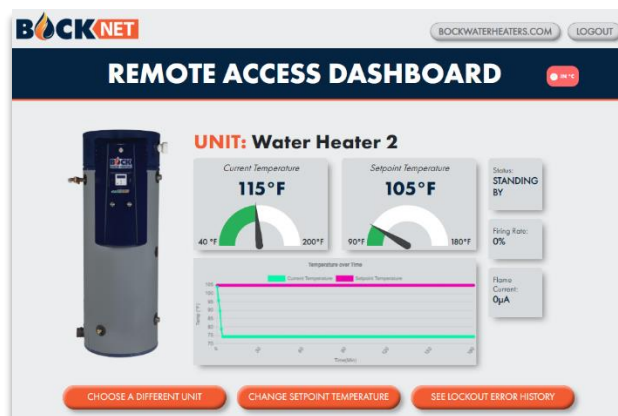
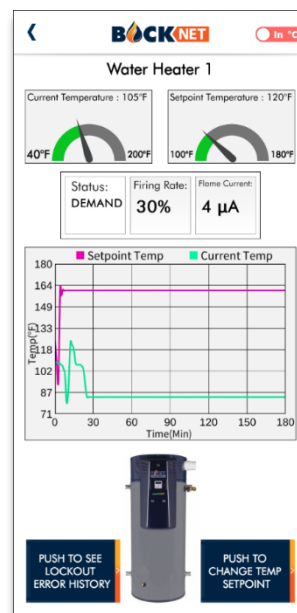


IMPORTANT - The connection of the water heater remote access device to the building network must be done by a qualified individual responsible for the information technology within the building.



Remote Access Startup Guide for Bock OptiTHERM Water Heaters



IMPORTANT! – FACTORY INSTALLATION REQUIRED

- The BockNET/BACnet BMS Kit must be purchased in combination with the OptiTHERM. If connecting to one OptiTHERM, order one BockNET/BACnet BMS Kit (SKU #20252).



"BockNET/
BACnet BMS Kit"

- For multiple OptiTHERM installations (in the same room), purchase one BockNET/BACnet BMS Kit (SKU #20252) for one water heater and purchase an individual Modbus Kit (SKU #20250) for each of the remaining water heaters.



"BockNet/
BACnet BMS Kit"



"Modbus Kit"



"Modbus Kit"

Retrofit kits are not available.

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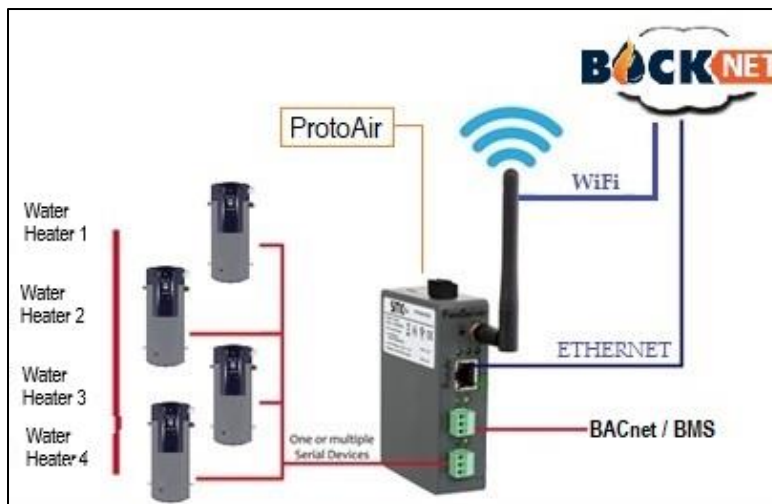
I. Overview

BockNET is an exclusive system that allows for remote access connection to a Bock OptiTHERM water heater.

Remote access is accomplished using a FieldServer ProtoAir (“FieldServer”) gateway. The FieldServer is a high performance building automation multi-protocol gateway that is preconfigured to automatically communicate with Bock OptiTHERM water heaters and allows for connection to BACnet Building Management Systems (BMS) and BockNET Remote Access.

The FieldServer is pre-loaded with approved profiles/configurations for the supported devices. It is not necessary to download any product configuration files to support the required applications.

FieldServer ProtoAir Connectivity Diagram:



When connected to BockNET remote access, building managers, technicians, maintenance personnel and other support team members can monitor the status of a water heater from a personal computer or cell phone.

BockNET provides the following capabilities:

- Remotely monitor setpoint temperature.
- Remotely change setpoint temperature.
 - When the initial setpoint is 100°-140°F, adjustable between 100°F and 140°F.
 - When the initial setpoint is greater than 140°F, user can only lower the setpoint. When outside of the 100°-140°F, raising the setpoint is not permitted.
 - If the initial setpoint is greater than 140°F and the setpoint is adjusted to 100°-140°F, the setpoint can never be adjusted greater than 140°F.
 - If a setpoint above 140°F is required, adjustment must be made at the water heater.
- View current unit status (Demand, Standby, Error).

- View Lockout Error history.
- Receive device notifications via SMS and/or Email for:
 - Lockout Errors
 - Setpoint Adjustment
 - Loss of internet connection

II. Preinstallation

The process of connecting a Bock water heater to BockNET requires minimal preparation. However, it is highly recommended to plan as much as possible to ensure an efficient installation. To summarize, preparations shall include the following items.

- Determine who will be assigned Administrator and User access.
- Understand if the installation will be Wi-Fi or Ethernet.
- Contact Bock Water Heaters to request BockNET access. **IMPORTANT! - This process requires, 1) the serial numbers from all water heaters that will be connected to BockNET, and 2) names and email addresses of everyone that needs remote access.**
- Download the FieldServer Toolbox to the laptop computer (Windows, MacOS, or Chrome OS) that will be used for installation.

The following terms are used to describe the two levels of access in BockNET. For clarity, the terms are defined in terms of responsibility and capability.

- **Administrator** – An individual, ideally the Building Manager, Maintenance Manager, or IT Manager, who will be responsible for setup and management of the water heater or general management of devices connected to the building's network. The Administrator should be an employee who is responsible for the water heater(s) in the building. The Administrator can adjust the setpoint, receive notifications, and can assign Users and other Administrators.
- **User** – An individual who can adjust the setpoint and receive notifications.

It is highly recommended that a backup Administrator is assigned in case the primary Administrator leaves their position.

Where possible, the administrator shall perform the following three items prior to the date of installation.

- ☐ **Item #1** - Determine if the installation will be Wi-Fi or Ethernet. Contact the IT department at the jobsite to establish the most robust and reliable internet connection plan.



IMPORTANT - Due to the potential reliability issues of using a Wi-Fi connection in a mechanical room, it is highly recommended that a wired network (Ethernet) connection is used.

- For Wi-Fi connection, obtain the network name and password. Consult with the networking team to determine if a DHCP or a static IP address will be used.
- For Ethernet connection, consult with the networking team to determine if a DHCP or a static IP address will be used.

IMPORTANT – Port 443 needs to be open for communication with the FieldServer.

- ☐ **Item #2** - Email the IT department at Bock Water Heaters, Inc. to request BockNET access at:

remoteaccess@bockwaterheaters.com

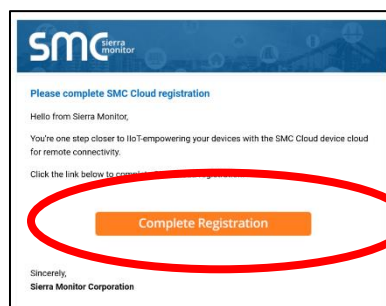


IMPORTANT - A serial number for each water heater that is to be connected to BockNET must be included in the email.

Include the names and email addresses for everyone that needs remote access to the water heater(s). Specify who will be assigned Administrator or User level access.

When the request for access is authorized, the Bock IT department will reply with instructions for setting up a BockNET account. The title of the email will be “Welcome to SMC Cloud.” Click on “Complete Registration.”

When prompted, complete all required fields and click “Save.” A message will appear when the account is activated.



IMPORTANT - Record and save your BockNET username (i.e. email) and password for future use. Your credentials are required to register the FieldServer to BockNET.

- ☐ **Item #3** - Download the FieldServer Toolbox. This is a precautionary step in case there are issues with connecting to the unit with a web browser. The Toolbox can be downloaded at the link below or by searching “FieldServer Toolbox” from any internet browser.

FieldServer Toolbox

<https://media.msanet.com/NA/USA/SMC/SoftwareDownloads/FieldServer%20Toolbox-1.08aC-Setup.zip>

A laptop computer (Windows, MacOS, or Chrome OS) with Wi-Fi capability is required for setup. In addition, the following information will be required to setup the FieldServer on the Internet and for BockNET registration.

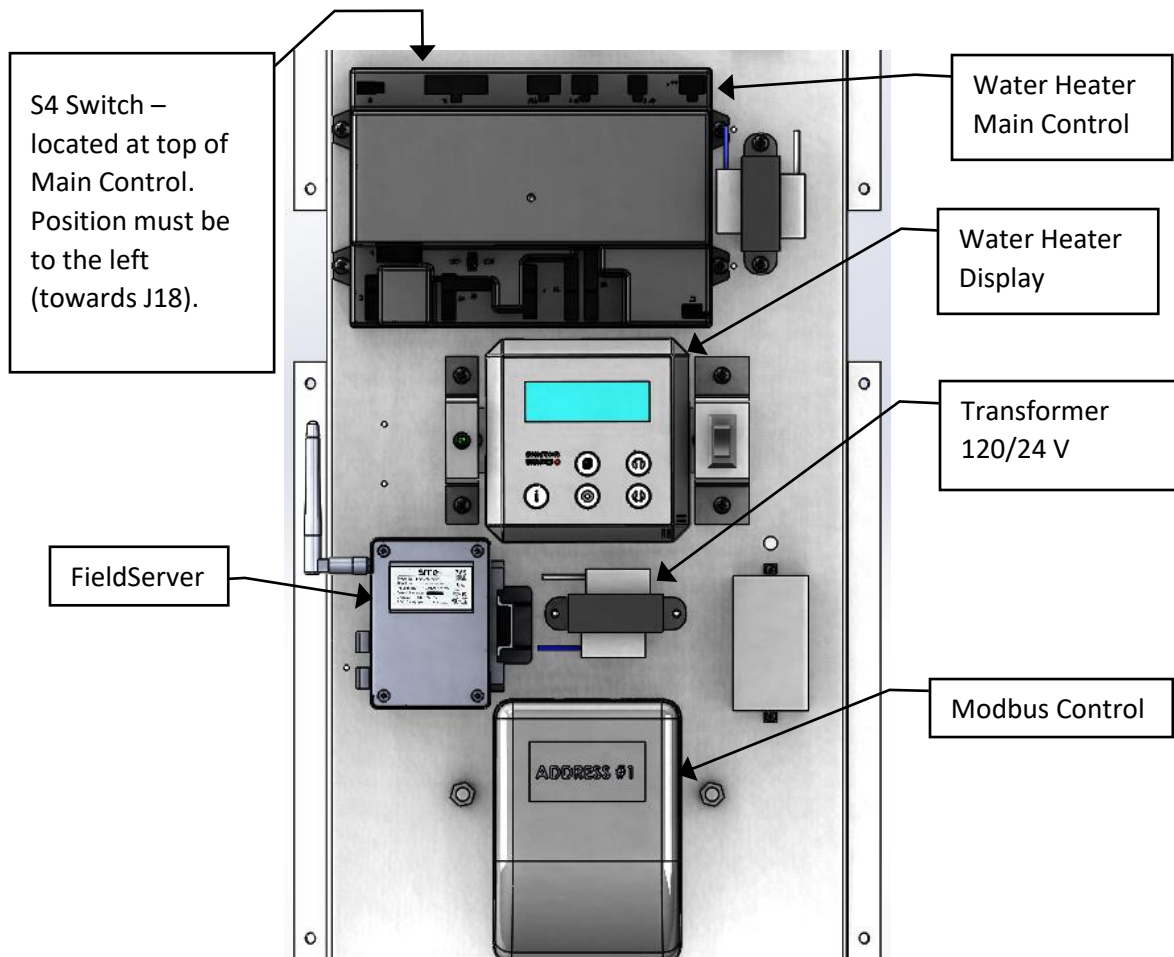
- ☐ **For Wi-Fi installation:** Name and password of Wi-Fi Network. Consult with the networking team to determine if a DHCP or a static IP address will be used.
- ☐ **For Ethernet installation:** Consult with the networking team to determine if a DHCP or a static IP address will be used.
- ☐ Email addresses and phone numbers for all personnel that need remote access to water heater.

