

BATTLE BORN®

Unstoppable Power Solutions

User Guide

Battle Born Mobile App



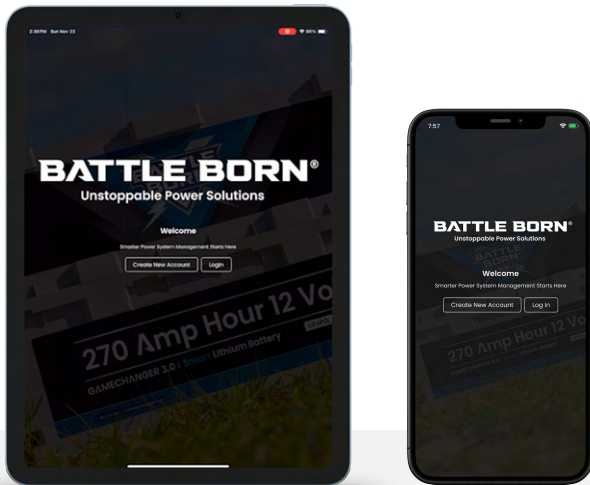
For Technical Support, please contact: 855.292.2831 | info@battlebornbatteries.com

Welcome to the Battle Born® Mobile App

Smarter Power Starts Here

The Battle Born Mobile App gives you complete visibility and control over your Battle Born® power system — anytime, anywhere. Whether you're managing a simple battery bank or a fully integrated multi-component system, the app delivers real-time monitoring, intuitive controls, and powerful automation tools designed to make your energy system effortless to use.

Use it on your phone or tablet with a layout optimized for both screen sizes.



Download the App



Battle Born® Mobile App
Available for iOS and Android.



Before You Begin

The Battle Born Mobile App works with a variety of Battle Born and Wakespeed components, and can be used with single-battery setups, multi-battery banks, or full RV-C-enabled installations.

The Battle Born® HUB

A Battle Born HUB is required for:

- Multi-battery systems
- Any system using integrated components
- RV-C communication and automatic component detection
- Viewing and managing system-level data
- Accessing advanced features such as System Insights and OTA firmware updates

The HUB acts as the central communication point between all connected components and the app.

For installation details, wiring diagrams, and setup guidance, please refer to the Battle Born HUB Installation Manual.

What You Can Do with the App

A high-level overview of what the Battle Born Mobile App enables:

Real-Time System Monitoring

View live voltage, power flow, SOC, remaining runtime, and component status at a glance.

System Insights

Get advanced data, rename components, view individual batteries, and configure alert thresholds.

Firmware Management

Easily check and update firmware (where supported) directly from the app.

Component-Level Control

Quickly access settings for:

- Battery Banks
- Inverter/Chargers
- Alternator Regulators
- Bi-directional DC-DC Converters
- Solar Charge Controllers (*Coming Soon*)

Smart Automation & Protections

Enable features like:

- Fuel Saver Mode
- Reserve Mode
- Energy Saver Mode
- Automatic inverter/charging thresholds

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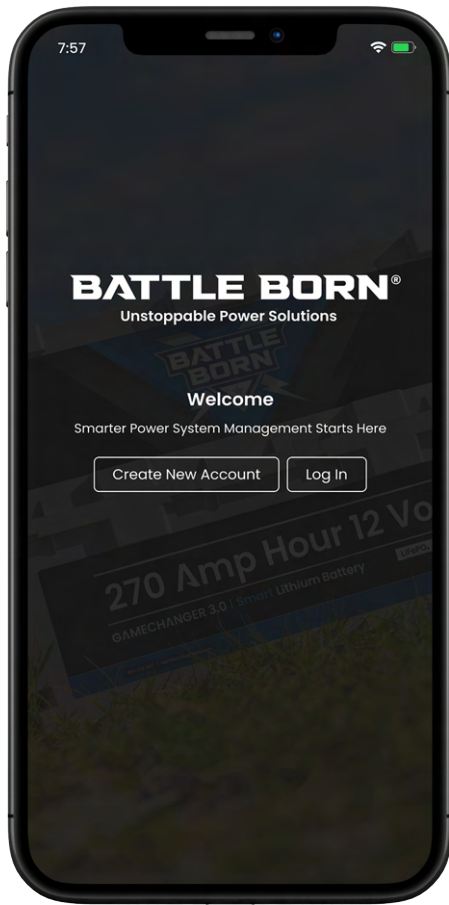
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Welcome Screen

Welcome Screen

When you open the Battle Born app, you are greeted with the Welcome Screen. This screen introduces the app and provides direct access to creating an account or logging in.



Create New Account

Select Create New Account to set up a new Battle Born app profile. You will be guided through entering your information and agreeing to the app's terms and policies.

Login

Select Login to sign in with your existing account credentials.

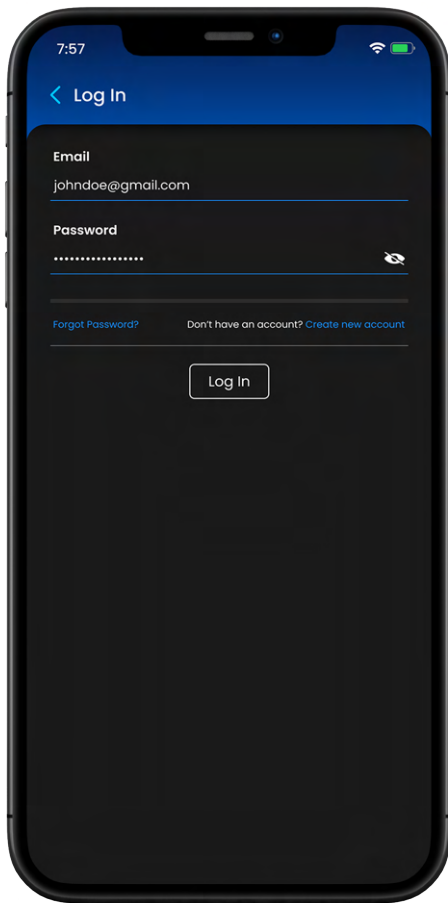
This screen serves as the starting point for accessing all system monitoring and management features within the app.



Login

Log In

To access your Battle Born app account:



1. Enter your email and password

Fill in the email address and password associated with your account.

2. Select "Login"

Tap the Login button to sign in.

Forgot Password?

If you need to reset your password, select **Forgot Password?** and follow the on-screen instructions.

Don't have an account?

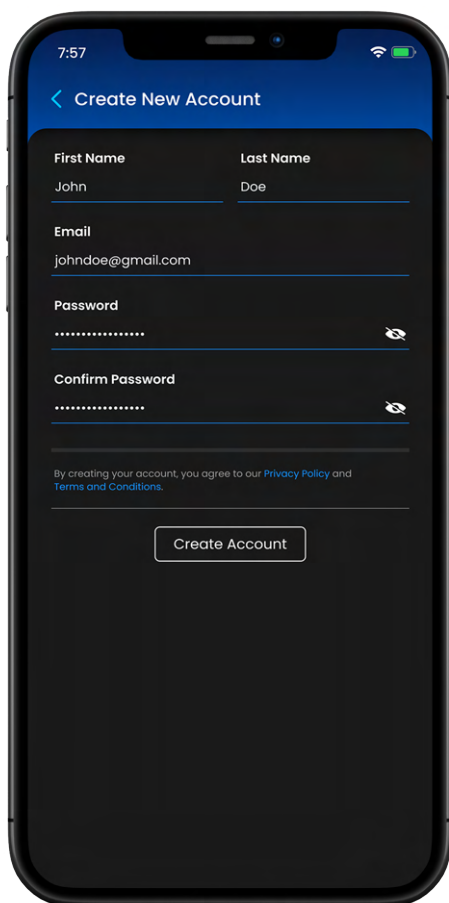
Select **Create new account** to set up a new profile.



Create New Account

Create New Account

To create a new Battle Born app account:



Fill in your information

Enter your first name, last name, email address, and create a secure password.

Agree to the policies

By creating an account, you acknowledge and agree to the app's Privacy Policy and Terms and Conditions.

Select "Create Account"

Tap the Create Account button to complete the setup and proceed to sign in.



Systems

Primary View

View and manage all configured systems from a single screen.



System Tiles

Each system is represented by a System Tile, providing an at-a-glance view of essential performance information. System Tiles allow you to quickly assess the status of multiple systems from the main Systems screen.

State of Charge (SOC)

Displays the estimated state of charge (%) for the system's battery bank.

Voltage

Shows the current system voltage, useful for confirming charging activity and overall system health.

Watts

Indicates real-time power usage or charging power measured in watts.

Estimated Runtime

Provides an estimated remaining runtime based on current load conditions. (If insufficient data is available, this field may display "---".)

Connection Status Indicator

Shows the communication strength between the app and the system.

System Status Light

A colored indicator reflecting system state:

Legend	
Green	Normal Operations
Yellow	Warning or reduced performance
Red	Fault or Offline

Overflow Menu (Three Dot Icon)

The overflow menu provides access to system management options such as rename, delete, or help.

Adding a New System

Follow the prompts to add a new system, name it, and begin pairing supported components.

This menu allows you to set up multiple independent systems.

Overflow Menu (Three Dot Icon)

Tapping the three vertical dots on any system card opens the System Menu, which provides management and support options for that specific system.

