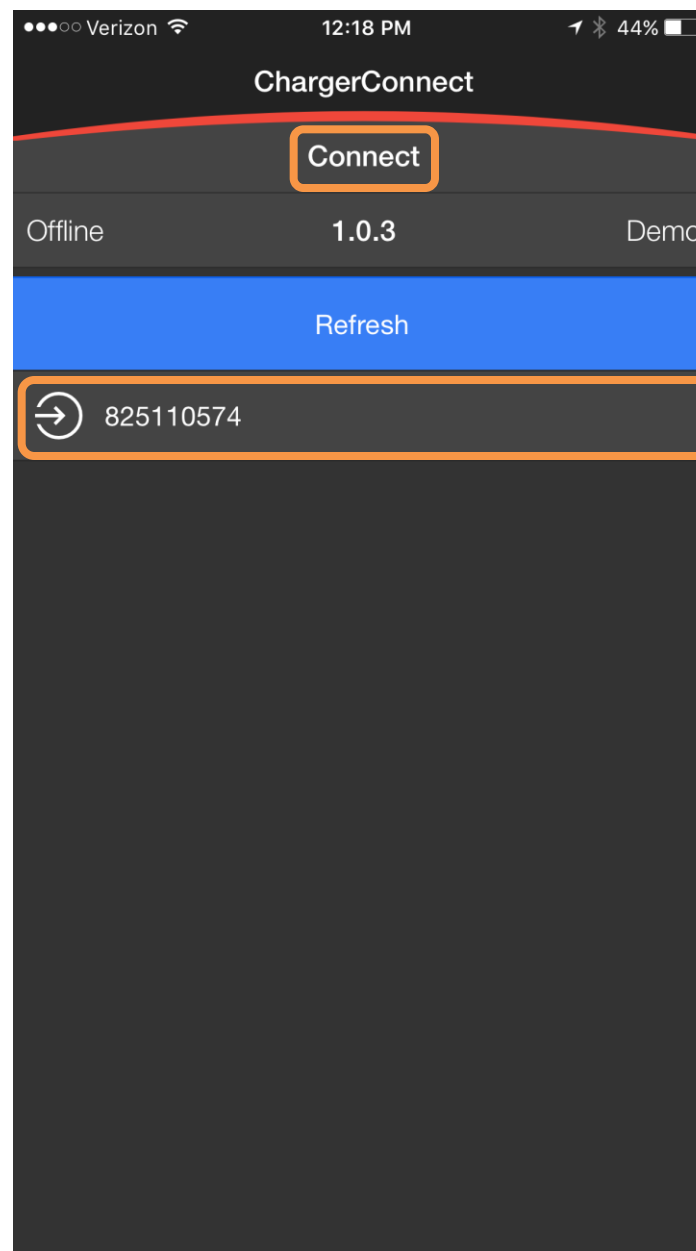


## Lester Electrical ChargerConnect™ App User's Guide

Lester Electrical Summit Series® II chargers features Bluetooth wireless communication, which can be accessed using an Apple® or Android™ smart phone, tablet, or similar device. Download the ChargerConnect app for your device by scanning the QR code on the charger or visiting the App Store® or the Google Play™ store and searching for "ChargerConnect".

The Summit Series II charger communication electronics are DC powered, so the charger must be connected to a valid battery pack in order to communicate with it via Bluetooth. If the charger is connected to a valid battery pack, open the ChargerConnect app and select the charger from the list of available units that the app is able to communicate with on the "Connect" screen. The charger serial number is the identifier of the unit, unless the "Charger ID" has been previously set via the app. While connected, the Red, Yellow, and Green LEDs on the charger will slowly blink at the same time until the Bluetooth communication is disconnected from the charger. If the unit was actively charging before the Bluetooth connection was made, it will continue to charge while connected unless stopped via the app.

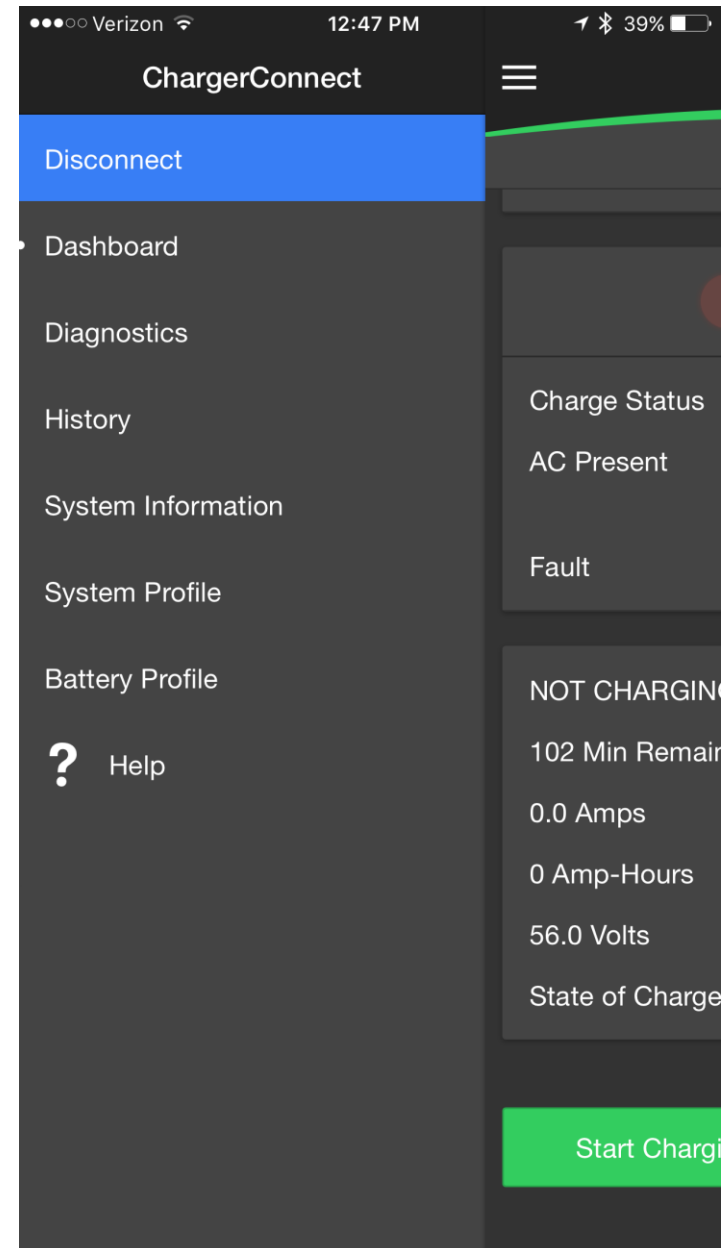
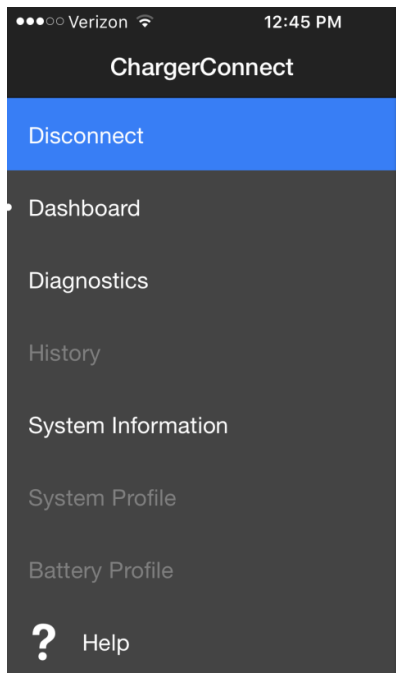


## Navigation Menu

The Navigation Menu can be accessed by tapping the three (3) horizontal lines in the upper left-hand corner of the app.

**Disconnect** – This menu item disconnects the Bluetooth connection between the charger and your smart phone or tablet (device) and returns you to the “Connect” screen.

**Note:** *If the connected charger is actively charging, the “History”, “System Profile”, and “Battery Profile” menu items will be disabled. The “Manual Stop/Start Button” on the “Dashboard” screen can be used to (1) stop the active charge cycle in order to access these menu items and (2) start a new charge cycle prior to disconnecting from the charger.*



## Dashboard

**Charger ID** – Displays the ID of the charger. This field is factory set to be blank. The Charger ID can be set/modified on the “Dashboard” and “System Profile” screens.

**Vehicle ID** – Displays the ID of the vehicle that is paired with the charger (if applicable). The Vehicle ID is factory set to be blank. The Vehicle ID can be set/modified on the “Dashboard” and “System Profile” screens.

**Battery Profile** – Displays the profile number of the active battery profile. A description of this profile, including the compatible batteries, is available on the “Battery Profile” screen.

**LED Display** – Displays the same charge status LEDs that are present on the charger. Details regarding the LEDs can be found in the charger user’s manual.

