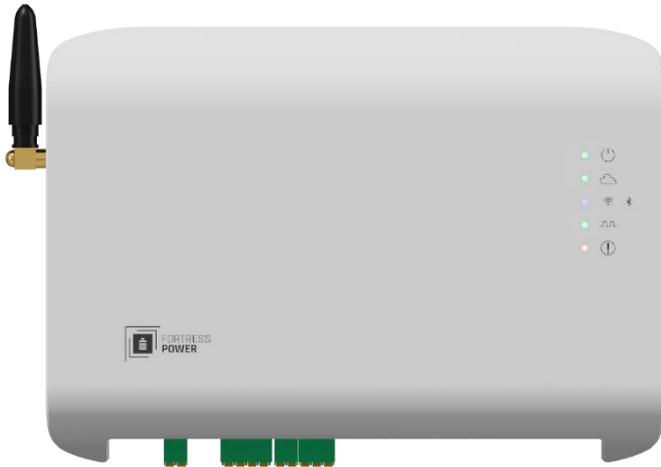


FORTRESS
POWER
Secure your energy

Guardian

IOT GATEWAY & APP

QUICK INSTALLATION MANUAL



Important: Verify the system configuration before installing.
A proper system design is required for warranty purposes.
Improper system configuration will void the warranty.

**Information subject to change without notice.
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1. CHANGE LOG

VERSION	CHANGES
GM-V2	<ol style="list-style-type: none">1. Manual restructuring.2. Addition of images for descriptive steps.3. Commissioning step process when using with a VPP program
GM-V250105	<ol style="list-style-type: none">1. Change the Guardian-Envy inverter connection location



2. INTRODUCTION

2.1 LEGAL NOTICE

All content contained in this document is protected by copyright and other intellectual property rights owned by Fortress Power, LLC. and its licensors. No part of this material may be modified, reproduced or copied, in whole or in part, without the prior written permission of Fortress Power LLC. and its licensors. Additional information may be provided upon request. All trademarks referenced in this document are the property of their respective owners and their use herein does not imply sponsorship or endorsement of their respective owners. Their inclusion does not imply any affiliation, sponsorship, or endorsement of their products or services. Any unauthorized use of any trademarks displayed in this document or on the product is strictly prohibited.

2.2 ABOUT FORTRESS POWER

Our mission is to deliver compact, user-friendly, and affordable energy storage solutions by leveraging the latest technological advancements for all homes and businesses. Fortress solar energy storage batteries are designed for seamless integration with both new and existing photovoltaic (PV) systems. They are compatible with a wide range of existing inverter and charge controllers, enabling flexible and efficient system design.

2.3 ABOUT THE GUARDIAN

The Guardian hub is a monitoring and control device for use with Fortress Power 48V products. It transmits battery system data to the cloud via Wi-Fi or Ethernet, allowing users to remotely monitor system performance. Through the Guardian companion app, you can access key metrics such as charge, estimated time to full charge, voltage, current, and more. For customers participating in a Virtual Power Plant (VPP) program with your local utility, the Guardian Hub can also interface with the Fortress Power Envy inverter to support compliance with program requirements. Please consult your local utility provider or submit a support ticket for additional information.

2.4 CONTACT INFORMATION

Corporate Headquarter Address: 2010 Cabot Blvd West, STE L
Langhorne, PA 19047
United States

Website: www.fortresspower.com

Support: www.fortresspower.com/support

Phone: US: (877) 497-6937
LATAM: (215) 710-8960

2.5 WARRANTY SUPPORT

Unless you are submitting a Fortress Power warranty through Guardian Hub, please use the following link to complete your warranty registration:

<https://fortresspower.com/warranty>

For additional support resources, please visit our Support Portal at

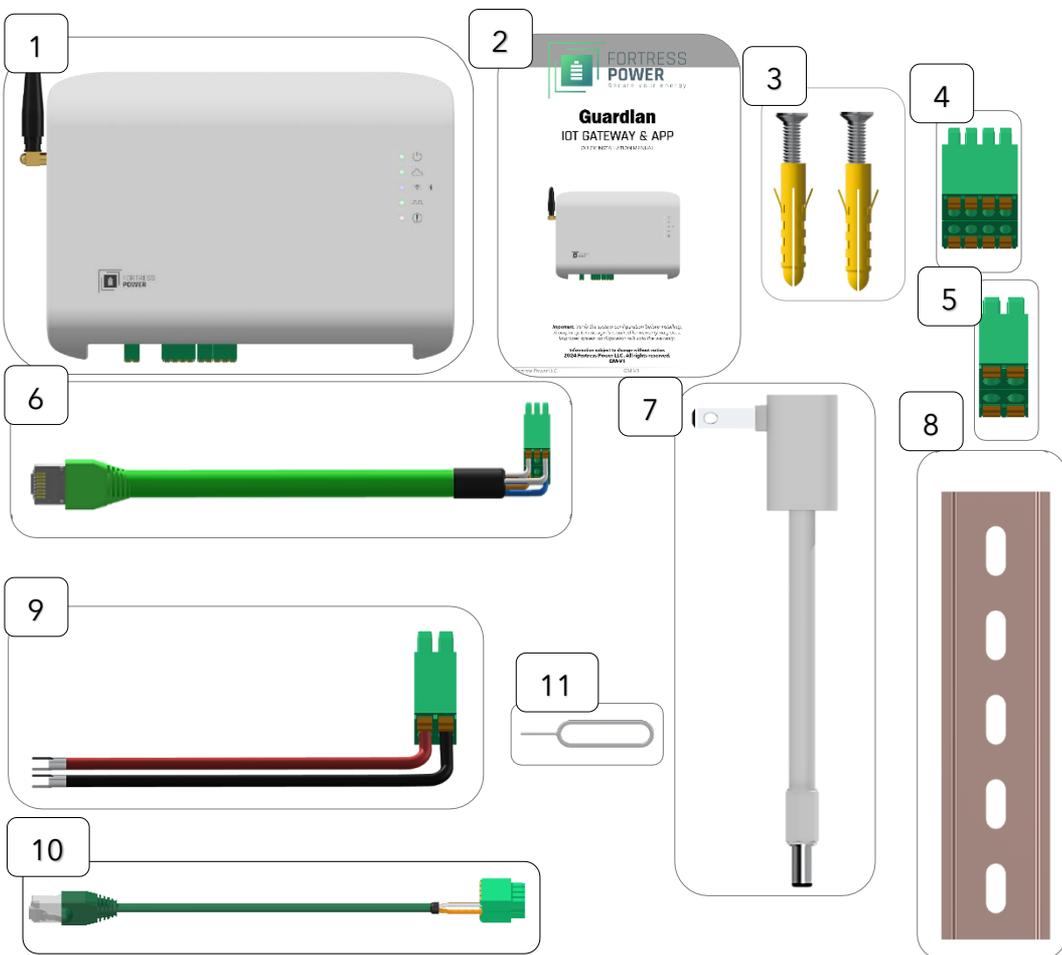
<https://support.fortresspower.com/portal/en/kb>



- Create a support ticket.
- Inverter Guides
- Product Manuals
- Firmware Updates
- Warranty Submittal
- System Design
- Application Notes
- Scheduled Meetings
- Accessories

Note: You must be signed in to the Support Portal to access all features.

