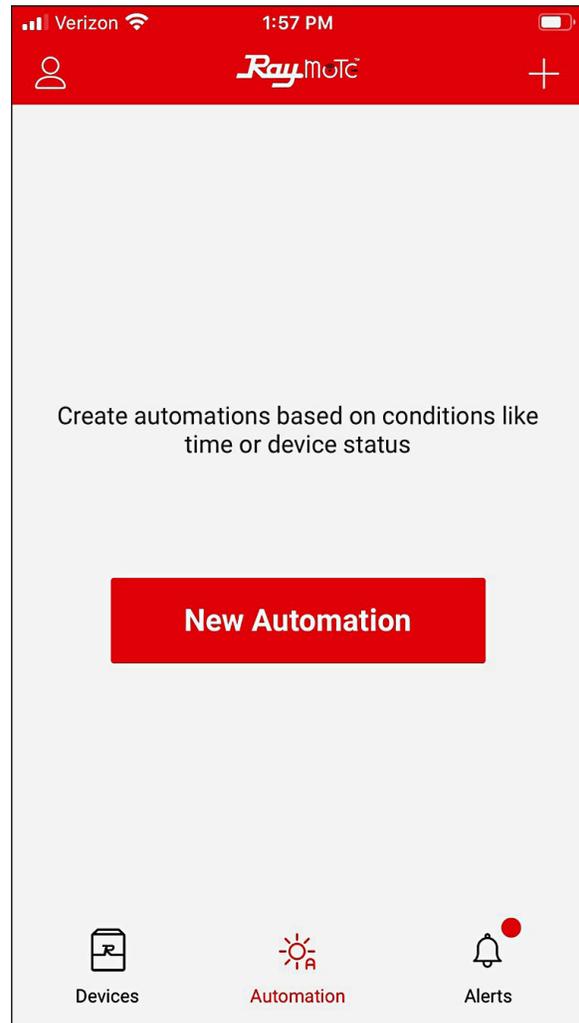


Figure 32. New Automation

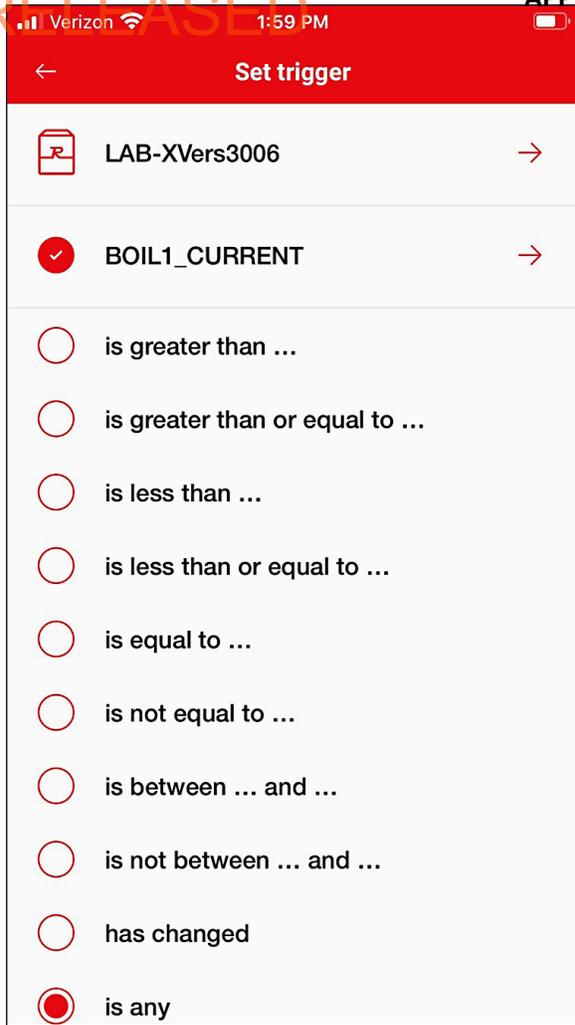


Figure 33. New Automation Triggering

View Screen

The View screen of the Raymote mobile app presents unit specific and system related data. See Figure 34.

NOTE: Some of the values may not be present in all system configurations. Whenever a value is not applicable to the system configuration, it will be grayed out and disabled. If an optional sensor is not present, the corresponding value will be displayed as dashes.

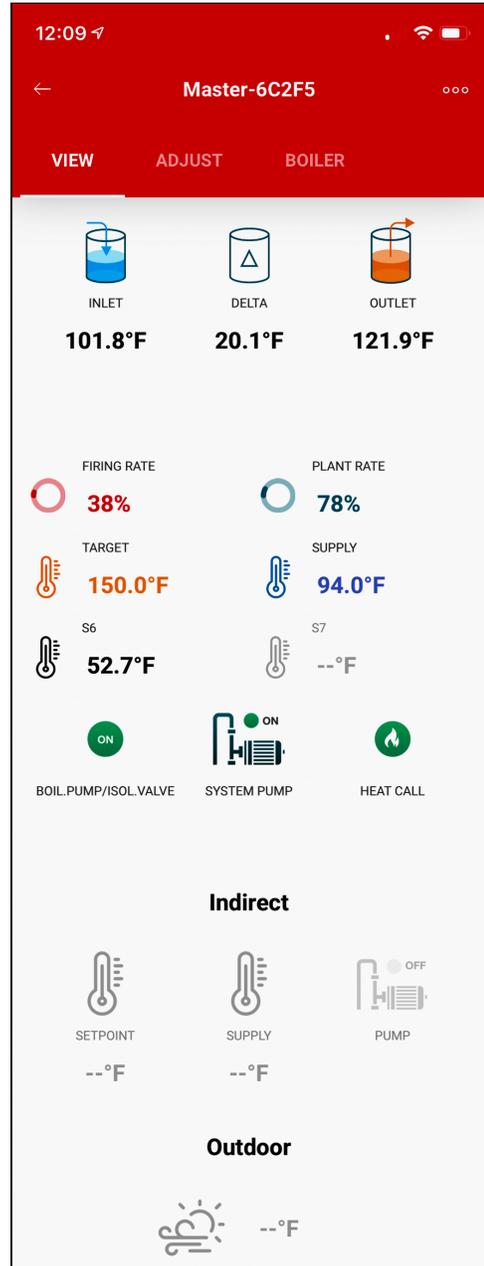
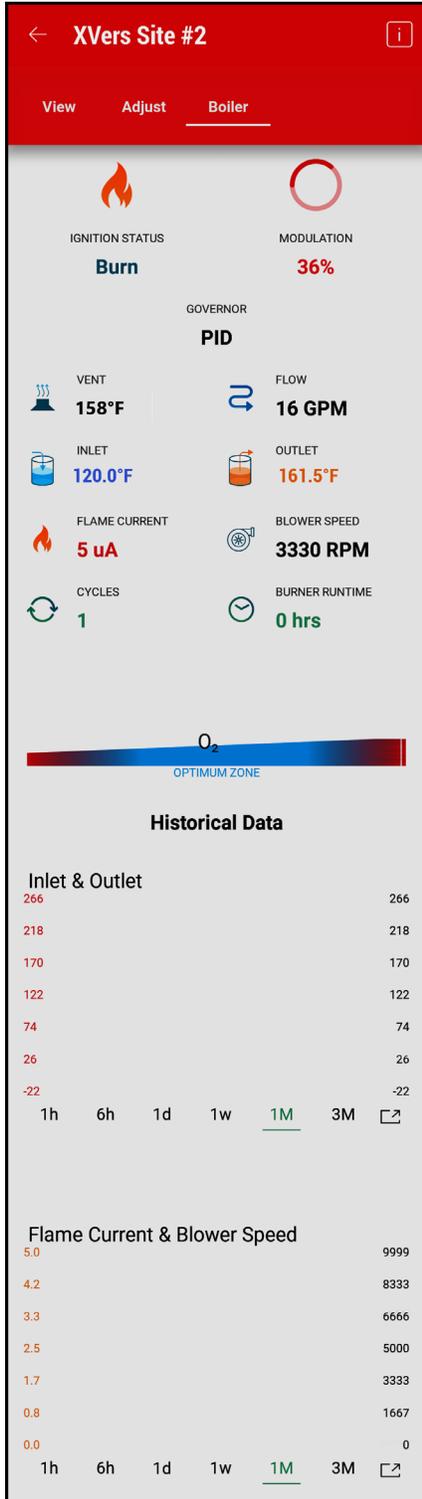


Figure 34. View Screen

Boiler Screen

The Boiler screen presents specific unit data, but not application data. See Figure 35.

NOTE: Some information is not standard on all units, such as Flow, Vent (temperature), and O2 monitoring. If the sensor for such data is not present, the corresponding value will be displayed with dashes.



Scroll Up/Down

APPROVED Adjust Screen

The Adjust screen includes all available unit controls in the Raymote mobile app. These controls allow users to remotely change limited settings of the boiler.

WARNING: Only authorized users have access to remotely control the boiler, do not provide credentials to unauthorized users. Control attempts will modify settings on the unit and impact operation of the unit.

Some controls are application dependent and may not be available on all units. When a control or set of controls are not available, these will be grayed out.

Raymote controls will reflect the actual status of the value on the local unit. When a change is applied to any control item, the position of the slider will reflect the confirmation value of the setting. See Figure 36.

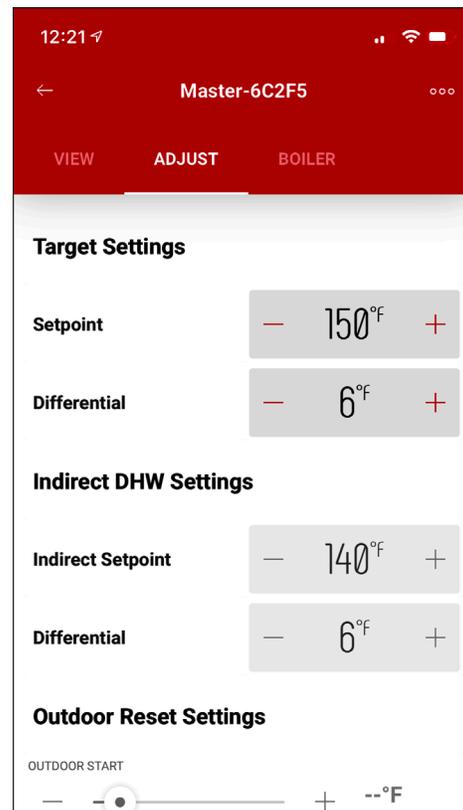


Figure 36. Adjust Screen

Figure 35. Boiler Screen

7. WEB DASHBOARD

Visit <http://raymote.raypak.com> to get access to the Raymote web dashboard on your PC.

The Raymote web dashboard allows access to:

- Long-term monitoring of Raypak boilers, pool and water heaters
- Create organizations (group installations and job sites)
- Assign or remove users
- Adjust rules and permissions

Device Dashboard

Device view displays the most relevant unit operation information, inputs, and outputs. Data time range can be changed by clicking the predefined ranges or by custom range. See **Figure 37**.

Devices Timeline

This section lists all the relevant events associated with the unit operation, warnings and diagnostic information. Warning events can be marked as resolved and notes can be added to record corrective actions or relevant information. See **Figure 38**.

Device Info

The user can review or edit unit information, location and contact information. This information can be updated anytime. See **Figure 39**.

NOTE: This information can be added at any time, and it is highly recommended to provide as much detail as possible to facilitate ease of use and customer service.