**Charge Status** – Displays the active charge cycle phase.

**AC Present** – Indicates AC input power is present at the charger by illuminating the field’s blue LED, which corresponds to the blue “AC Present” LED on the charger.

**Fault** – Displays any active faults. Descriptions of the faults, as well as instructions for resolving them, are detailed in the charger user’s manual.

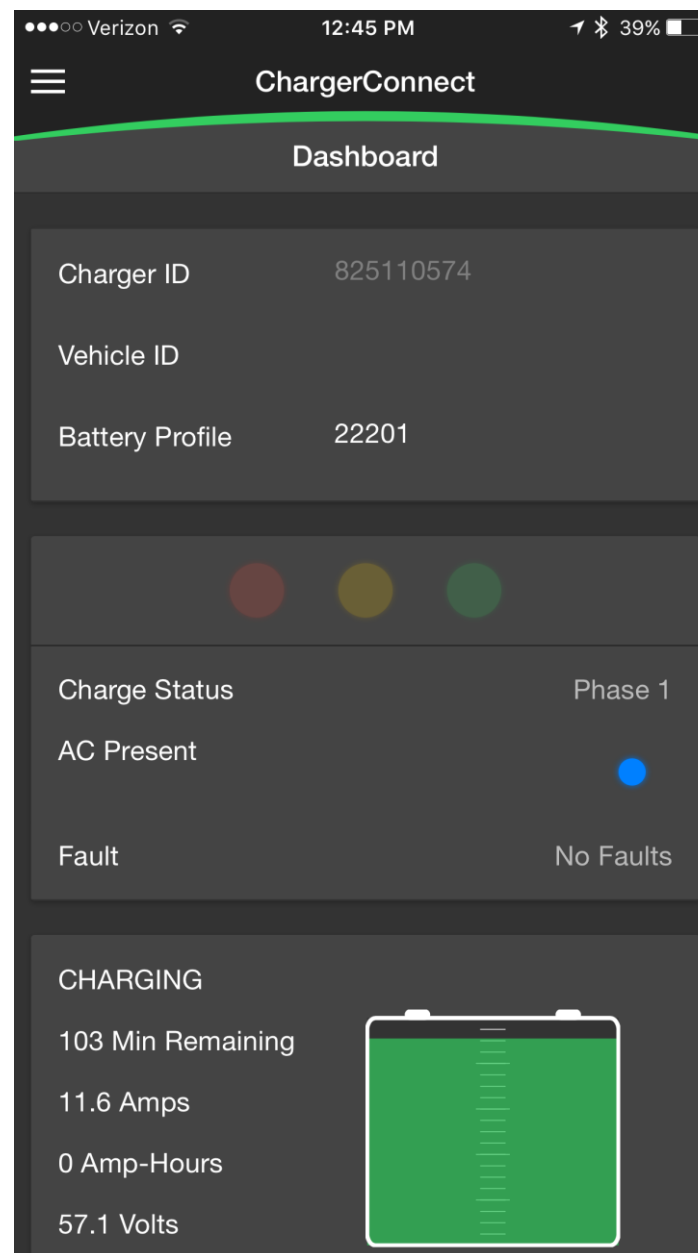
**Charge Time Remaining** – Displays the estimated charge time remaining in minutes.

**Output Current** – Displays the DC output current in amps.

**Amp-Hours Charged** – Displays the number of amp-hours charged.

**Battery Voltage** – Displays the battery pack voltage in volts.

**NOTE: Depending on the screen size of the smart phone or tablet (device) you are using, you may need to scroll down to see all of the fields.**



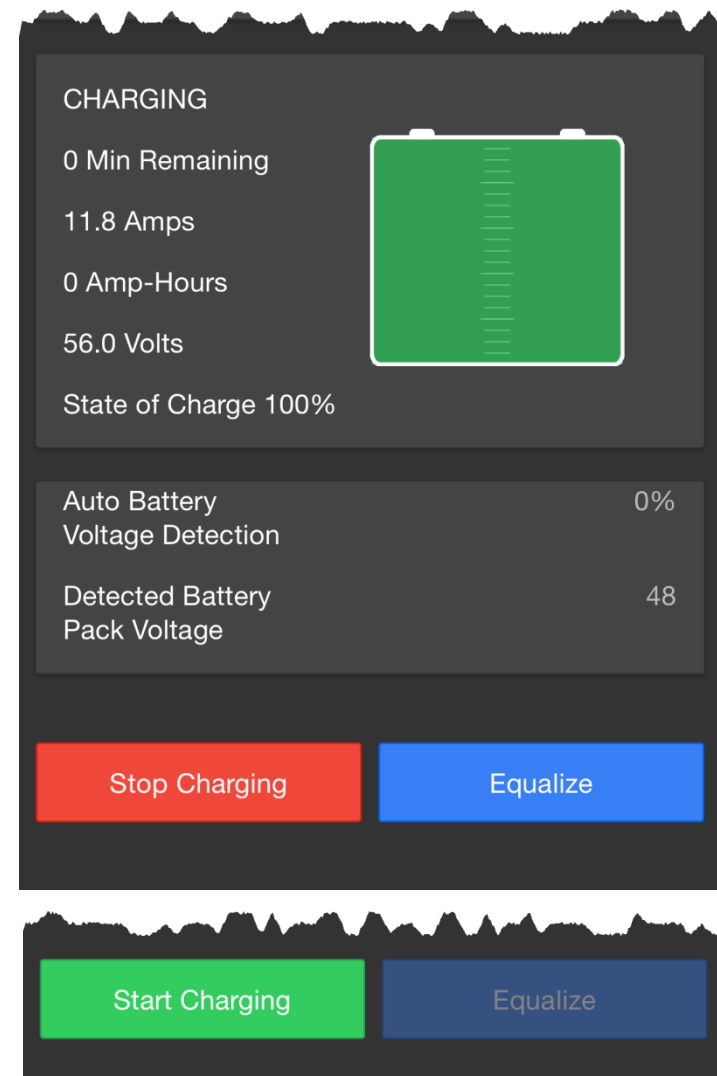
**Battery State of Charge** – Displays the estimated State of Charge (SOC) of the battery pack as a percentage and graphically.

**Auto Battery Voltage Detection (if enabled)** – When Auto Voltage Mode is active, this field displays the status of the proprietary algorithm that executes at the beginning of the charge cycle as a percentage (see the “Auto Voltage Mode” section for details regarding Auto Voltage Mode).

**Detected Battery Pack Voltage (if enabled)** – When Auto Voltage Mode is active, this field displays the detected battery pack voltage by the proprietary algorithm that executes at the beginning of the charge cycle (see the “Auto Voltage Mode” section for details regarding Auto Voltage Mode).

**Manual Stop/Start Button** – Tapping this button will stop a charge cycle (red button) or start a charge cycle (green button).

**Manual Equalize/Balance Button** – If the active battery profile includes an Equalize or Balance phase, this button will be active, otherwise it will be grayed out. The Equalize and Balance phases of battery profiles are typically triggered based on a variety of events (a certain number of charge cycles occurring, etc). This button provides a method to manually trigger an Equalize or Balance to occur if instructed to do so by your battery manufacturer, distributor, or dealer. This button will also be grayed out if the active charge cycle already has an Equalize or Balance phase triggered.