Additional field wiring is required for multiple water heaters at a jobsite. In this case, all the water heaters will communicate through a single FieldServer. All local electrical codes must be followed. In the absence of a local code, use the National Electric Code, NFPA 70, or the Canadian Electrical Code, CSA C22.1.

These instructions are a guide for correct installation of the FieldServer to the Internet. Bock Water Heaters, Inc. is not liable for damages caused by failure to comply with the instructions herein.

III. Installation

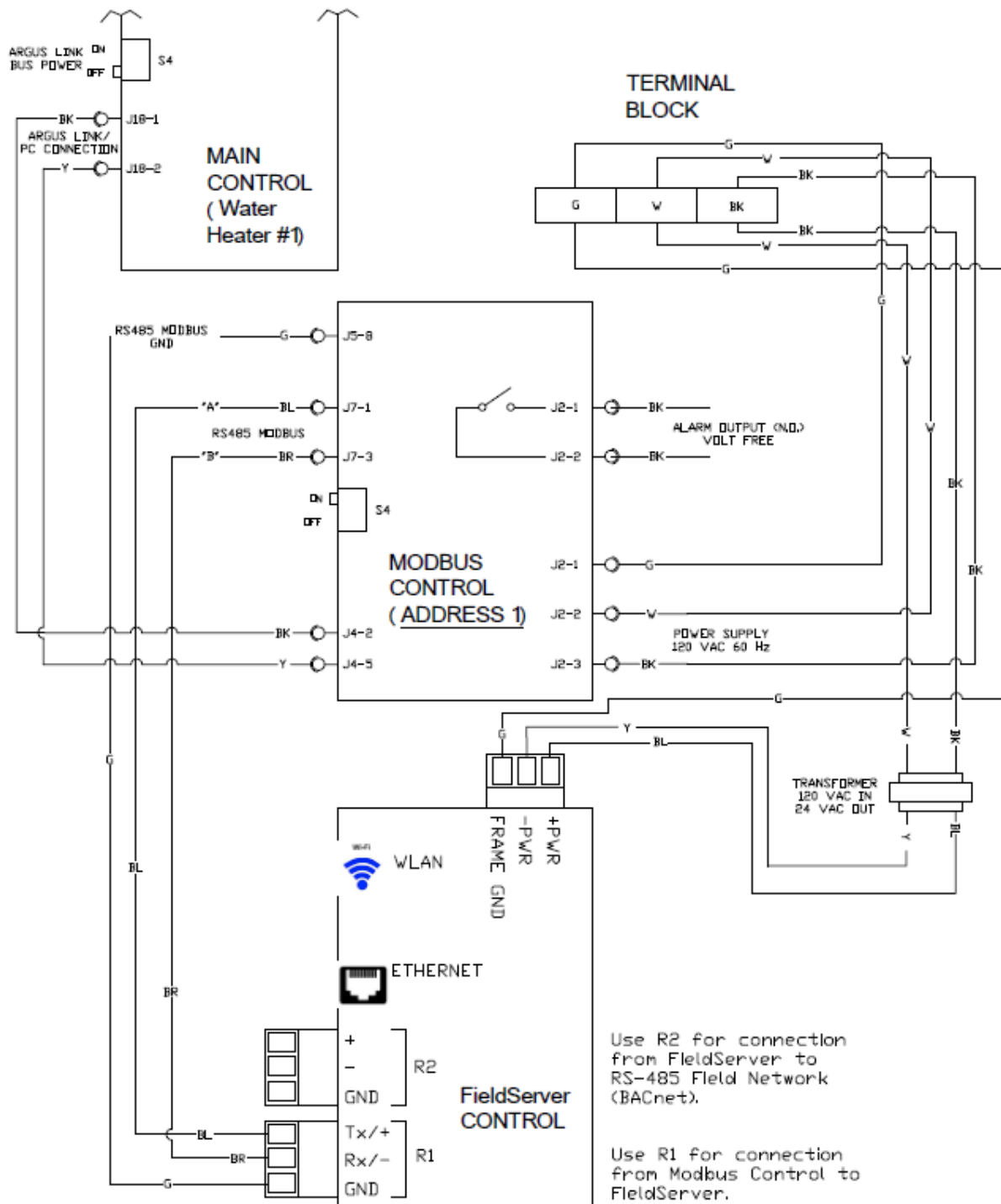
All hardware required for startup is factory assembled to the water heater. To access these components, remove (or open) the control panel cover on the front of the water heater. The illustration shows locations of key components, all of which are defined below.



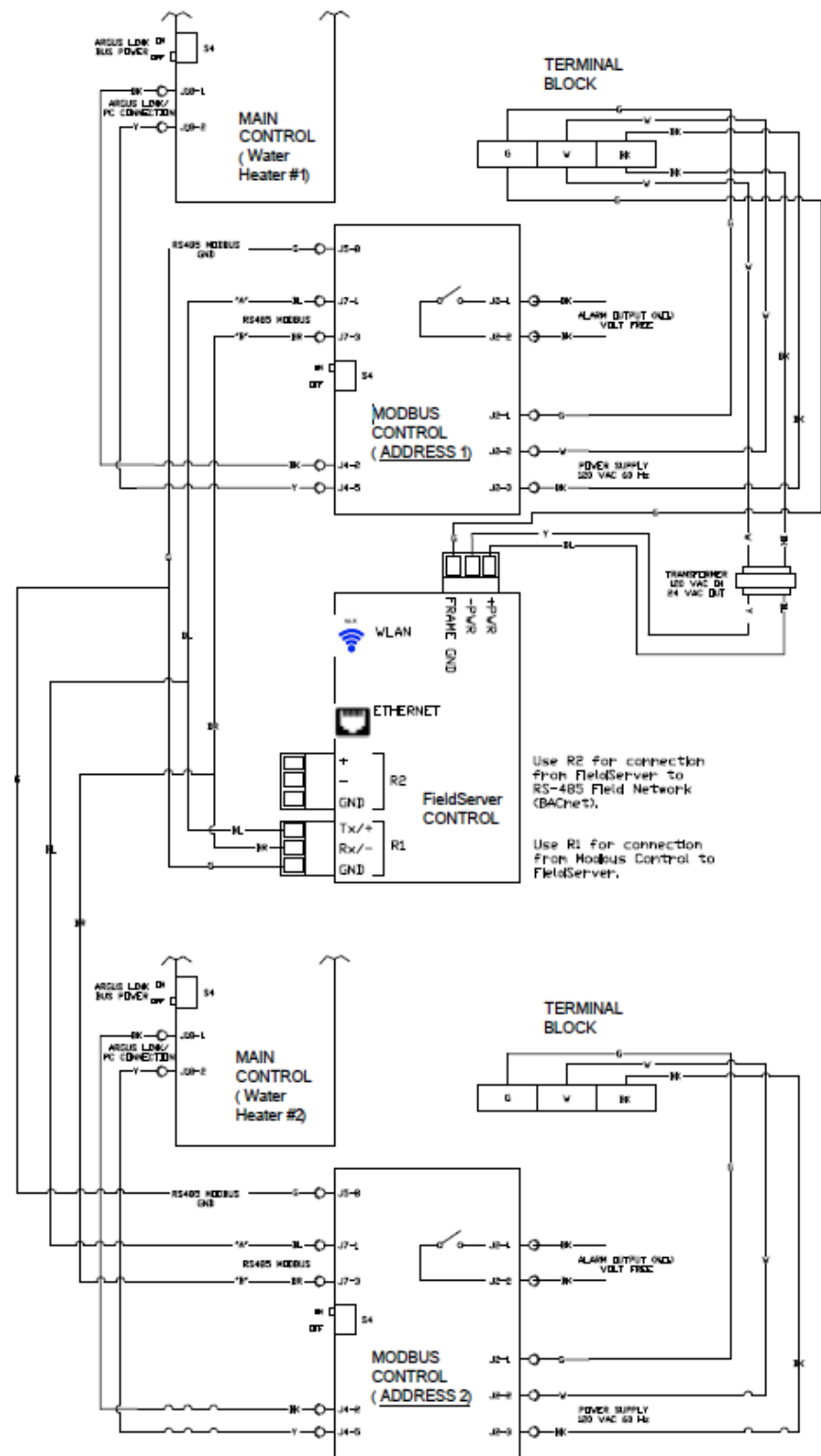
- **Modbus Control** – Device for translating Water Heater Main Control protocol to Modbus RTU (serial connection). This control is powered from the main terminal block and communicates to the FieldServer via RS485 serial connection. The Modbus Control contains an address number (i.e. single digit integer, 1, 2, 3, etc.), which is visible on the control cover.
- **FieldServer** - Building automation multi-protocol gateway that is preconfigured to automatically communicate with Bock OptiTHERM water heaters and allows for connection to BACnet Building Management Systems (BMS) and BockNET Remote Access. This device receives its power supply from the secondary side (24 VAC) of the transformer.
- **Water Heater Main Control** – Temperature and ignition safety control responsible for all water heater operation. For FieldServer applications, the S4 switch must be in the left position (towards J18). When the FieldServer is factory wired, the S4 switch is factory set.

All key components are prewired at the factory. There are two scenarios where additional field wiring is required, 1) when an ethernet connection is required for internet access, or 2) when multiple water heaters are installed. For multiple water heaters, the RS-485 connections must be linked between the Modbus Controls on each water heater. One FieldServer will be used for multiple water heaters.