Edit System Name

Allows you to rename the selected system. Use this to keep multiple systems organized or to match system names to their installation location or purpose.

Delete System

Removes the system from the app.

Note: This does not delete or reset any physical hardware — it only removes the system from the app's interface.

Help

Provides access to support resources and allows you to submit a help request for your system.

Create New System



Build Your System

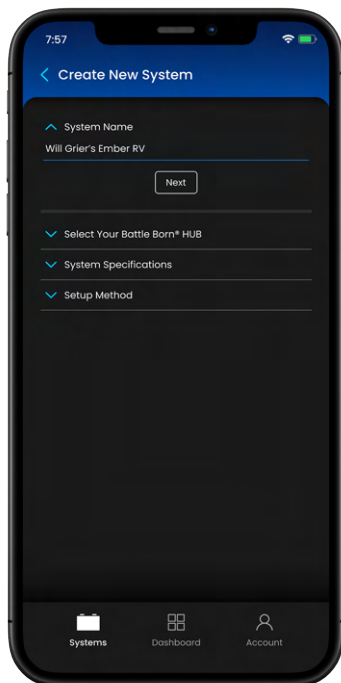
Add a System by Entering Details and Specifications.

Scan a System

Scan QR Code to Load Your Pre-Configured System

Dealers, OEMs, and Installers may provide pre-configured systems. In these cases, use a Scan a System to load the system automatically

Create New System | Build Your System I



Name Your System

- Hit Next

Connect to Your Battle Born HUB

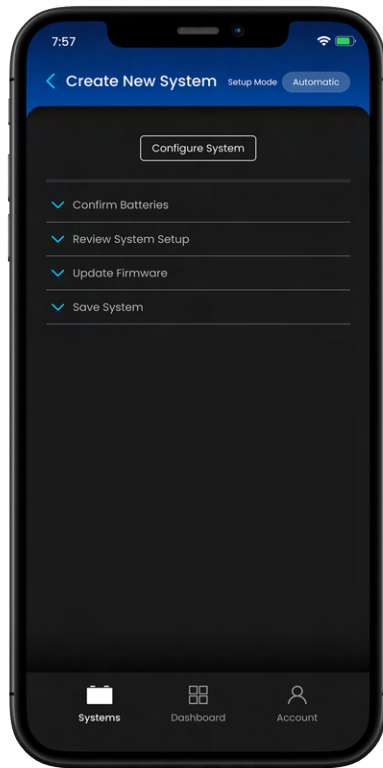
Select Your HUB (By Serial Number)

- Select Connect (This connects to HUB and provides some information to the APP and the System to Create)
- Once successfully Connected, hit Next

System Specifications

- Select System Voltage
- Select Battery Model
- Select Number of Batteries
- Select External Protocol (None or RV-C) (If Applicable)
 - Hit Next

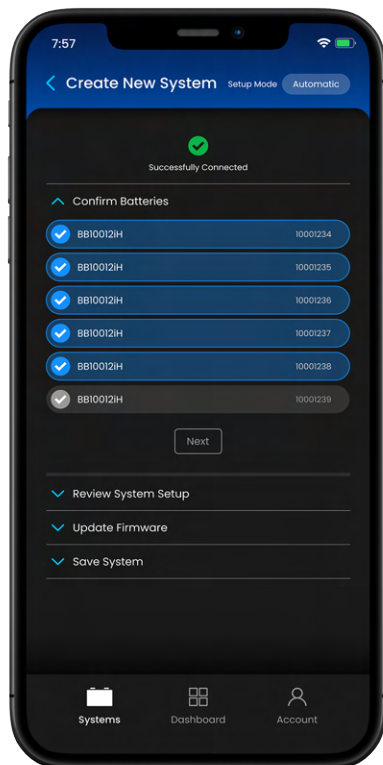
Create New System | Build Your System II



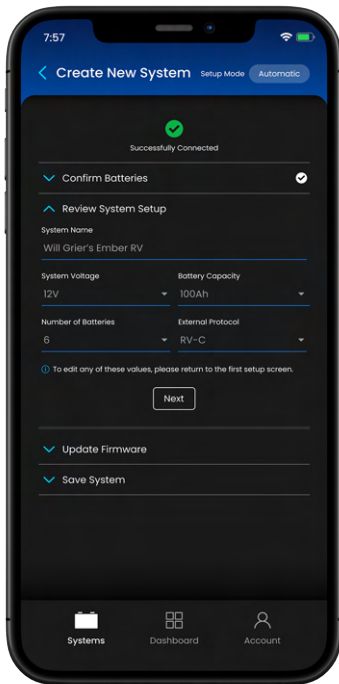
Select Discover Batteries

Select Your Batteries by Model and Serial Number in the list that auto populates

- Hit Next



Create New System | Build Your System III

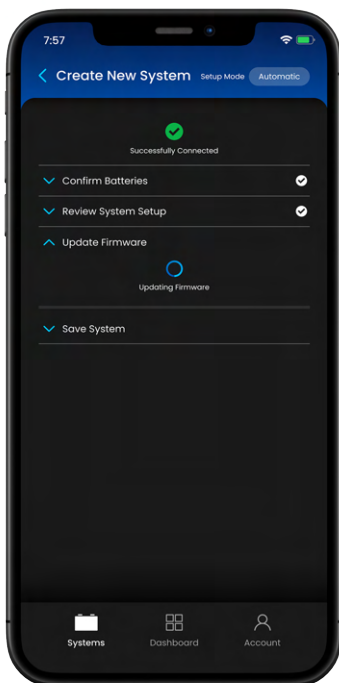


Review System Setup

Select Your Batteries by Model and Serial Number in the list that auto populates

- Hit Next

Create New System | Build Your System IV



Update Firmware

Select update to perform a firmware check of your batteries, and if an update is required, it will automatically update.

Save System

Select Complete System Setup to finish provisioning your system within a wireless mesh network (between all batteries and the hub).

This process may take a few minutes

This completes the Create New System Process.

Adding Components

For non-battery components, no in-app pairing process is required. Simply physically connect the component to the HUB. As long as the HUB's system configuration is set to RV-C, it will automatically detect compatible devices and add them to the System View.

Currently Supported Components

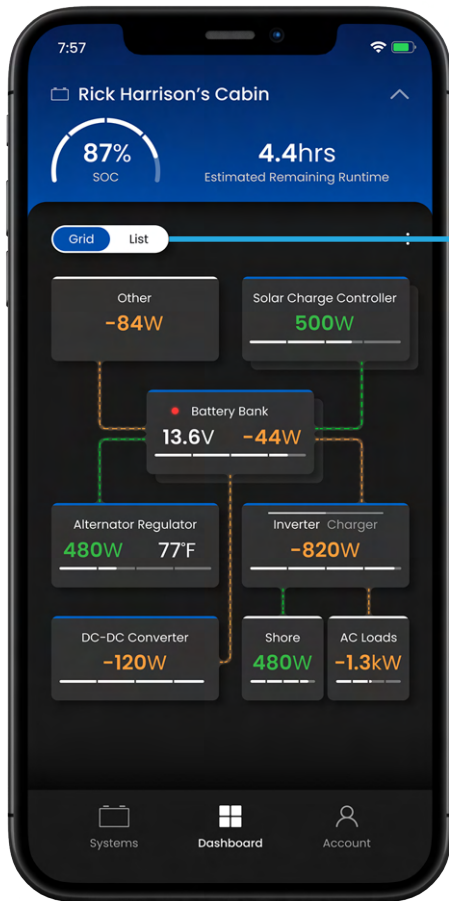
- Battle Born 2000W Inverter (BBI2000)
- Battle Born 2000W Inverter/Charger (BBIC2000)
- Wakespeed WS500 Advanced Alternator Regulator
- Wakespeed WS500 Pro Advanced Alternator Regulator
- Wakespeed 48V/12V Bi-Directional DC-DC Converter



Dashboard

System Monitoring

The Dashboard provides an overview of the selected system and displays all connected components in an easy-to-navigate layout. From this screen, you can monitor system performance, view component status, and quickly access detailed information or advanced settings.



Grid / List Toggle

Use the Grid / List toggle at the top of the screen to switch between:

- **Grid View:** a visual, tile-based layout
- **List View:** an organized, text-based layout

System Header

At the top of the Dashboard, system-level information is shown, including:

- State of Charge (soc)
- Estimated remaining runtime

This header remains visible in both Grid View and List View.

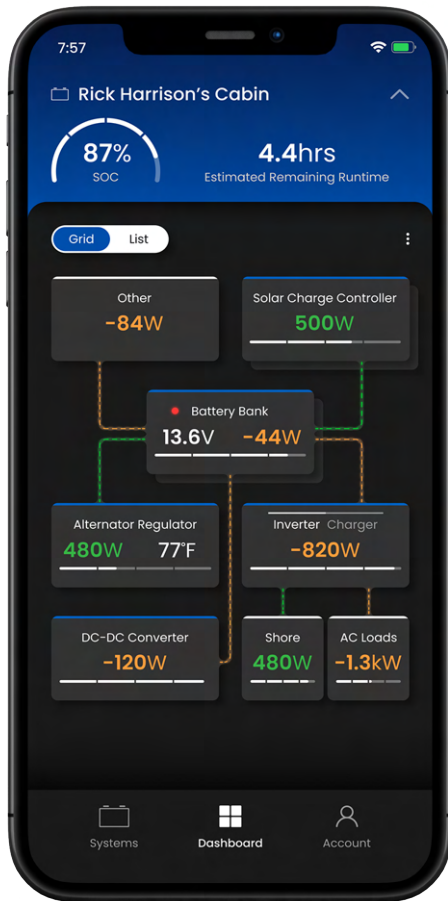
System Monitoring | Grid

The **Grid View** offers a visual layout of your power system, showing how each connected component interacts with the Battery Bank and with each other. This view is designed to give users an intuitive understanding of power flow, component activity, and system status at a glance.