## Diagnostics

**Ammeter** – Displays the DC output current in amps and graphically.

**Voltmeter** – Displays the battery pack voltage in volts and graphically.

**State of Charge (SOC)** – Displays the estimated State of Charge (SOC) of the battery pack as a percentage.

**Min Remaining** – Displays the estimated charge time remaining in minutes.

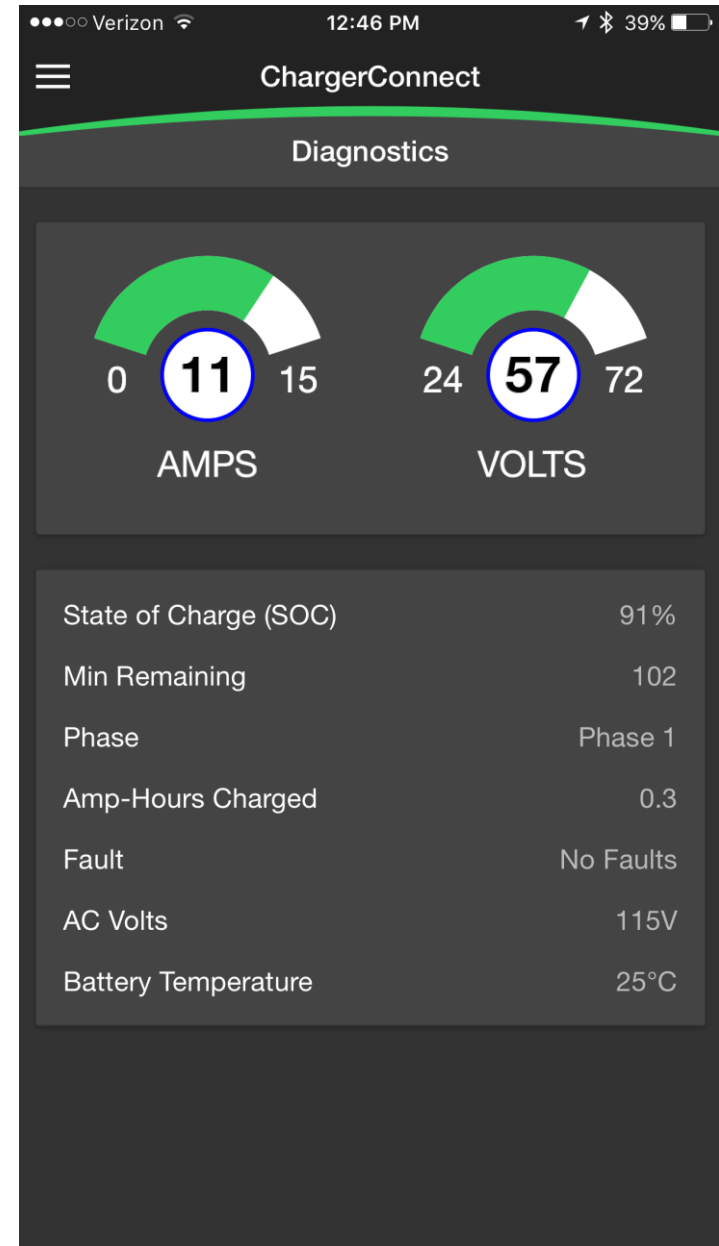
**Phase** – Displays the active charge cycle phase.

**Amp-Hours Charged** – Displays the number of amp-hours charged.

**Fault** – Displays any active faults. Descriptions of the faults, as well as instructions for resolving them, are detailed in the charger user's manual.

**AC Volts** – Displays the AC input voltage in volts.

**Battery Temperature** – Displays the battery temperature in °C if a battery temperature sensor is connected to the charger. If a battery temperature sensor is not connected to the charger, "Not Detected" is displayed in this field.



# History

*See app screenshots below*

## Charger Histories Tab

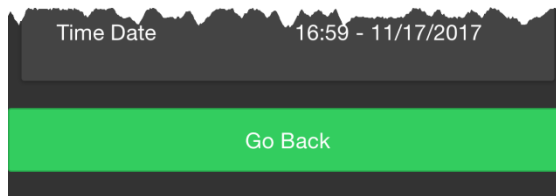
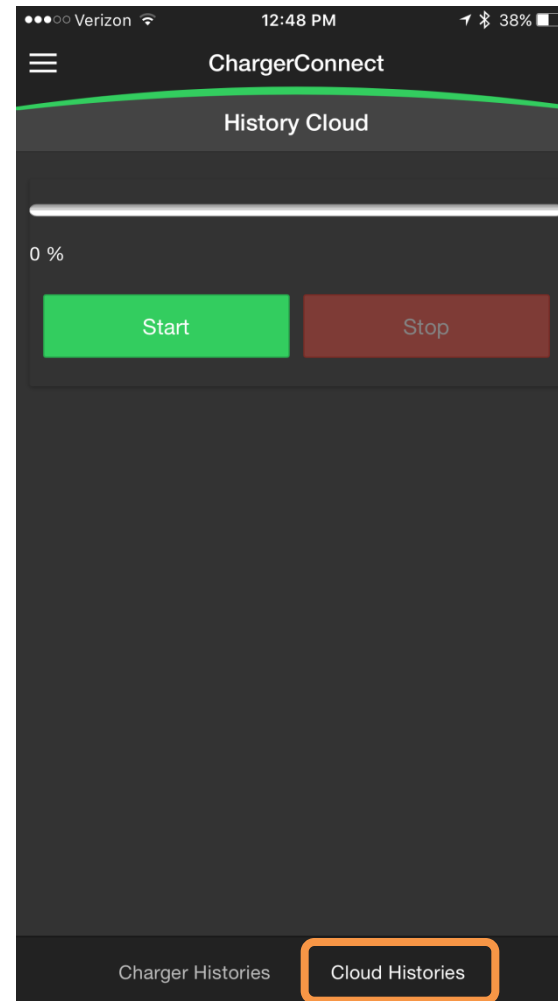
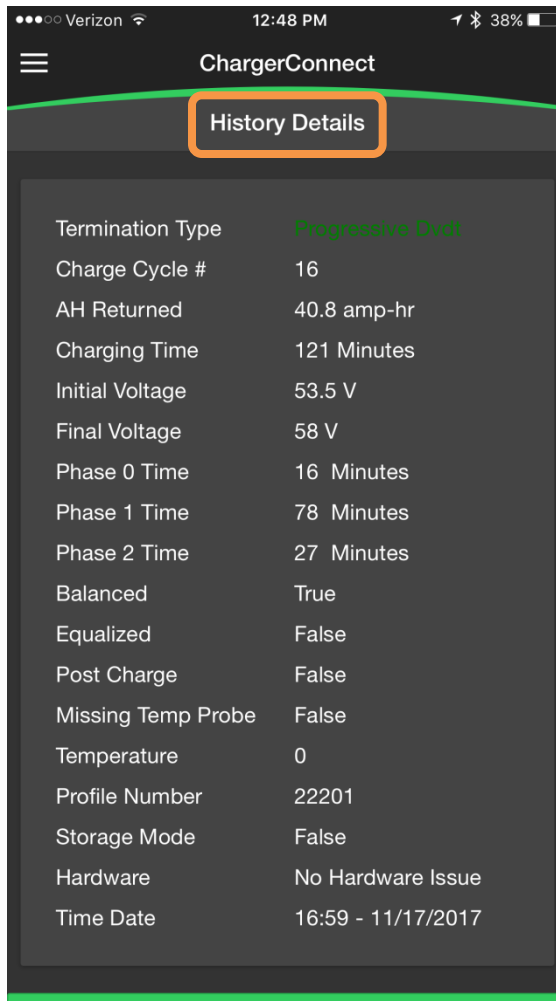
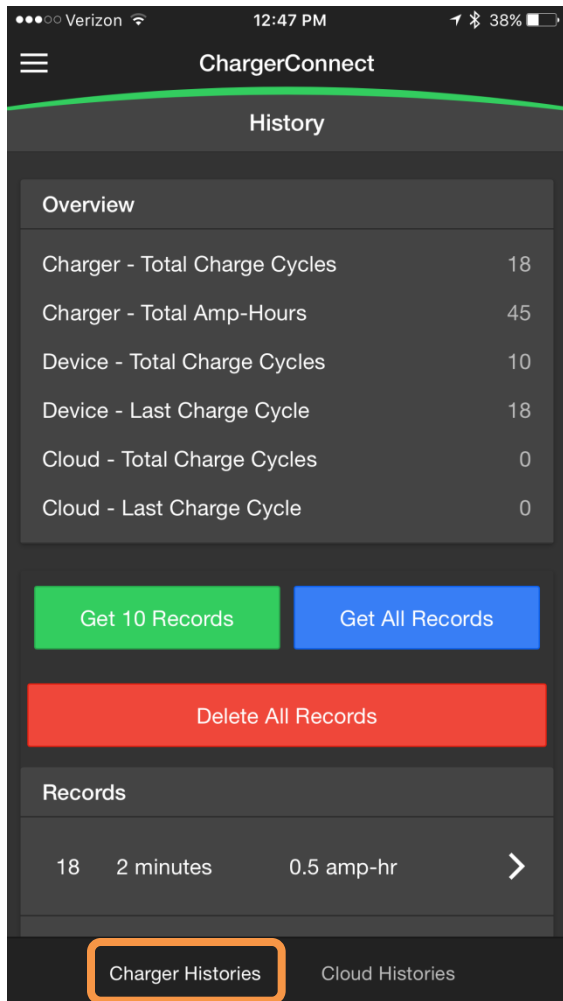
- **Overview Section**
  - **Charger**
    - **Total Charge Cycles** – Total charge cycles that the connected charger has recorded.
    - **Total Amp-Hours** – Total amp-hours that the connected charger has recorded.
  - **Device**
    - **Total Charge Cycles** – Total charge cycle history records that have been downloaded from the connected charger to your smart phone or tablet (device).
    - **Last Charge Cycle** – Number of the last charge cycle history record that has been downloaded from the connected charger to your smart phone or tablet (device).
  - **Cloud**
    - **Total Charge Cycles** – Total charge cycle history records that have been downloaded from the connected charger and uploaded to the ChargerConnect Cloud.
    - **Last Charge Cycle** – Number of the last charge cycle history record that has been downloaded from the connected charger and uploaded to the ChargerConnect Cloud.
- **Get 10 Records Button** – Tap to download the latest 10 charge cycle history records that have not been previously downloaded from the connected charger to your smart phone or tablet (device).
- **Get All Records Button** – Tap to download all charge cycle history records that have not been previously downloaded from the connected charger to your smart phone or tablet (device).
- **Delete All Records Button** – Tap to delete all charge cycle history records from your smart phone or tablet (device) that have been previously downloaded from the connected charger.
- **Records Section** – Individual charge cycle history records that have been downloaded from the connected charger are displayed in this section and can be selected to view the data (see “History Details” below).