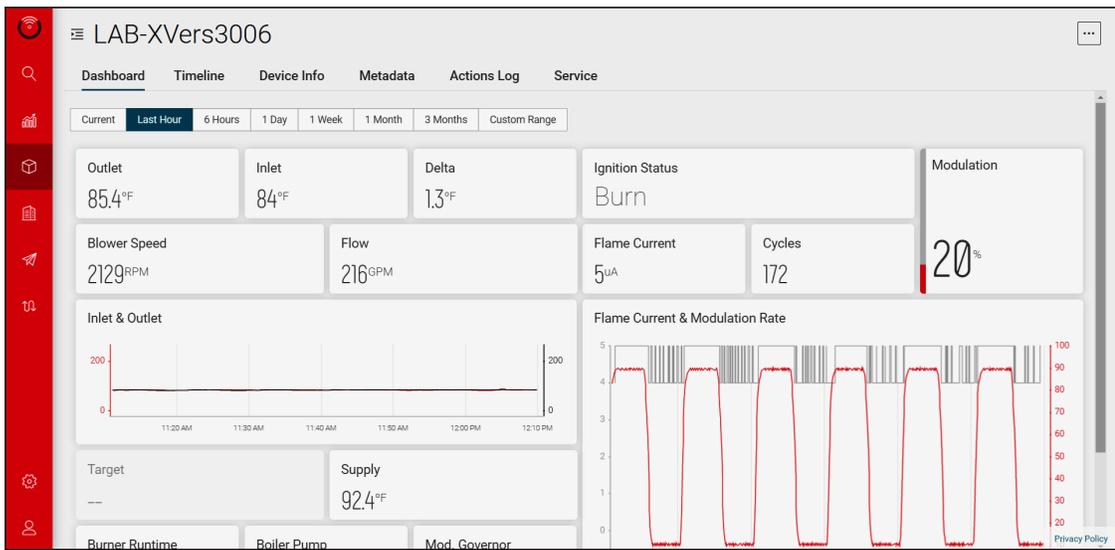


Figure 37. Device Dashboard

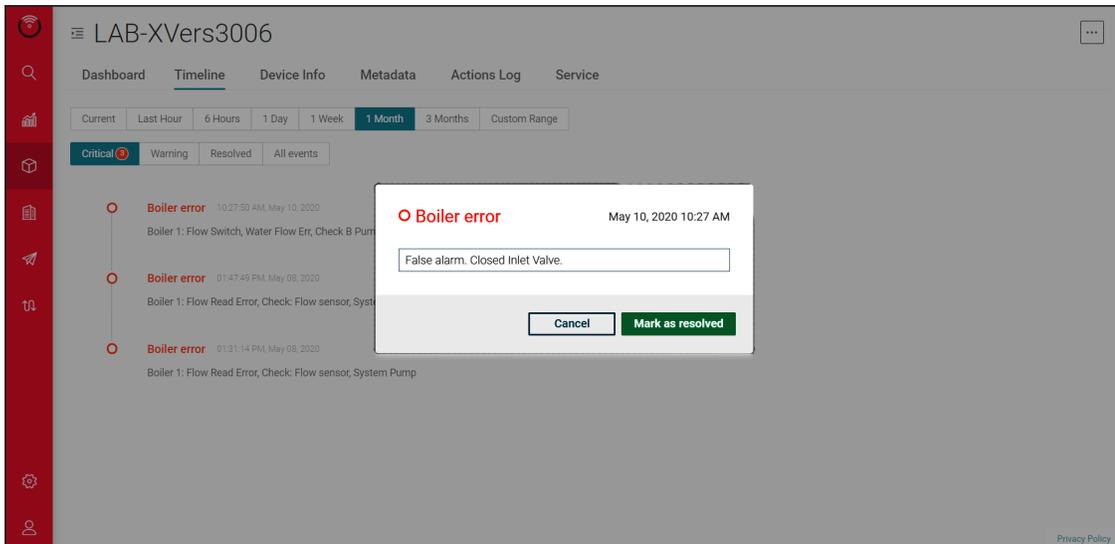


Figure 38. Device Dashboard - Timeline

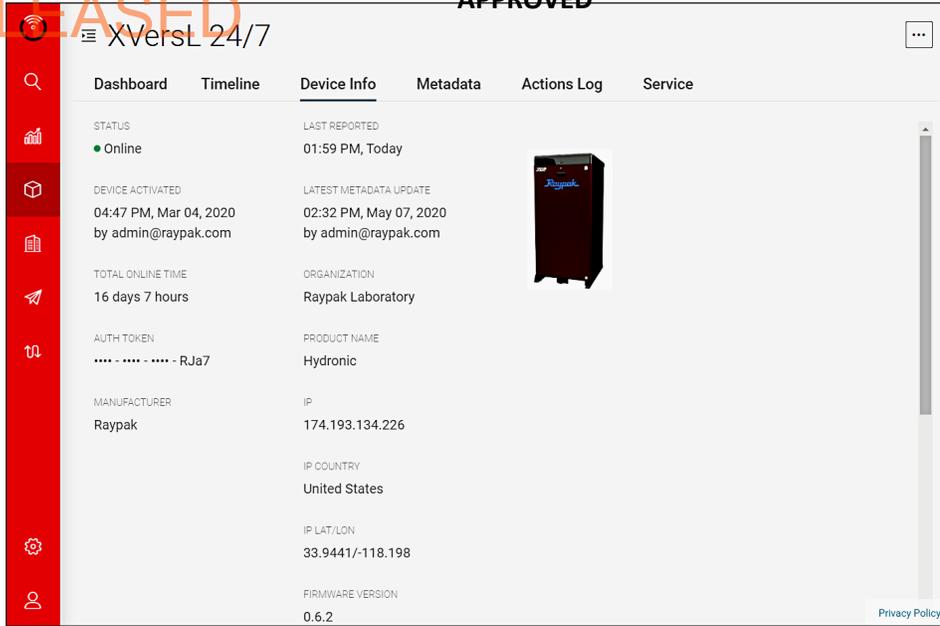


Figure 39. Device Dashboard - Device Info

Search Function

The search function allows Raymote users to find devices, organizations, sites and other users that pertain to the same network. Multiple metadata fields are used to narrow the search operation, serial number, names, email address, name of the unit, anything that could be used to narrow the search options.

The Raymote search page is by default the first welcome screen, see Figure 40.

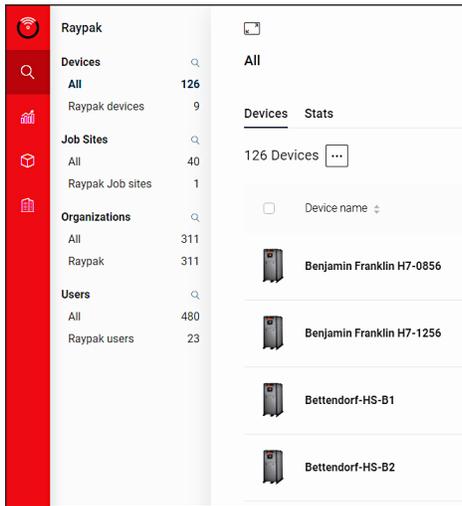


Figure 40. Accessing Search Page

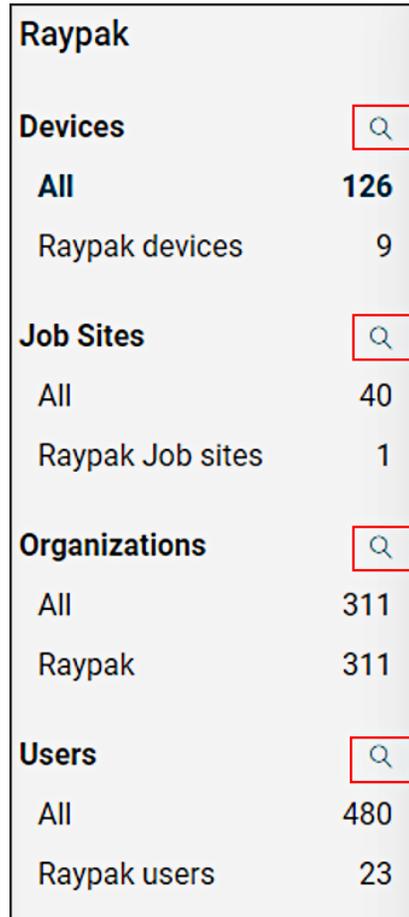


Figure 41. Search Functions

To access the search function:

1. Click on magnifier icon located on side bar
2. Select the search desired search category see Figure 41.

How to Create an Organization

Organizations are used to define owners and responsible personnel to monitor installed Raypak units.

An organization is a customer, who can have one or multiple sub-organizations, which can have one or multiple job sites. An example of an organization could be a hotel chain, who can have multiple regions (sub-organizations) and these could have multiple locations (job sites).

In order to create an Organization, go to the dashboard menu, see **Figure 42**, and click on the last menu item called "Organizations" and click on "Create New Organization", see **Figure 43**.



Figure 42. Dashboard Menu

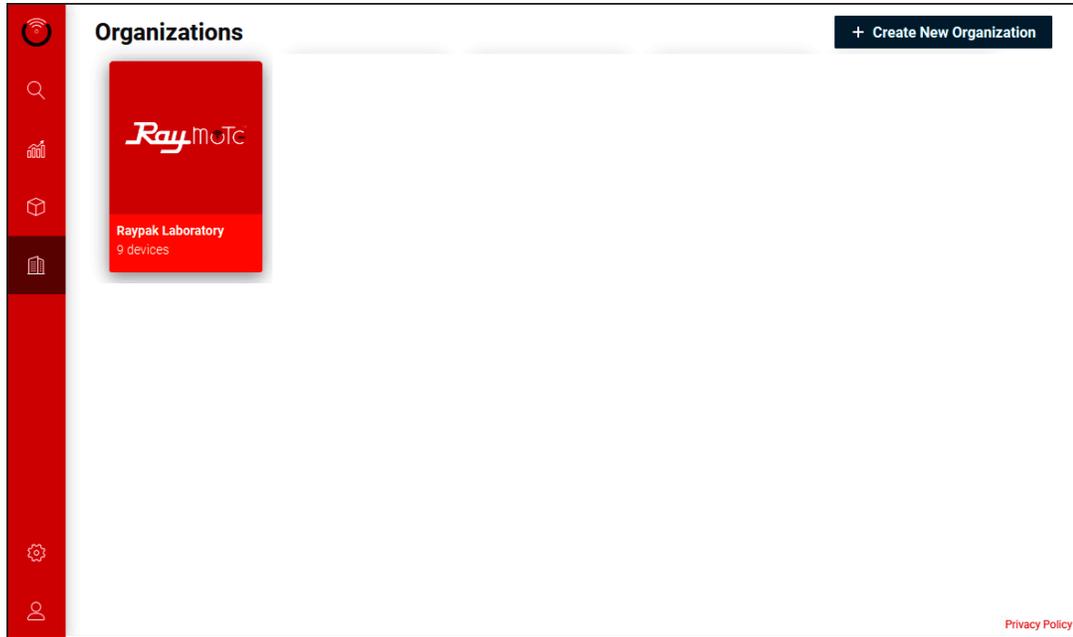


Figure 43. Create New Organization

A new window will appear to fill the new Organization information.

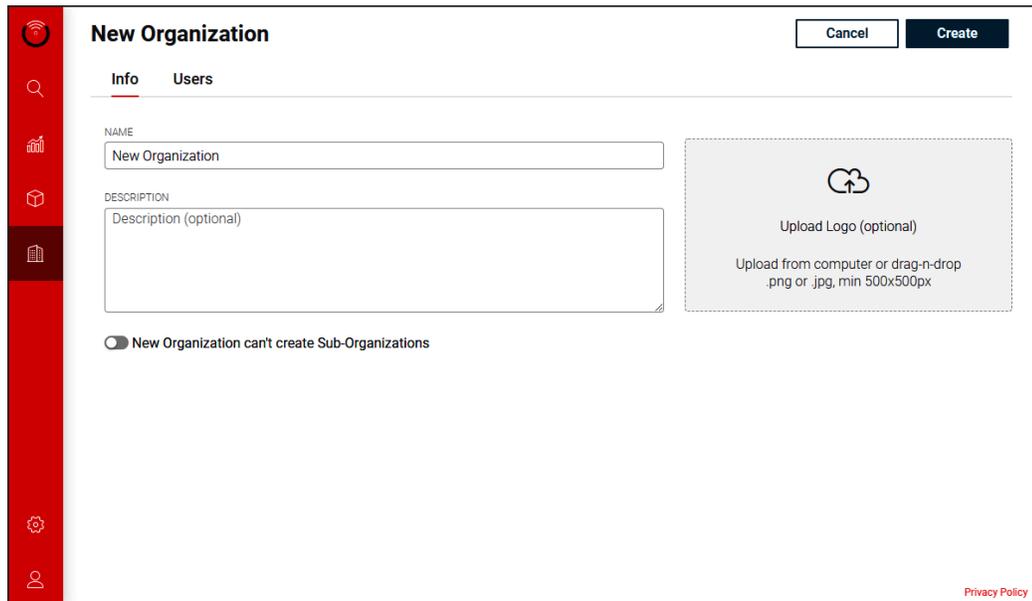


Figure 44. New Organization, Info Tab

In the “Info” tab fill the following fields, see **Figure 44**:

Name – Specify the Company name for the Organization.

Description – Include a full description for the Organization to be created.

Logo – A logo can be included to be displayed on the Dashboard. If no logo is specified, by default the Raymote

logo is used for the organization.

New Organization can’t create Sub-Organizations – This radio button indicates if sub-organizations may or not include sub-organizations.

In the “Users” tab, see **Figure 45**, you can send invitations for administrators and users for the organization.

The screenshot shows the 'New Organization' user tab interface. It features a sidebar with navigation icons, a main header 'New Organization' with 'Cancel' and 'Create' buttons, and a 'Users' tab. Below the tab, there is a message: 'Add at least one Administrator. Invitations will be sent out once you save the Organization.' There are three input fields: 'USER NAME' (with a search icon), 'EMAIL ADDRESS' (with an envelope icon), and 'ROLE' (with a dropdown menu set to 'Admin'). An 'Add' button is next to the role field. Below these fields is a table header with 'Name' and 'Status' columns. The table body is empty, showing 'No Data' with a folder icon. A 'Privacy Policy' link is in the bottom right corner.

Figure 45. New Organization, User Tab

In order to send an invitation, you must fill the 3 fields:

User name – Indicate the name for the user.

Email address – Indicate the e-mail to send the invitation, as well as contact mail for user.