3. UNBOXING





PART	DESCRIPTION	QTY
1	Guardian Monitoring Hub	1
2	Quick Installation Manual	2
3	Wall Plug and Screw	2 each
4	4P*2 Terminal Plug	1
5	2p*2 Terminal Plug	1
6	Guardian/Battery Communication Cable	1
7	120V AC to 24V DC Power Supply	1
8	Din Rail	1
9	48V DC Power Supply Cable	1
10	Guardian-Envy Cable	1
11	Guardian Reset Pin	1

4. SPECIFICATIONS

4.2 PHYSICAL FEATURES

- [IP23 Rated](#)
- Dual power supply sources, one is via an AC/DC adapter wall socket or directly from battery system through a DC input.
- Internet connectivity via home Wi-Fi or Ethernet Cable.
- CAN bus communication port for integration with Fortress Power battery products.
- Reset button for system reboot and troubleshooting.
- Status Lights (see Physical Specifications section for details).

4.3 DATASHEET

4.3.1 ELECTRICAL

POWER CONSUMPTION	5W - 24V@1A power supply.
AC/DC ADAPTER	120V/0.8A 24V DC 5.5mm
SUPPORTED COMMUNICATION TYPES	1x MODBUS/TCP, 2x MOBUS/RTU, 2xCAN 2.0
OPERATION FREQUENCY	2.4GHz, 5GHz
ANTENNA	SMA standard connector
ENVIRONMENT	Indoor or inside a Junction box

4.3.2 PHYSICAL

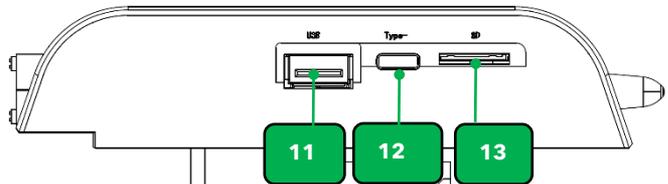
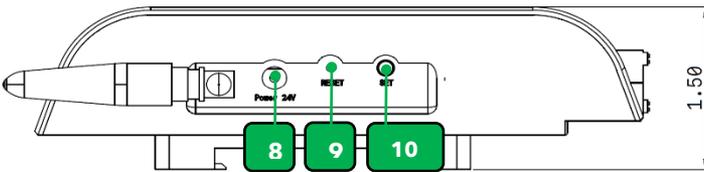
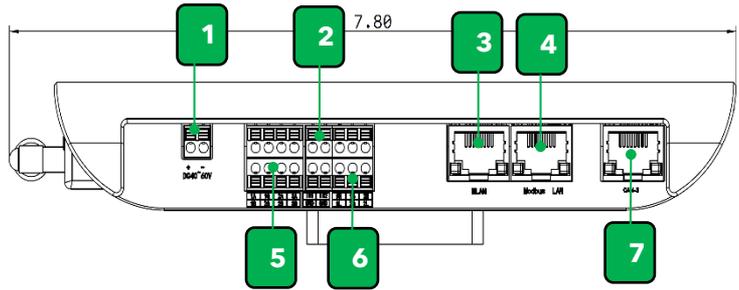
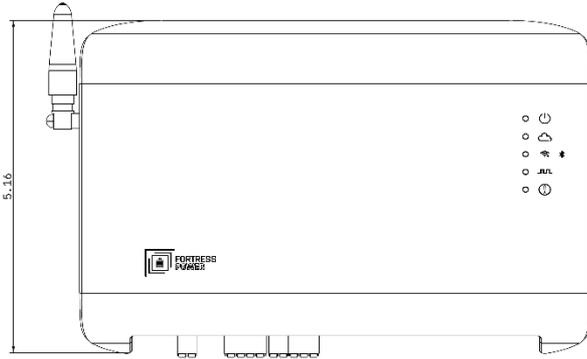
WEIGHT (DEVICE ONLY)	0.8 lbs. (0.4kg)
DIMENSIONS (DEVICE ONLY) (W X H X D)	7.25" x 6" x 1.25"
SHIPPING PACKAGE DIMENSIONS	14" x 8" x 5"
SHIPPING PACKAGE WEIGHT	3.6 lbs.
HOUSING/ MOUNTING SYSTEM	IP23 / Din Rail Mount



STATUS DISPLAY LEDS

From top to bottom:
Power
Cloud connection,
Bluetooth or Wi-Fi connection,
Serial communication with battery,
Error signal

4.4 DIMENSIONS AND PORT DEFINITION





AREA	DESCRIPTION
1	48v Battery Connection port
2	DI port
3	Internet Ethernet Connection port
4	Modbus LAN Port
5	RS485 PORT/GUARDIAN-ENVY INV485 PORT
6	CAN BUS Battery Connection Port
7	Reserved Use, CAN port
8	AC to DC power supply connection
9	Reset Button
10	SET Button
11	USB port
12	TYPCE-C port
13	SD card port

5. INSTALLATION



When using the Guardian Hub in conjunction with Fortress Power Envy inverters, particularly for participation in Virtual Power Plant (VPP) or Energy Broker programs, please ensure the inverter is commissioned first. Begin by connecting the commissioning dongle and updating the inverter firmware. Once this step is complete, proceed with the Guardian Hub installation. Failure to follow these commissioning steps may result in reduced performance of the Envy Inverter.

5.2 DOWNLOAD THE APP

Scan the QR CODE



OR Click on the link below

Commission the Fortress Guardian hub using the Fortress Power Guardian App.

Apple:

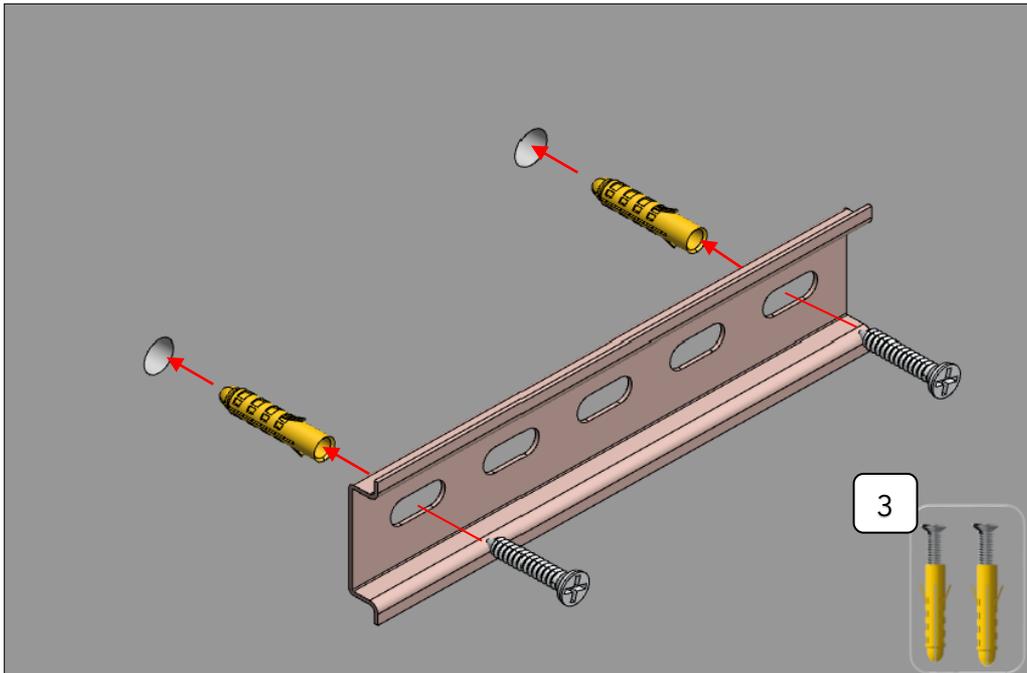
<https://apps.apple.com/us/app/fortress-power-guardian/id1632364415>

Google Playstore:

<https://play.google.com/store/apps/details?id=com.app.fortresspower>



5.3 MOUNTING THE GUARDIAN



The Guardian is DIN rail mountable. It can be secured to a wall using the included DIN rail or installed within the FlexTower or DuraRack using the same rail.

Note: For outdoor installations, the Guardian must be enclosed within a watertight junction box to ensure environmental protection.





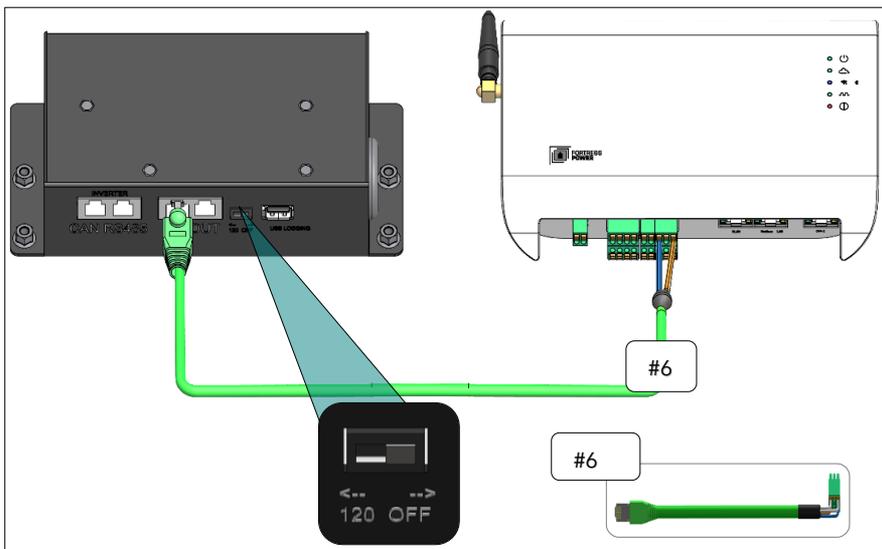
5.4 WIRING THE HUB

5.4.1 COMMUNICATION WITH BATTERIES`

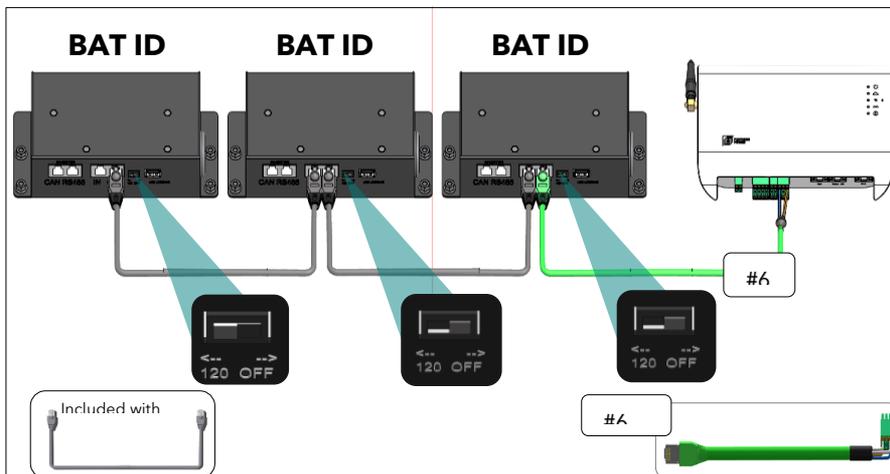
5.4.1.1 eVAULT MAX AND GUARDIAN CONNECTION



Note that when using the eVault MAX battery, the DIP switch on the last battery in the storage bank must be set to the "Off" position. This ensures that the Guardian functions as the terminating resistor for the CAN communication network. Additionally, the "In" and "Out" communication ports are bidirectional and can be used interchangeably during installation.