## **History Details**

The “History Details” screen displays the data for an individual charge cycle history record. When you have finished reviewing the data, depending on the screen size of the smart phone or tablet (device) that you are using, you may need to scroll down to access the “Go Back” button in order to return to the “Charger Histories” tab.

## **Cloud Histories Tab**

Tapping the “Start” button will upload all of the charge cycle history records that have been downloaded from the connected charger to your smart phone or tablet (device) to the ChargerConnect Cloud. Once the records have been uploaded, they can be accessed from any smart phone, tablet, laptop, or PC via [ChargerConnect.com](https://ChargerConnect.com) using the charger serial number.



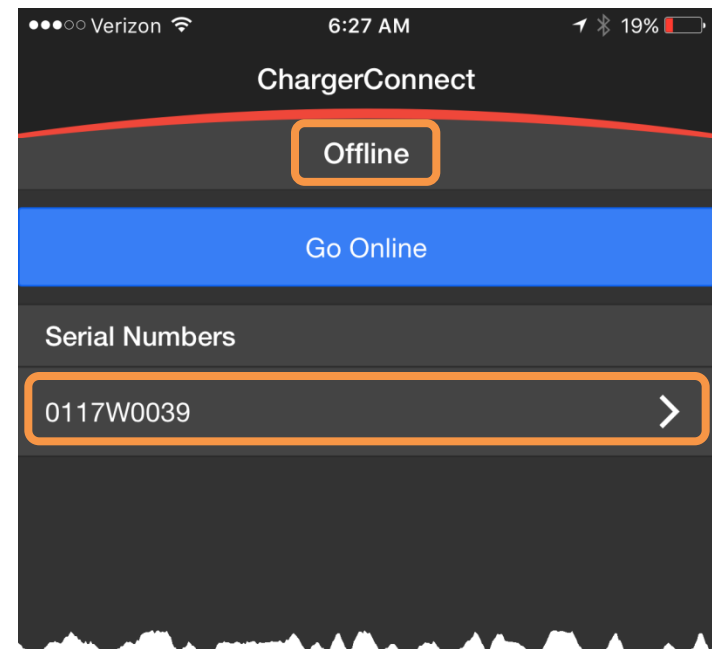
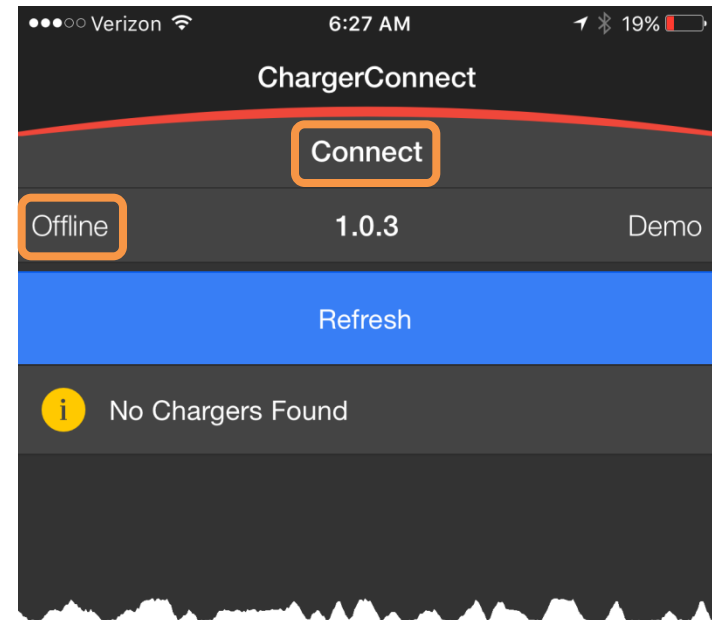


## Offline Mode

If you have previously downloaded charge cycle history records from a charger to your smart phone or tablet (device), these records can be accessed when you are not connected to the charger by using Offline Mode. Offline Mode is available by tapping the “Offline” button on the “Connect” screen.

Once you enter Offline mode, you can select the desired charger serial number from the list of all charger serial numbers that have charge cycle history records stored locally on your device. After selecting a charger serial number, you will have the option to view the charge cycle history records that are stored locally on your device for this charger serial number and upload these records to the ChargerConnect Cloud (see the “History” section for additional details).

A common use for Offline Mode is when you download charge cycle history records from chargers in a location where your device does not have Internet access. You can use Offline Mode to upload these charge cycle history records to the ChargerConnect Cloud at a later time when your device does have Internet access.



## System Information

The “System Information” screen is for the display of information only. No fields on this screen can be edited.

**Serial Number** – Displays the serial number of the connected charger.

**Model Number** – Displays the model number of the connected charger.

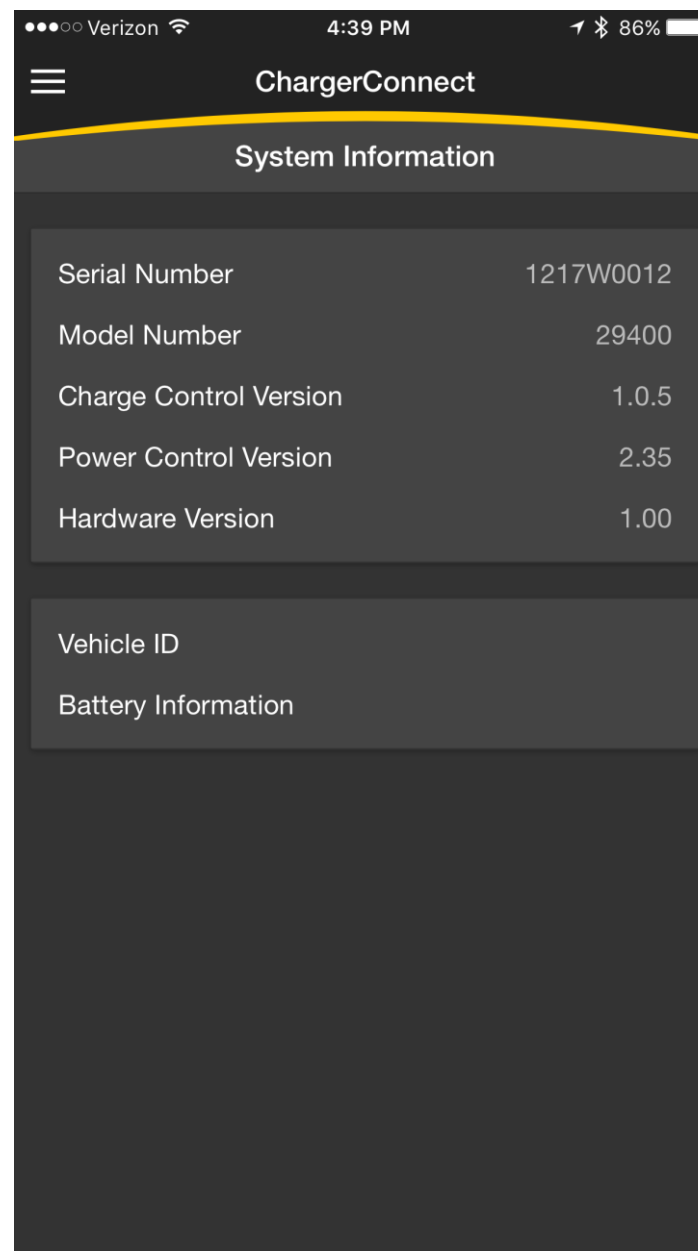
**Charge Control Version** – Displays the version of charge control firmware on the connected charger.

**Power Control Version** – Displays the version of power control firmware on the connected charger.

**Hardware Version** – Displays the hardware version of the connected charger.

**Vehicle ID** – Displays the ID of the vehicle that is paired with the charger (if applicable). The Vehicle ID is factory set to be blank. The Vehicle ID can be set/modified on the “Dashboard” and “System Profile” screens.

**Battery Information** – For future use. Not currently active.



## System Profile

*See app screenshots below*

**Charger Profiles Tab** (all fields on this tab can be edited)

**Charger ID** – The ID of the charger. This field is factory set to be blank. The Charger ID can be set/modified on the “System Profile” and “Dashboard” screens.

**Vehicle ID** – The ID of the vehicle that is paired with the charger (if applicable). The Vehicle ID is factory set to be blank. The Vehicle ID can be set/modified on the “System Profile” and “Dashboard” screens.

**DC Cable Gauge (AWG)** – The gauge of the DC cable in American Wire Gauge (AWG). This field is used to correctly compensate for the voltage drop of the DC cable.