Single Water Heater Component Wiring

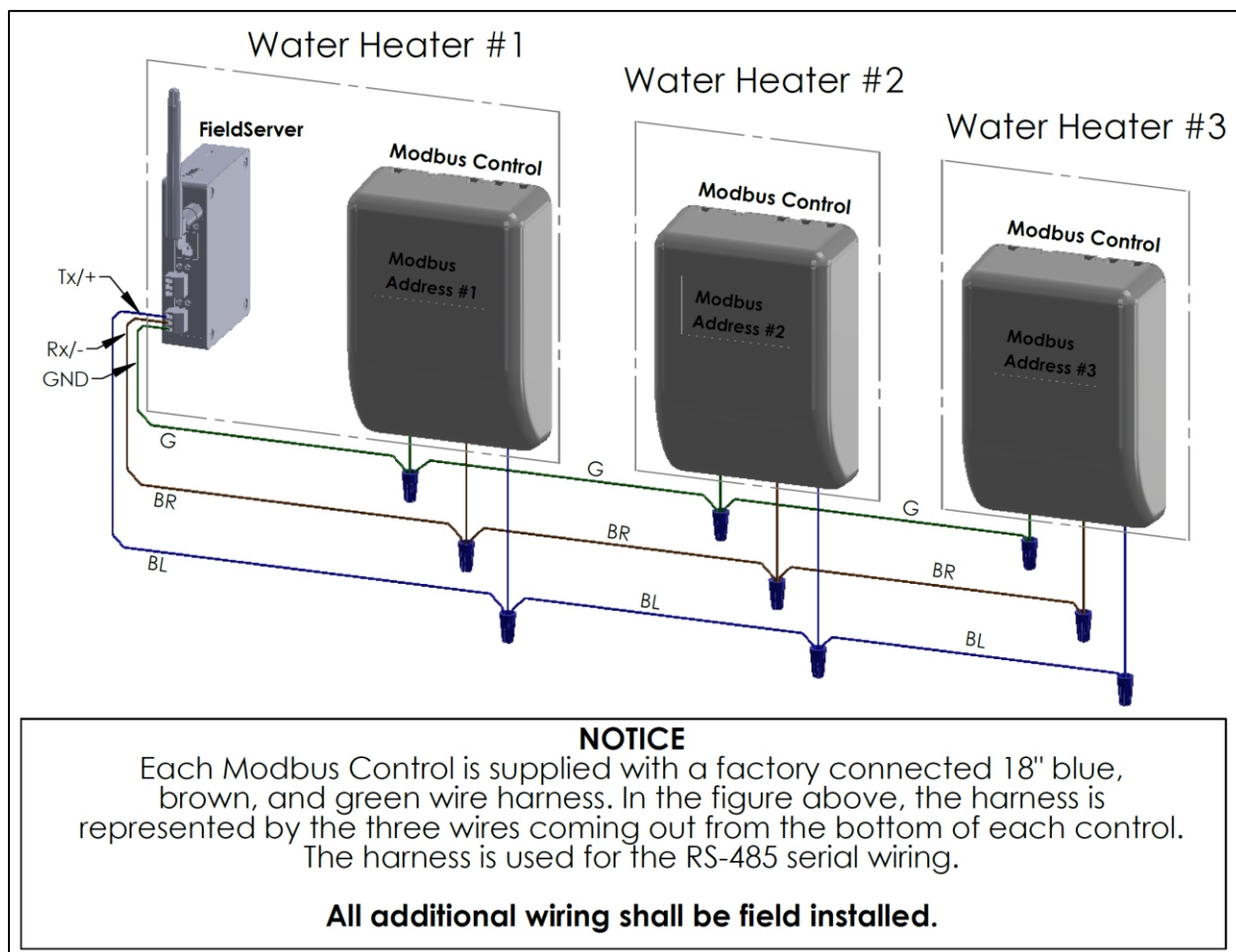


Multiple Water Heater Component Wiring

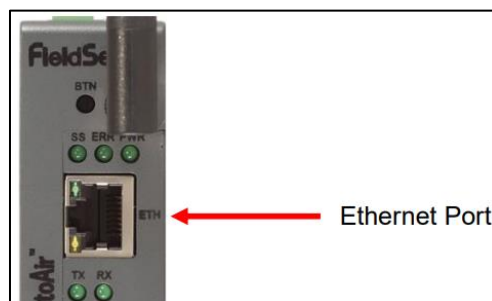


The following figure provides further detail on linking the RS-485 serial wiring from multiple Modbus controls to the FieldServer. Use appropriate data cable to daisy chain the RS-485 connections from each Modbus control (for example, use Belden 3106A cable). **Note:** wire colors used in the figure are for reference only.

Only one water heater will have a FieldServer, and that water heater will be identified as Water Heater #1.



If an ethernet connection will be used for internet access, connect the ethernet cable to the FieldServer at the connection labeled "ETH."



IV. Connect a Computer to the FieldServer

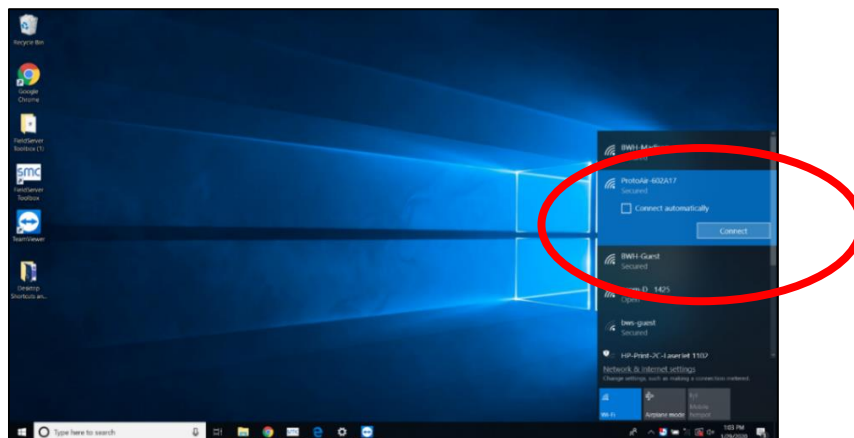
Use a computer to make a wireless connection to the FieldServer. **The Wi-Fi Access Point setting on the FieldServer is factory enabled.**

Before proceeding, remove the blue cover from the front of the water heater and make sure that the water heater is turned on. Confirm that the FieldServer “PWR” LED is solid green and the “SS” LED is blinking green. It may take up to two minutes for the “SS” LED to start blinking.

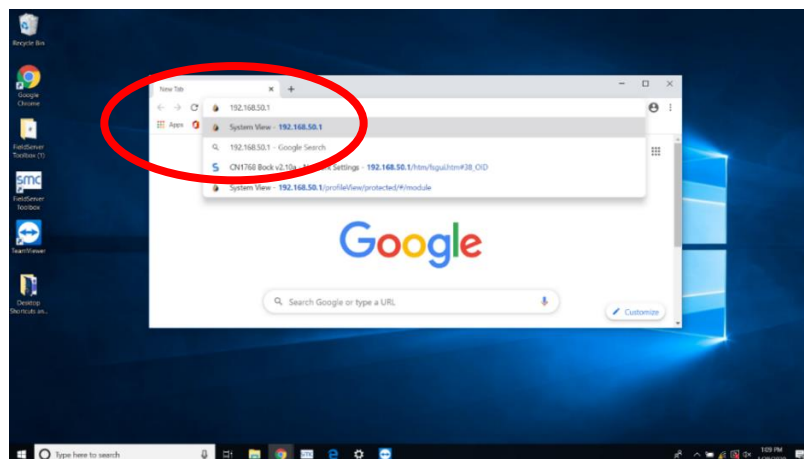
Follow these steps to wirelessly connect to the FieldServer using a laptop computer. The basic steps are relevant for Windows, MacOS, and Chrome OS. However, the images are specific to Windows 10.

- 1) Click on the Internet Access icon located on the right side of the desktop toolbar.
- 2) Locate the FieldServer in the list of available Internet access points. The network name for the FieldServer is **“BockNet AP”**. When prompted, enter the password **“Bock5050!”**.

If you cannot locate “BockNet AP” in the list of networks, skip to step 4.



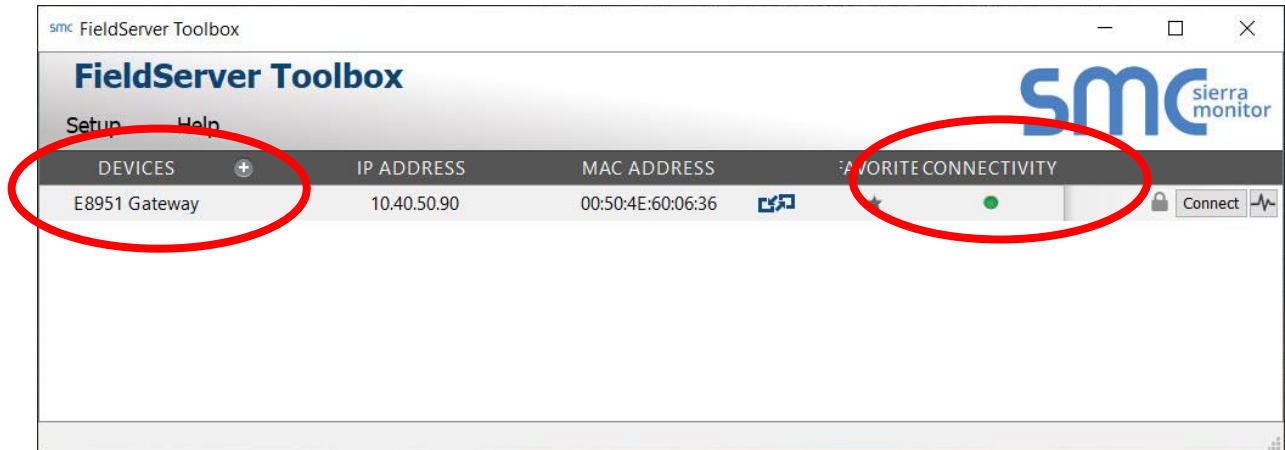
- 3) Open a browser and enter the default Wi-Fi Access Point IP address, 192.168.50.1, in the address bar.



4) Skip this step if you were able to connect to “BockNet AP.”

Use the FieldServer Toolbox to connect to the FieldServer. The Toolbox can be downloaded at <https://media.msanet.com/NA/USA/SMC/SoftwareDownloads/FieldServer%20Toolbox-1.08aC-Setup.zip>.

When the Toolbox opens, click “Discover Now” and it will automatically detect the FieldServer.



If you are at this point, the connectivity icon will likely be red, yellow, or blue depending on the network settings and device capabilities.

● Connectivity Lost
The Toolbox has not received a response from the device within the timeout period. This will happen if the device is powered down or removed from the network.

● Limited Connectivity
The Toolbox can communicate with the device, but its IP address is not on the same IP subnetwork as your computer. Several features of the Toolbox will be disabled if only limited connectivity is available. In order to utilize all the supported features, you must change the device's IP address to one that is in the same subnetwork as your computer.

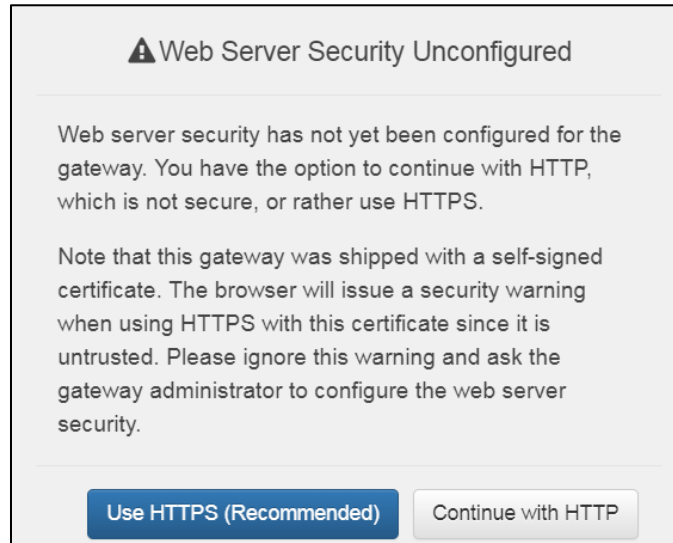
● Limited IP Connectivity
The Toolbox can communicate with the device and it has an IP address that is on the same subnetwork as your computer (or is accessible via a gateway in the case of a **Remote Device**), but the device does not have a web interface or advance feature support. The device might not support all features, such as **Set Device Time**. If the device's product range is capable of supporting a web interface, a firmware update might be needed to achieve full connectivity.

● Full Connectivity
The Toolbox can communicate with the device and it has an IP address that is on the same subnetwork as your computer (or is accessible via a gateway in the case of a **Remote Device**). The device has a web interface and supports all advanced features.

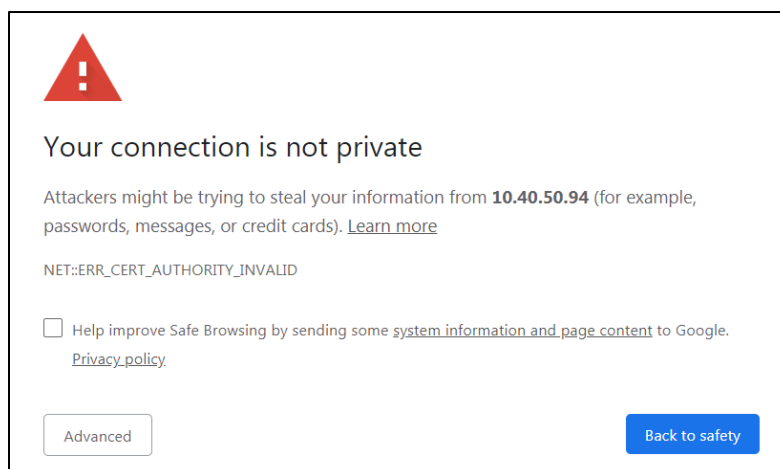
If the connectivity icon is green or blue, click on the “Connect” button (to the right of the connectivity icon). A web browser window will open, and you will be prompted to login. Proceed to Step 5.

The first time the FieldServer GUI is opened in a browser, the IP Address for the gateway will appear as untrusted. This will cause the following pop-up windows to appear.