Role – Choose between Admin, Staff or User. The differences are described below:

- Admin: Has full access to users, devices, sub organizations and locations.

- Staff: Has limited access, but still can edit users, devices and locations.
- User: Is the typical end user. Limited to display data of owned devices and users.

After all initial users have been defined, click on “Create” button (top right window).

How to Create a Job Site

APPROVED

Desktop Instructions

After creating an Organization, if required, Job Sites can be created to improve organization:

- Place the cursor on top of the “Raymote” logo on the menu.
- Select the recently created Organization “Test Organization”, see **Figure 46**).

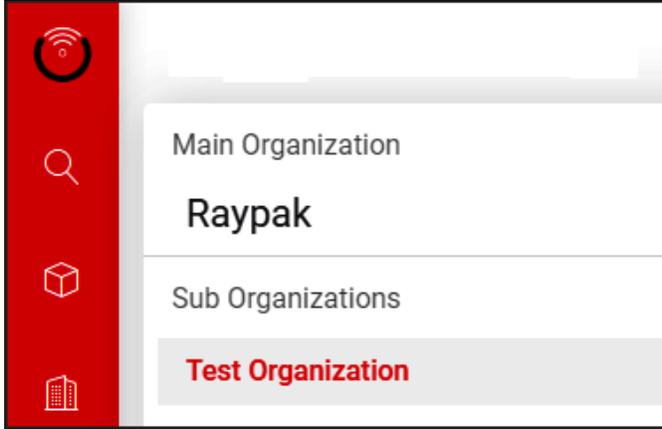


Figure 46. Test Organization

- Click on the Settings menu, see **Figure 47**, and the “Organization Settings” menu will appear. See **Figure 48**.



Figure 47. Settings Menu

- In order to add a Job Site, select the “Job Sites” menu on top.
- Click on “+ Create a new job site” button on the screen. See **Figure 49**.
- Enter the Job Site Name and Address and click “Done” button. See **Figure 50**.
- The Job Site will now appear. See **Figure 51**.

Now the Job Site is added, any unit that is registered under this organization can be tied to this Job Site.

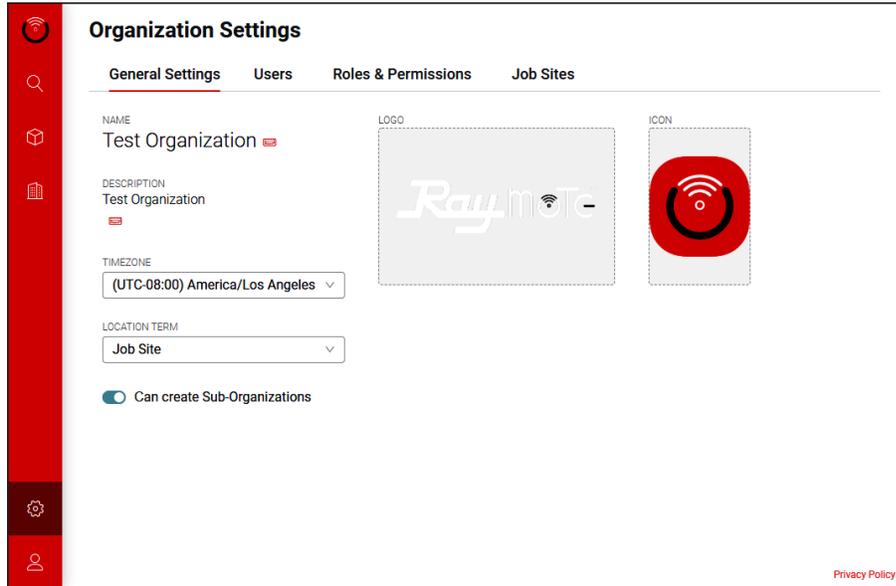


Figure 48. Organization Settings Menu

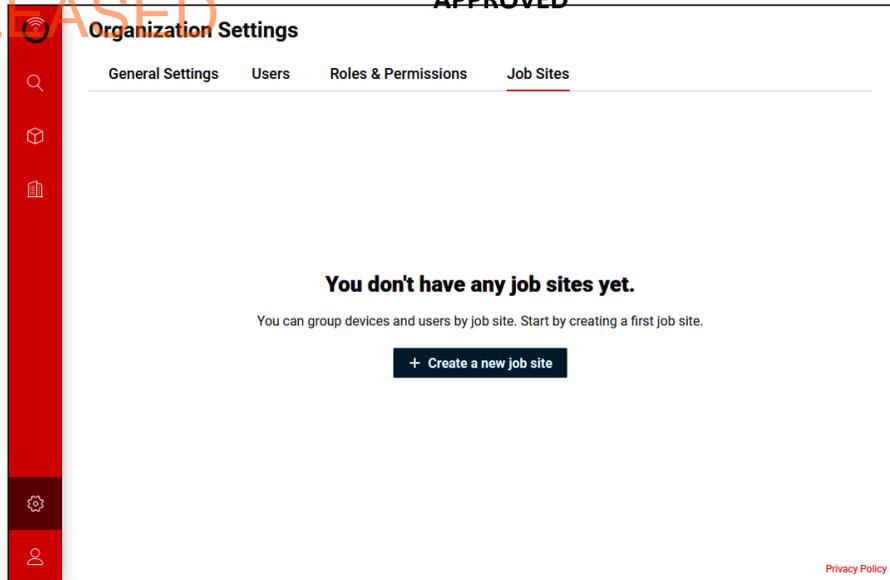


Figure 49. Create Job Site Button

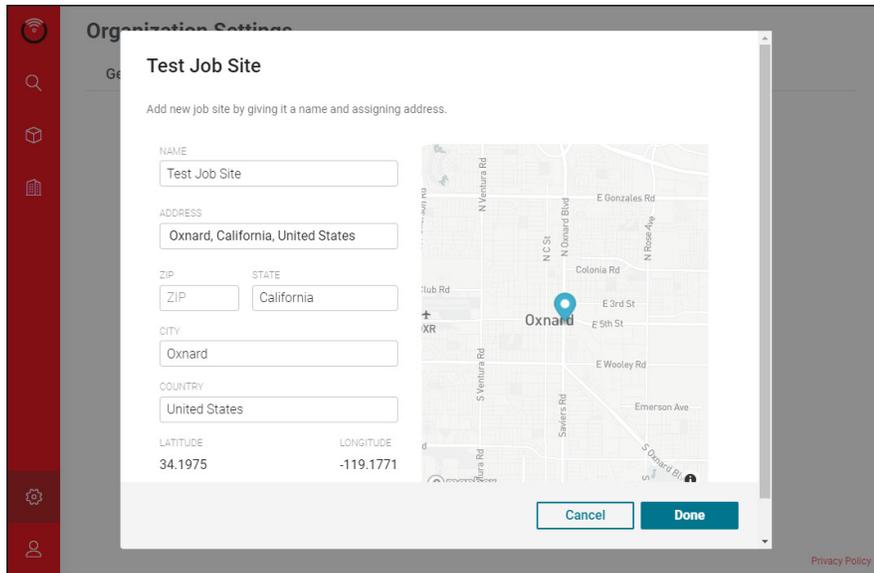


Figure 50. Done Button

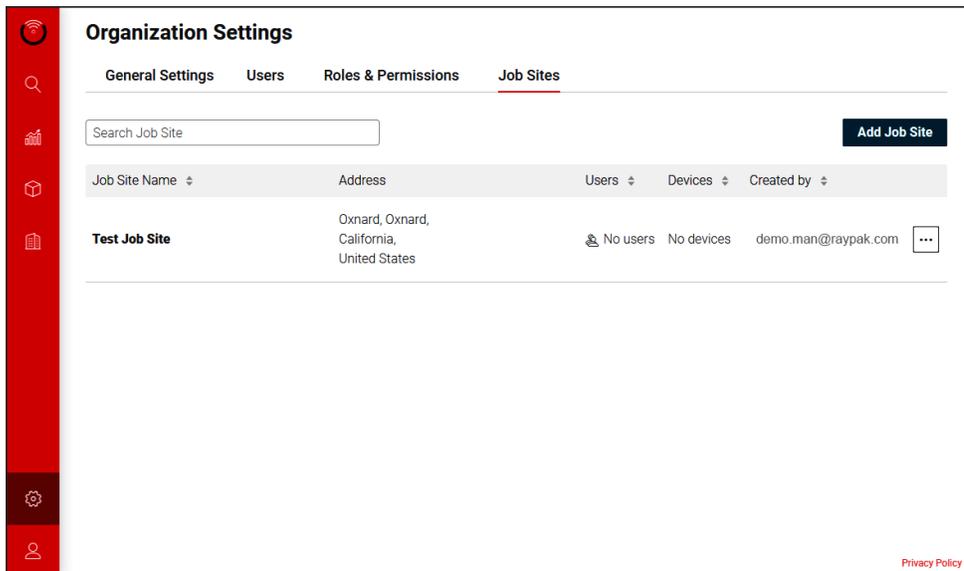


Figure 51. Created Job Site

Mobile Instructions

Job Site location can be created on the phone at the time of provisioning a unit, or can be done right on the mobile app:

1. Select Job Site see **Figure 52**.
2. Select create job site see **Figure 53**.
3. Provide a job site name see **Figure 54**.
4. Provide an address or select your location for autofill the address (see **Figure 55** and **Figure 56**.)

Now the Job Site is added, any unit that is registered under this organization can be tied to this Job Site.

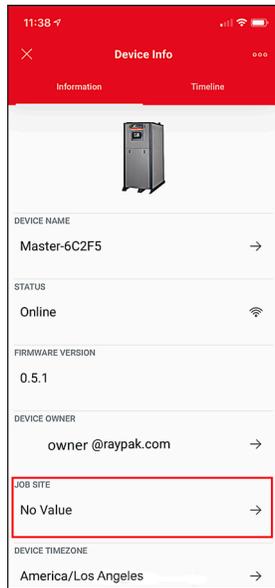


Figure 52. Select Job Site

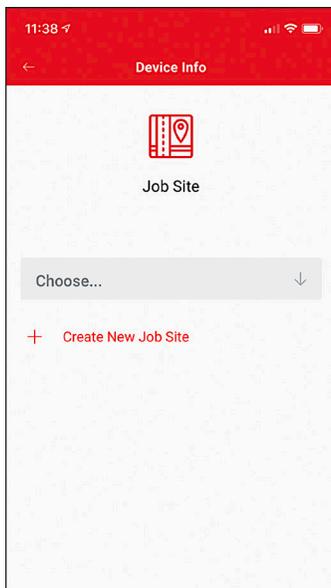


Figure 53. Choose Job Site



Figure 54. Job Site Naming

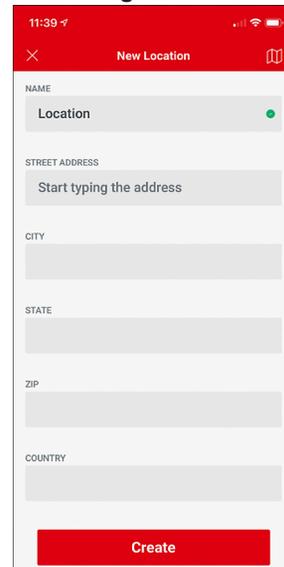


Figure 55. Job Site Address Filling



Figure 56. Job Site Location

Analytics

To see analytics from a specific organization, click on the "Analytics" button on the menu, see **Figure 57**, and the Dashboard will update with the analytics information of the current selected organization. See **Figure 58**.

The dashboard will display the analytics information by location.



Figure 57. Select Analytics Button

The analytics are displayed by location, which can be displayed by the specified time frame (below the Location name). See **Figure 59** and **Figure 60**. The information includes the details on bar graphs for the following parameters:

- Total number of units
- Number of Online/Offline units
- Critical Events
- Total Cycles (all units)
- Total Runtime in hours (all units)
- Events by name (Online/Offline/Errors)
- Device locations (displayed on map)
- Online/Offline timing graphs per unit
- Effective heat time in hours, by unit
- Total cycles by unit
- Total runtime by unit

All this information can be used to provide an easy guide of how the plant distribution is behaving, considering workloads, and even to monitor for service.