**DC Cable Length (feet)** – The length of the DC cable in feet [one direction only, not the sum of the length of both the positive (+) and negative (-) wires]. This field is used to correctly compensate for the voltage drop of the DC cable.

**On Board check box** – Checked  for On-Board and unchecked  for Off-Board.



On-Board chargers are designed to be mounted on electric vehicles/equipment. While the DC output is connected to a battery pack of the proper voltage, a charge cycle automatically starts when the AC input plug is connected to AC power (unless a safety period of time has not passed since the successful completion of the previous charge cycle). Disconnecting the DC output from the battery pack IS NOT REQUIRED to automatically start a new charge cycle.

Off-Board chargers are designed to be used in shelf or portable applications. While the AC input plug is connected to live AC power, a new charge cycle automatically starts when the DC output is connected to a battery pack of the proper voltage. Disconnecting and reconnecting AC power while the DC output remains connected to a battery pack WILL NOT automatically start a new charge cycle. Disconnecting the DC output from the battery pack IS REQUIRED to automatically start a new charge cycle.




***NOTE: A charger configured as On-Board can be used in a shelf or portable application where the DC output connector/plug is connected and disconnected from the vehicle, but a charger configured as Off-Board should not be used in an application where it is mounted on a vehicle with the DC output permanently connected to the battery pack because the charger will not automatically start a new charge cycle when AC power is applied to the charger.***

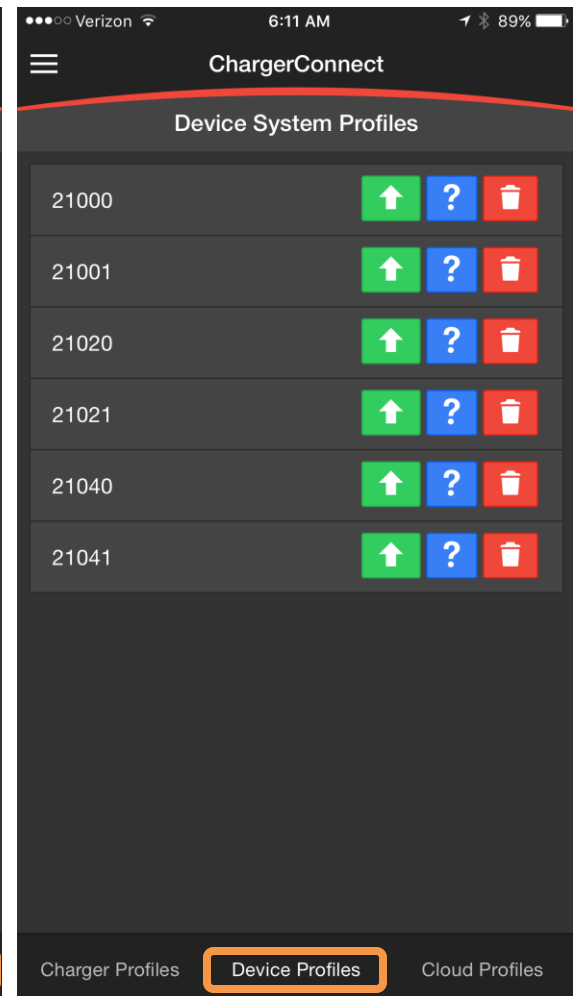
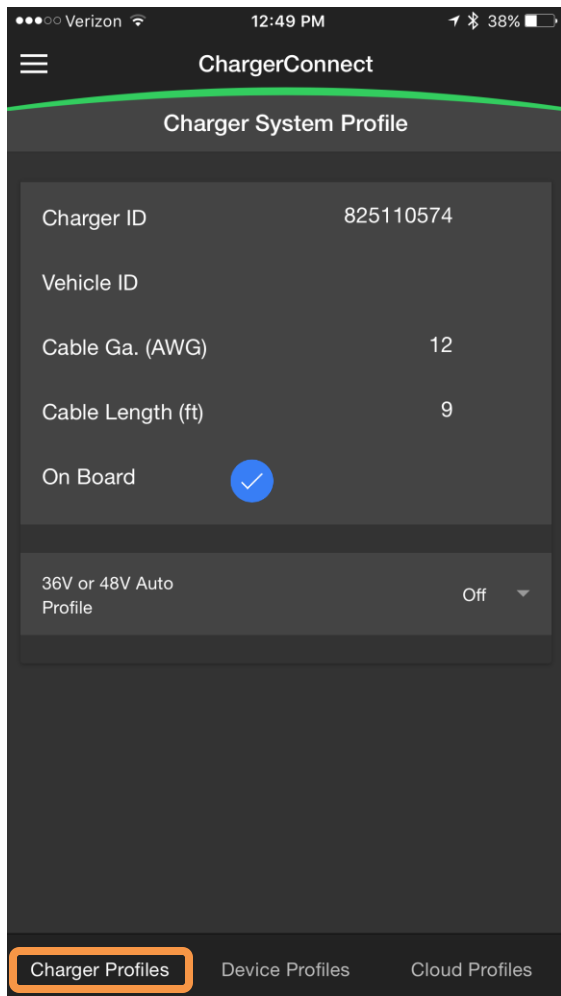
**Auto Voltage Profile** – Only present on charger models that support Auto Voltage Mode. See the “Auto Voltage Mode” section for details.

### Cloud Profiles Tab

- Lists all system profiles available for download from the ChargerConnect Cloud.
- Download system profiles from the Cloud to your smart phone or tablet (device) via the green arrow buttons. 
- Blue question mark buttons provide detailed descriptions of the system profiles. 

### Device Profiles Tab

- Lists all system profiles available on your smart phone or tablet (device).
- Upload a system profile that resides on your smart phone or tablet (device) to the connected charger via the green arrow button. 
- Blue question mark buttons provide detailed descriptions of the system profiles. 
- Delete system profiles that reside on your smart phone or tablet (device) via the red trash can button. 



## Auto Voltage Mode

*See app screenshots below*

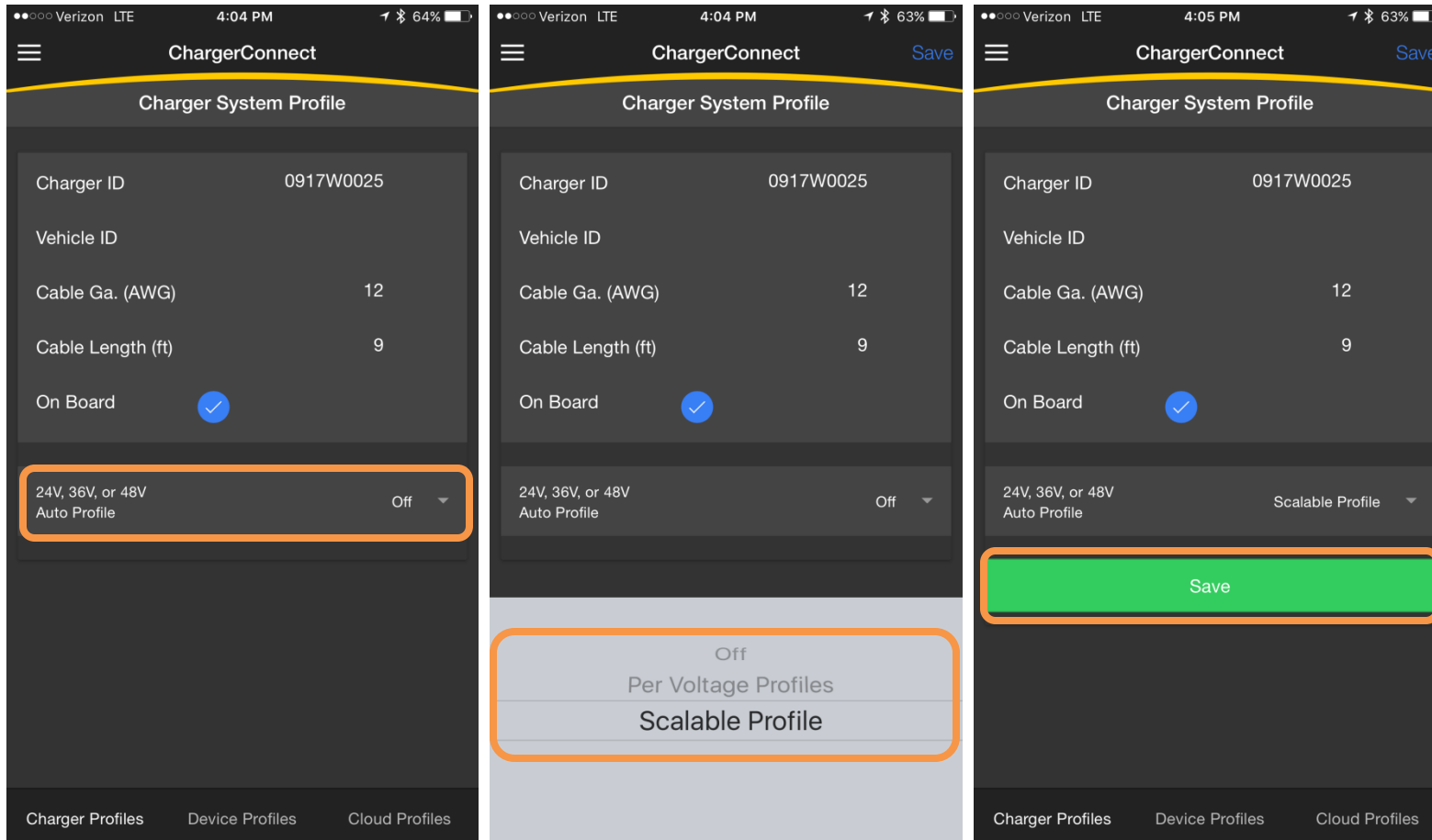
Select Summit Series II charger models support automatic multi-voltage DC charging, referred to as Auto Voltage Mode. Auto Voltage Mode provides automatic DC output voltage detection and adjustment so that battery packs of nominal 48V and 36V (650W 48V, 36V, and 48-36V models) or nominal 48V, 36V, and 24V (all 1050W models) can be charged with a single charger without any configuration changes needing to be made to the charger when switching between battery packs of different nominal voltages.