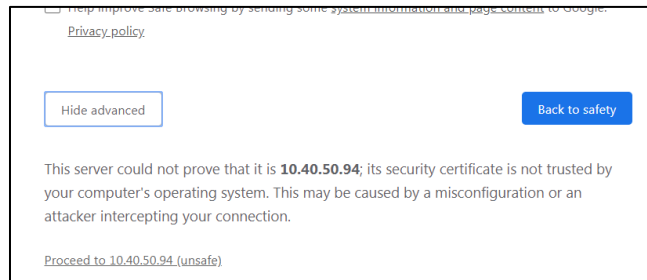
- When the Web Server Security Unconfigured window appears, read the text and choose whether to move forward with HTTPS or HTTP.



- When the warning that "Your connection is not private" appears, click the advanced button on the bottom left corner of the screen.

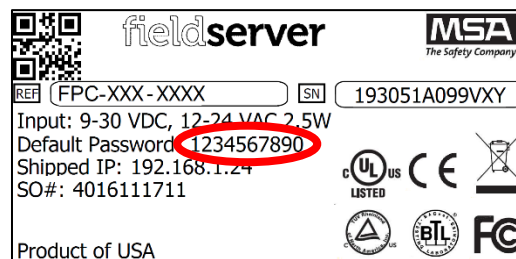
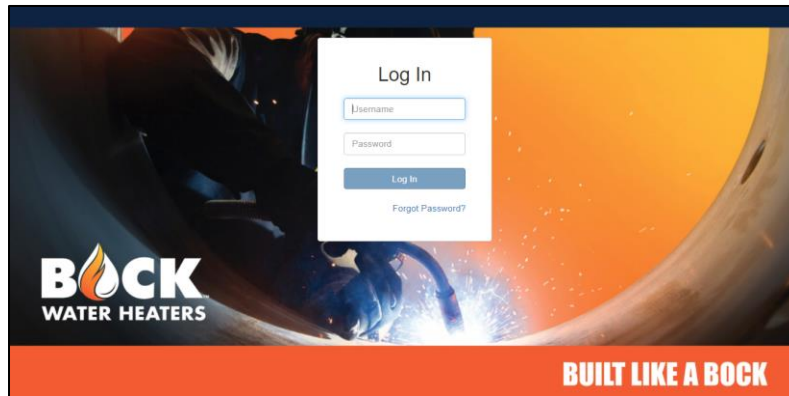


- Additional text will expand below the warning, click the underlined text to go to the IP Address. In the example below this text is “[Proceed to 10.40.50.94 \(unsafe\)](#)”.



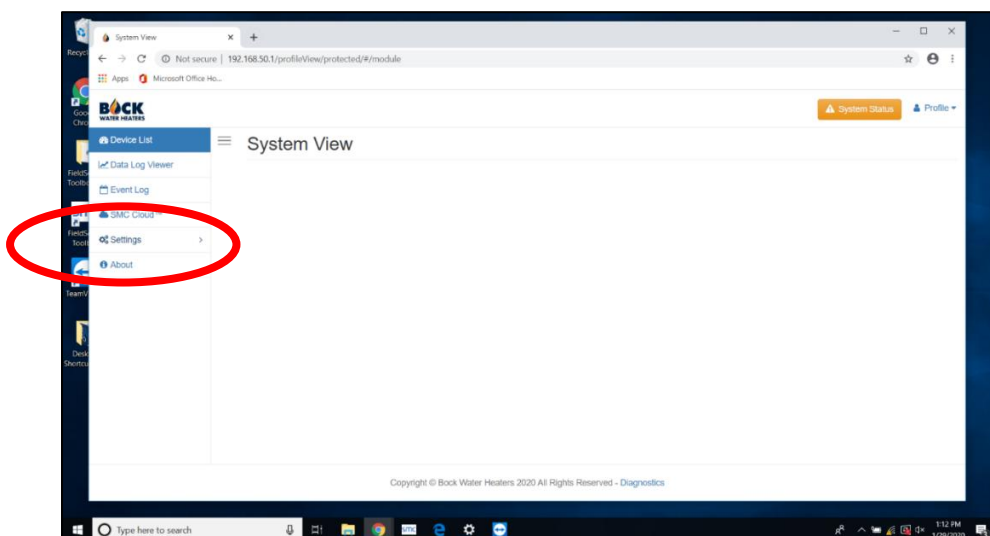
5) When prompted, enter “admin” for the Username. The password is a unique default password that is printed on the FieldServer device label. The image below shows the location of the default password.

Note: There is also a QR code in the corner of the FieldServer label that shows the default unique password when scanned.



IMPORTANT - Record and save the default password for future use. If connecting to the FieldServer through a web browser, the password will be required.

6) The System View screen will contain a list of options on the left. Select Settings and then Network.



V. Connect the FieldServer to the Internet



IMPORTANT - Due to the potential reliability issues of using a Wi-Fi connection in a mechanical room, it is highly recommended that a wired network (Ethernet) connection is used.

1) **For an Ethernet connection**, the IP address may be assigned automatically, or a static IP address can be used.

For an automatic IP address, check the box to the right of “N1 DHCP Client State” under “IP Settings.” Click the blue “Save” button. The fields under the DHCP Client State check box will automatically populate.

If a static IP address is required, do not check the “N1 DHCP Client State” box. Obtain the static IP address, netmask, default gateway, and domain name from the IT department at the building.



IMPORTANT - Record and save the IP Address for future use.

A screenshot of a web browser displaying the Bock Water Heaters FieldServer Network Settings page. The page has a dark blue sidebar on the left with navigation links: Device List, Data Log Viewer, Event Log, SMC Cloud™, Settings (selected), Configuration, Virtual Points, Network, and About. The main content area is titled 'IP Settings' and contains a section for 'N1 DHCP Client State' which is circled in red. This section includes a checkbox that is checked, and several input fields: 'N1 IP Address' (192.168.1.24), 'N1 Netmask' (255.255.255.0), 'Default Gateway' (192.168.1.1), 'Domain Name Server 1' (8.8.8.8), and 'Domain Name Server 2' (8.8.4.4). Below these fields are 'Save' and 'Refresh' buttons. Below the 'IP Settings' section is a 'WiFi Client Settings' section with an 'Enabled' checkbox and a 'WiFi SSID' field containing 'BWH-Madison'. The footer of the page reads 'Copyright © Bock Water Heaters 2020 All Rights Reserved - Diagnostics'.

Note: If the Ethernet MAC Address for the FieldServer is required, it can be found on the FieldServer device label.

2) **For a Wi-Fi connection**, check the box to the left of “Enabled” under “Wi-Fi Client Settings.” Enter the Wi-Fi network name and password. The IP address may be assigned automatically, or a static IP address can be used.

For an automatic IP address, check the box to the right of “Wi-Fi DHCP Client State” and click on the blue “Save” button. The remaining fields will automatically populate if the connection is successful.

If a static IP address is required, do not check the “Wi-Fi DHCP Client State” box. Obtain the static IP address, netmask, default gateway, and domain name from the IT department at the building.



IMPORTANT - Record and save the Wi-Fi IP Address for future use.

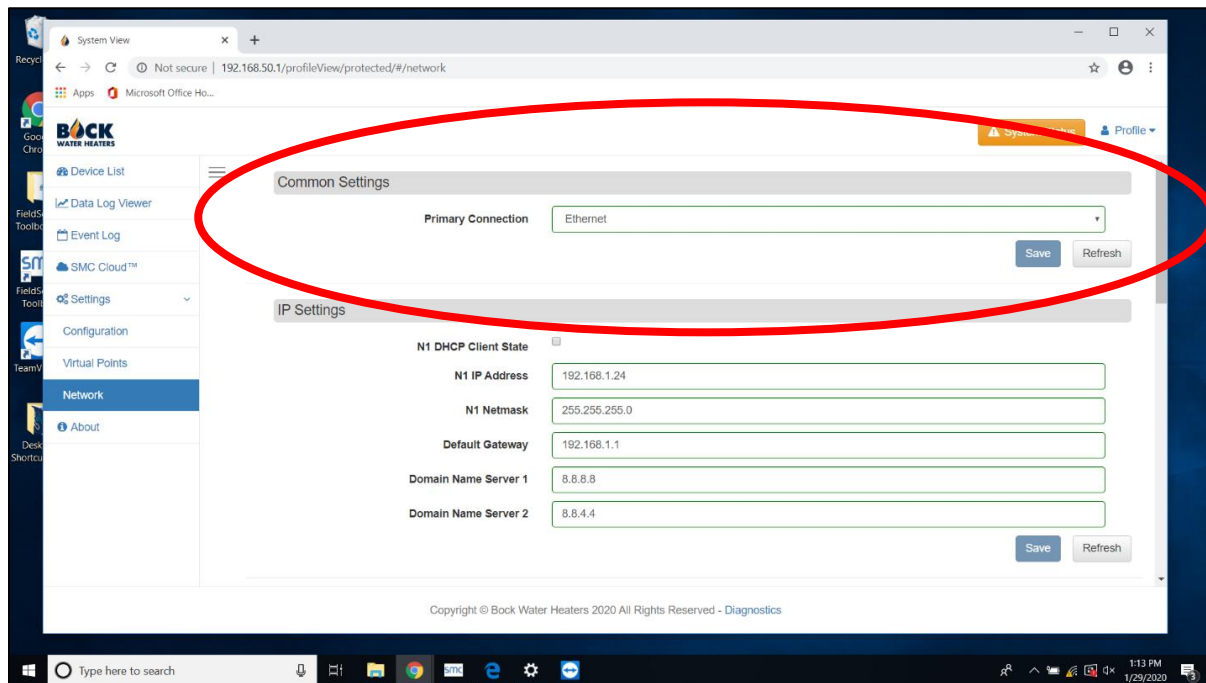
The screenshot shows the BockNET Web Interface. The left sidebar contains navigation links: Device List, Data Log Viewer, Event Log, SMC Cloud™, Settings, Configuration, Virtual Points, Network (selected), and About. The main content area is titled 'Wi-Fi Client Settings'. It includes a 'System View' tab and a 'Profile' dropdown. The settings are organized into sections: 'Enabled' (checkbox checked), 'Wi-Fi SSID' (text field with 'BWH-Madison'), 'Wi-Fi Password' (password field), 'Wi-Fi DHCP Client State' (checkbox checked), 'Wi-Fi IP Address' (text field), 'Wi-Fi Netmask' (text field), 'Wi-Fi Default Gateway' (text field), 'Wi-Fi Domain Name Server1' (text field), and 'Wi-Fi Domain Name Server2' (text field). At the bottom right, there are 'Save' and 'Refresh' buttons, and a message 'There are unsaved settings.' The footer indicates 'Copyright © Bock Water Heaters 2020 All Rights Reserved - Diagnostics'.

Note: If the Wi-Fi MAC Address for the FieldServer is required, it may be found as described below.

- At the bottom of the Network page, select “Diagnostics.”
- At the Navigation panel on the left, select “Setup” and select “Network Settings.”
- Under Network Settings, select the “Wi-Fi Client” tab. The Wi-Fi MAC Address is located halfway down the page.

The screenshot shows the 'Connection Status' section of the Wi-Fi Client Diagnostics page. It includes a 'Connected' status indicator. Below this, there are three rows of information: 'Wi-Fi MAC Address' (highlighted with a red circle), 'Wi-Fi BSSID', and 'Wi-Fi Channel'. Each row has a corresponding value displayed next to it.

3) Lastly, under Common Settings, confirm that the Primary Connection matches the connection type used at the water heater. The default setting is Ethernet. If Wi-Fi is used, select Wi-Fi and click on the blue “Save” button.



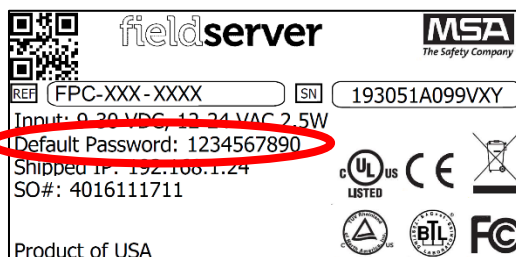
VI. BockNET Registration

For an ethernet primary connection, disconnect the computer from the BockNET AP network in Network Settings. Reconnect to the local network to access the Internet. Open a web browser and enter the N1 IP Address recorded from Section V, Step 1 in the address bar.

For a Wi-Fi primary connection, disconnect the computer from the BockNET AP network in Network Settings. Reconnect to the local network to access the Internet. Open a web browser and enter the Wi-Fi IP Address recorded from Section V, Step 2 in the address bar.