Each component is represented as a tile connected by animated lines that illustrate real-time energy movement throughout the system.

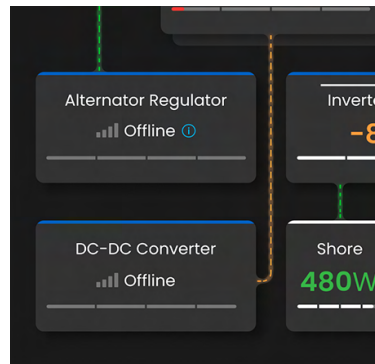
Power Flow Lines (Grid View Only)

The lines connecting components visually represent the direction and activity level of energy flow within the system. Animated “marching ant” segments indicate active power flow between components. The direction of movement shows which way power is flowing.

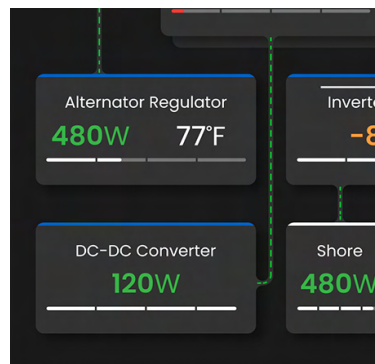


Examples

Discharging



Charging



Pulsing Dot (Grid & List View)

A pulsing dot appears next to the component names and serves as an indicator of the current status of the item, including if any faults are present.

Color Indicators (Grid View Only)	
Green	Represents incoming or generated power (e.g., solar, alternator output, charging).
Orange	Indicates power being consumed or load on that component.

Offline Components

A component may display an Offline status when the app cannot communicate with it. This typically indicates one of the following:

- The device is unplugged or lost power
- Communication through the HUB or RV-C network was interrupted
- The device is out of range or temporarily unavailable
- A wiring or connection issue is present

When a component is offline:

- The tile remains visible
- The status text reads "Offline"
- Live data fields will pause or show placeholders

Offline is different from a greyed-out box, which indicates a component that is installed but not currently active or not yet supported.

Greyed Out Text or Greyed Boxes

Indicates a component that is:

- Connected but inactive, or
- Not currently providing or receiving power, or
- Not supported yet

Component Boxes

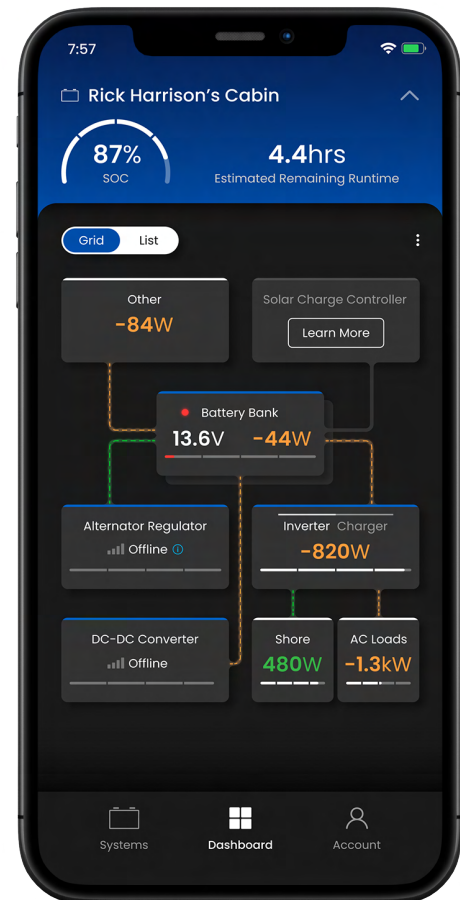
Each box in the Grid View represents a hardware component and displays its essential live data. Below is a high-level explanation of what each tile conveys.

Battery Bank

The central tile in the system. Shows:

- System voltage
- Charge or discharge power (watts)
- Visual connections to all major components

This tile acts as the "anchor" of the Grid View.



Alternator Regulator

Displays:

- Power direction (positive/negative watts)
- Whether it's charging or being loaded

If the alternator is producing power, the tile updates in real time and marching ants will show flow into the Battery Bank.

DC-DC Converter

Displays:

- Power direction (positive/negative watts)
- Whether it's charging or being loaded

Lines indicate if the converter is stepping up/down power or idle.

Solar Charge Controller

Acts as a placeholder until solar support is enabled in a future update.

Shore Power & AC Loads

These boxes appear when relevant to the system's configuration. They display whether AC input or output is being detected

"Other" Loads Box

Shows total load not attributed to a specific component box. This may include DC appliances, parasitic loads, or accessories.

Interacting With Component and Battery Boxes

Tap "Learn More"

Opens detail screens for supported components.

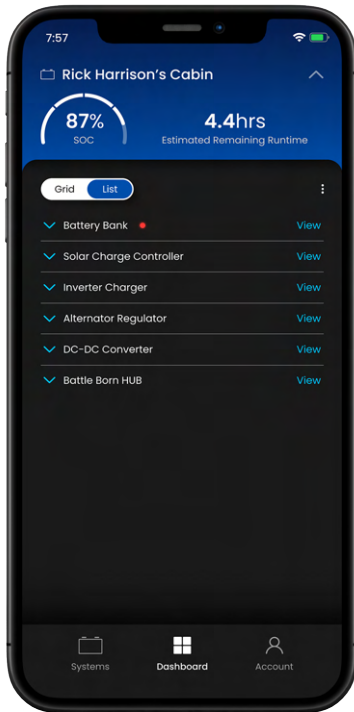
Tap Components Without "Learn More"

Some boxes open directly into:

- Component Overview
- System Insights

System Monitoring | List

The List View displays an organized, expandable list of all components in the selected system. It provides the same functionality as Grid View but in a simplified text-based layout, offering a high-level snapshot of each component with quick access to detailed information.



Component List

Each component in the system is displayed as an individual row.

- Active components appear in full color/opacity.
- Inactive or unpowered components appear greyed out.

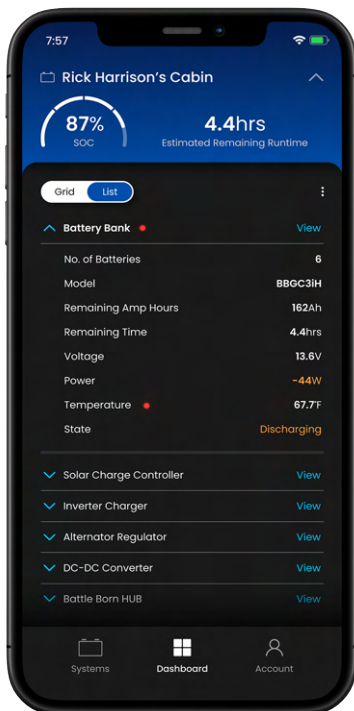
Expandable Sections

Tapping a component row expands it to reveal high-level operating information. This allows you to monitor system behavior without navigating away from the dashboard.

View Button

Selecting View on any component opens its detailed interface, including:

- Component Overview
- System Insights (advanced diagnostics and configuration)

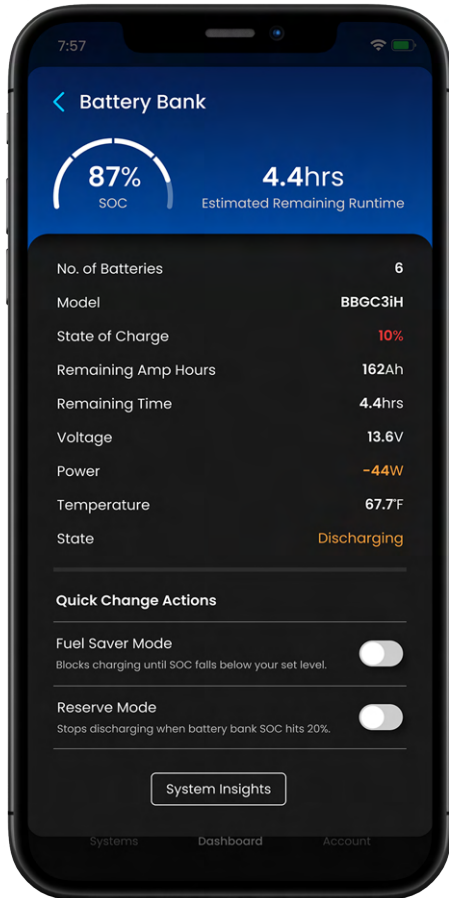




Dashboard | Battery Bank

Battery Bank | Overview

The List View displays an organized, expandable list of all components in the selected system. It provides the same functionality as Grid View but in a simplified text-based layout, offering a high-level snapshot of each component with quick access to detailed information.