Figure 58. Analytics Information

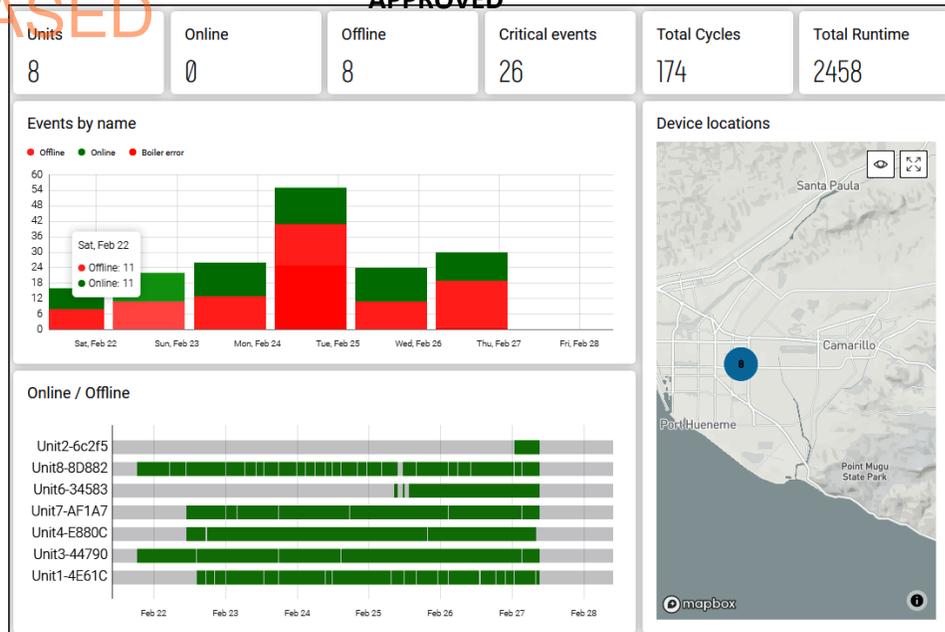


Figure 59. Bar Graph Analytics 1

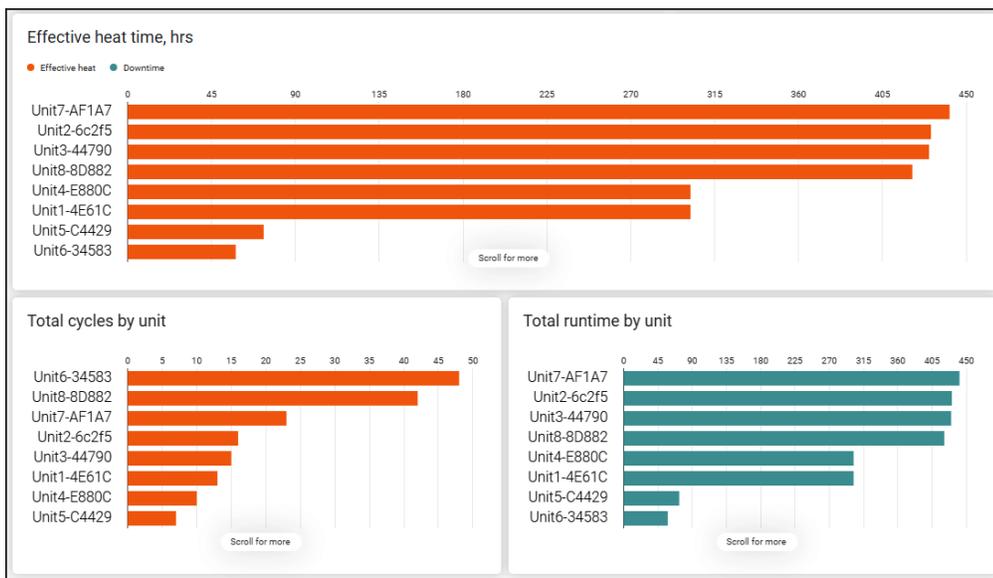


Figure 60. Bar Graph Analytics 2

Update Metadata on Existing Devices

Metadata of a device is the most descriptive information that would help to make sure all Raymote functions and experience is accessible. The Proper device setup will help to improve service, identification, and analysis of the products within the network. It is strongly recommended to complete all the Device Setup Metadata, however the most important fields are Serial Number, Model, Site Contact, Service Contact, and Job Site.

The Device information can be added during or after provisioning the unit, it can be provided over the web dashboard or mobile phone.

Providing SITE CONTACT information will ensure that early notifications, proactive maintenance reminders, are

sent to the right person. Typically, the building manager or site administrator that have access to boiler room is assigned in the field.

The SERVICE PROVIDER is the Raypak sales partner or approved contractor. This person is the staff member in charge of monitoring and maintaining the optimum operation of the unit.

The JOB SITE defines the location of the unit; this assignation allows installers to associate and group devices into a specific customer site. Once a Job Site location is created or already exist, this becomes a grouping option for multiple units that share the same location (refer to "How to Create a Job Site" on page 21).

Desktop Instructions

Using Raymote desktop application, after selecting the unit:

1. Select "Metadata" on the top menu. See **Figure 61**.
2. The Metadata menu will display. See **Figure 62**.
3. Scroll the mouse over any field and click "Edit" button to change its information. See **Figure 63**.

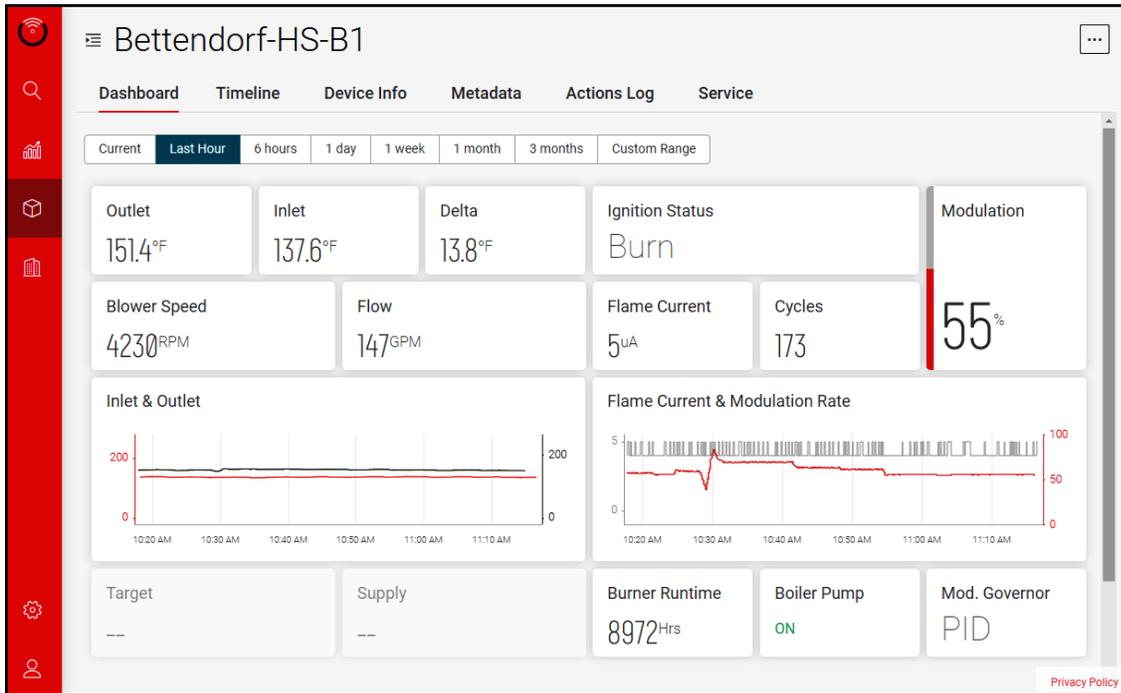


Figure 61. Select Metadata

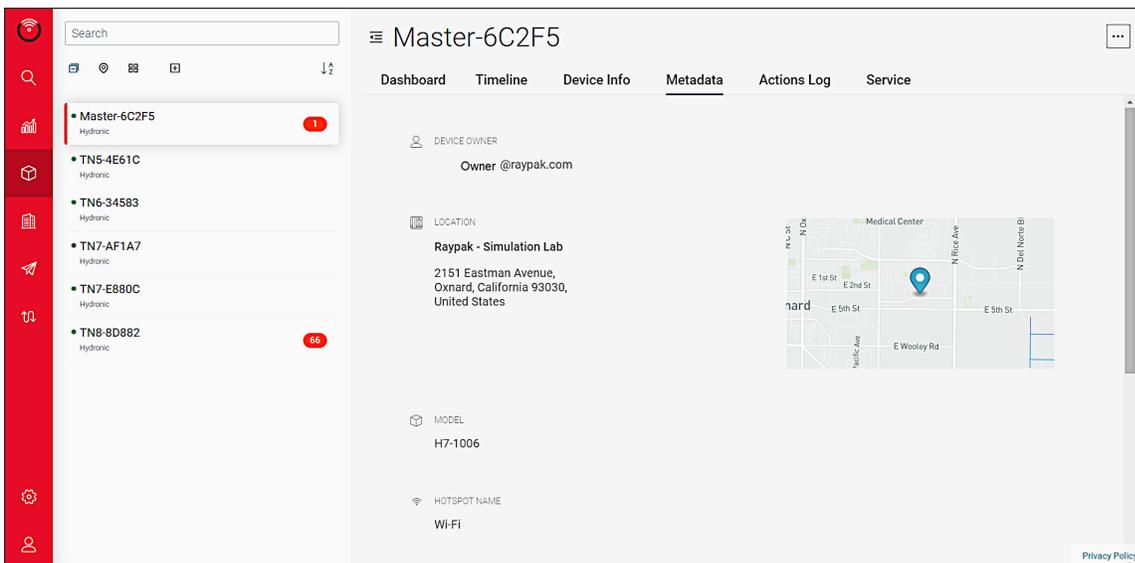


Figure 62. Metadata Selected

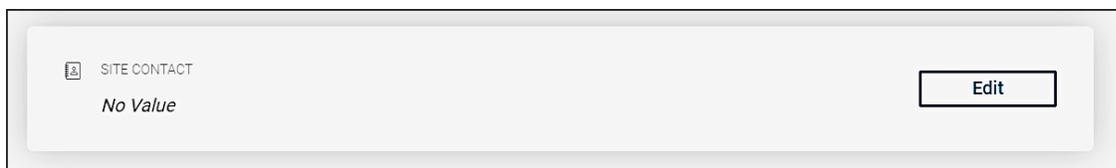


Figure 63. Editing

Mobile Instructions

Using the Raymote mobile application, after selecting the unit, click on the “Menu” icon on top right corner “...”, and

the screen will be shown to update the fields. Click on any field to update it. See **Figure 64**.

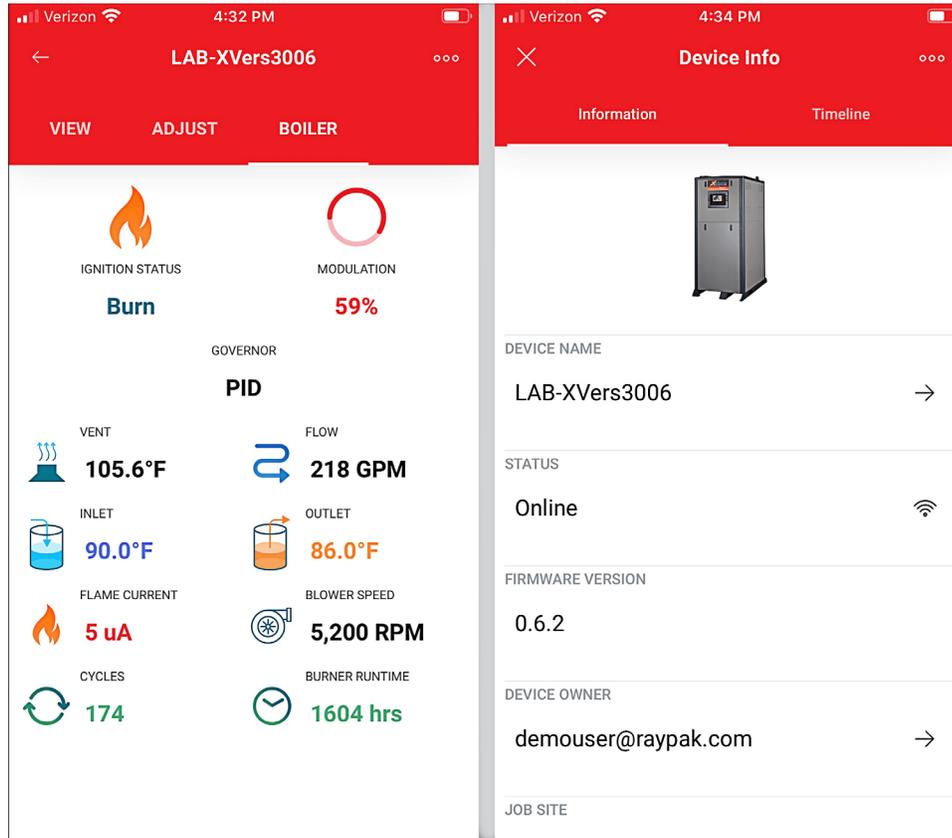


Figure 64. Field Updating

Transfer Users and Devices

Transfer Users

To transfer users from one organization to another, follow the next steps:

1. Place the cursor on top of the “Raymote” logo on the menu.
2. Select the origin organization where the user is currently in.
3. Click on the “Settings” menu and select “Users” on the top menu. See **Figure 65**.
4. Click on the “...” menu on the right of the user that wants to be transferred, and click on “Transfer user”. See **Figure 66**.
5. The “Transfer user” window will appear, type in the Destination Organization Administrator e-mail. See **Figure 67**.
6. After typing a valid administrator organization e-mail, an optional box will appear on the window “Transfer with all devices owned by XXX”. Check it if desired. Click on “Continue transfer”. See **Figure 68**.
7. After transfer is complete, a pop-up window will indicate the user has been transferred to the new organization. See **Figure 69**.