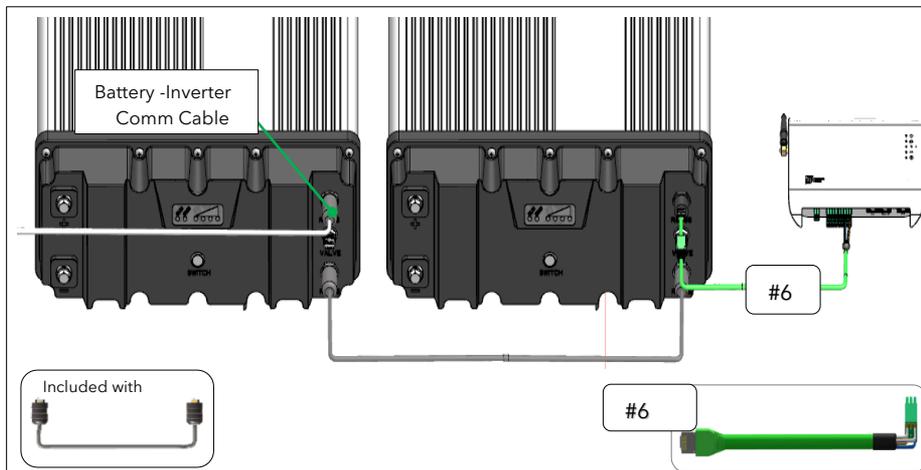
5.4.2 eVAULT MAX PARALLELED CONFIGURATION AND GUARDIAN CONNECTION



5.4.2.1 eFLEX AND GUARDIAN CONNECTION



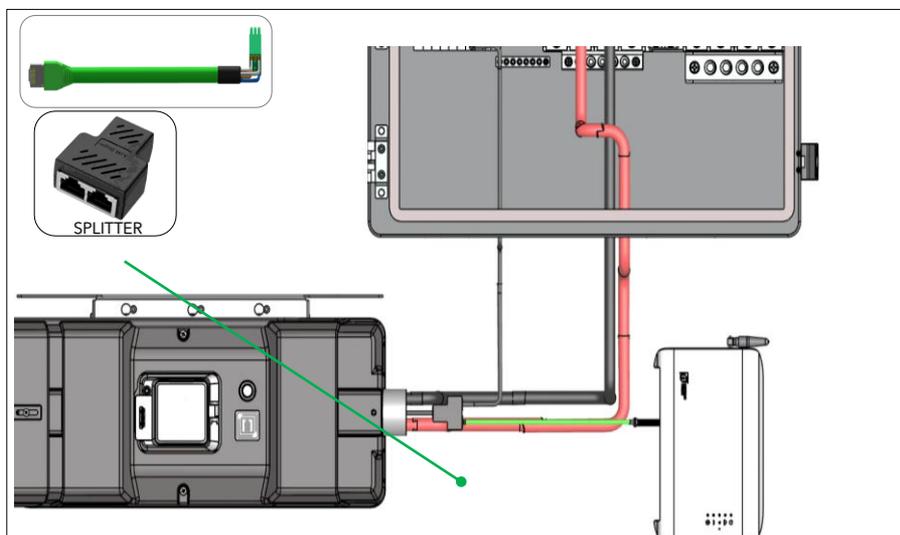
Remove the terminator Rj45 plug from the CAN/RS485 port on the last battery in the storage bank and connect the green Battery-to-Guardian communication cable in its place.



5.4.2.2 eFLEX MAX AND GUARDIAN CONNECTION



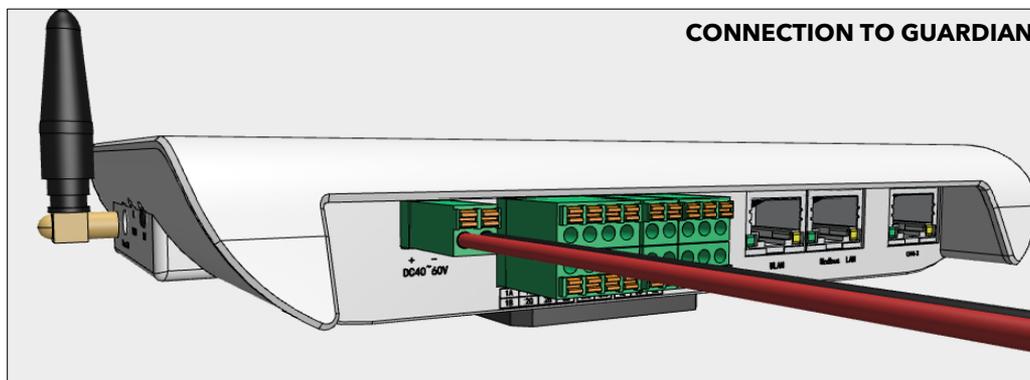
Connect the Battery-to-Guardian green communication cable to one of the common ports on the splitter provided with the eFlex MAX battery.





5.4.3 DC POWER TO THE GUARDIAN FROM BATTERIES.

1. If you plan to power the Guardian using battery power, use the included DC power supply cable. Before connecting the cable to the Guardian, carefully verify the polarity to ensure correct orientation. Connect the other end of the cable to the appropriate battery terminals.

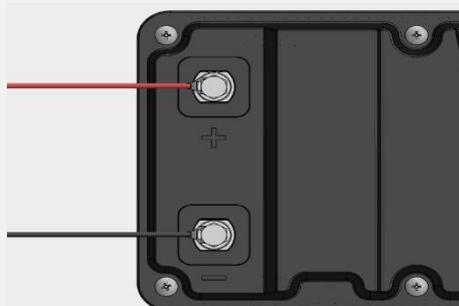


CONNECTION TO GUARDIAN

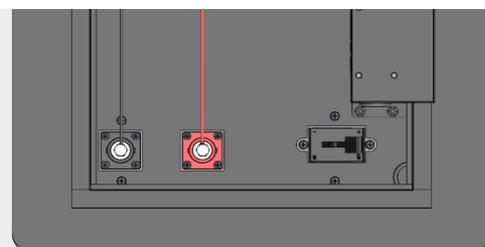
CONNECTION TO BATTERY

DC CONNECTION AREA

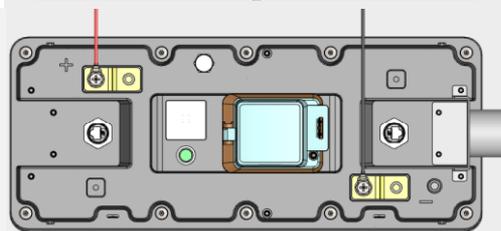
EFLEX OR COMMON BUSBAR (preferred)



EVAULT MAX OR COMMON BUSBAR (preferred)



EFLEX MAX OR COMMON BUSBAR (preferred)