When the connected charger model supports Auto Voltage Mode, the “System Profile” screen will include an “Auto Profile” selection box, which provides the following three (3) options:

- **OFF:** Single voltage mode – you MUST ensure that the nominal DC voltage of the “Active Battery Profile” for the charger matches the nominal DC voltage of the connected battery pack.
- **PER VOLTAGE PROFILES:**
  - **650W 48V, 36V, and 48-36V models:** A battery profile can be assigned for 48V and a different battery profile can be assigned for 36V. The proper battery profile is automatically selected based on the connected battery pack. This mode is primarily used when the charger will be charging 48V and 36V nominal battery packs where the battery packs are of different types and/or capacities so using the “Scalable Profile” mode is not appropriate.
  - **All 1050W models:** A battery profile can be assigned for 48V, a different battery profile can be assigned for 36V, and yet a different battery profile can be assigned for 24V. The proper battery profile is automatically selected based on the connected battery pack. This mode is primarily used when the charger will be charging 48V, 36V, and 24V nominal battery packs [or any combination of two (2) of these voltages] where the battery packs are of different types and/or capacities so using the “Scalable Profile” mode is not appropriate.
- **SCALABLE PROFILE:**
  - **650W 48V, 36V, and 48-36V models:** the nominal DC voltage of the “Active Battery Profile” is automatically scaled to 48V or 36V based on the connected battery pack.
  - **All 1050W models:** the nominal DC voltage of the “Active Battery Profile” is automatically scaled to 48V, 36V, or 24V based on the connected battery pack.

***NOTE: If the charger is currently set to “Per Voltage Profiles” or “Scalable Profile” mode, and you set the “Auto Profile” selection box to “Off”, you MUST ensure that the nominal DC voltage of the “Active Battery Profile” for the charger matches the nominal DC voltage of the connected battery pack via the “Battery Profiles” screen.***



When Auto Voltage Mode is active (either “Per Voltage Profiles” or “Scalable Profile”) the “Dashboard” screen provides the status of the proprietary algorithm that executes at the beginning of the charge cycle by displaying the “Auto Battery Voltage Detection” as a status percentage and the “Detected Battery Pack Voltage” (see the “Dashboard” section).





# Battery Profile

See app screenshots below




## Charger Profiles Tab

- Lists all battery profiles available on the connected charger.
- Set the “Active Battery Profile” via the green check mark. 
- Blue question mark buttons provide detailed descriptions of the battery profiles. 
  - See the “Battery Profile Quick Reference” section below for information regarding the most commonly used battery profiles.

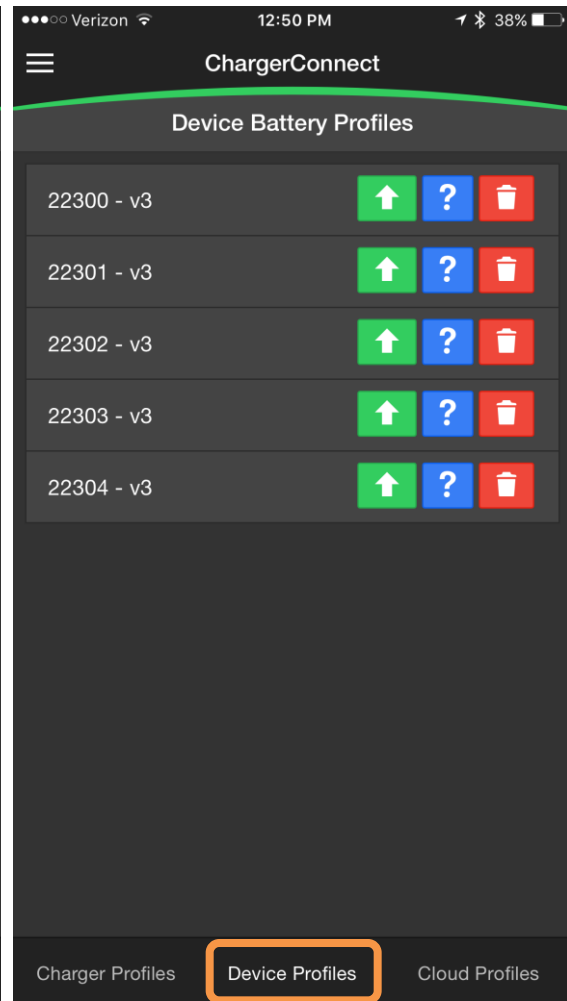
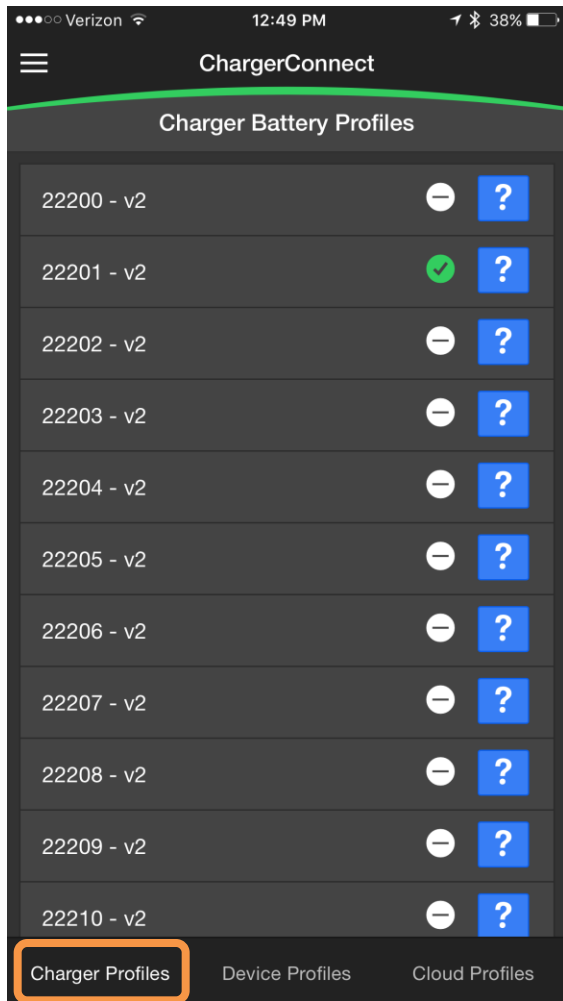
## Cloud Profiles Tab

- Lists all battery profiles available for download from the ChargerConnect Cloud.
- Download battery profiles from the Cloud to your smart phone or tablet (device) via the green arrow buttons. 
- Blue question mark buttons provide detailed descriptions of the battery profiles. 
  - See the “Battery Profile Quick Reference” section below for information regarding the most commonly used battery profiles.

## Device Profiles Tab

- Lists all battery profiles available on your smart phone or tablet (device).
- Upload battery profiles that reside on your smart phone or tablet (device) to the connected charger via the green arrow buttons 
  - You will be required to select the “Profile Slot Number”. Summit Series II chargers can store up to 20 battery profiles locally. The local battery profiles are stored in “Slots”, which are numbered 0-19. You can either select an empty Slot to store the battery profile that will be uploaded to the charger or a Slot that currently contains a battery profile, in which case the battery profile will be overwritten.
  - **NOTE: When a battery profile is uploaded to the connected charger, it automatically becomes the Active profile on the charger.**
- Blue question mark buttons provide detailed descriptions of the battery profiles. 
  - See the “Battery Profile Quick Reference” section below for information regarding the most commonly used battery profiles.
- Delete battery profiles that reside on your smart phone or tablet (device) via the red trash can button. 