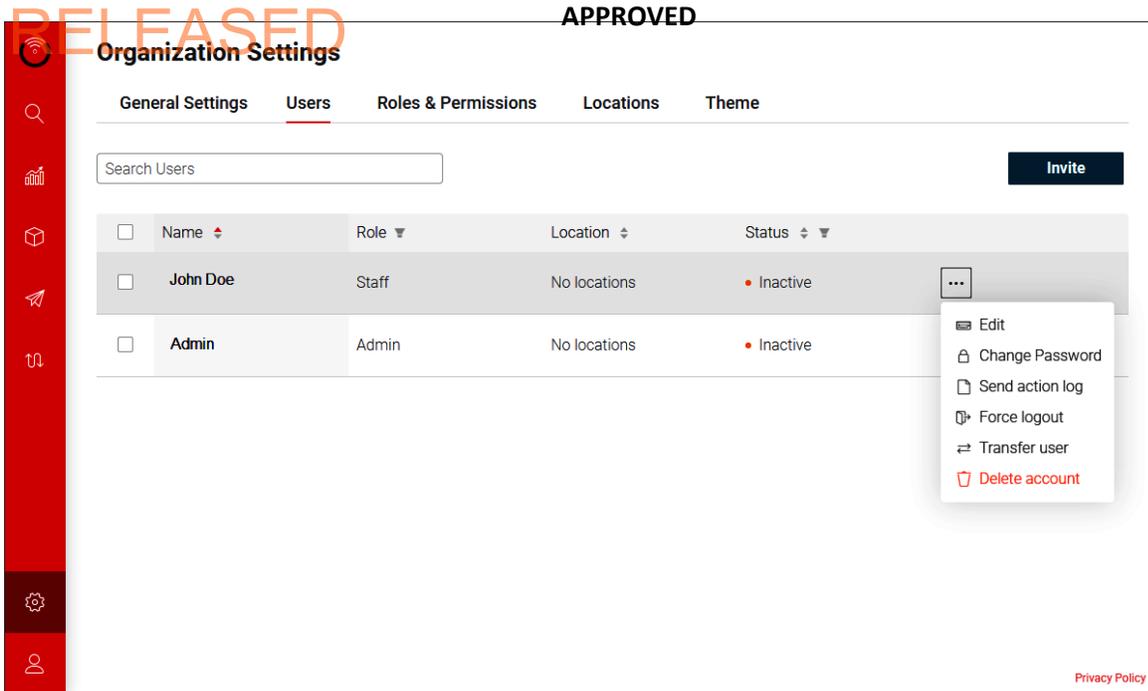


Figure 65. User Setting Menu

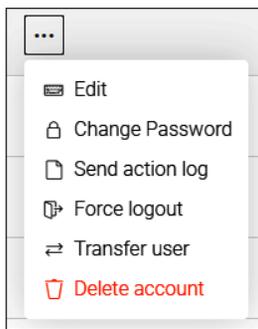


Figure 66. Transfer User 1

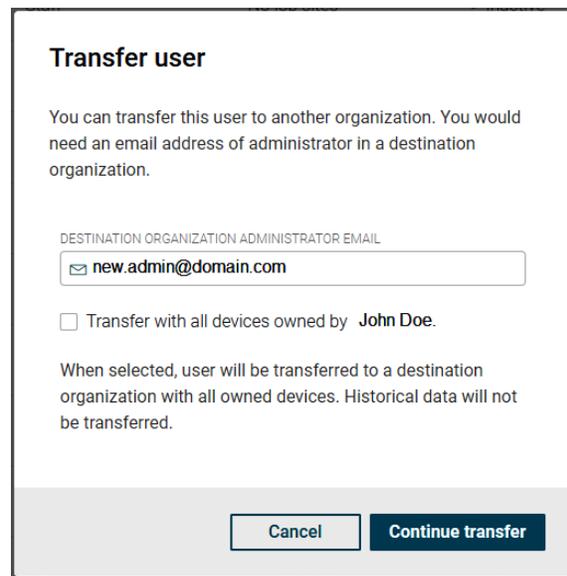


Figure 68. Continue Transfer

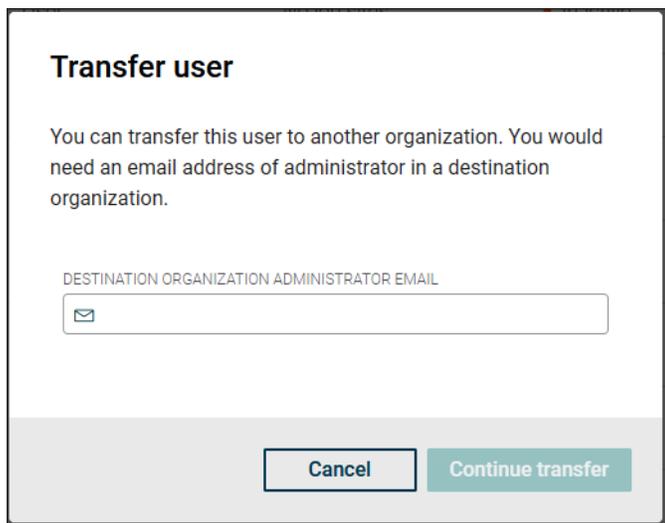


Figure 67. Transfer User 2

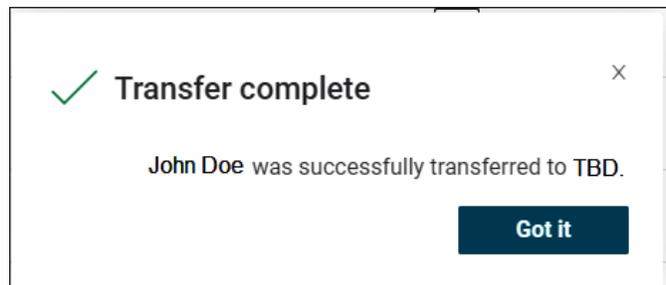


Figure 69. Transfer Status Confirmed

Transfer Devices

To transfer devices from one organization to another, follow the next steps:

1. Place the cursor on top of the “Raymote” logo on the menu.
2. Select the origin organization where the device is currently in.

3. Select the unit to be transferred.
4. Click on the “...” button on the top right menu and select “Transfer”. See **Figure 70**.
5. The “Transfer device ownership” window will appear, type the New Device Owner’s e-mail. Click on “Continue transfer” when filled. See **Figure 71**.
6. After transfer is complete, a pop-up window will indicate the unit has been transferred to the new owner at the desired organization. See **Figure 72**.

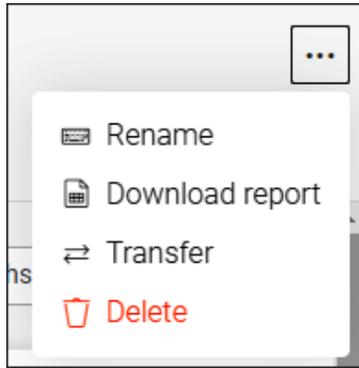


Figure 70. Transferring Device

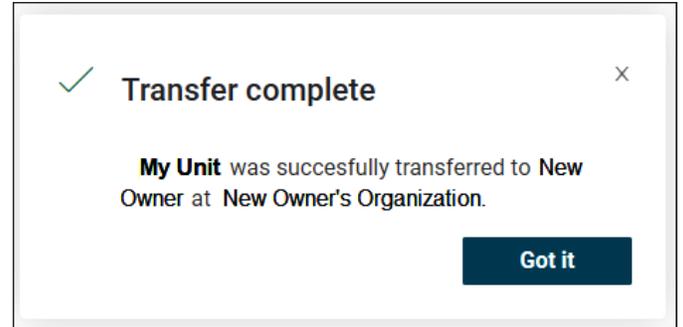


Figure 72. Completed Device Transfer

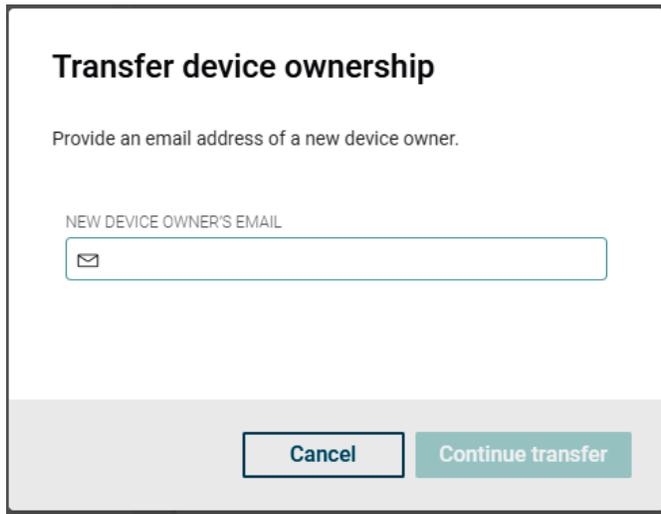


Figure 71. Transferring Device Ownership

Download Reports

To download reports from Raymote, follow the next steps:

1. Place the cursor on top of the “Raymote” logo on the menu.
2. Select the organization where the Unit under analysis belongs.
3. Select the unit to be analyzed.
4. Click on the “...” button on the top right menu. And select “Download Report”. See **Figure 73**.
5. The “Generate report” window will appear and you can select the time range for report data, as well as if you would like to include to download events data on a separate file, or if you would like to share this information to somebody else, to send a link via e-mail. See **Figure 74**.
6. If “> Advanced settings” option is selected, timestamp format can be selected, as well as time zone correction and if data aggregation is desired. See **Figure 75**.
7. After “Generate report” button is pressed, a pop-up message will appear indicating when the report is ready to download. See **Figure 76**.
8. If “Download” button is pressed, a .zip file will be downloaded including the selected data. The downloaded information will include a metadata file and the information downloaded in a comma-separated value format (csv). See **Figure 77**.

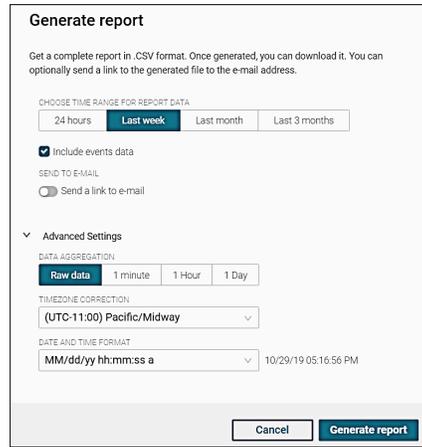


Figure 75. Advanced Setting Option

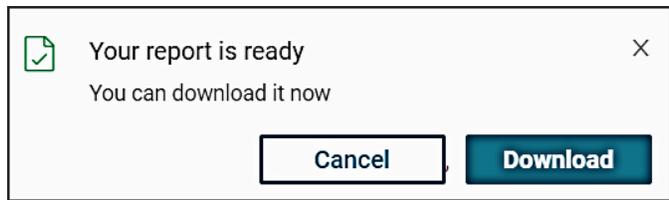


Figure 76. Download Access

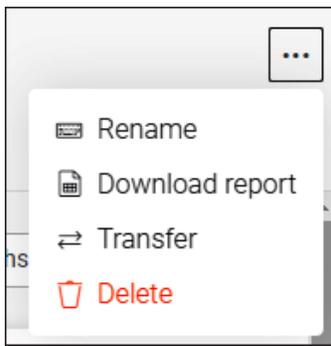


Figure 73. Download Report

Name	Type	Compressed size	Size
metadata.json	JSON File	1 KB	1 KB
Unit6-34583_547_data.csv	Microsoft Excel Comma Separated Values File	172 KB	1,862 KB

Figure 77. Zip File Data

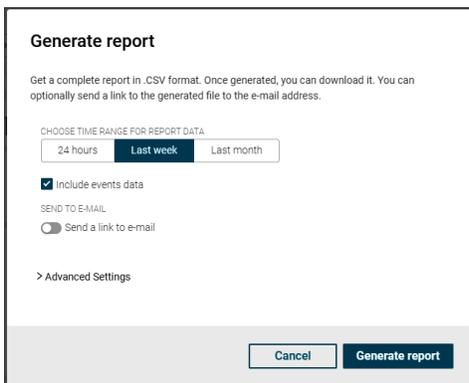


Figure 74. Generate Report

To view service charts using Raymote, follow the next steps:

1. Place the cursor on top of the “Raymote” logo on the menu.
2. Select the organization where the Unit under analysis belongs.
3. Select the unit to be analyzed.
4. Select “Service” from the top menu and the “Service chart” will appear. See **Figure 78**.
5. On the left panel you can select one or multiple data streams to include on the graph. See **Figure 79**.
6. Click on the graph area and the latest data will be shown. See **Figure 80**.
7. Click-and-hold a certain area on the graph to zoom in on a specific time frame. See **Figure 81**.
8. Graph will update in the specified time frame. A “Reset zoom” button will become available on top of the graph to go back. See **Figure 82**.