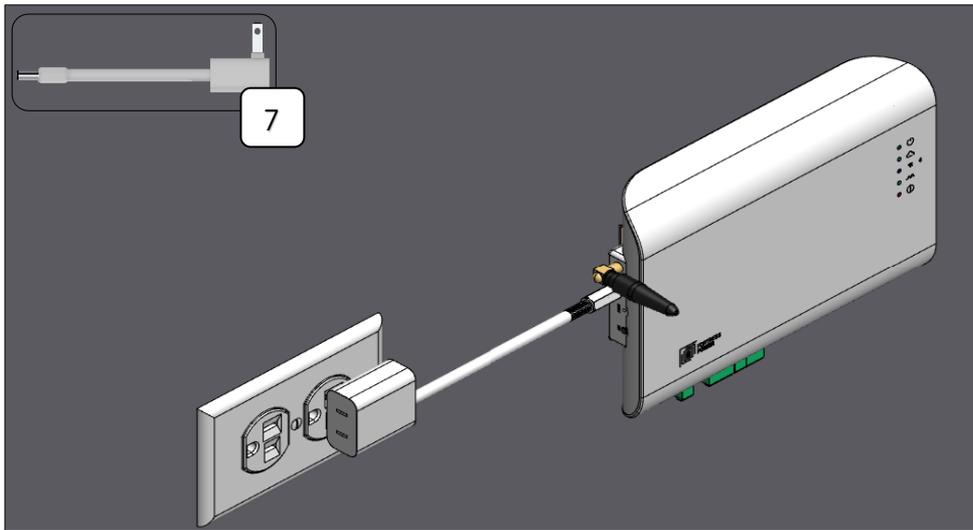




5.4.4 AC POWER SUPPLY TO THE GUARDIAN 120V AC WALL OUTLET RECEPTACLE (OPTIONAL)



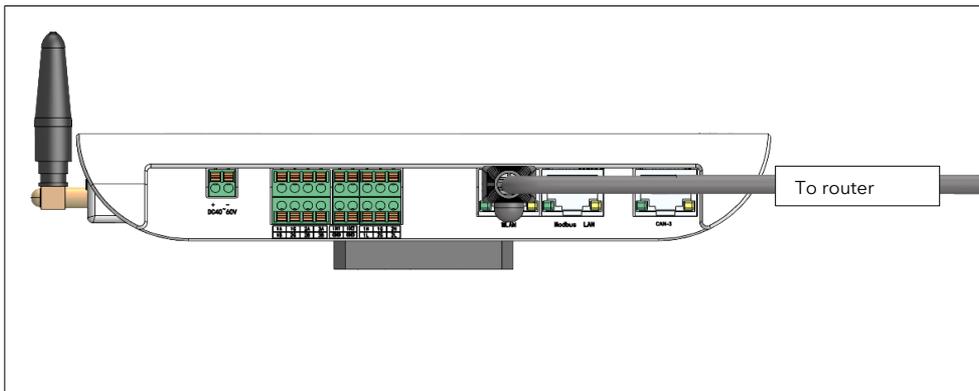
Do not connect both the AC wall plug and the DC battery power cable at the same time—choose only one power source. For off-grid installations, we recommend using the DC battery power cable. For grid-tied systems or participation in Virtual Power Plant (VPP) or Energy Broker programs, use the AC wall plug.



Connect the AC plug to the Guardian and then connect to the wall plug. Guardian will turn on.

5.4.5 WIRING THE INTERNET CABLE DIRECTLY TO THE GUARDIAN (OPTIONAL)

If you prefer to use a wired internet connection for the Guardian, connect to a standard RJ45. Ethernet cable to the Internet/WLAN port on the Guardian, and plug the other end into your network router.

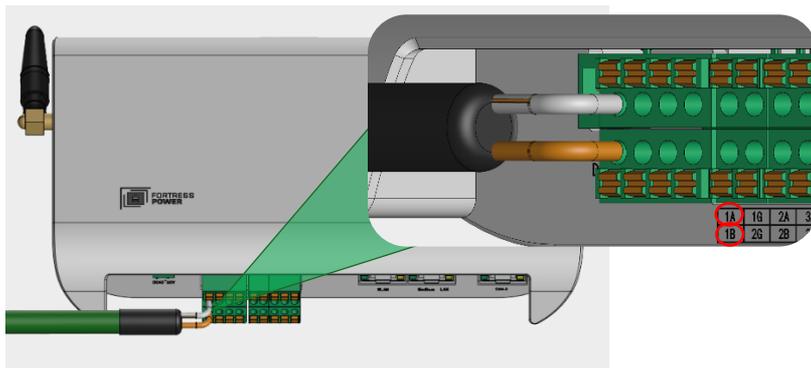




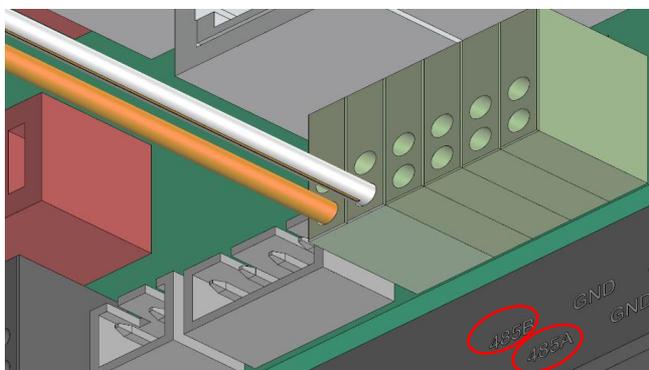
6. VPP /ENERGY BROKER PROGRAMS.



This configuration is only permitted when used with Fortress Power Envy inverters. Participation in Fortress Power Virtual Power Plant (VPP) programs and Energy Broker services is limited to specific regions and approved programs, such as WattSmart, LUMA, and those available in Connecticut (CT). Please verify eligibility with your local utility or contact Fortress Power support for further information.



When setting up the Guardian with a Fortress Power Envy inverter, use the provided two-row, four-column connector to wire into the Guardian's communication port. For proper connection, refer to the cable pinout: connect the **Orange/White** wire to **RS485 1A** and the **Orange** wire to **RS485 1B** on the Guardian.



After completing the wiring, plug the other end of the Envy-to-Guardian cable into the **INV485** port on the Envy inverter. Once connected, power on the Guardian and proceed with the commissioning process using the Guardian interface.

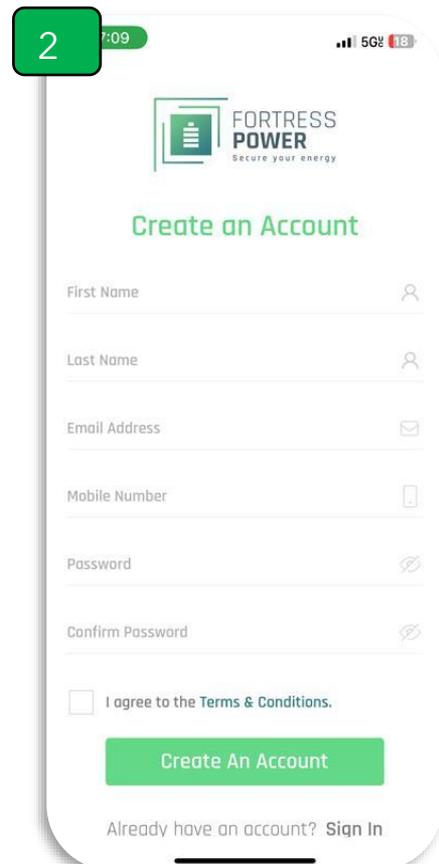
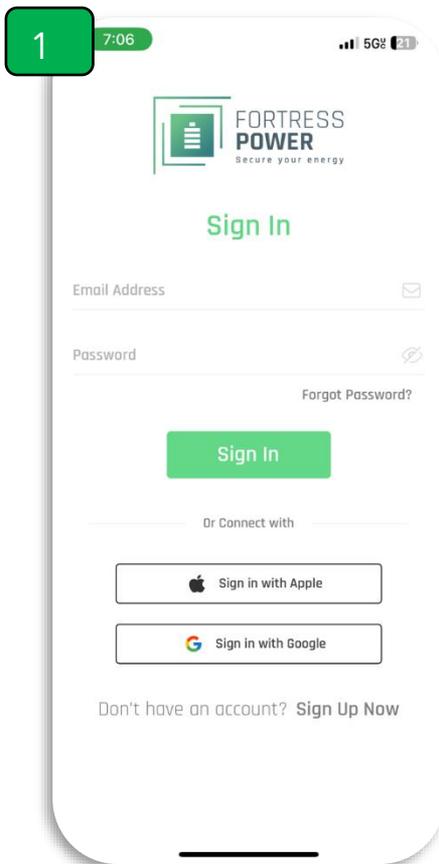
AFTER COMMISSIONING THE GUARDIAN, PLEASE CONTACT FORTRESS POWER TECHNICAL SUPPORT TO VERIFY THE CONNECTION TO THE ENVY INVERTER. FOR ASSISTANCE RELATED TO VIRTUAL POWER PLANT (VPP) PROGRAMS, CALL THE DEDICATED VPP SUPPORT LINE AT (215) 710-8966.