## Battery Profile Quick Reference

*Most commonly used battery profiles for each Summit Series II model*

### Model 30600 (48-36V/650W, Auto Voltage Mode Factory-Activated)

| Battery Type | Battery Capacity (Ah, 20-hr Rate) | Profile Description   | Profile Number |
|--------------|-----------------------------------|---|----------------|
| Flooded/Wet  | 105-149                           | Auto-voltage mode: 48V or 36V flooded/wet lead-acid battery packs with a 20-hr rating of 105-149 Ah<br><br>Single-voltage mode: 36V flooded/wet lead-acid battery packs with a 20-hr rating of 105-149 Ah<br><br>Profile parameters: 13.5A bulk (48V), 18A bulk (36V), 2.39 VPC absorption, 4A finish, Progressive DV/DT termination, equalize active | 22250          |
| Flooded/Wet  | 150-204                           | Auto-voltage mode: 48V or 36V flooded/wet lead-acid battery packs with a 20-hr rating of 150-204 Ah<br><br>Single-voltage mode: 36V flooded/wet lead-acid battery packs with a 20-hr rating of 150-204 Ah<br><br>Profile parameters: 13.5A bulk (48V), 18A bulk (36V), 2.39 VPC absorption, 6A finish, Progressive DV/DT termination, equalize active | 22251          |
| Flooded/Wet  | 205-260                           | Auto-voltage mode: 48V or 36V flooded/wet lead-acid battery packs with a 20-hr rating of 205-260 Ah<br><br>Single-voltage mode: 36V flooded/wet lead-acid battery packs with a 20-hr rating of 205-260 Ah<br><br>Profile parameters: 13.5A bulk (48V), 18A bulk (36V), 2.39 VPC absorption, 8A finish, Progressive DV/DT termination, equalize active | 22252          |
| AGM          | 85-260                            | Auto-voltage mode: 48V or 36V AGM lead-acid battery packs with a 20-hr rating of 85-260 Ah<br><br>Single-voltage mode: 36V AGM lead-acid battery packs with a 20-hr rating of 85-260 Ah<br><br>Profile parameters: 13.5A bulk (48V), 18A bulk (36V), 2.45 VPC absorption, DI/DT termination, 2.27 VPC float   | 22259          |
| Gel          | 85-260                            | Auto-voltage mode: 48V or 36V Gel lead-acid battery packs with a 20-hr rating of 85-260 Ah<br><br>Single-voltage mode: 36V Gel lead-acid battery packs with a 20-hr rating of 85-260 Ah<br><br>Profile parameters: 13.5A bulk (48V), 18A bulk (36V), 2.38 VPC absorption, DI/DT termination, 2.25 VPC float   | 22260          |

**Model 29700 (48V/650W)**

| Battery Type | Battery Capacity (Ah, 20-hr Rate) | Profile Description  | Profile Number |
|--------------|-----------------------------------|--|----------------|
| Flooded/Wet  | 105-149                           | <p>Single-voltage mode: 48V flooded/wet lead-acid battery packs with a 20-hr rating of 105-149 Ah</p> <p>Auto-voltage mode: 48V or 36V flooded/wet lead-acid battery packs with a 20-hr rating of 105-149 Ah</p> <p>Profile parameters: 13.5A bulk (48V), 18A bulk (36V), 2.39 VPC absorption, 4A finish, Progressive DV/DT termination, equalize active</p> | 22200          |
| Flooded/Wet  | 150-204                           | <p>Single-voltage mode: 48V flooded/wet lead-acid battery packs with a 20-hr rating of 150-204 Ah</p> <p>Auto-voltage mode: 48V or 36V flooded/wet lead-acid battery packs with a 20-hr rating of 150-204 Ah</p> <p>Profile parameters: 13.5A bulk (48V), 18A bulk (36V), 2.39 VPC absorption, 6A finish, Progressive DV/DT termination, equalize active</p> | 22201          |
| Flooded/Wet  | 205-260                           | <p>Single-voltage mode: 48V flooded/wet lead-acid battery packs with a 20-hr rating of 205-260 Ah</p> <p>Auto-voltage mode: 48V or 36V flooded/wet lead-acid battery packs with a 20-hr rating of 205-260 Ah</p> <p>Profile parameters: 13.5A bulk (48V), 18A bulk (36V), 2.39 VPC absorption, 8A finish, Progressive DV/DT termination, equalize active</p> | 22202          |
| AGM          | 85-260                            | <p>Single-voltage mode: 48V AGM lead-acid battery packs with a 20-hr rating of 85-260 Ah</p> <p>Auto-voltage mode: 48V or 36V AGM lead-acid battery packs with a 20-hr rating of 85-260 Ah</p> <p>Profile parameters: 13.5A bulk (48V), 18A bulk (36V), 2.45 VPC absorption, DI/DT termination, 2.27 VPC float</p>   | 22209          |
| Gel          | 85-260                            | <p>Single-voltage mode: 48V Gel lead-acid battery packs with a 20-hr rating of 85-260 Ah</p> <p>Auto-voltage mode: 48V or 36V Gel lead-acid battery packs with a 20-hr rating of 85-260 Ah</p> <p>Profile parameters: 13.5A bulk (48V), 18A bulk (36V), 2.38 VPC absorption, DI/DT termination, 2.25 VPC float</p>   | 22210          |

**Model 29900 (36V/650W)**

| Battery Type | Battery Capacity (Ah, 20-hr Rate) | Profile Description   | Profile Number |
|--------------|-----------------------------------|---|----------------|
| Flooded/Wet  | 105-149                           | Single-voltage mode: 36V flooded/wet lead-acid battery packs with a 20-hr rating of 105-149 Ah<br><br>Auto-voltage mode: 48V or 36V flooded/wet lead-acid battery packs with a 20-hr rating of 105-149 Ah<br><br>Profile parameters: 13.5A bulk (48V), 18A bulk (36V), 2.39 VPC absorption, 4A finish, Progressive DV/DT termination, equalize active | 22250          |
| Flooded/Wet  | 150-204                           | Single-voltage mode: 36V flooded/wet lead-acid battery packs with a 20-hr rating of 150-204 Ah<br><br>Auto-voltage mode: 48V or 36V flooded/wet lead-acid battery packs with a 20-hr rating of 150-204 Ah<br><br>Profile parameters: 13.5A bulk (48V), 18A bulk (36V), 2.39 VPC absorption, 6A finish, Progressive DV/DT termination, equalize active | 22251          |
| Flooded/Wet  | 205-260                           | Single-voltage mode: 36V flooded/wet lead-acid battery packs with a 20-hr rating of 205-260 Ah<br><br>Auto-voltage mode: 48V or 36V flooded/wet lead-acid battery packs with a 20-hr rating of 205-260 Ah<br><br>Profile parameters: 13.5A bulk (48V), 18A bulk (36V), 2.39 VPC absorption, 8A finish, Progressive DV/DT termination, equalize active | 22252          |
| AGM          | 85-260                            | Single-voltage mode: 36V AGM lead-acid battery packs with a 20-hr rating of 85-260 Ah<br><br>Auto-voltage mode: 48V or 36V AGM lead-acid battery packs with a 20-hr rating of 85-260 Ah<br><br>Profile parameters: 13.5A bulk (48V), 18A bulk (36V), 2.45 VPC absorption, DI/DT termination, 2.27 VPC float   | 22259          |
| Gel          | 85-260                            | Single-voltage mode: 36V Gel lead-acid battery packs with a 20-hr rating of 85-260 Ah<br><br>Auto-voltage mode: 48V or 36V Gel lead-acid battery packs with a 20-hr rating of 85-260 Ah<br><br>Profile parameters: 13.5A bulk (48V), 18A bulk (36V), 2.38 VPC absorption, DI/DT termination, 2.25 VPC float   | 22260          |

**Model 29300 (24V/650W)**

| Battery Type | Battery Capacity (Ah, 20-hr Rate) | Profile Description   | Profile Number |
|--------------|-----------------------------------|---|----------------|
| Flooded/Wet  | 190-245                           | For use with 24V flooded/wet lead-acid battery packs with a 20-hr rating of 190-245 Ah<br><br>Profile parameters: 24V pack, 27A bulk, 2.39 VPC absorption, 8A finish, Progressive DV/DT termination, equalize active  | 22300          |
| Flooded/Wet  | 246-300                           | For use with 24V flooded/wet lead-acid battery packs with a 20-hr rating of 246-300 Ah<br><br>Profile parameters: 24V pack, 27A bulk, 2.39 VPC absorption, 10A finish, Progressive DV/DT termination, equalize active | 22301          |
| Flooded/Wet  | 301-435                           | For use with 24V flooded/wet lead-acid battery packs with a 20-hr rating of 301-435 Ah<br><br>Profile parameters: 24V pack, 27A bulk, 2.39 VPC absorption, 12A finish, Progressive DV/DT termination, equalize active | 22302          |
| AGM          | 100-335                           | For use with 24V AGM lead-acid battery packs with a 20-hr rating of 100-335 Ah<br><br>Profile parameters: 24V pack, 27A bulk, 2.45 VPC absorption, DI/DT termination, 2.27 VPC float                                  | 22309          |
| Gel          | 100-335                           | For use with 24V Gel lead-acid battery packs with a 20-hr rating of 100-335 Ah<br><br>Profile parameters: 24V pack, 27A bulk, 2.38 VPC absorption, DI/DT termination, 2.25 VPC float                                  | 22310          |