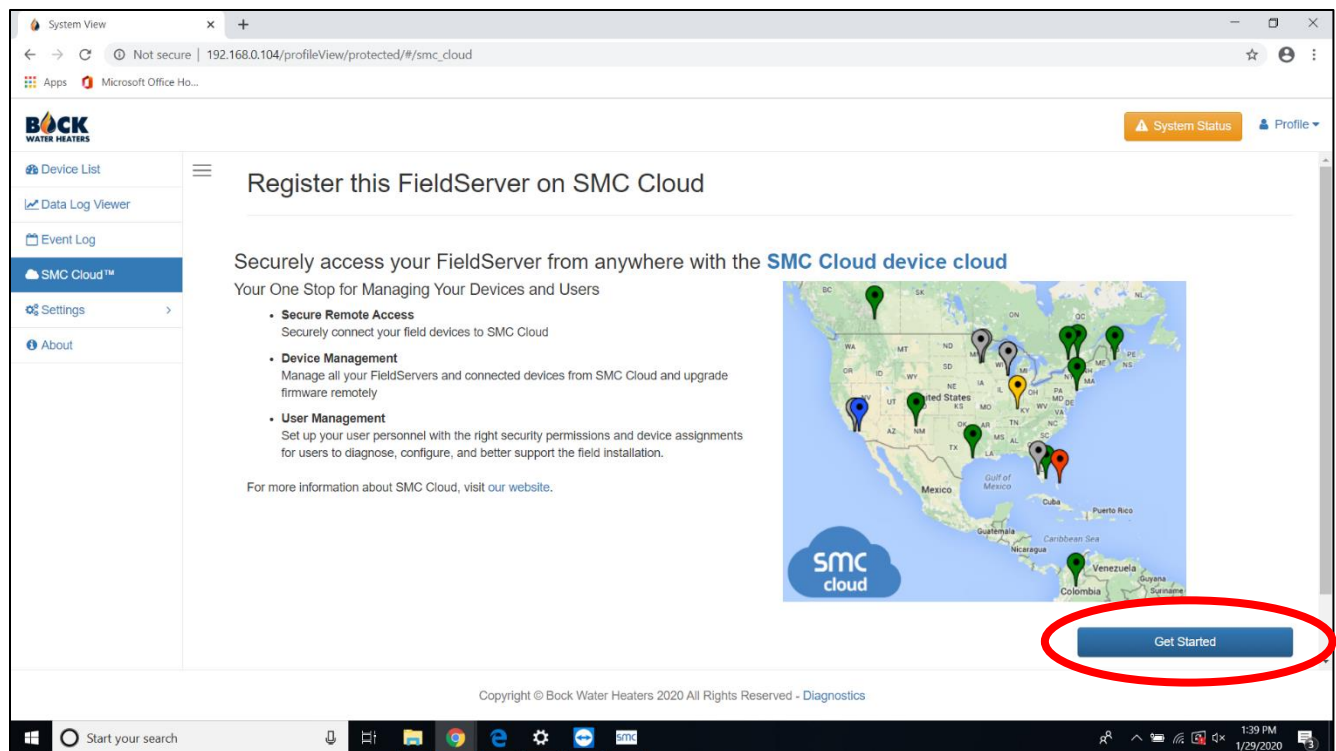
A BockNET registration page will load and then select Login. When prompted, enter “admin” for the User ID. The password is a unique default password that is printed on the FieldServer device label. Remove the control panel cover from the front of the water heater to access the FieldServer. The image below shows the location of the default password.

IMPORTANT - Record and save the default password for future use. If connecting to the FieldServer through a web browser, the password will be required.

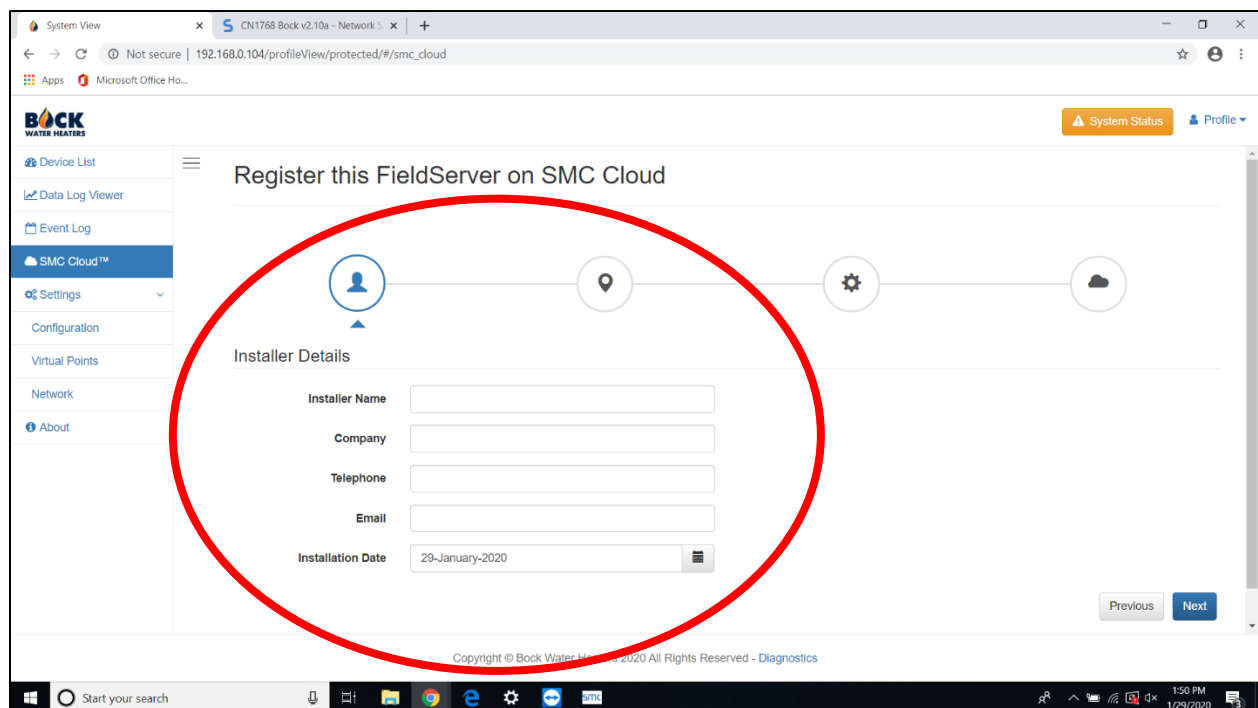


The next page that loads will be the welcome screen for BockNET registration. Select “Get Started.” If the welcome screen doesn’t automatically load, please select “SMC Cloud” from the menu on the left side of the window.

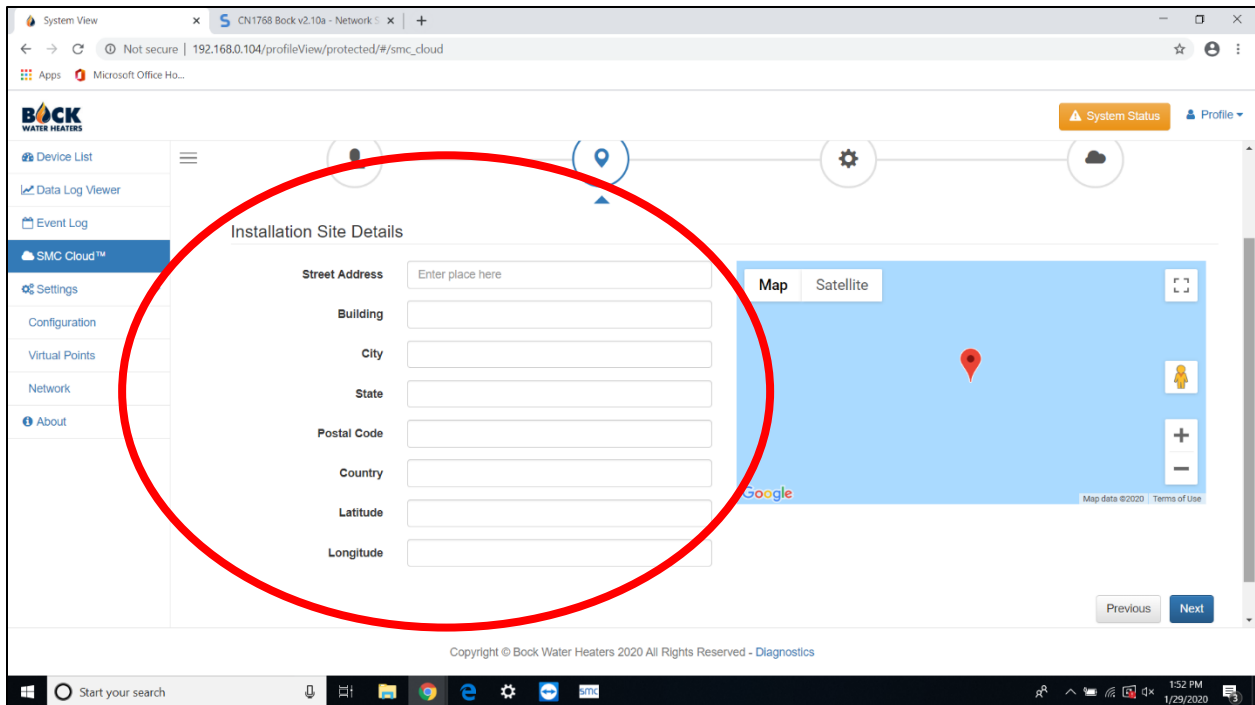
Note: The page will contain the heading “Register this FieldServer on SMC Cloud”. The Bock logo will be in the upper left corner of the web browser.



- 1) Complete all fields under Installer Details and select Next. The “Installer Name” shall be the Administrator (see Section II, Preinstallation for the definition of Administrator).



- 2) Complete all fields under Installation Site Details and select Next.



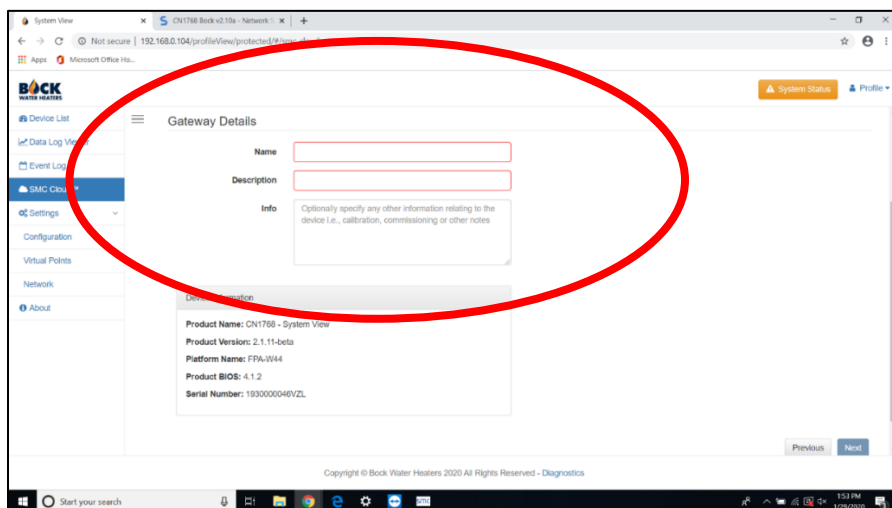
The screenshot shows the 'Installation Site Details' form in the BockNET web interface. The form is circled in red and includes the following fields:

- Street Address: Enter place here
- Building
- City
- State
- Postal Code
- Country
- Latitude
- Longitude

A map is visible on the right side of the form, showing a location pin. The map includes 'Map' and 'Satellite' tabs. The bottom of the form has 'Previous' and 'Next' buttons. The footer of the page reads 'Copyright © Bock Water Heaters 2020 All Rights Reserved - Diagnostics'.

- 3) The Gateway Details page is used to specify the “Name” of the FieldServer. **When naming the FieldServer, identify the facility and, if useful, location within the facility where the FieldServer is installed. The individual water heaters will be named later.** For example – “ABC School” or “Goodnight Hotel (North Tower)”. The “Description” field can contain the same information as the “Name” field or provide further details. “Name” and “Description” are both required fields.