7.COMMISSIONING

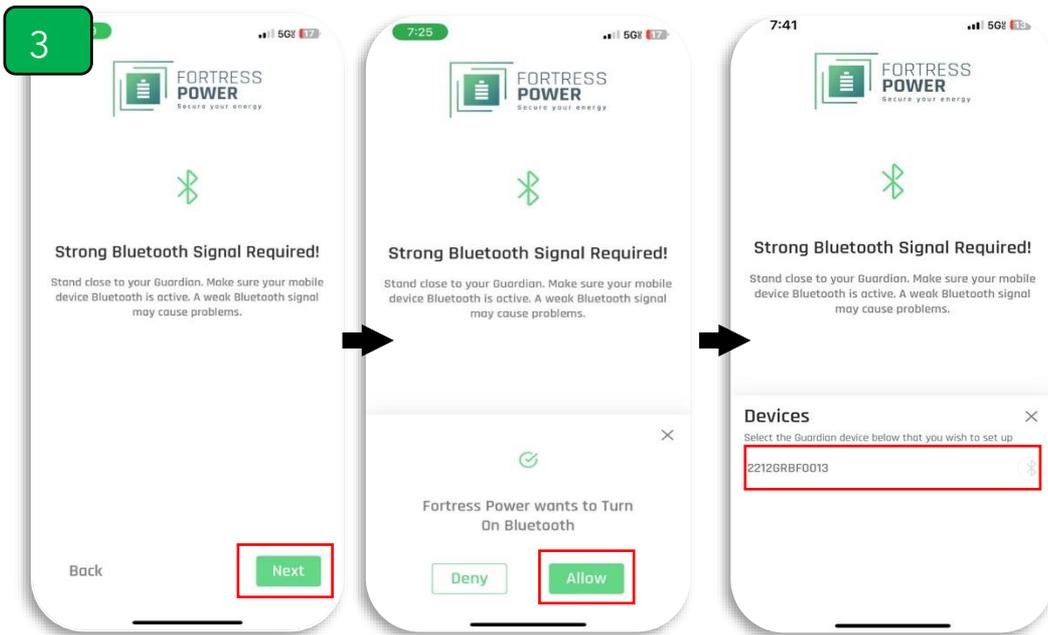
Upon powering on the Guardian, all indicator lights will briefly illuminate. Wait approximately 10 seconds, then register or sign in to the Guardian app using your email, Google, or Apple account. The Wi-Fi light (📶) will blink rapidly (about 2 blinks every second), signaling readiness to connect. For optimal performance, ensure the Guardian is placed near your Wi-Fi router.

1. Use the Guardian mobile app with Bluetooth to configure internet access. If Wi-Fi is unavailable, a hardwire Ethernet connection may be used. Please note that initial Ethernet validation may take up to 10 minutes after connection.
2. Log in or sign up in the Guardian app by entering your account credentials or authenticating through a supported provider such as Google or Apple.

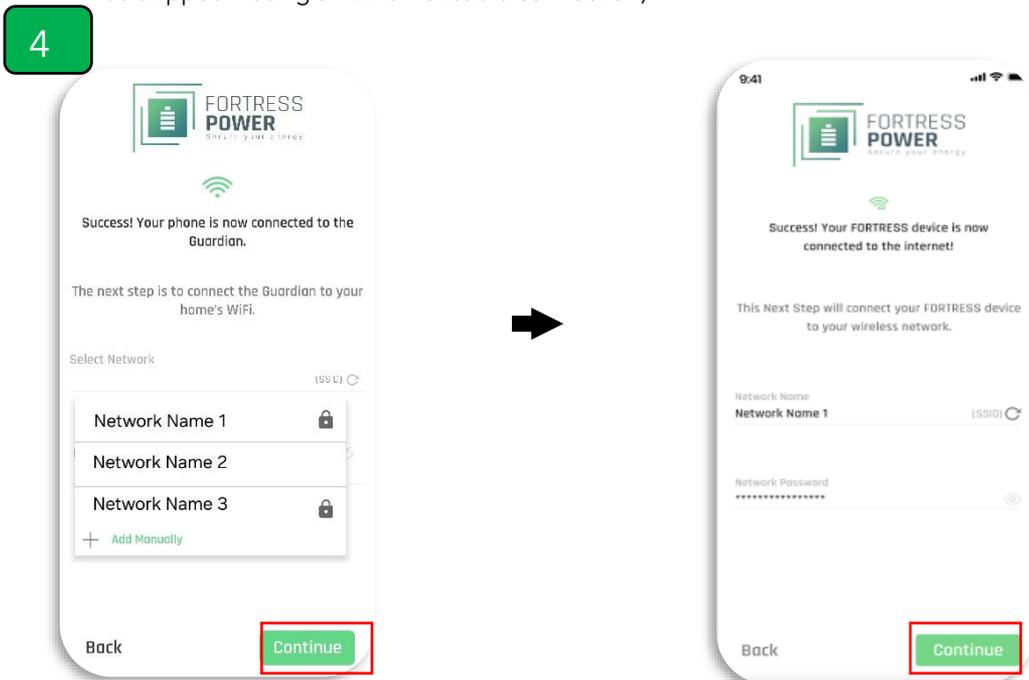




3. Connect your phone to the Guardian Hub via Bluetooth. Select the Guardian's serial number from the list, which can also be found on the back of the device.