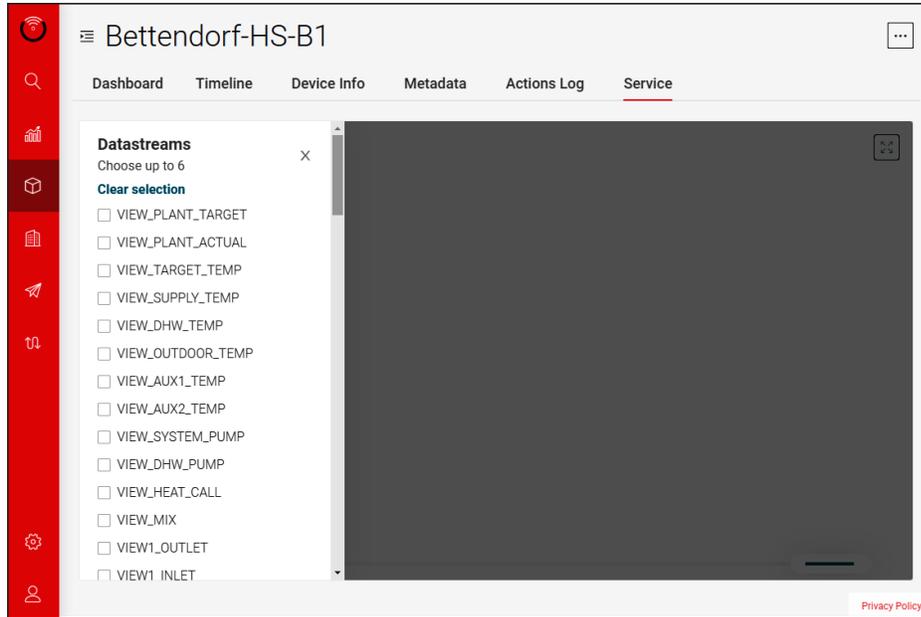


Figure 78. Service Chart

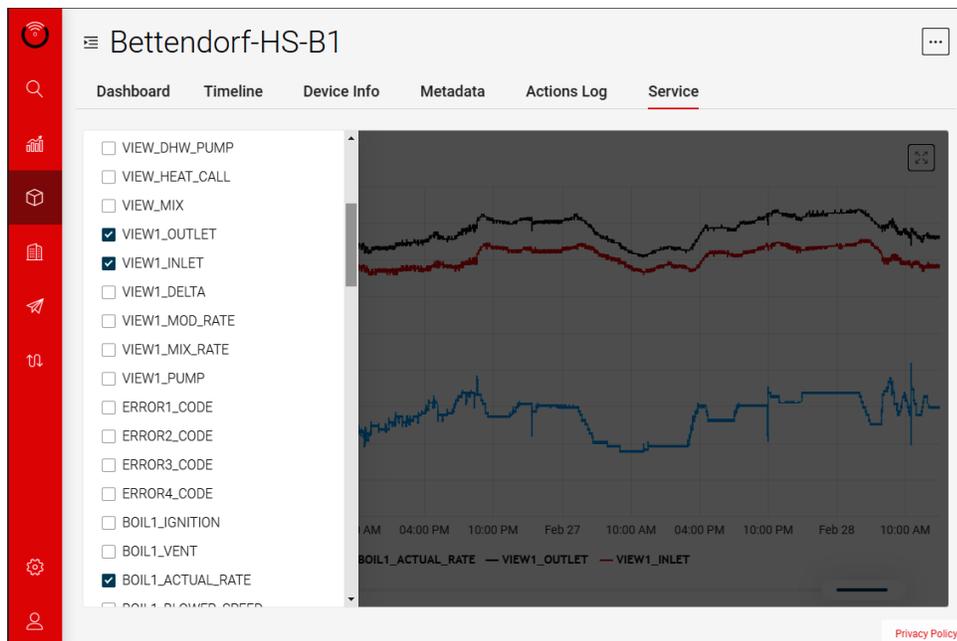


Figure 79. Data Streams

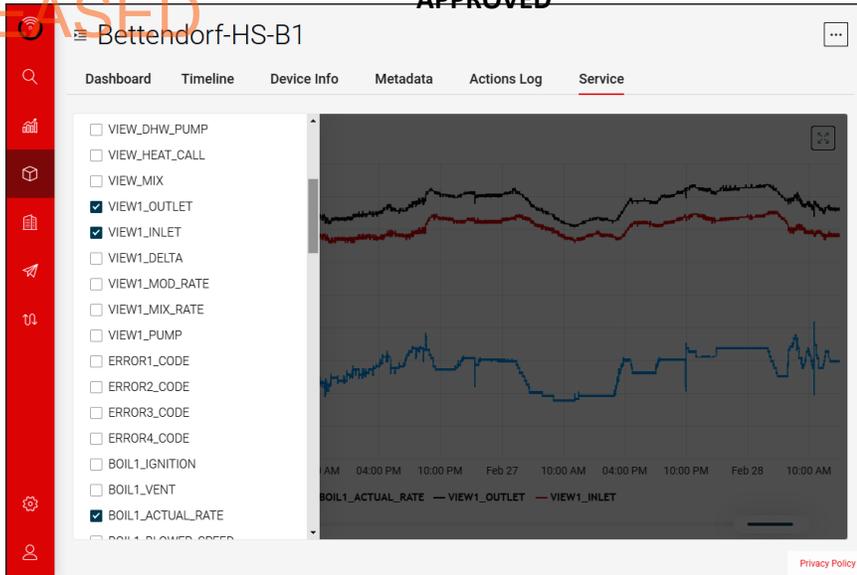


Figure 80. Recent Data

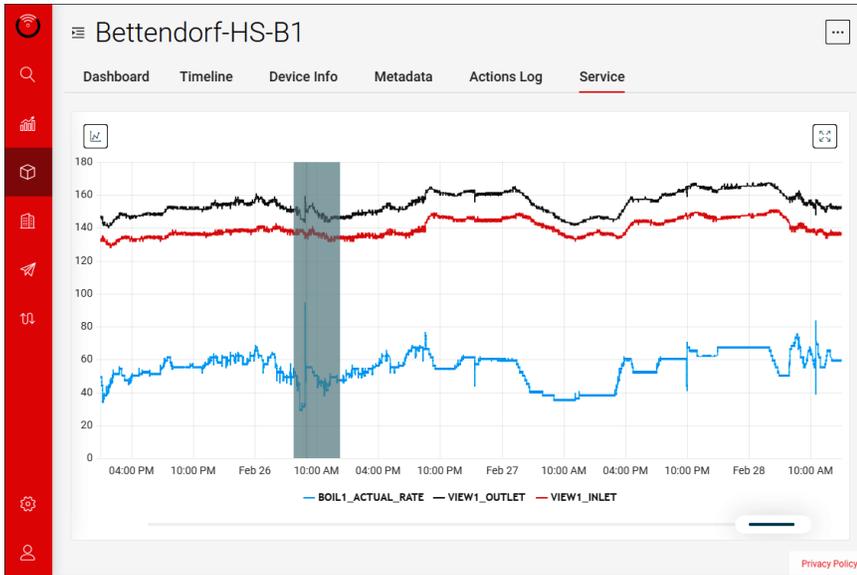


Figure 81. Time Frame Zoom

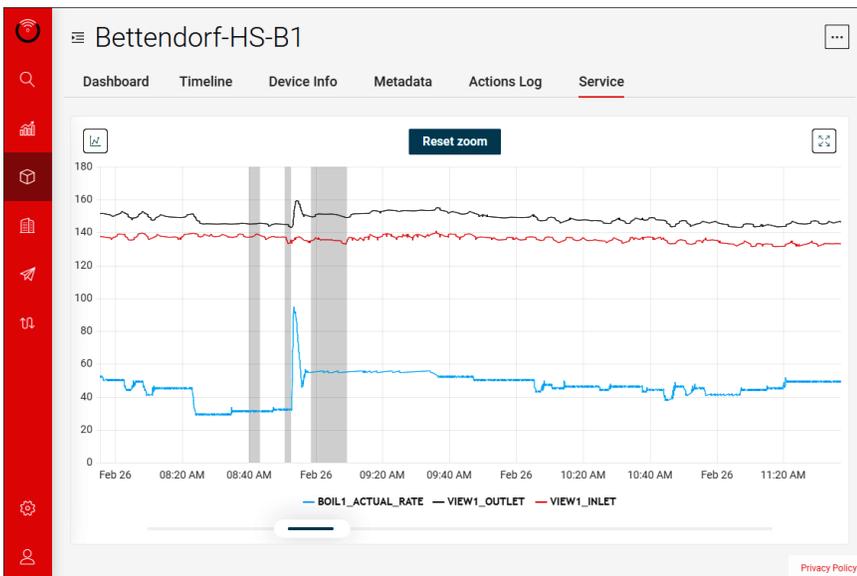


Figure 82. Zoom Reset Function
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9. Please note that certain time frames the unit might be offline or disconnected from network, such time frames are grayed out on graph. See **Figure 83**.
10. If you want to change the displayed time frame, on the lower part of the graph there is a bar specifying the time frame to be graphed. See **Figure 84**.
11. Slide the bar to specify other time frame and the graph will be automatically updated. See **Figure 85**.

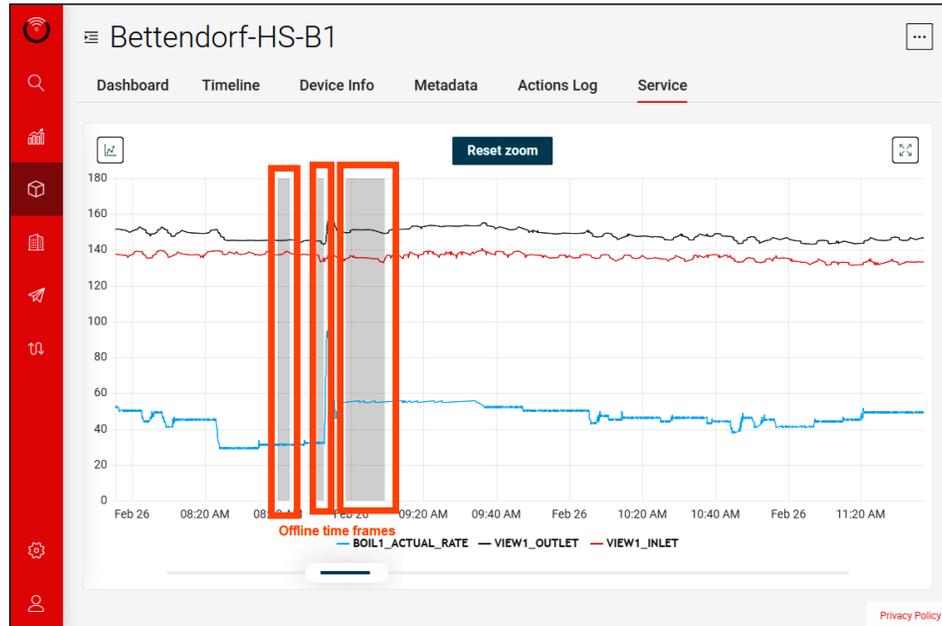


Figure 83. Temporal Discontinuity Illustration

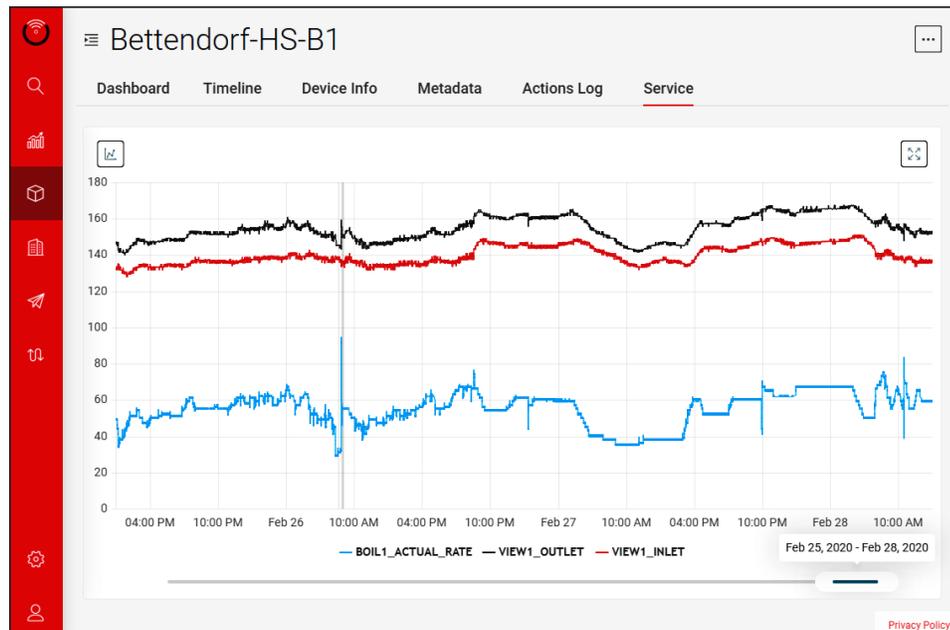


Figure 84. Time Frame Adjustment



Figure 85. Time Frame Adjustment Flexibility

Change Current Organization Visualization

1. Open the main menu by clicking the top left icon. See **Figure 86**.
2. On the main menu, click on the “Organization” icon. See **Figure 87**.
3. “Choose organization” screen will be displayed and it will show all the available organizations and sub organizations to be able to select to view its devices. See **Figure 88**.