When viewing FieldServer devices on the Bock App, the “Name” field is used to identify and organize jobsites.



The screenshot shows the 'Gateway Details' form in the BockNET web interface. The form is circled in red and includes the following fields:

- Name
- Description
- Info: Optionally specify any other information relating to the device i.e., calibration, commissioning or other notes

A dropdown menu is open, showing the following information:

- Product Name: CN1768 - System View
- Product Version: 2.1.11-beta
- Platform Name: FPA-W44
- Product BIOS: 4.1.2
- Serial Number: 193000046VZL

The bottom of the form has 'Previous' and 'Next' buttons. The footer of the page reads 'Copyright © Bock Water Heaters 2020 All Rights Reserved - Diagnostics'.

- 4) Enter the BockNET account user credentials. **This is the Username and Password that was established during Preinstallation (page 5, Item 2) with the IT department at Bock Water Heaters, Inc.** Select “Register Device.”

IMPORTANT – DO NOT create an SMC Cloud account from this page. If you need to establish a BockNET account, follow the steps under Item 2 on page 5 of this manual.

The screenshot displays the BockNET System View web interface. The browser address bar shows the URL `192.168.0.104/profileView/protected/#/smc_cloud`. The interface includes a sidebar with navigation links: Device List, Data Log Viewer, Event Log, SMC Cloud™, Settings, and About. The main content area is titled 'New Users' and contains the following sections:

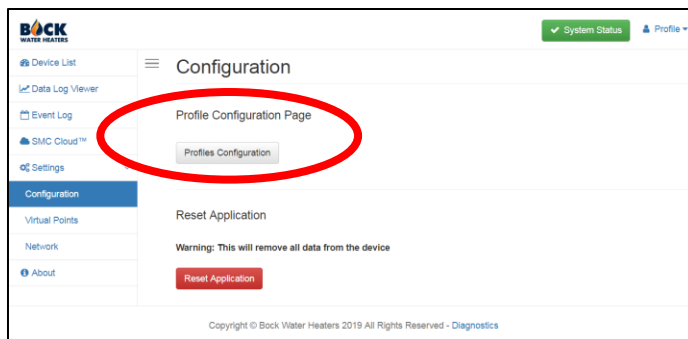
- If you do not have SMC Cloud credentials, you can create a new SMC Cloud account now** (with a 'Create an SMC Cloud account' button).
- Existing Users - Enter device registration details** (highlighted by a red oval), which includes:
 - User Credentials** section with 'Username' and 'Password' input fields.

At the bottom right, there are 'Previous' and 'Register Device' buttons.

VII. Adding Water Heaters to the FieldServer

Next, it is necessary to confirm data communication with the water heater(s).

- 1) In the browser window, select Device List from the options on the left.
- 2) If a device is visible, then a profile has already been configured. Confirm that the visible data is accurate.
- 3) If no devices are listed, select Settings and then Configuration from the options on the left.
- 4) Select Profiles Configuration.



- **If multiple water heaters are connected to one FieldServer**, set the BACnet Virtual Server Nodes field to “Yes”, click Submit, and then select “System Restart” at the bottom of the page.

bac_virt_nodes	BACnet Virtual Server Nodes Set to NO if the unit is only converting 1 device to BACnet. Set to YES if the unit is converting multiple devices. (No/Yes)	<input type="text" value="Yes"/>	<input type="button" value="Submit"/>
----------------	--	----------------------------------	---------------------------------------

HELP (?) Network Settings Discovery Mode Clear Profiles and Restart System Restart Diagnostics & Debugging

If only one water heater is connected to the FieldServer, use the default (“No”) setting.

bac_virt_nodes	BACnet Virtual Server Nodes Set to NO if the unit is only converting 1 device to BACnet. Set to YES if the unit is converting multiple devices. (No/Yes)	<input type="text" value="No"/>	<input type="button" value="Submit"/>
----------------	--	---------------------------------	---------------------------------------

5) Next, an Active Profile must be added for each water heater. Select the Discovery Mode button at the bottom of the webpage and allow the discovery feature to identify all water heaters connected to the FieldServer. This process will take approximately five minutes.

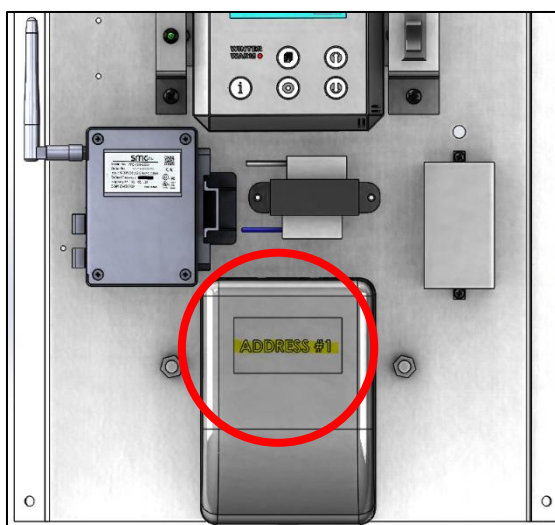


- **For single water heater installations,** a single active profile will be visible under Active Profiles.

Active profiles				
Nr	Node ID	Current profile	Parameters	
1	1	BAC_IP_850MN		<button>Remove</button>
<button>Add</button>				

- **For multiple water heater installations,** the number of active profiles will depend on the number of water heaters connected to the FieldServer. **Each water heater will be automatically assigned a Node ID. The Node ID will match the Modbus address number, which is found on the cover of each Modbus Control.**

Active profiles				
Nr	Node ID	Current profile	Parameters	
1	1	BAC_IP_850MN		<button>Remove</button>
2	2	BAC_IP_850MN		<button>Remove</button>
3	3	BAC_IP_850MN		<button>Remove</button>
<button>Add</button>				



6) Return to the Device List and confirm that all units connected to the FieldServer are displayed. Compare the Status and Top Store Temp for each unit to current conditions on the water heater. There will be a delay when comparing data from the computer to real time changes on the water heater.

7) Before completing installation, it will be useful to name the water heater(s) that are connected to the FieldServer. During the registration process, there was an opportunity to name the FieldServer device and specify the jobsite. Now, the water heater can be given a unique identifier.

- From the Device List screen, click on the row that contains the unit to be modified.
- The Name field can be modified. Location and Description can be left blank.
- **It is recommended that the Modbus Address numbers on the water heaters are used for naming the water heaters (i.e. Water Heater 1, Water Heater 2, etc.). Modbus Address #1 is always the unit with the FieldServer. Refer to the address identification labeling on the Modbus control or on the outside of the water heater.**

The screenshot shows the BockNET interface. On the left is a sidebar with navigation links: Device List (selected), Data Log Viewer, Event Log, SMC Cloud™, Settings, and About. The main area is titled 'Device View' and shows a 'Back' button. Below this, there's a status indicator 'Normal' and the device name 'Bock Lab'. A table lists device details:

Name	Unit #1
Location	Bock Lab
Description	-

Each row in the table has an 'Edit' button to its right. In the image, the 'Name' field and the 'Edit' button for the 'Unit #1' row are circled in red.

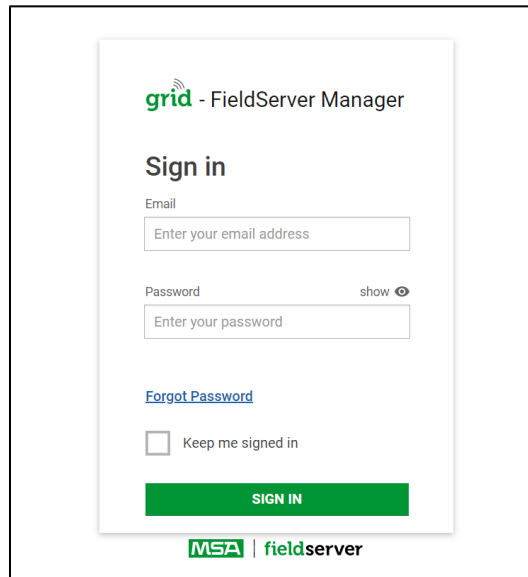
Congratulations, you have completed installation!!!

Proceed to Step 6 to add additional users.

VIII. Establishing User Profiles

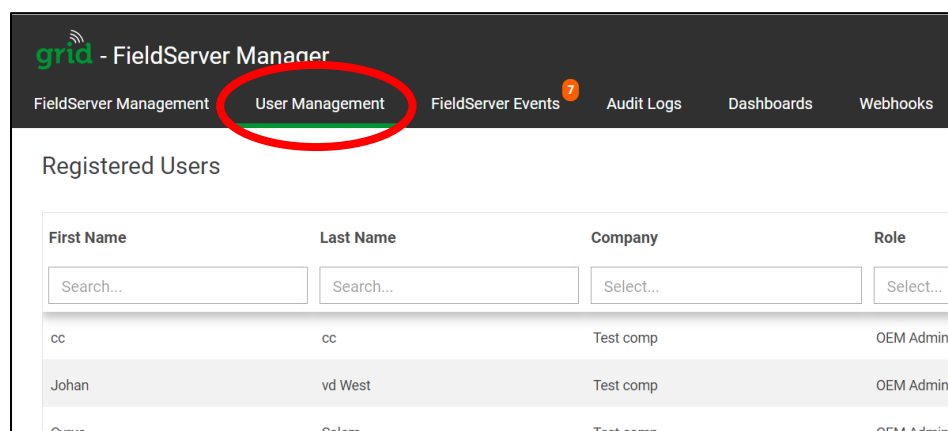
If all administrators or users were not created during initial BockNET account registration, please use this section to add additional users. Only administrators may add additional users.

- 1) Enter the following web address in the web browser: www.fieldpop.io
- 2) Enter your BockNET login and password. **This is the Username and Password that was established during Preinstallation (page 5, Item 2) with the IT department at Bock Water Heaters, Inc.**



The screenshot shows the 'grid - FieldServer Manager' login interface. It features a 'Sign in' heading, an 'Email' field with the placeholder 'Enter your email address', and a 'Password' field with the placeholder 'Enter your password' and a 'show' toggle. Below the password field is a 'Forgot Password' link. At the bottom, there is a checkbox for 'Keep me signed in' and a green 'SIGN IN' button. The MSA | fieldserver logo is at the very bottom.

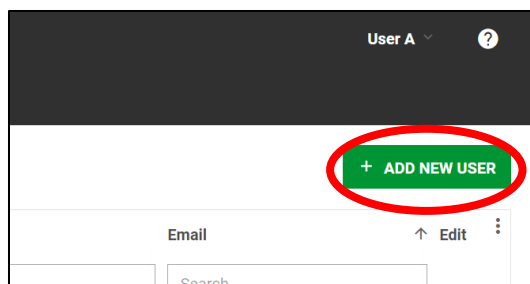
- 3) After sign in, select the User Management tab.



The screenshot shows the 'grid - FieldServer Manager' dashboard with the 'User Management' tab selected and circled in red. The dashboard has a navigation bar with 'FieldServer Management', 'User Management', 'FieldServer Events', 'Audit Logs', 'Dashboards', and 'Webhooks'. The main content area is titled 'Registered Users' and contains a table with columns for 'First Name', 'Last Name', 'Company', and 'Role'. Each column has a search or select dropdown. The table lists three users: 'cc' (OEM Admin), 'Johan vd West' (OEM Admin), and 'Cyrus Salem' (OEM Admin), all associated with 'Test comp'.

First Name	Last Name	Company	Role
cc	cc	Test comp	OEM Admin
Johan	vd West	Test comp	OEM Admin
Cyrus	Salem	Test comp	OEM Admin

4) At the top right corner of the window, select Add New User.



5) Provide an email address for the user and select a role. The Administrator and User roles are defined below.

- **Administrator** – An individual, ideally the Building Manager, Maintenance Manager, or IT Manager, who will be responsible for setup and management of the water heater or general management of devices connected to the building's network. The Administrator should be an employee who is responsible for the water heater(s) in the building. The Administrator can adjust the setpoint, receive notifications, and can assign Users and other Administrators.
- **User** – An individual who can adjust the setpoint and receive notifications.

It is highly recommended that a backup Administrator is assigned in case the primary Administrator leaves their position.