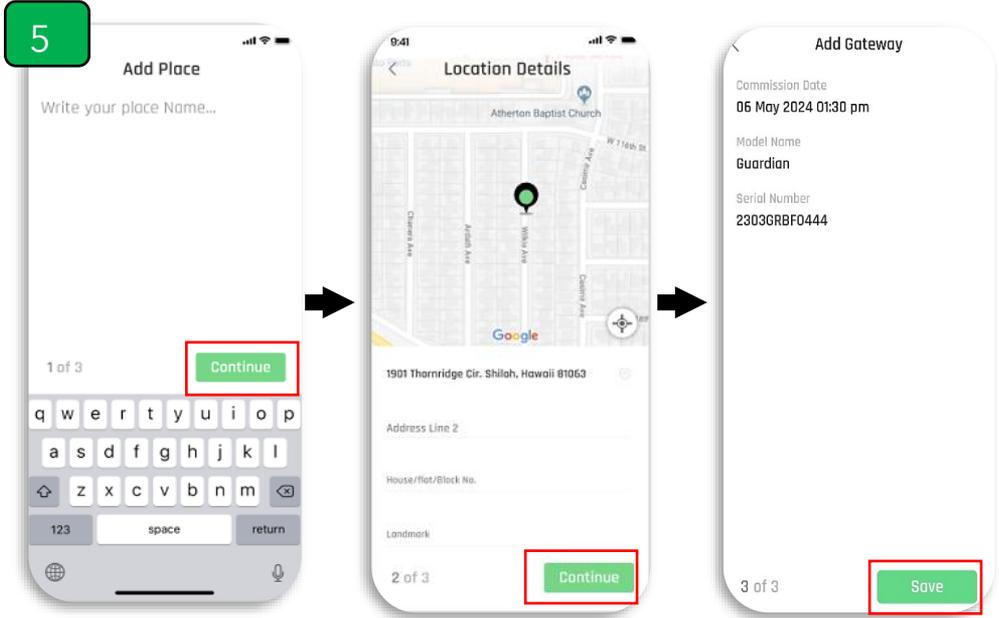


4. Connect the Guardian Hub to the internet via your home Wi-Fi network (this step may be skipped if using an Ethernet cable connection).



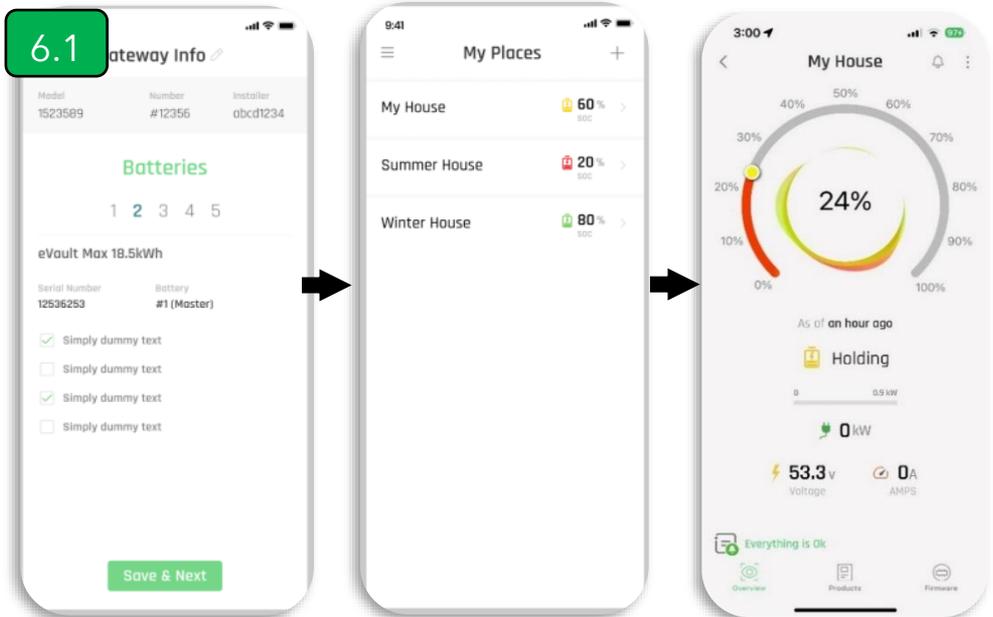


5. Name your Fortress system and enter your address. Configure your Guardian Hub's information within the app—this data should populate automatically.



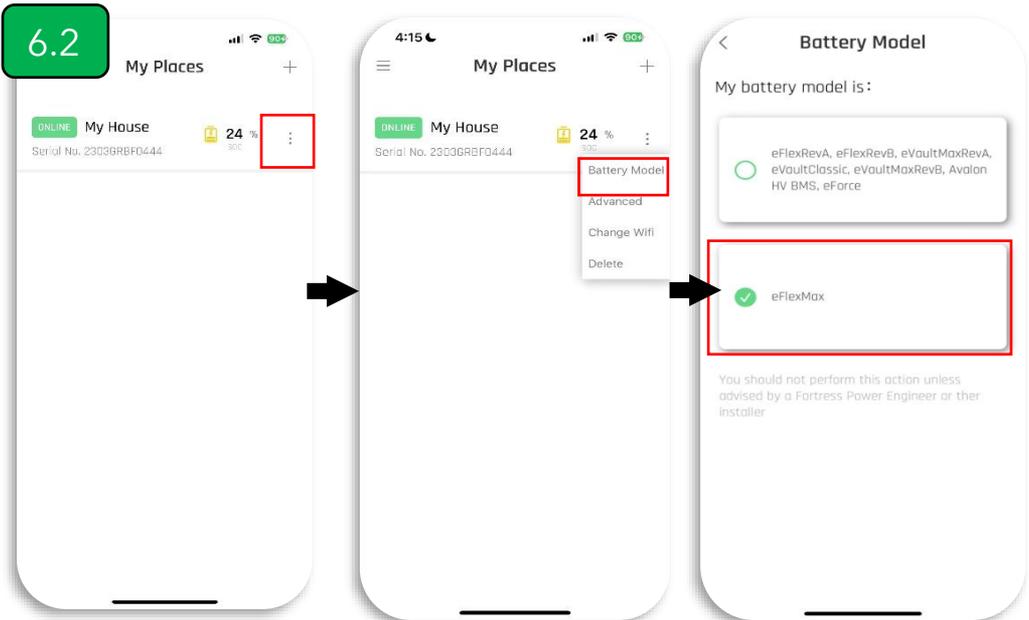
6. Scan for batteries.

6.1. **Skip to step 6.2 if you are installing an eFlex MAX.** After submitting your battery information, your newly created system location should appear in the app. Selecting it will display a general overview of your battery system.