Figure 86. Icon

Change Devices Sorting and Adding New Devices

1. Once the proper organization is selected, click on the top right icon to visualize Devices options. See **Figure 87**.
2. Devices menu will appear, where you can choose sorting or even add a new device to the current organization. See **Figure 90**.

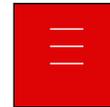


Figure 89. Icon 2

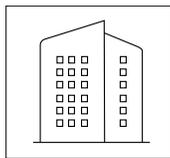


Figure 87. Organization Icon

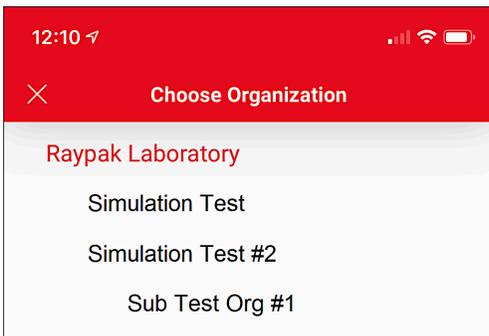


Figure 88. Organization Screen

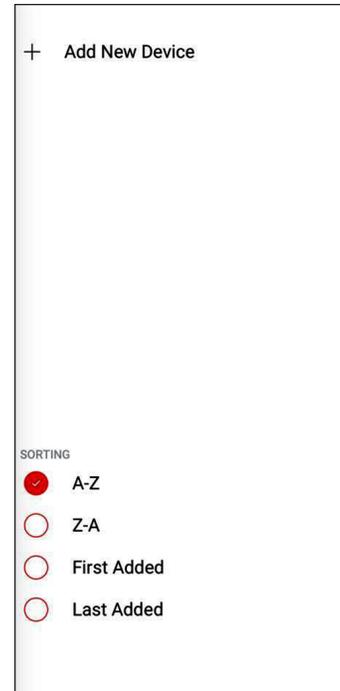


Figure 90. Organization Icon

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8. ROLES AND PERMISSION

At the bottom left corner of the Account Settings screen, press the user icon to access the Users screen. The user registering the units or initializing a site is assigned with administrator role credentials. Each role has different permissions; such as inviting users, assigning permissions, registering new units, and enabling different notification levels. Raymote user registration starts when a formal invitation is received from another Raymote user or administrator. See **Figure 91**.

The permission privileges can be personalized for each user. See **Figure 92**.

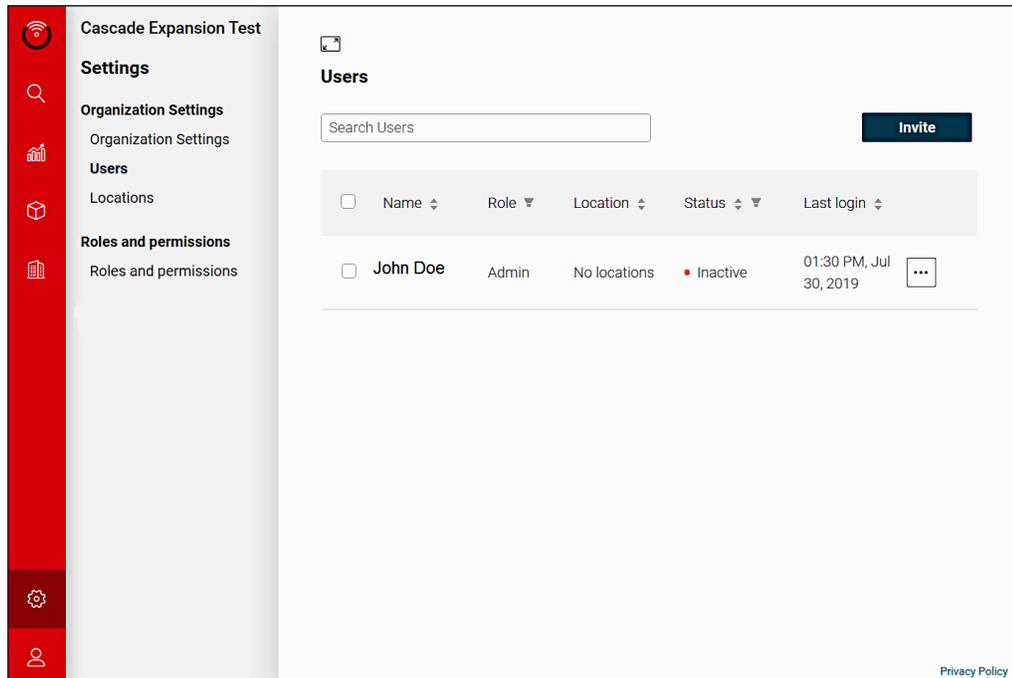


Figure 91. Account Settings - Users Screen

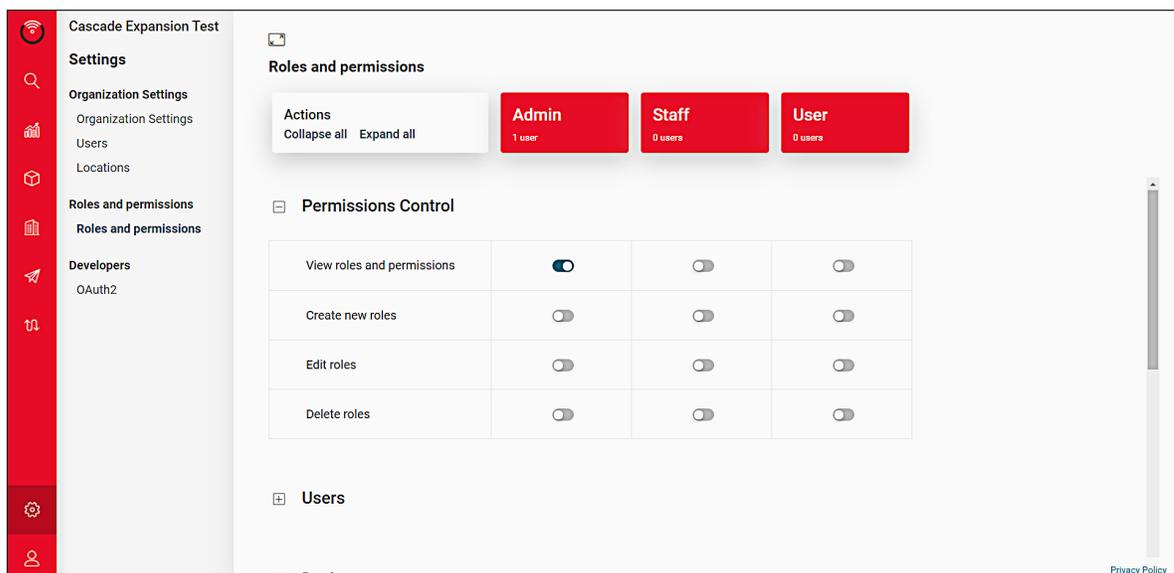


Figure 92. Account Settings - Roles and Permission Screen

9. TROUBLESHOOTING

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If you are experiencing connectivity issues with your unit and Raymote, check the following items:

Problem	Solution
Boiler Status is "Offline". See Figure 93 .	Check if your boiler touchscreen is powered on. Turn on the unit. Check if Wi-Fi signal is available. If not, enable Wi-Fi signal and make sure the unit is within Wi-Fi signal range.

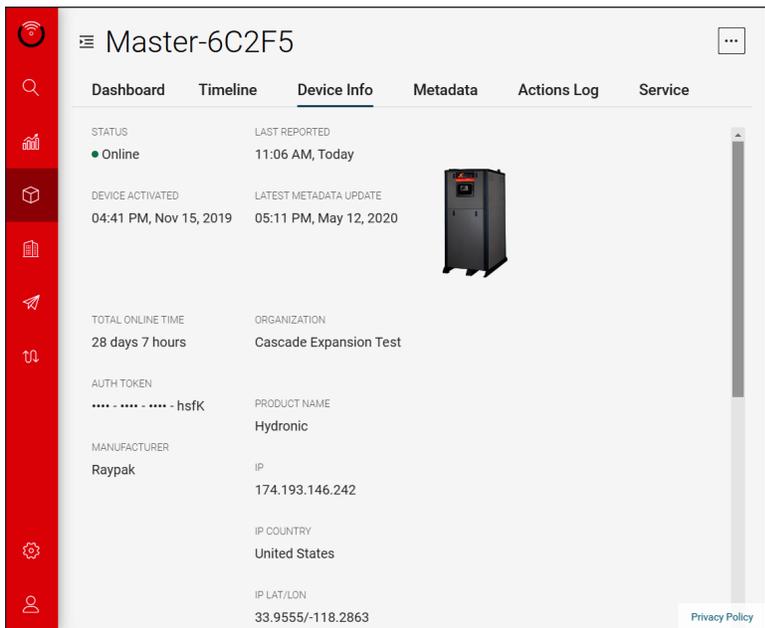


Figure 93. Web Dashboard - Device Info

Problem	Solution
Wi-Fi State displays Error. See Figure 94 .	<p>Make sure that Wi-Fi signal reception is available near the unit. A Wi-Fi extender can be added to improve the signal.</p> <p>Check if Wi-Fi signal name (SSID) matches with the SSID displayed on the touchscreen. If the SSID was changed, update this information. Reset Raymote credentials by pressing the "Reset" button on the Wi-Fi page. Perform the Provisioning steps. See Section 5.</p> <p>Check if Wi-Fi password was changed recently. If password was changed, update this information. Reset Raymote credentials by pressing the "Reset" button in the Wi-Fi page. Perform the provisioning steps. See Section 5.</p>

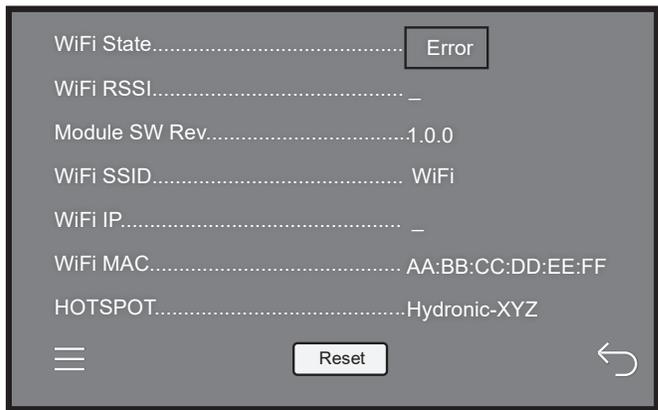


Figure 94. Wi-Fi State - Error
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Problem	Solution
Raymote mobile app or dashboard data do not match boiler touchscreen data. See Figure 95 .	Make sure that unit is online. Make sure that unit, Touchscreen and Wi-Fi source are turned On. Check web dashboard or Raymote mobile app unit status. Wi-Fi signal is weak. Use any Wi-Fi enabled device to check RSSI next to the unit or use unit Wi-Fi page. Make sure that unit touchscreen displays a Wi-Fi RSSI between -30 dB and -80 dB. If possible, remove any object blocking the unit Wi-Fi signal. Make sure that Wi-Fi antenna is connected to the Raymote Wi-Fi module. Improve signal strength in the unit room using a Wi-Fi extender. Static information. Refresh web browser or app and log off and log in again if necessary.

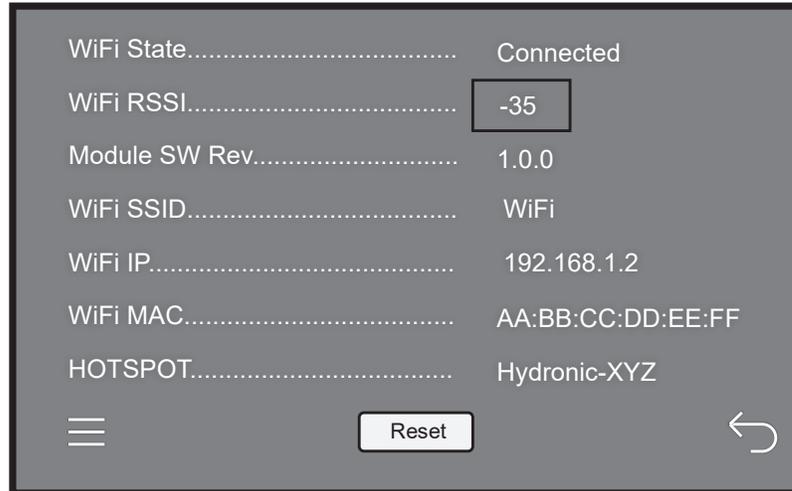


Figure 95. Wi-Fi RSSI

Static IP configuration

By default, Raymote WiFi module is configured automatically by your WiFi router with a dynamic IP address.