Add User

Email Address

example@abc.com *

Confirm Email Address

example@abc.com *

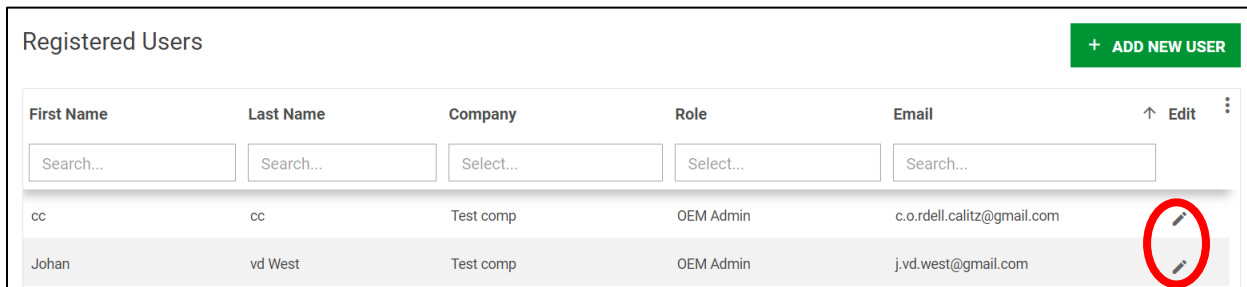
Role

OEM Admin


* Mandatory Fields

CANCEL CREATE

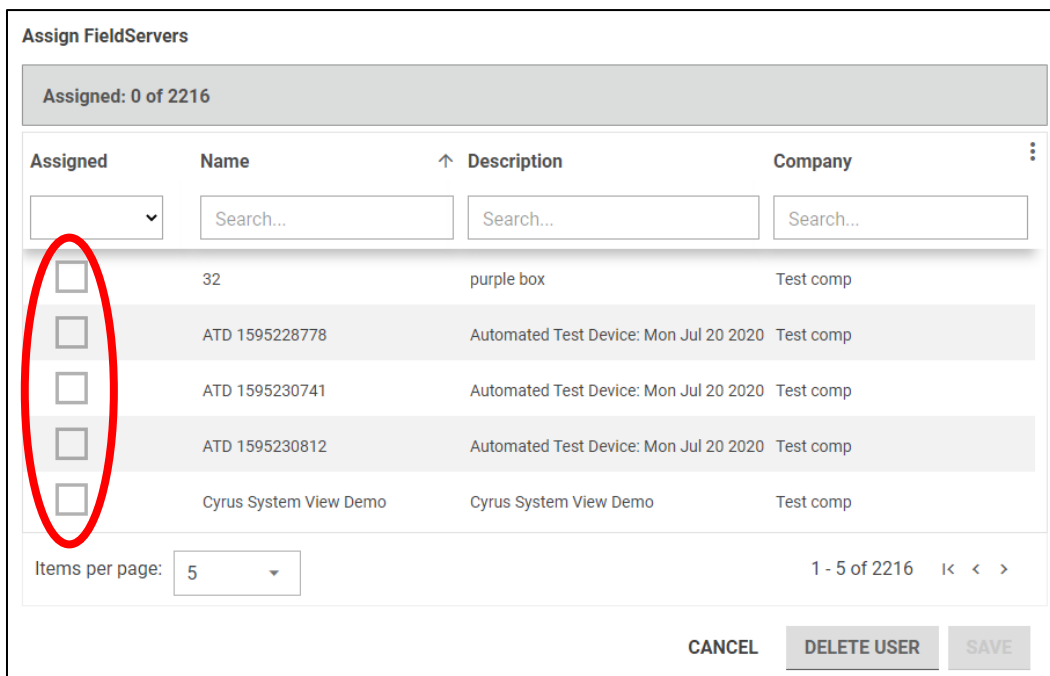
6) An Administrator can control which water heaters a User can see on BockNET. In order to assign devices, click on the pencil icon under the “Edit” column.



The screenshot shows a table titled "Registered Users" with a green "+ ADD NEW USER" button in the top right. The table has columns: First Name, Last Name, Company, Role, Email, and an "Edit" column with a pencil icon. Below the headers are search and select dropdowns for each column. Two rows of user data are visible. A red circle highlights the pencil icon in the "Edit" column for the second user, Johan vd West.

First Name	Last Name	Company	Role	Email	Edit
cc	cc	Test comp	OEM Admin	c.o.rdell.calitz@gmail.com	
Johan	vd West	Test comp	OEM Admin	j.vd.west@gmail.com	

When a box for a specific FieldServer is checked, the User will be able to see all water heaters connected to that FieldServer.



The screenshot shows a form titled "Assign FieldServers" with a status bar "Assigned: 0 of 2216". It contains a table with columns: Assigned (checkbox), Name (search), Description (search), and Company (search). Five rows of FieldServer data are listed. A red circle highlights the checkboxes in the "Assigned" column for the first five rows. At the bottom, there are "Items per page: 5", "1 - 5 of 2216", and navigation arrows. Buttons for "CANCEL", "DELETE USER", and "SAVE" are at the bottom right.

Assigned	Name	Description	Company
<input type="checkbox"/>	32	purple box	Test comp
<input type="checkbox"/>	ATD 1595228778	Automated Test Device: Mon Jul 20 2020	Test comp
<input type="checkbox"/>	ATD 1595230741	Automated Test Device: Mon Jul 20 2020	Test comp
<input type="checkbox"/>	ATD 1595230812	Automated Test Device: Mon Jul 20 2020	Test comp
<input type="checkbox"/>	Cyrus System View Demo	Cyrus System View Demo	Test comp

7) After the User has been registered and assigned specific FieldServer devices, the process of setting up a User profile is complete.

Congratulations, you have completed user setup!!!

New users will receive an email from notifications@fieldpop.io, titled “Welcome to SMC Cloud.”

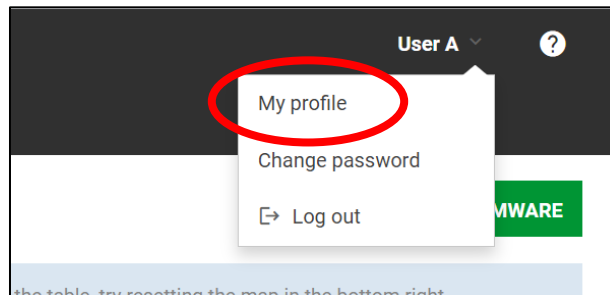
Proceed to Section IX to set email and text notifications.

IX. Notifications Settings

Administrators and Users should follow these steps to make sure their notifications are properly configured.

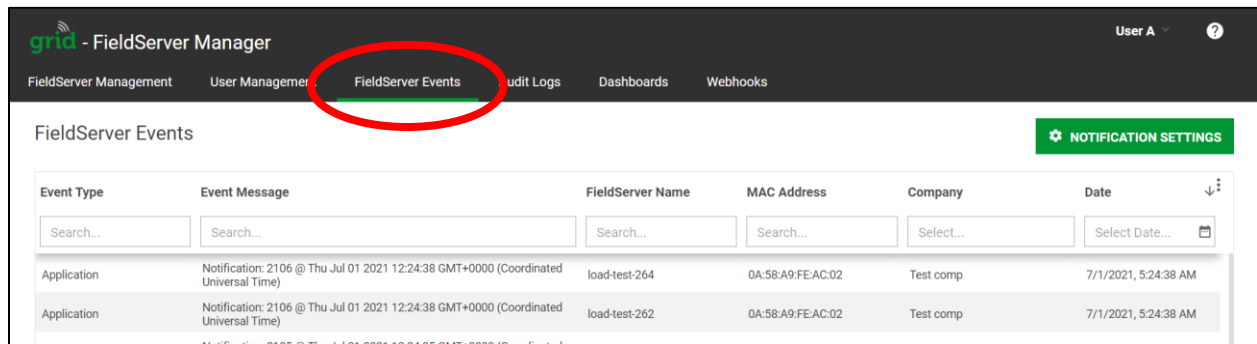
Notifications can be sent as emails and/or SMS (text) and be set per FieldServer.

1) First, confirm that the correct email address and phone number is saved in your BockNET profile. When logged into your account at www.fieldpop.io, select the drop down menu to the right of your username (upper right corner of the window). Select My Profile.

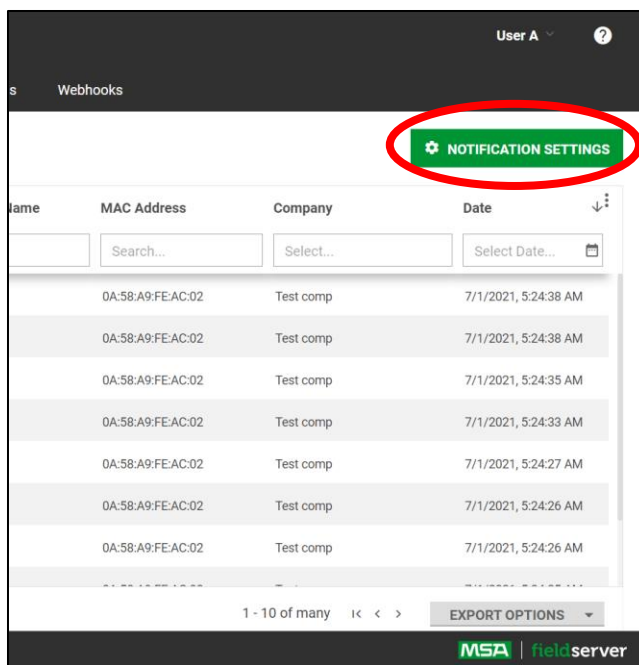


2) The email address and phone number saved in the profile will be used for delivery of notifications. If you plan to use SMS notifications, make sure that the phone number will accept text messages.

3) Next, select the FieldServer Events tab at the top of the window (this is located next to the User Management tab).



4) Click the Notification Settings button at the top right corner of the page.



5) Finally, select how notifications should be delivered, the preferred time zone, and the FieldServer(s) for which notification is required. Select email, SMS (test), or both. The preferred time zone shall be based on the location of the water heater.

Notifications Configuration

Send notification as
☒ Email ☐ SMS

Select your preferred timezone
(UTC +02:00) Africa/Johannesburg

Select devices for which SMS/Email notification is required

Notify	Name	Description
<input type="checkbox"/>	hd_test_log_to_fpop	testing_modbus
<input type="checkbox"/>	Mbus demo	testing registration
<input checked="" type="checkbox"/>	Jens's Brain 31	192.168.1.31
<input type="checkbox"/>	Jens MBP Core App	~/git/smc-core-application

Items per page: 6 1 - 6 of 2441

CANCEL SAVE

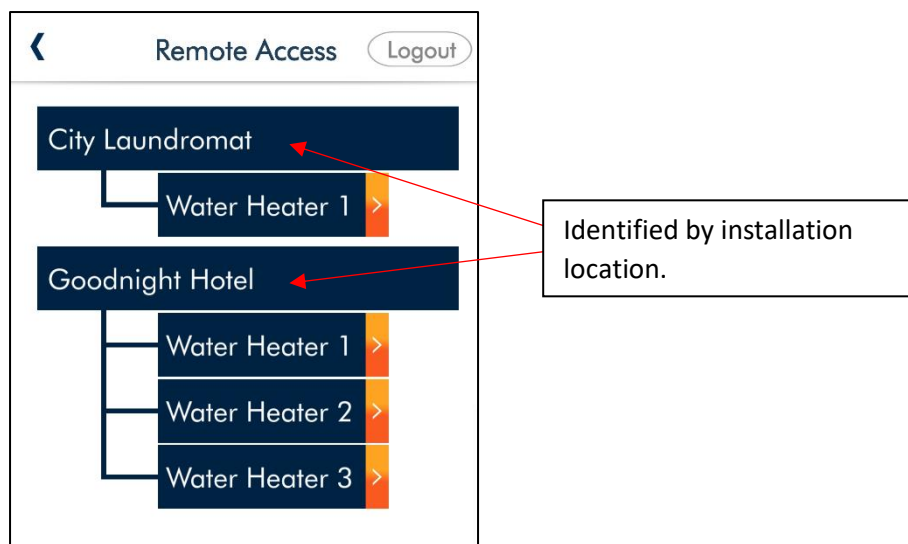
Note: The term “device” is used to describe the FieldServer, and the location of the FieldServer will be shown in the list of devices. If multiple water heaters are present at a location, notifications will be provided for all water heaters.