Displayed Information

Model

Shows the detected battery model(s) in the system.

State of Charge

Displays the battery bank's SOC as a percentage of remaining capacity.

Remaining Amp Hours

Shows the usable amp-hour capacity left in the battery bank at the current state of charge.

Remaining Time

Provides an estimated number of hours the system can continue operating under the current load.

Voltage

Displays the real-time battery voltage

Power

Shows the power currently flowing into or out of the battery bank in watts:

- Positive values indicate charging
- Negative values indicate discharging

Temperature

Displays the current battery temperature.

State

Indicates the battery bank's current mode of operation, such as Charging, Discharging, Idle, or Standby.

Quick Change Actions

Fuel Saver Mode

Blocks charging until the battery bank SOC falls below your selected level. Useful when managing generator time, conserving energy, or preventing unnecessary cycling.

Reserve Mode

Stops discharging when the battery bank reaches 20% SOC, helping preserve emergency power and protect the system during low-charge conditions.

System Insights

Selecting System Insights opens the advanced battery bank view, where you can access detailed metrics, see information for each individual battery, adjust available configuration settings, and set custom notifications for important system events.

Battery Bank | System Insights

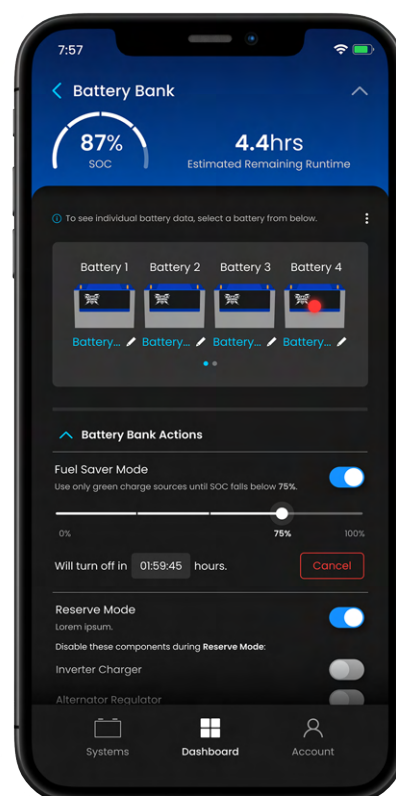
System Insights provides advanced tools for configuring and managing your battery bank. From this screen, you can view individual battery details, adjust RV-C instance settings, manage charge-source behavior, and customize alerts.

Individual Battery View

At the top of System Insights, each battery in the bank is displayed as an individual icon.

When you click an individual battery, the data below changes from a system aggregate to the individual battery selected.

You may rename each battery by selecting the pencil icon beneath it.



Battery Bank Actions

Fuel Saver Mode

Use only “green” charging sources until the battery bank drops below your selected State of Charge.

- When enabled, the system blocks non-preferred charge sources (shore power, alternator, DC-DC, etc.) until the SOC falls below your chosen threshold.
- Use the slider to set your SOC threshold (0–100%).
- You can also set a timer to automatically turn Fuel Saver Mode off after a specified duration.

Reverse Mode

Helps conserve battery power when the battery bank reaches a critical SOC.

- When enabled, the system stops discharging once the battery bank hits the preset SOC threshold (default: 20%).
- This protects critical loads and reduces the chances of draining the battery bank too deeply.
- You may also toggle which system components are disabled during Reserve Mode (Inverter Charger, Alternator Regulator, etc.).

Set Battery Instance

RV-C systems require each battery bank to have an assigned instance number, which acts like an ID so other devices know which bank they’re communicating with.

Use this field to set the instance number for your battery bank when integrating with other RV-C equipment.

Update Charging Sources to Match Instance

When enabled, the HUB will automatically update all connected charging devices (inverter/charger, alternator regulator, DC-DC converter) to use the same battery instance number. This helps keep the system synchronized so every charging source targets the correct battery bank.

Displayed Information

No. of Batteries

Shows the total number of batteries currently detected in the battery bank.

Model

Displays the model identifier reported by the battery bank.

State of Charge (soc)

The real-time percentage of available energy remaining in the battery bank.

Remaining Amp Hours

The estimated amp-hour capacity still available before the battery bank is fully depleted.

Remaining Time

The estimated runtime left based on current system load.

Voltage

Real-time battery bank voltage.

Power

The total power flowing into or out of the battery bank.

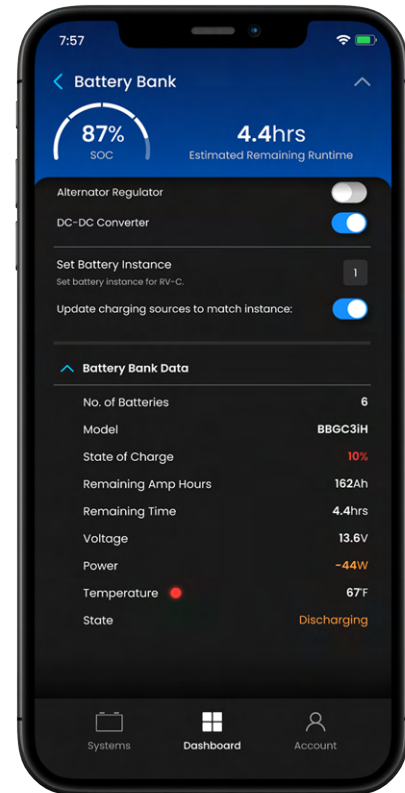
- Positive values indicate charging
- Negative values indicate discharging

Temperature

The internal temperature of the battery bank.

State

Indicates whether the battery bank is Charging, Discharging, Idle, or in another operational mode.



Overflow Menu (Three-Dot Icon)

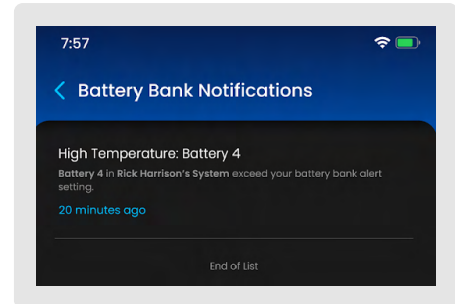
The Overflow Menu (three vertical dots in upper right) provides additional tools and settings:

Notifications

View recent warning alerts and errors related to the battery bank.

Customize Alerts

Set custom thresholds for battery events such as SOC, voltage, or temperature.



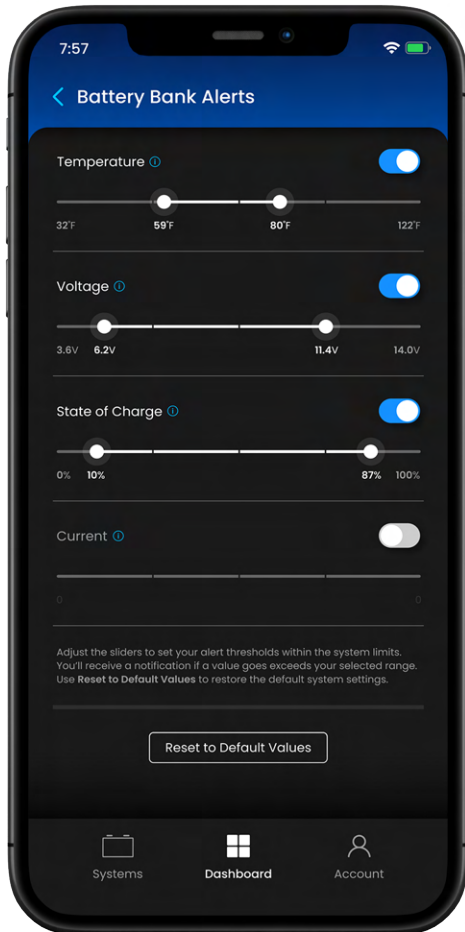
Help

Allows the user to submit a support ticket or access additional educational resources.

Battery Bank | Customize Alerts

The Customize Alerts screen lets you set your own notification thresholds for key battery conditions. These alerts help you stay aware of important changes in your system and catch potential issues early.

You can adjust thresholds for:



Temperature

Enable this alert and set a minimum and maximum temperature. If the battery bank temperature goes outside your selected range, you'll receive a notification.

Voltage

Enable this alert and use the sliders to choose low-voltage and high-voltage limits. You'll be notified if battery voltage moves outside your chosen thresholds.

State of Charge (soc)

Turn on SOC alerts to monitor battery charge levels. Set a low-SOC and high-SOC limit — notifications trigger when SOC drops below or rises above your selected percentages.

Current

Allows monitoring of current flow. Enable this alert to be notified when current exceeds your configured limit. (Ranges depend on system capability.)

Reset to Default Values

If you want to undo your changes, select Reset to Default Values to return all sliders to the system's recommended default thresholds.