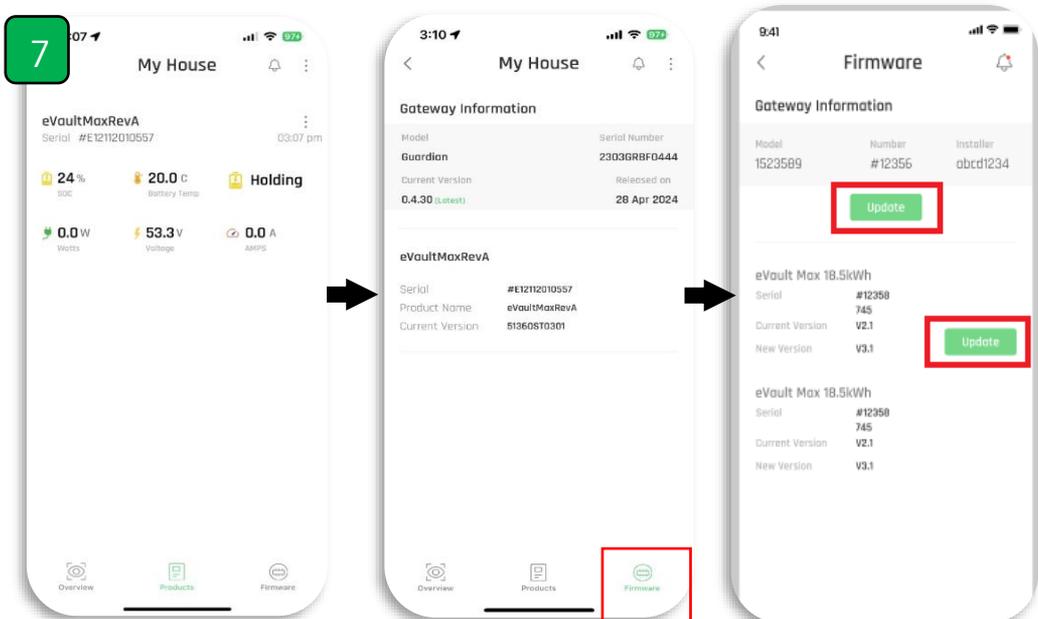




6.2 Switch the Battery Model to eFlex MAX. Begin Searching



7. Tap any of the tabs highlighted in red to access detailed information about your Fortress battery system. Tap any of the tabs highlighted in red to access detailed information about your Fortress battery system. Selecting it provides a general overview of the system. To verify if your batteries are running the latest firmware, navigate to the **FIRMWARE SECTION**.

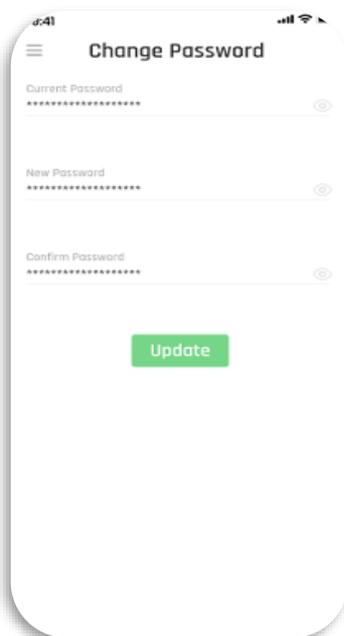
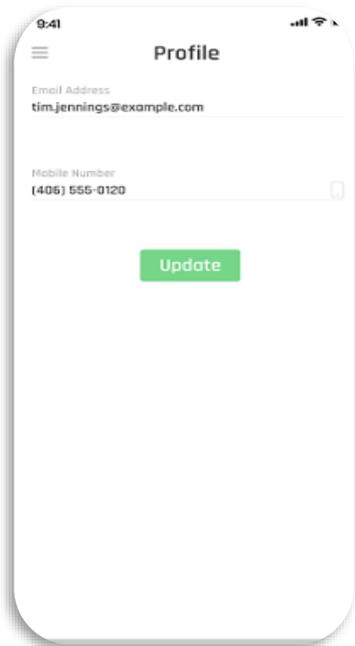
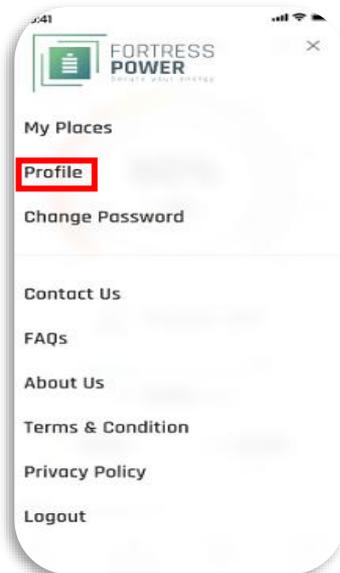
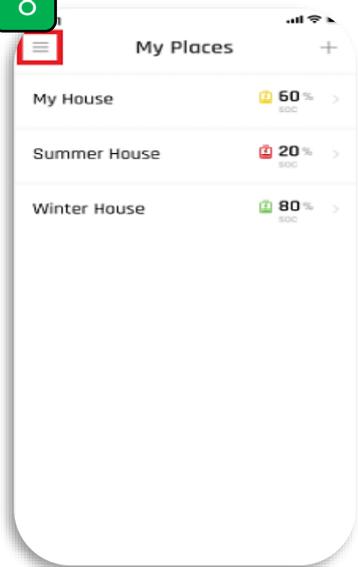




8. Changing Guardian Settings

In the **"My Place"** section, tap the dashboard icon in the top-left corner to access the companion app dashboard. From there, select **"Profile"** to update your email and phone number, or **"Change Password"** to modify your account password:

8





8. FIRMWARE

Upgrading Firmware

Firmware Revision: The initial firmware version of the Guardian is 0.1.0.

As the Guardian is a new hardware platform, be prepared to perform firmware updates during each site visit.

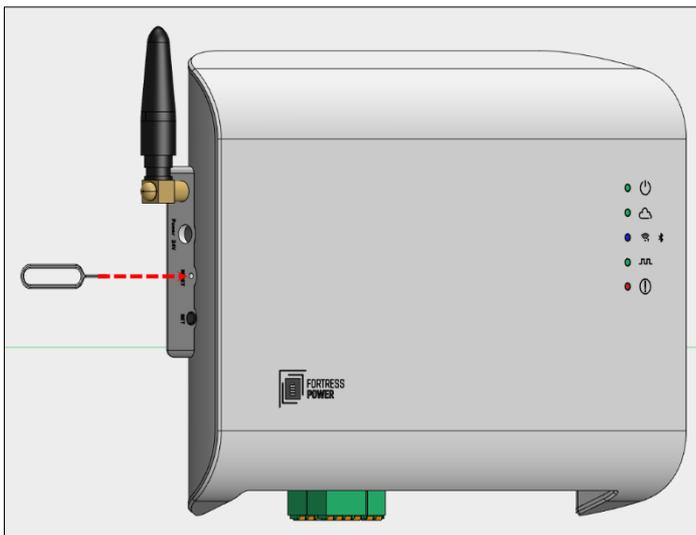
- Select the location where you wish to perform the firmware update, then choose the appropriate firmware option from the available icons.
- To update the firmware, tap the Update button within the app. This process applies to both the Guardian Hub and connected battery firmware.

9. TROUBLESHOOTING

9.2 RESETTING THE GUARDIAN HUB.

If any issues arise, the Guardian can be reset using the following method:

The device includes a reset button that, when pressed for 5 seconds, will restore the Guardian to factory settings. **This function should only be used when instructed by Fortress Power Technical Support.** Use the included pin to press the reset button.



9.3 TROUBLESHOOTING AND FIRMWARE

Troubleshooting

To troubleshoot Guardian issues, please fill out a support ticket at <https://support.fortresspower.com>



9.4 REPORT BUGS

If you are experiencing issues with the app, please take a screenshot. A window will automatically appear, allowing you to report the issue and add annotations directly on the image.

Follow the example provided below: write a brief, descriptive message explaining the issue or the content of the screenshot. All submitted reports will be saved and can be accessed later in the **Messages** section of the app.