X. Remote Access via the Bock App

The Bock App is available at Google Play and the Apple App Store. Search “Bock” and select the Bock Water Heaters app.

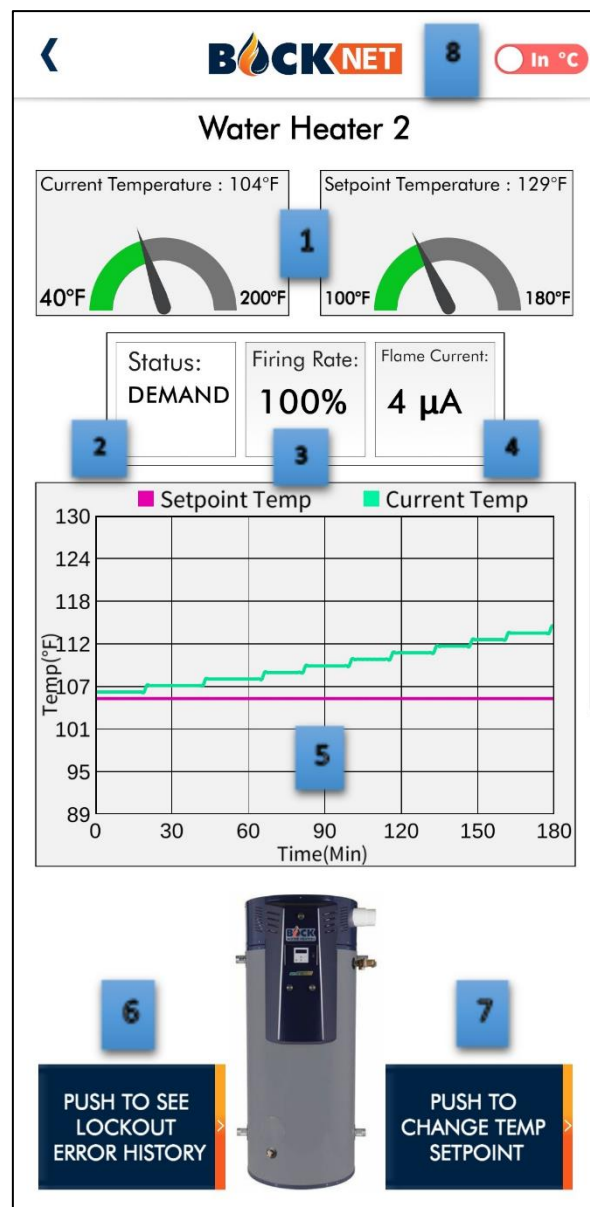


BockNET Remote Access can be opened through the main menu on the Bock App. Select “Remote Access” to see a list of water heaters registered to your BockNET account. The water heaters are identified by the name they were given at the time of registration (see Section VI).



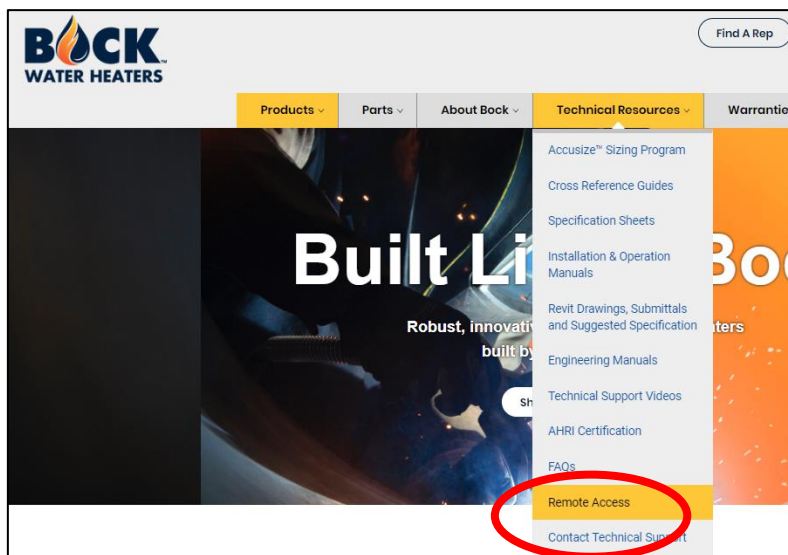
From the Bock App, select a specific water heater for a detailed overview of operation.

- 1 The two top gauges display the current temperature and the setpoint temperature. Current temperature is measured by the sensor located near the top of the tank.
- 2 The status box shows if the water heater is in demand, standby, or error.
- 3 The firing rate is displayed as a percentage of the range between maximum and minimum input rate. When the value is greater than zero, and flame current is zero, the unit is operating in pre-purge or post-purge.
- 4 When the flame current is greater than zero, the burner is operating and heating water.
- 5 The last 180 minutes of current and setpoint temperature data is displayed. The most recent data is shown on the far-left side of the graph.
- 6 A history of lockout errors with dates and times is available.
- 7 Change the setpoint temperature. See Section I for an overview of adjustment allowances.
- 8 Toggle between temperature units by selecting the switch.

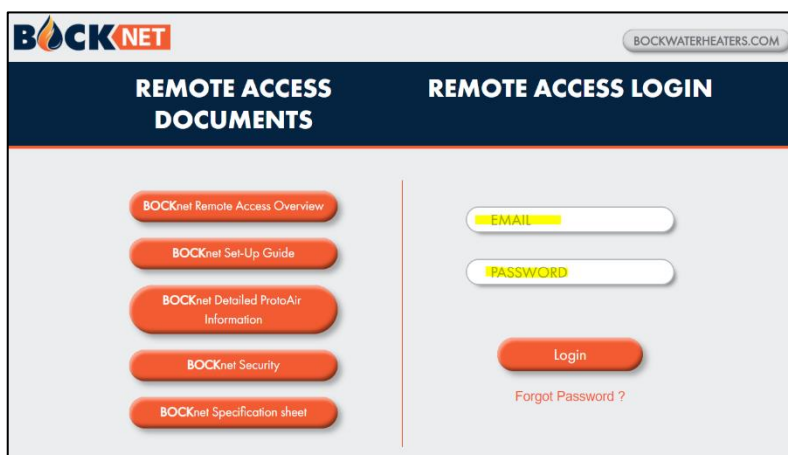


XI. Remote Access via the Bock Website

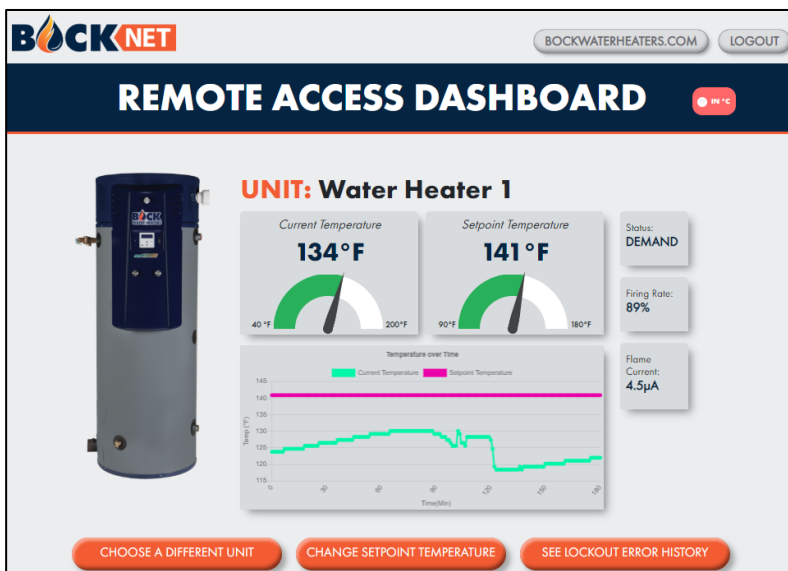
BockNET Remote Access can also be accessed through the Bock website at www.bockwaterheaters.com. Select Remote Access under the Technical Resources tab.



Enter your BockNET login credentials under Remote Access Login.



Select a water heater from the list to view the remote access dashboard.



XII. Frequently Asked Questions

Q: Why are there times when the flame current equals 0 μ A when the water heater is in demand status and the firing rate is greater than 0%?

A: The firing rate (%) is reporting the combustion blower fan speed. When the firing rate is greater than 0% and the flame current equals zero, the combustion system is running in post or pre-purge and the burner is off.

Q: Why are there times when the flame current is greater than 0 μ A when the water heater is in demand status and the firing rate is 0%?

A: When this occurs, the actual firing rate is 1% and the water heater is operating at minimum input rate.

Q: The lockout error history isn't displaying the most recent lockout. Is there something wrong?

A: Typically, the most recent lockout error may take up to five minutes to be added to the error history.

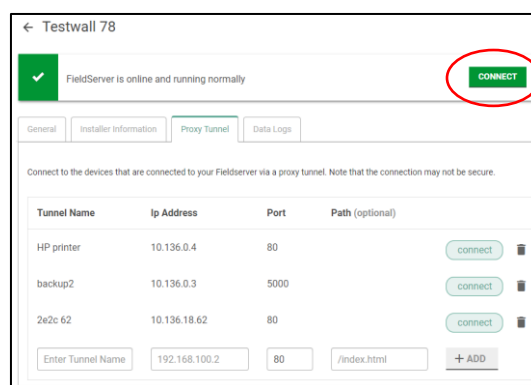
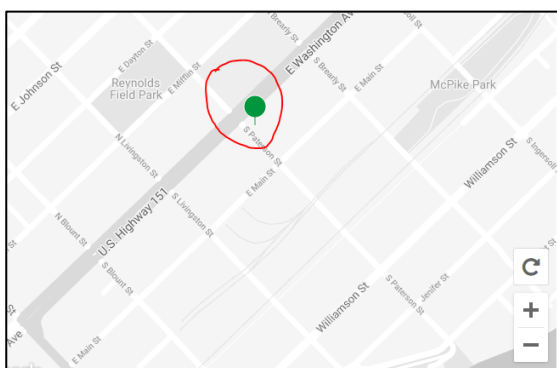
Q: How do I remove an Administrator or User?

A: This feature is only available to an Administrator. Log into your BockNET account at www.fieldpop.io and click on the User Management tab. See the Options column for the capability to delete a registered user.

Q: How do I rename the FieldServer so it's properly identified on the BockNET app?

A: To change the name of a FieldServer, go to www.fieldpop.io and login with your BockNET credentials. Use the interactive map to select the location of the FieldServer to be modified. Click on the pin and press the Connect button in the Device Details. Enter "admin" and the Default Password for the FieldServer.

In the System View window, select SMC Cloud™. Select "Update Device Details" to repeat the process outlined in Section VI. At the Gateway Details page, rename the FieldServer.



Q: How do I rename the water heater?

A: To change the name of a water heater, go to www.fieldpop.io and login with your BockNET credentials. Use the interactive map to select the location of the FieldServer that the water heater is connected to. Click on the pin and select “Connect” in the Device Details. Enter “admin” and the Default Password for the FieldServer.

In the System View window, select Device List and select the water heater. Edit the Name field to change the water heater name.

Q: I’ve contacted Technical Support and I’m being asked to take a diagnostic capture of the FieldServer. How do I do this?

A: To take a diagnostic capture of the FieldServer, go to www.fieldpop.io and login with your BockNET credentials. Use the interactive map to select the location of the FieldServer that the water heater is connected to. Click on the pin and select “Connect” in the Device Details balloon. Enter “admin” and the Default Password for the FieldServer.

In the System View window, click on the “Diagnostics” link at the bottom of the page. In the new web browser window, select “Diagnostics” from the menu on the left. Start a Full Diagnostic capture – when finalized, a downloadable ZIP file will be available for sharing.

XIII. Technical Support

For technical support, call or email Bock Water Heaters at:

(P) 608-227-3336

(E) remoteaccess@bockwaterheaters.com

FieldServer is manufactured for Bock Water Heaters, Inc. by:

MSA Safety Corporation

<https://us.msasafety.com/fieldserver>