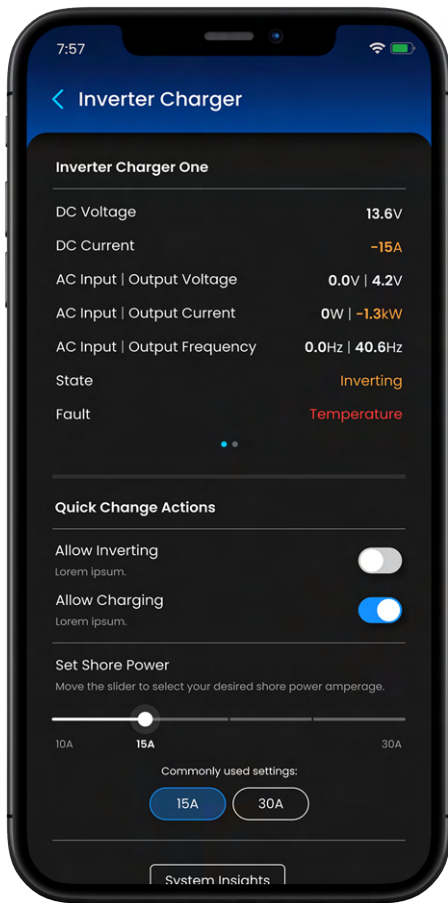
How Alerts Work

- Adjust the sliders to set your preferred alert limits.
- If a live value goes outside your selected range, you'll receive a notification on your device (must have app notifications enabled).
- Alerts apply to the entire battery bank.



Dashboard | Inverter & Inverter/Charger

Inverter/Charger | Overview



Displayed Information

DC Voltage

Shows the DC input voltage supplied to the inverter from the battery bank.

DC Power

Indicates the amount of DC power being drawn from or supplied to the inverter.

**Negative values reflect power consumption during inverting.*

AC Input | Output Voltage

Displays AC input voltage (shore/generator power) and AC output voltage to connected AC loads.

AC Input | Output Frequency

Indicates the AC frequency of both incoming power and the inverter's output.

State

Shows the current mode of operation, such as:

- Inverting
- Charging
- Pass-Through
- Standby
- Idle

Quick Change Settings

Allow Inverting

Enables or disables the inverter's ability to draw power from the battery bank to supply AC loads. Turning this option off prevents battery discharge

IMPORTANT NOTE ABOUT PASS-THROUGH

Even when inverting is disabled, the inverter will still provide AC pass-through whenever shore or generator power is present. In this state, AC loads are powered directly from the incoming AC source rather than the battery bank.

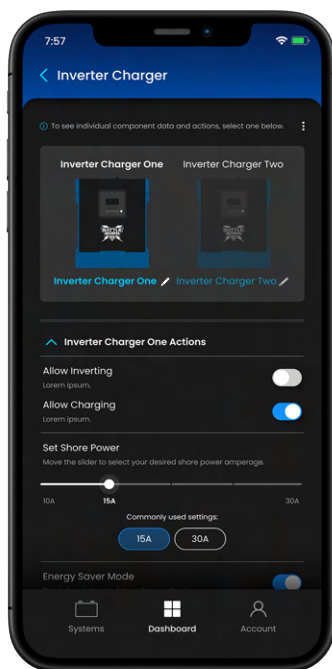
System Insights

Selecting System Insights opens the advanced diagnostic view, where detailed electrical data, system conditions, and technical parameters are displayed for troubleshooting and setup refinement.

Note: Some features may be greyed out for Inverter Only (BBI2000) models.

Dashboard | Inverter/Charger | System Insights

Selecting System Insights opens the advanced diagnostic view, where detailed electrical data, system conditions, and technical parameters are displayed for troubleshooting and setup refinement.



Renaming the Inverter Charger

To rename the inverter component:

- Tap the pencil icon beneath the inverter image.
- Enter a custom name
- Press OK to save.

Renaming is helpful when multiple inverters are installed in a single system.

Inverter Charger Actions

Allow Inverting

Enables the inverter to draw power from the battery bank and supply AC output.

When turned off, the inverter will not discharge the batteries.

Energy Saver Mode

Energy Saver Mode reduces unnecessary inverter operation by evaluating each connected AC load independently. The inverter will only activate for loads that exceed the selected wattage threshold, allowing lower-priority or parasitic loads to remain unpowered.

How it works:

- Each AC load is monitored individually
- If any singular load exceeds the threshold → the inverter turns on to power that load only
- Loads below the threshold remain off
- The inverter does not stay on for low-wattage background loads

Why it's valuable:

- Helps conserve energy when boondocking or dry camping
- Useful when operating at a low state of charge, ensuring inverter power is used only for meaningful or critical loads
- Prevents unnecessary battery drain from tiny parasitic loads
- Gives the user finer control over which devices justify inverting

Load Threshold Slider

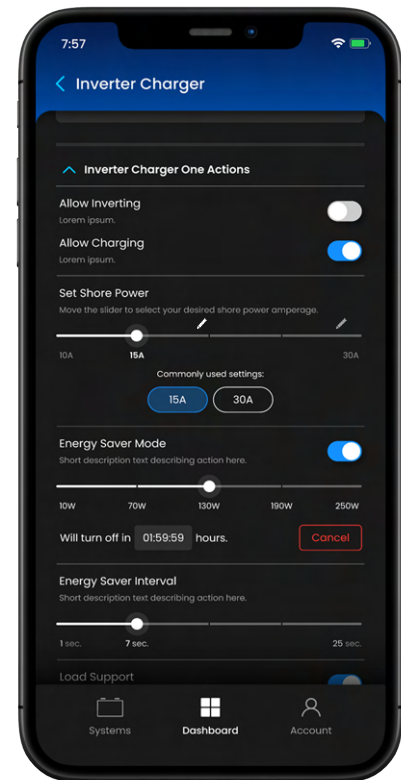
Sets the minimum wattage required for a single load to request inverter power.

Return to Normal Timer

Allows Energy Saver Mode to automatically disable after a specified number of hours.

Energy Saver Interval

Controls how often the inverter checks for loads activity above the threshold.



Inverter Charger Data

The data section displays live electrical readings and system-level conditions.

DC Voltage

Voltage supplied from the battery bank to the inverter.

DC Power

Power flow on the DC input side. Negative values indicate battery discharge during inverting.

AC Input | Output Voltage

Shows the incoming AC voltage (if shore/generator is connected) and the voltage supplied to AC loads.

AC Input | Output Power

Displays real-time AC power flow:

- Input: From shore/generator
- Output: Delivered to AC loads

AC Input | Output Frequency

Shows incoming and outgoing AC frequency.

AC Input Line Fault State

Indicates any detected issues with shore/generator power quality.

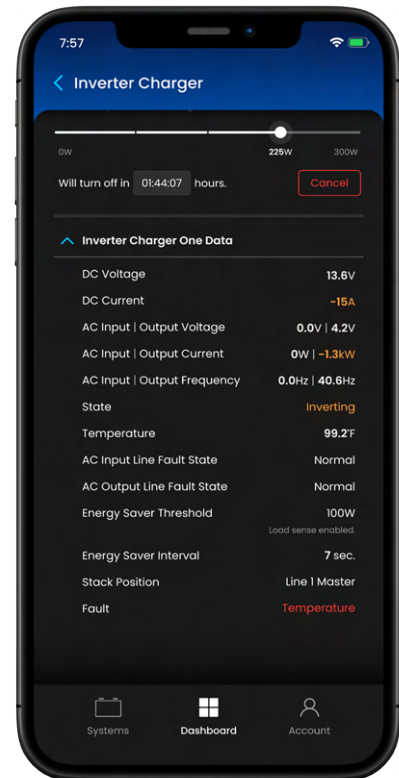
State

Shows the inverter's current operating mode:

- Inverting
- Charging
- Pass-Through
- Standby
- Idle

AC Output Line Fault State

Reports abnormal conditions affecting AC output.



Using Multiple Inverter/Chargers (Stacked Systems)

When using multiple Battle Born Inverter/Chargers with the optional Stacking Kit (BBICSTK), each inverter appears as an individual component within the app. You can manage or adjust settings for a specific inverter by selecting its component icon at the top of the screen.





Dashboard | Solar Charge Controller

Solar Charge Controller

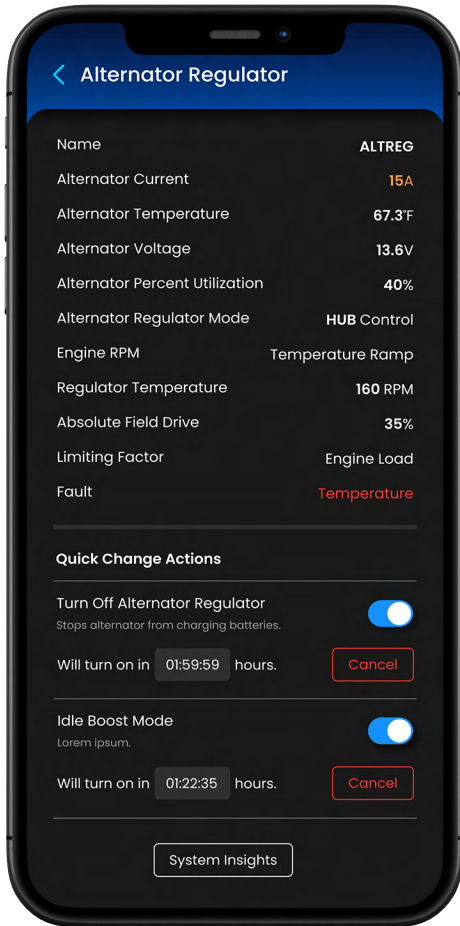
Support for solar charge controller monitoring will be added in an upcoming app release.