To assign manually a **Static IP address** follow the next steps.

NOTE: This configuration requires detailed WiFi network information to work properly. Consult with your local IT team to get this information.

In “WiFi setup” page, click on IP address settings (static IP).

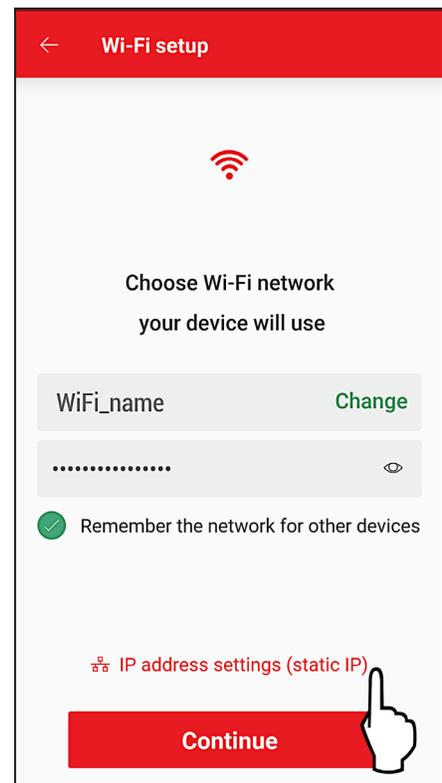


Figure 96. Static IP Option

Activate Static IP configuration by clicking in the “Use Static IP address” slider.

Alternatively, for Android devices, connect your device to the desired WiFi network and use automatic option to populate network data.

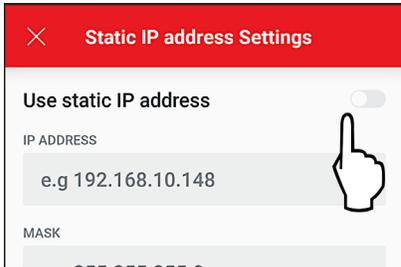


Figure 97. Static IP Settings

For iOS or Android devices, manually fill the boxes with the network data provided by your IT team.

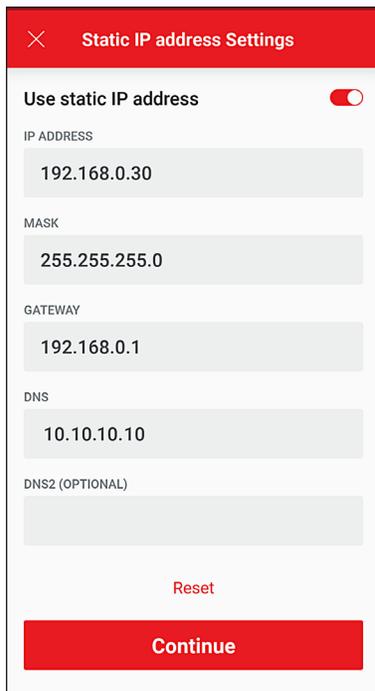


Figure 98. Static IP Data



Figure 99. Android Auto Configuration

After writing static IP and network data, press **Continue** to proceed to the setup.

Wi-Fi Module Status

This status light is only visible during service, when the rear of the VERSA IC touchscreen is accessible and visible.

Status	Meaning
Blinks twice a second.	Waiting for provisioning or trying to connect to the Wi-Fi.
Blinks quickly five (5) times per second.	Connecting to the Raymote cloud.
Slowly fading in and out.	Connected.
Blinks quickly two (2) times, then delays for one (1) second.	Connectivity error. The boards reboots automatically after a few seconds.

10. DISABLING RAYMOTE

This section describes the procedure to disable Raymote functionality and components. This will ensure that no signal is emitted or received by the antenna.

Before Removal

1. Terminate any active call for heat.
2. Disable the boiler operation in the BOILER menu, or deactivate the enable switch on the unit.
3. Allow the unit to shut down.
4. Turn OFF the boiler main power switch. Make sure the boiler is completely de-energized.
5. Locate the upper front of the boiler and follow the instruction that apply to your product.

MBV and XTherm units

1. Remove the knurled screw that secures the front sheet metal panel. Remove the front panel.

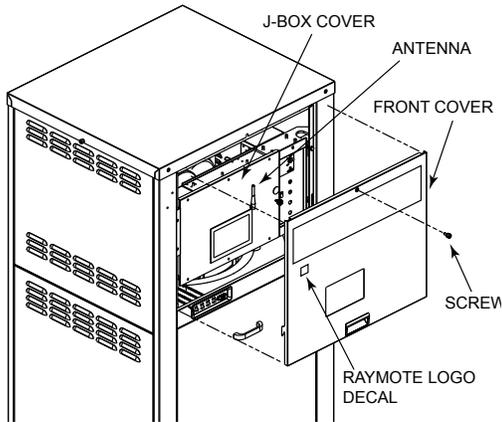


Figure 100. MBV and XTherm Front Panel Removal

2. Remove the j-box cover panel and the power switch mounting panel. Discard the j-box cover panel. It will be replaced with a new j-box cover panel which includes an additional opening to allow for the antenna placement.

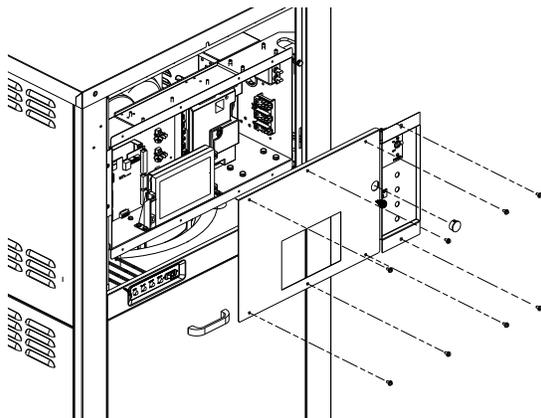


Figure 101. J-box Cover Removal

3. Remove the power and communication harnesses attached to the back of the touchscreen.
4. Remove the (4) 5/16" hex screws from the touchscreen mounting brackets on the j-box.

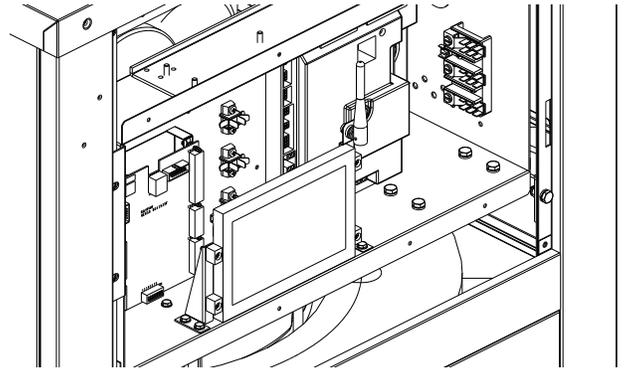


Figure 102. Harness Removal

5. Remove the touchscreen rear cover from the touchscreen.

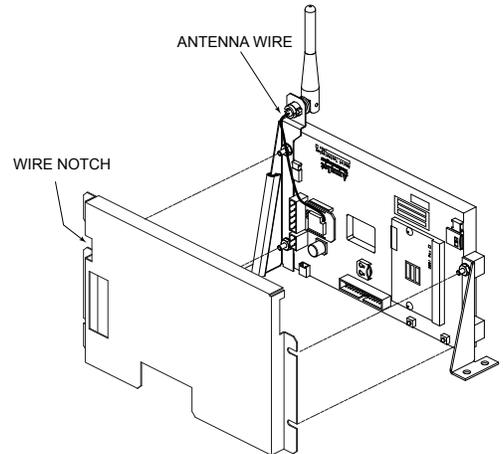


Figure 103. Touchscreen Rear Cover Removal

6. Disconnect the antenna from the Wi-Fi module.
7. Remove the module from the back of the touchscreen.
8. Remove the antenna from the bracket.

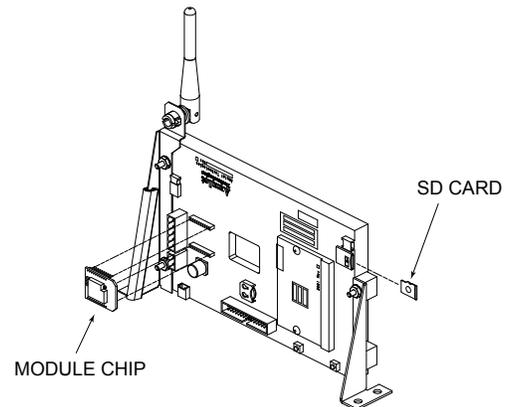


Figure 104. Antenna Removal

9. Follow steps 5 to 1 in reverse order to reinstall the screen and close the unit.

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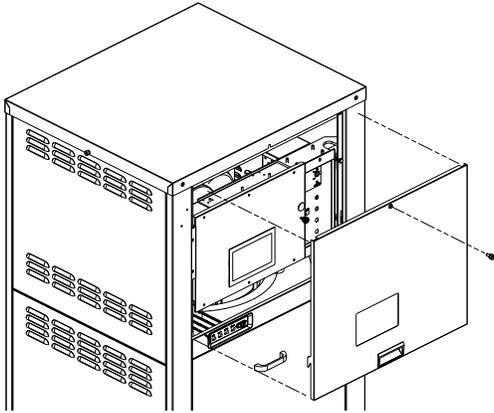


Figure 105. Re-installation

XVers Units

1. Release the four snap fasteners to remove the front cover panels from the unit. Remove the panels and place them aside.
2. Remove the 5/16" Phillips screw that secures the swing panel.

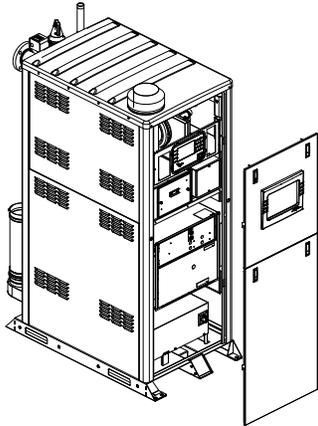


Figure 106. XVer Panel Removal

3. Remove the power and communication harnesses attached to the back of the touchscreen.
4. Remove the touchscreen rear cover.

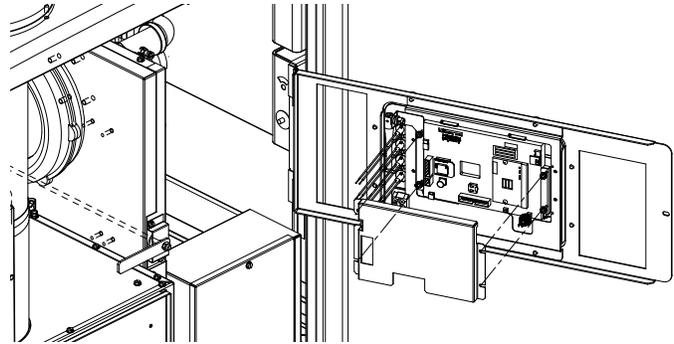


Figure 107. Harness Removal

5. Disconnect the antenna wire from the Wi-Fi module.

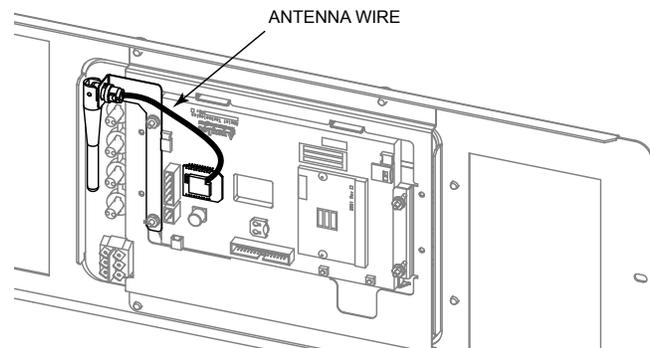


Figure 108. Antenna Wire Removal

6. Remove the Wi-Fi module from the touchscreen.

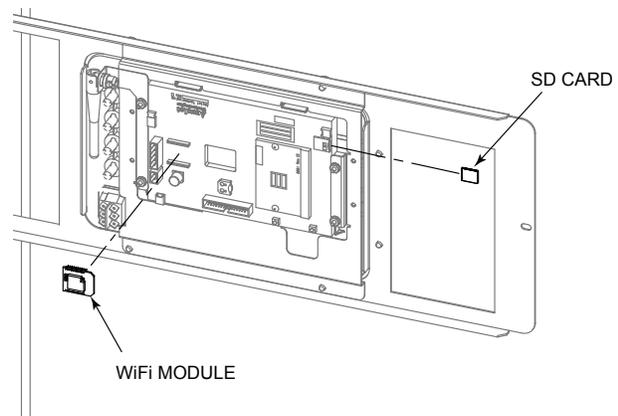


Figure 109. Wi-Fi Module Removal

7. Follow steps 4 to 1 in reverse order to reinstall the screen cover and close the unit.

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Notes

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APPROVED

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation. This device complies with CAN ICES-3 (A)/NMB-3(A).



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