**Model 30400 (48-36V/1050W, Auto Voltage Mode Factory-Activated))**

| Battery Type | Battery Capacity (Ah, 20-hr Rate) | Profile Description   | Profile Number |
|--------------|-----------------------------------|---|----------------|
| Flooded/Wet  | 150-224                           | <p>Auto-voltage mode: 48V, 36V, or 24V flooded/wet lead-acid battery packs with a 20-hr rating of 150-224 Ah</p> <p>Single-voltage mode: 48V flooded/wet lead-acid battery packs with a 20-hr rating of 150-224 Ah</p> <p>Profile parameters: 22A bulk (48V), 25A bulk (36V), 25A bulk (24V), 2.39 VPC absorption, 6A finish, Progressive DV/DT termination, equalize active</p>  | 22000          |
| Flooded/Wet  | 225-260                           | <p>Auto-voltage mode: 48V, 36V, or 24V flooded/wet lead-acid battery packs with a 20-hr rating of 225-260 Ah</p> <p>Single-voltage mode: 48V flooded/wet lead-acid battery packs with a 20-hr rating of 225-260 Ah</p> <p>Profile parameters: 22A bulk (48V), 25A bulk (36V), 25A bulk (24V), 2.39 VPC absorption, 9A finish, Progressive DV/DT termination, equalize active</p>  | 22001          |
| Flooded/Wet  | 261-440                           | <p>Auto-voltage mode: 48V, 36V, or 24V flooded/wet lead-acid battery packs with a 20-hr rating of 261-440 Ah</p> <p>Single-voltage mode: 48V flooded/wet lead-acid battery packs with a 20-hr rating of 261-440 Ah</p> <p>Profile parameters: 22A bulk (48V), 25A bulk (36V), 25A bulk (24V), 2.39 VPC absorption, 12A finish, Progressive DV/DT termination, equalize active</p> | 22002          |
| AGM          | 100-335                           | <p>Auto-voltage mode: 48V, 36V, or 24V AGM lead-acid battery packs with a 20-hr rating of 100-335 Ah</p> <p>Single-voltage mode: 48V AGM lead-acid battery packs with a 20-hr rating of 100-335 Ah</p> <p>Profile parameters: 22A bulk (48V), 25A bulk (36V), 25A bulk (24V), 2.45 VPC absorption, DI/DT termination, 2.27 VPC float</p>  | 22009          |
| Gel          | 100-335                           | <p>Auto-voltage mode: 48V, 36V, or 24V Gel lead-acid battery packs with a 20-hr rating of 100-335 Ah</p> <p>Single-voltage mode: 48V Gel lead-acid battery packs with a 20-hr rating of 100-335 Ah</p> <p>Profile parameters: 22A bulk (48V), 25A bulk (36V), 25A bulk (24V), 2.38 VPC absorption, DI/DT termination, 2.25 VPC float</p>  | 22010          |

**Model 28740 (48V/1050W)**

| Battery Type | Battery Capacity (Ah, 20-hr Rate) | Profile Description  | Profile Number |
|--------------|-----------------------------------|--|----------------|
| Flooded/Wet  | 150-224                           | Single-voltage mode: 48V flooded/wet lead-acid battery packs with a 20-hr rating of 150-224 Ah<br><br>Auto-voltage mode: 48V, 36V, or 24V flooded/wet lead-acid battery packs with a 20-hr rating of 150-224 Ah<br><br>Profile parameters: 22A bulk (48V), 25A bulk (36V), 25A bulk (24V), 2.39 VPC absorption, 6A finish, Progressive DV/DT termination, equalize active  | 22000          |
| Flooded/Wet  | 225-260                           | Single-voltage mode: 48V flooded/wet lead-acid battery packs with a 20-hr rating of 225-260 Ah<br><br>Auto-voltage mode: 48V, 36V, or 24V flooded/wet lead-acid battery packs with a 20-hr rating of 225-260 Ah<br><br>Profile parameters: 22A bulk (48V), 25A bulk (36V), 25A bulk (24V), 2.39 VPC absorption, 9A finish, Progressive DV/DT termination, equalize active  | 22001          |
| Flooded/Wet  | 261-440                           | Single-voltage mode: 48V flooded/wet lead-acid battery packs with a 20-hr rating of 261-440 Ah<br><br>Auto-voltage mode: 48V, 36V, or 24V flooded/wet lead-acid battery packs with a 20-hr rating of 261-440 Ah<br><br>Profile parameters: 22A bulk (48V), 25A bulk (36V), 25A bulk (24V), 2.39 VPC absorption, 12A finish, Progressive DV/DT termination, equalize active | 22002          |
| AGM          | 100-335                           | Single-voltage mode: 48V AGM lead-acid battery packs with a 20-hr rating of 100-335 Ah<br><br>Auto-voltage mode: 48V, 36V, or 24V AGM lead-acid battery packs with a 20-hr rating of 100-335 Ah<br><br>Profile parameters: 22A bulk (48V), 25A bulk (36V), 25A bulk (24V), 2.45 VPC absorption, DI/DT termination, 2.27 VPC float  | 22009          |
| Gel          | 100-335                           | Single-voltage mode: 48V Gel lead-acid battery packs with a 20-hr rating of 100-335 Ah<br><br>Auto-voltage mode: 48V, 36V, or 24V Gel lead-acid battery packs with a 20-hr rating of 100-335 Ah<br><br>Profile parameters: 22A bulk (48V), 25A bulk (36V), 25A bulk (24V), 2.38 VPC absorption, DI/DT termination, 2.25 VPC float  | 22010          |

**Model 29400 (36V/1050W)**

| Battery Type | Battery Capacity (Ah, 20-hr Rate) | Profile Description   | Profile Number |
|--------------|-----------------------------------|---|----------------|
| Flooded/Wet  | 150-224                           | <p>Single-voltage mode: 36V flooded/wet lead-acid battery packs with a 20-hr rating of 150-224 Ah</p> <p>Auto-voltage mode: 48V, 36V, or 24V flooded/wet lead-acid battery packs with a 20-hr rating of 150-224 Ah</p> <p>Profile parameters: 22A bulk (48V), 25A bulk (36V), 25A bulk (24V), 2.39 VPC absorption, 6A finish, Progressive DV/DT termination, equalize active</p>  | 22050          |
| Flooded/Wet  | 225-260                           | <p>Single-voltage mode: 36V flooded/wet lead-acid battery packs with a 20-hr rating of 225-260 Ah</p> <p>Auto-voltage mode: 48V, 36V, or 24V flooded/wet lead-acid battery packs with a 20-hr rating of 225-260 Ah</p> <p>Profile parameters: 22A bulk (48V), 25A bulk (36V), 25A bulk (24V), 2.39 VPC absorption, 9A finish, Progressive DV/DT termination, equalize active</p>  | 22051          |
| Flooded/Wet  | 261-440                           | <p>Single-voltage mode: 36V flooded/wet lead-acid battery packs with a 20-hr rating of 261-440 Ah</p> <p>Auto-voltage mode: 48V, 36V, or 24V flooded/wet lead-acid battery packs with a 20-hr rating of 261-440 Ah</p> <p>Profile parameters: 22A bulk (48V), 25A bulk (36V), 25A bulk (24V), 2.39 VPC absorption, 12A finish, Progressive DV/DT termination, equalize active</p> | 22052          |
| AGM          | 100-335                           | <p>Single-voltage mode: 36V AGM lead-acid battery packs with a 20-hr rating of 100-335 Ah</p> <p>Auto-voltage mode: 48V, 36V, or 24V AGM lead-acid battery packs with a 20-hr rating of 100-335 Ah</p> <p>Profile parameters: 22A bulk (48V), 25A bulk (36V), 25A bulk (24V), 2.45 VPC absorption, DI/DT termination, 2.27 VPC float</p>  | 22059          |
| Gel          | 100-335                           | <p>Single-voltage mode: 36V Gel lead-acid battery packs with a 20-hr rating of 100-335 Ah</p> <p>Auto-voltage mode: 48V, 36V, or 24V Gel lead-acid battery packs with a 20-hr rating of 100-335 Ah</p> <p>Profile parameters: 22A bulk (48V), 25A bulk (36V), 25A bulk (24V), 2.38 VPC absorption, DI/DT termination, 2.25 VPC float</p>  | 22060          |



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