Dashboard | Alternator Regulator

Alternator Regulator | Overview



Displayed Information

Alternator Current

Displays the amount of electrical current the alternator is producing. Useful for monitoring charging performance and system load.

Alternator Temperature

Indicates the temperature of the alternator. Helps protect the system by showing when thermal limits may affect performance or require reduced output.

Alternator Voltage

Shows the alternator's output voltage. Used to verify proper charging behavior and system stability.

Alternator Percent Utilization

Represents how much of the alternator's total capability is currently being used. Higher utilization indicates heavier charging demand.

Alternator Regulator Mode

Shows the operating mode of the Wakespeed 500 (e.g., HUB Control, CAN Control, Standalone). Mode determines how charging behavior is being managed.

Engine RPM

Displays the engine speed as received through CAN or RPM input. Helps correlate alternator output with engine operation.

Absolute Field Drive

Shows the percentage of available field power being applied to the alternator's rotor. Higher percentages mean stronger alternator output demand.

Fault

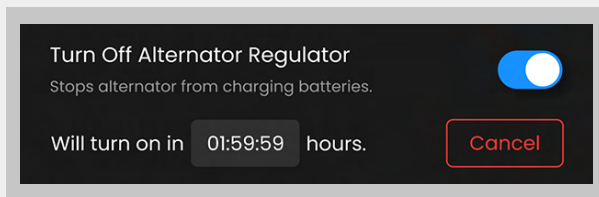
Indicates any active faults or protective conditions detected by the Wakespeed 500 (e.g., forced idle, over-temperature, communication errors). Faults provide insight into why charging may be reduced or paused.

Quick Change Actions

Turn Off Alternator Regulator

Disables the Wakespeed 500, stopping the alternator from charging the batteries. Useful for diagnostics, maintenance, or isolating charging behavior.

- **Return to Normal:** Allows the user to set a timer that automatically re-enables the alternator regulator after a specified number of hours. Helpful as a safeguard if the regulator is turned off temporarily and the user forgets to turn it back on.



Idle Boost Mode

Increases alternator output while the engine is idling, when supported by the vehicle. Helps maintain charging performance during extended idle periods.

System Insights

Opens configuration options, detailed diagnostic information, logs, and system-level status for advanced troubleshooting and analysis.

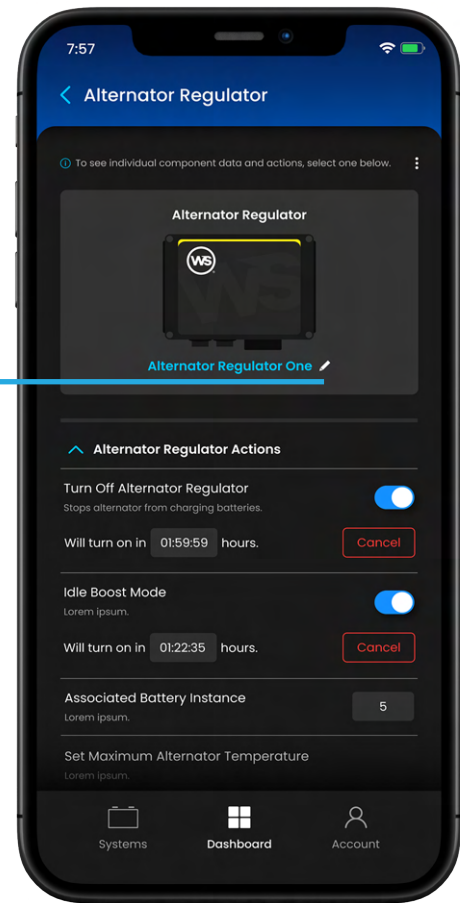
Alternator Regulator | System Insights

System Insights – Alternator Regulator

Advanced Diagnostics and Configurable Options

The System Insights view provides detailed operating data from the alternator regulator, along with advanced configuration options. These values help installers, technicians, and advanced users monitor alternator performance, identify abnormal operating conditions, and fine-tune regulator behavior. This screen offers deeper visibility beyond the basic Overview page.

Tap the pencil icon under the regulator icon to edit the component name.



Alternator Regulator Actions

Turn Off Alternator Regulator

Disables the Wakespeed regulator, stopping the alternator from charging the batteries.

Useful for diagnostics, maintenance, or isolating charging behavior.

Idle Boost Mode

Increases alternator output while the engine is idling, when supported by the vehicle.

Helps maintain charging performance during extended idle periods.

Set Maximum Alternator Temperature

Defines the maximum temperature the regulator will allow the alternator to reach.

If the alternator approaches this limit, output is reduced to prevent overheating and protect hardware.

Set Maximum Field Drive

Limits the maximum percentage of field current the regulator can apply to the alternator.

Restricts how aggressively the regulator drives alternator output, providing a safeguard for systems with thermal or mechanical constraints.

Alternator Regulator Data

Alternator Current

The amount of electrical current the alternator is producing in real time. Used to confirm charging output and assess system load.

Alternator Temperature

The alternator's internal temperature as reported through the regulator.

High temperatures may cause automatic derating to protect the alternator.

Alternator Voltage

The voltage being produced at the alternator output.

Used to verify proper charging voltage and system stability.

Alternator Percent Utilization

Displays the percentage of available alternator capacity currently being used.

High utilization indicates heavy charging demand or system load.

Alternator Regulator Mode

Shows the control mode the regulator is operating under, such as HUB Control, CAN Control, Standalone, or other supported modes.

This tells the user what device or system is governing charging behavior.

Engine RPM

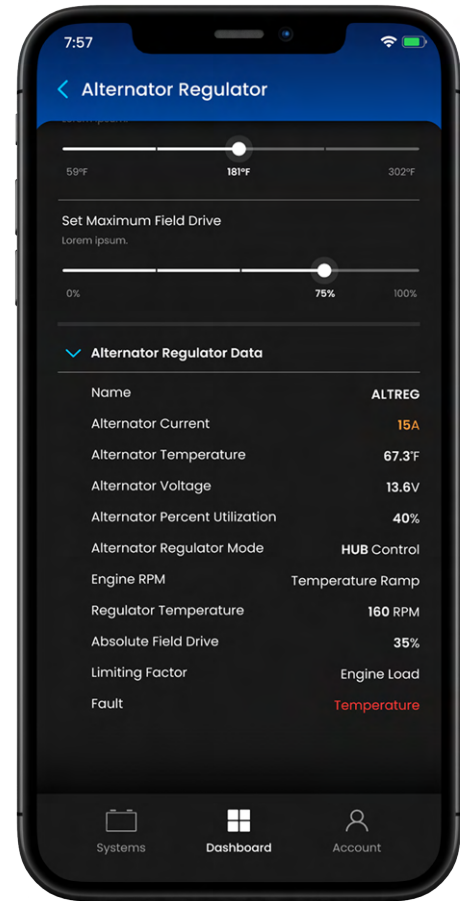
The engine's current revolutions per minute, as reported from CAN or RPM-sensing sources.

Alternator performance is tied directly to engine speed.

Absolute Field Drive

Indicates the percentage of maximum field current being applied to the alternator rotor.

Higher field drive increases alternator output; lower field drive indicates reduced demand or protective limiting.



Fault

Displays any active warnings, alerts, or derating events triggered by the regulator. Examples include:

- over-temperature
- over-current
- communication issues
- protective forced-idle states.

Fault messages help identify why alternator output may be reduced or disabled.



Dashboard | DC-DC Converter

Alternator Regulator | Overview

Displayed Information

Low Side Voltage

Displays the measured voltage on the low-voltage side of the converter. Helps verify proper input/output conditions depending on system direction.

Low Side Current

Shows the current flowing on the low-voltage side. Useful for monitoring charging or discharge load depending on whether the converter is stepping voltage up or down.

Temperature

Indicates the internal temperature of the DC-DC converter. High readings may limit output to protect the unit.

High Side Percent Utilization

Represents how much of the converter's available power capacity is currently being used on the high-voltage side.

Low Side Percent Utilization

Represents how much of the converter's available power capacity is currently being used on the low-voltage side.

Mode

Shows the converter's active operating mode (e.g., High-Side Support, Low-Side Support, Idle, or Standby). Mode indicates the direction of power flow and how the converter is managing voltage between battery banks.

High Side Voltage

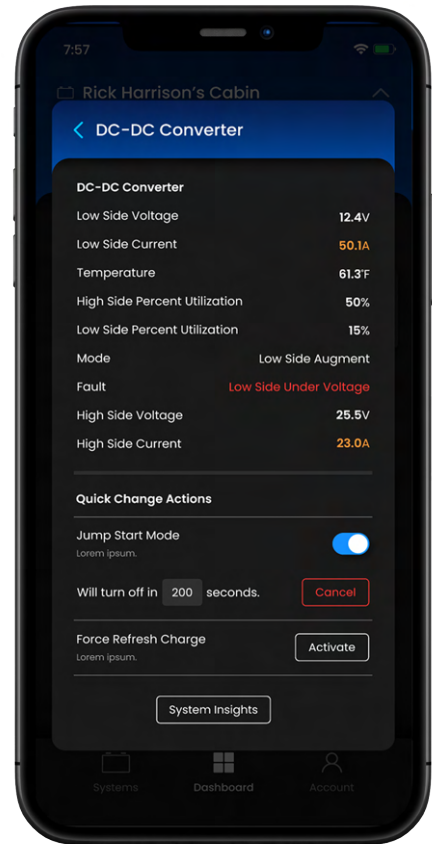
Displays the measured voltage on the high-voltage side of the converter. Helps confirm charging accuracy and system stability.

High Side Current

Shows the current flowing on the high-voltage side. Useful for monitoring the converter's output when stepping voltage up or down.

System Insights

Opens configuration options, advanced diagnostic information, logs, and additional data for troubleshooting and system analysis. Converter is managing voltage between battery banks.



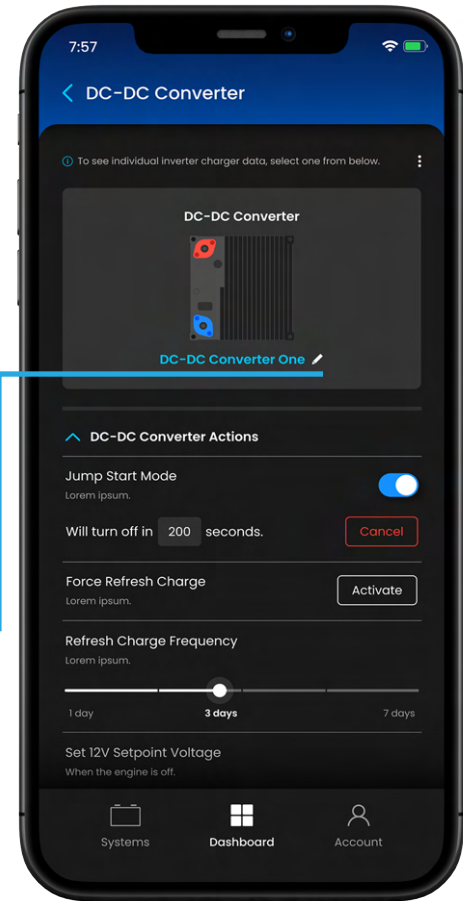
Alternator Regulator | System Insights

System Insights – DC-DC Converter

Advanced Diagnostics and Configurable Options

The System Insights view provides detailed technical information about the DC-DC converter's operation and performance. This screen also includes configurable settings and advanced controls that allow users to fine-tune converter behavior, adjust charging parameters, and manage how the converter supports each battery bank. These tools are intended for experienced users, installers, and technicians who need deeper visibility and custom configuration beyond the basic Overview screen.

Tap the pencil icon under the regulator icon to edit the component name.



DC-DC Converter Actions

Jump Start Mode

Forces the converter to charge the low-side battery, even if normal criteria for charging are not met.

Useful when the low-side battery is deeply discharged and needs immediate recovery.

Refresh Charge Frequency

Determines how often the converter performs a refresh charge on the low-side battery.

A refresh cycle helps maintain the low-side battery's state of charge during extended use.

Note: Changing this parameter will restart the alternator regulator.

Set 12V Setpoint Voltage (Engine On)

Defines the charging voltage target for the low-side battery when the engine is running.

Higher setpoints may increase charge rate; lower setpoints reduce system load.

Set 12V Setpoint Voltage (Engine Off)

Defines the charging voltage target for the low-side battery when the engine is not running.

Used to tailor charging behavior to specific vehicle or system requirements.

Set Max 12V Alternator Amps Power Loading

Sets the maximum allowable alternator current the converter is permitted to draw from the 12V system.

Helps protect alternators and vehicle electrical systems from overload.

See hardware manual for recommended limits.

DC-DC Converter Data

Low Side Voltage

Real-time measured voltage on the low-voltage side of the converter.

Low Side Current

Current flowing on the low-voltage side. Used to monitor power flow during charge or discharge.

Temperature

Internal temperature of the converter. High readings may reduce output to protect hardware.

High Side Percent Utilization

Percentage of available converter power currently used on the high-voltage side.

Low Side Percent Utilization

Percentage of available converter power currently used on the low-voltage side.

Mode

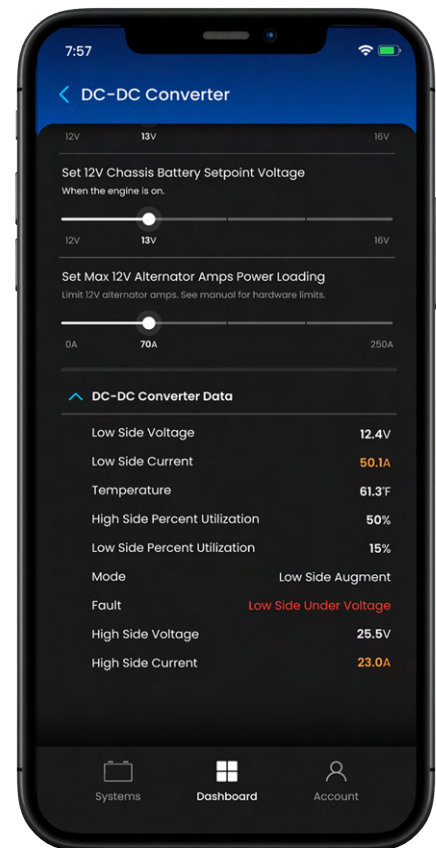
Indicates the converter's active operating mode, such as High-Side Support, Low-Side Support, Idle, or other functional states.

High Side Voltage

Measured voltage on the high-voltage side. Helps confirm proper charging behavior.

High Side Current

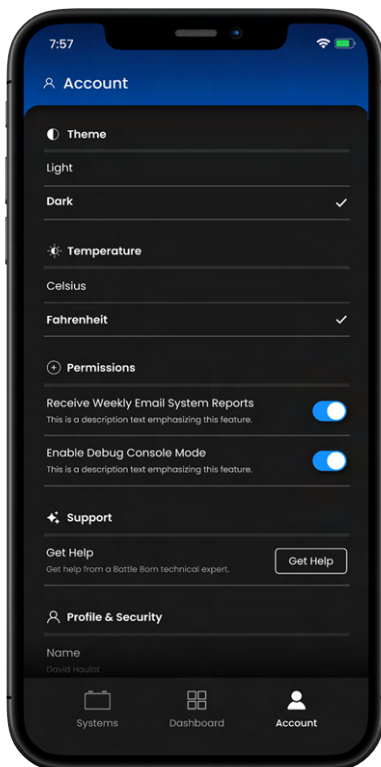
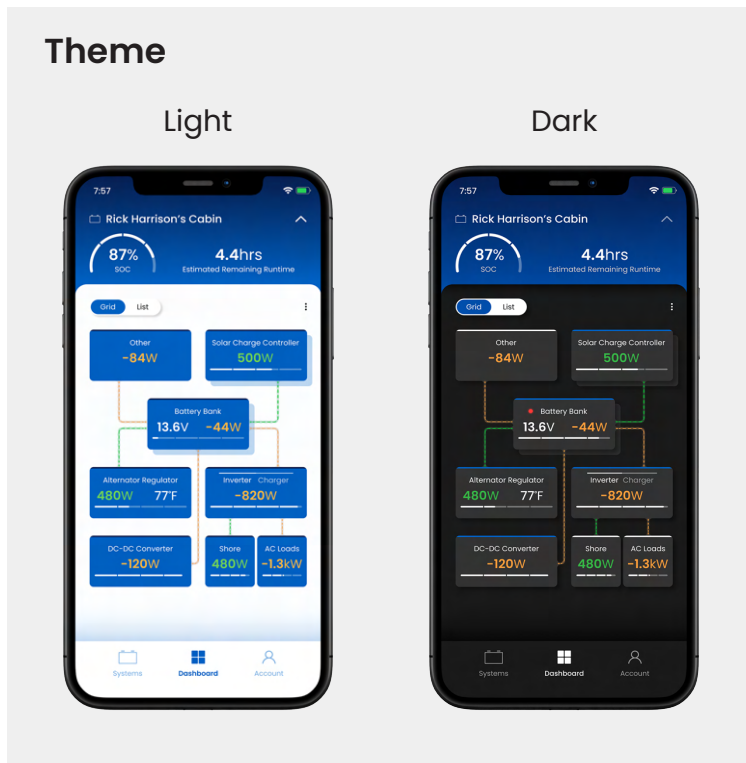
Current flowing on the high-voltage side. Used to assess converter output under load.





Account

Account



Temperature

- Celsius
- Fahrenheit

Support

- Get Help

Profile & Security

- Name
- Email (Log Out)
- Password (Reset Password)
- Access (Delete Account)



Installer Mode

Installer Mode

Installer Mode is designed for **Dealers, Installers, and OEMs** who need to pre-configure Battle Born power systems before delivering them to end users. This mode allows an installer to fully set up a system and then transfer it to the customer's account through a simple QR code handoff.

Accessing Installer Mode

To enter Installer Mode, your Battle Born account must be configured with an installer profile.

Please contact your Battle Born sales representative for assistance with enabling this feature.

Once your installer profile is activated, simply log in with your installer credentials. You will set up systems the same way a customer would. Please refer to the system creation section of this guide for detailed instructions.

Sharing a Configured System With a Customer

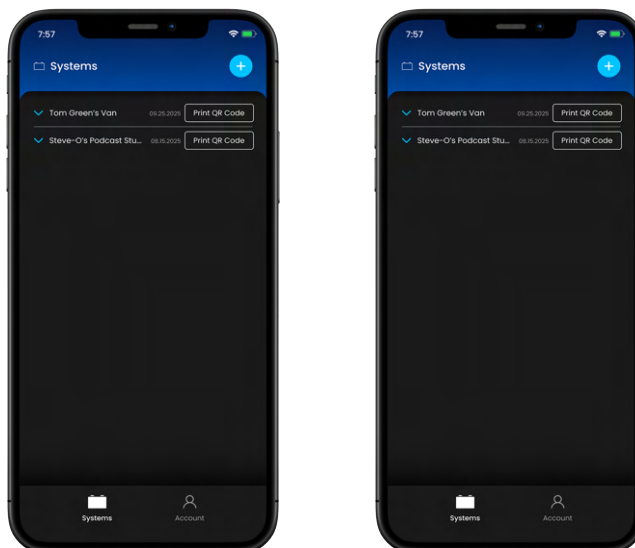
Once a system has been fully configured:

1. Navigate to the Systems tab.
2. Select the system you want to share.
3. Tap Print QR Code.

This action generates a PDF containing a unique QR code linked to that system.

The PDF preview may vary slightly depending on your device's operating system (Apple vs. Android).

You can print the PDF or share it electronically (email, text, etc.). We recommend printing the sheet and including it in the customer's documentation binder.



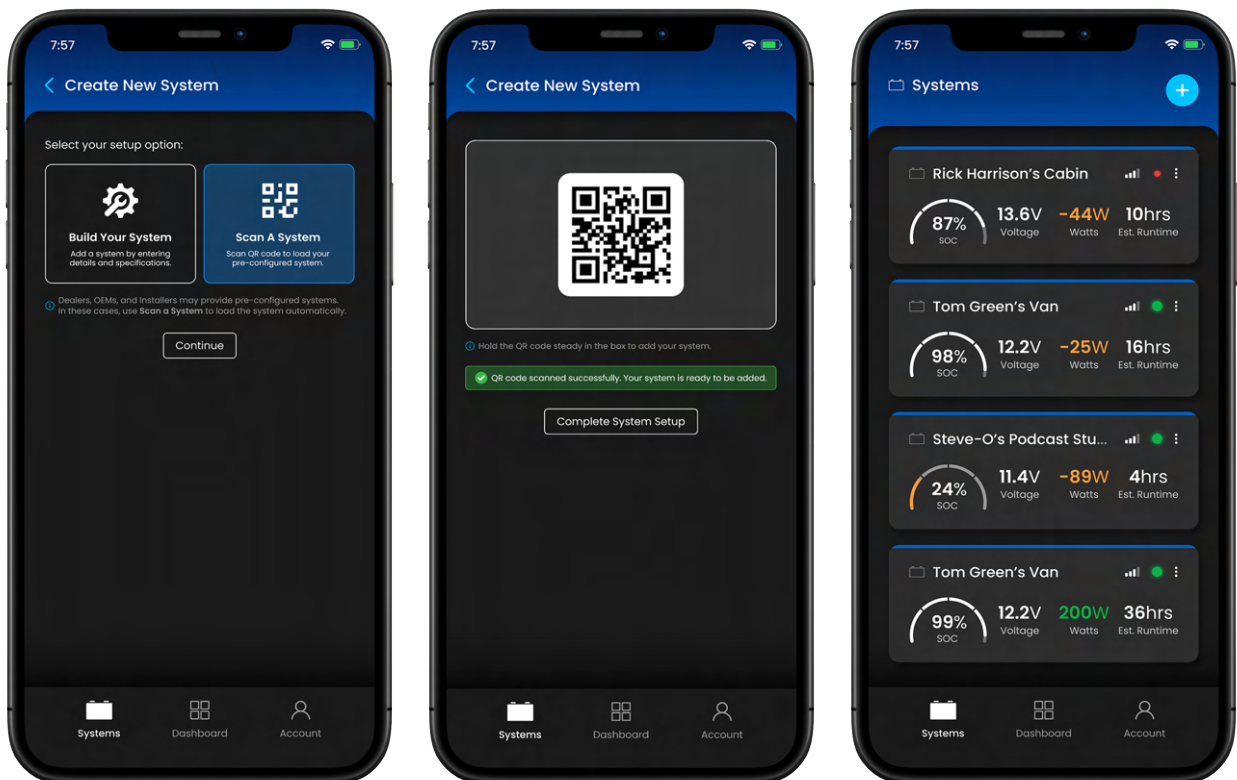
For the Customer

To import a system shared by the installer:

1. Log in to the Battle Born app using a standard customer account.
2. Navigate to the Systems page and select Create New System.
3. Choose Scan a System.
4. Grant camera permissions when prompted.
5. Scan the QR code provided by the installer.

Once scanned, the app will display “System Added Successfully.” Select Complete System Setup to finalize the process.

The system will now appear automatically in the customer’s Systems tab.





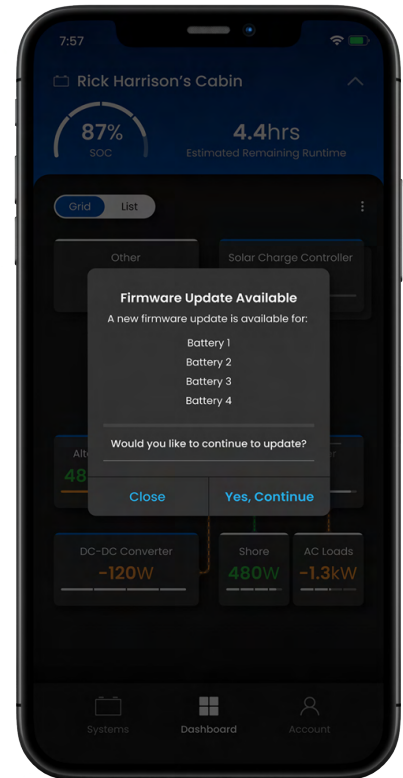
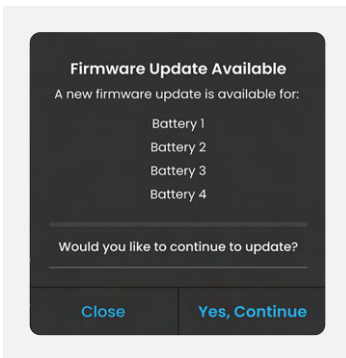
Checking and Updating Firmware (In-App)

Firmware Updates

The Battle Born Mobile App automatically checks for firmware updates for all compatible components in your system. When an update is available, the app will notify you and guide you through the update process.

Automatic Update Notification

If a firmware update is detected, a pop-up dialog appears on the screen:

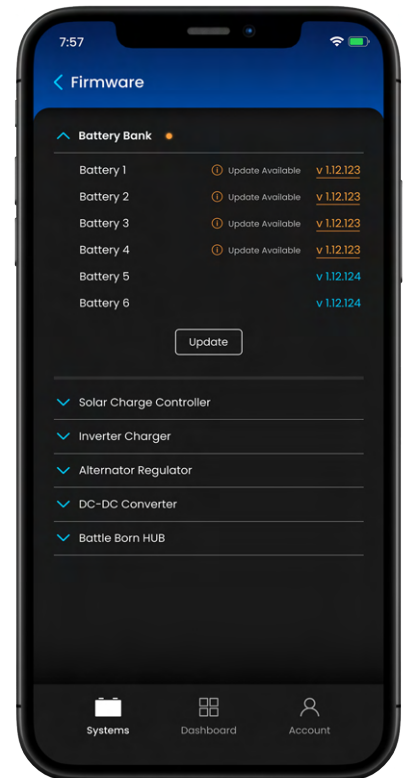


Firmware Update Screen Overview

The Firmware page displays all components currently associated with your system. Each category (Battery Bank, Inverter Charger, HUB, etc.) can be expanded to show individual components.

Component States Displayed

- **Up to Date:** The current firmware version is shown in blue, indicating no action is needed.
- **Update Available:** The version number appears in orange, and an Update button will appear to the right of the product category.
- **Not Connected / Unavailable:** If the device is powered off, unplugged, or otherwise unavailable, it will show: "Comms Unknown / Base Unknown."



Performing a Firmware Update

1. Expand the component category (e.g., Battery Bank).
2. If an update is available, tap the Update button.
3. The app will show Updating... during the process.
4. When complete, the version number will refresh and appear in blue, confirming the update is successful.

Note: If multiple batteries require an update, they will update sequentially, one after another.

Background Updating

Firmware updates may continue in the background when navigating to other app pages.

If you leave the Firmware page, navigate back by hitting Dashboard on the bottom menu.

! Component-Specific Firmware Compatibility Notes

Inverter & Inverter/Charger Updates

Over-the-air (OTA) firmware updates for Battle Born Inverter and Inverter/Charger models are not yet supported within the app. You will still see the currently installed firmware version reported.

Alternator Charging Components

At this time, the following components cannot be updated through the Battle Born Mobile App:

- Wakespeed WS500
- Wakespeed WS500 Pro
- 48V/12V Bi-Directional DC-DC Converter

To update these components, use the Wakespeed Mobile App or follow manufacturer instructions.

BATTLE BORN®

Unstoppable Power Solutions

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