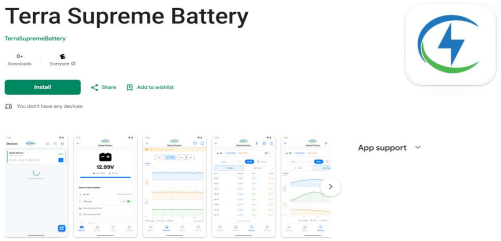
SOP Number	WI-OP15-0004
Part Number	
SOP Owner	
Plant Location	Sales
Approved by	A.Givens

1. Purpose:	TSB Sync App User Guide
2. Scope:	User guide to install TSB Sync App, configure and connect batteries, review app features
3. PPE Required:	N/A
4. References:	
5. Responsible Persons:	
6. Name of procedure:	**TSB Sync App User Guide**

STEP #1a	**Download TSB Sync App to mobile device**

For ***Android*** devices
1. navigate to Google Play Store
2. search for "Terra Supreme Battery"
3. Install app



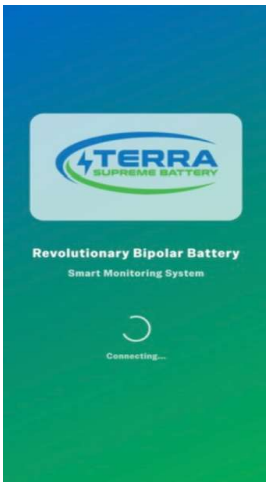
STEP #1b	**Download TSB Sync App to mobile device**

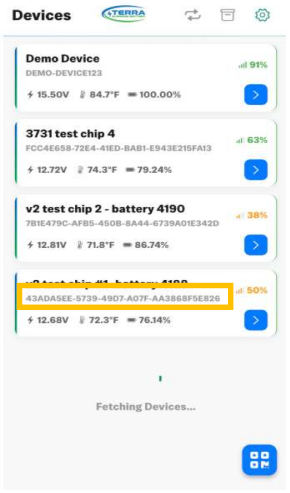
For ***Apple*** devices
1. navigate to App Store
2. search for "Terra Supreme Battery"
3. Install app

STEP #2	**Launch TSB Sync App on mobile Device**

1. Open App on mobile device
2. App will open to "Devices" search screen
3. All batteries within range will populate the screen as shown on right.
4. TSB Batteries will be identified by the BLE ID, e.g. ***43ADA5EE-5739-49D7-AO7F-AA3868F5E826***

**This number will correspond with a printed label on the positive terminal end of the battery

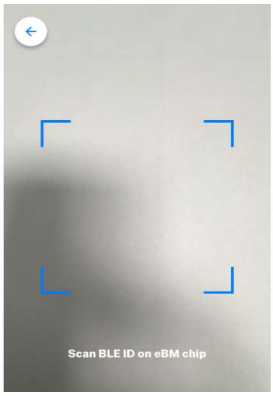




STEP #3	Connect to Device

1. Press the "camera" button in the lower right corner of the screen.

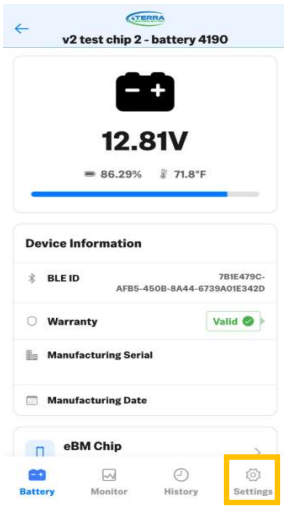
2. Using the camera screen, scan the BLE ID QR code (to the right of the number).
3. the app will then connect the the battery with this BLE ID #



STEP #4	Battery Status Screen

After connected to the battery, the following information will be displayed
- current battery voltage
- current battery temperature
- current battery SOC
- BLE ID
- Warranty Status

Press the "Settings" button in the lower right corner of the screen



STEP #5	Battery Settings Screen

1. A user defined name may be entered in the "Device Name" field,
   e.g. Terra Supreme Battery Display 2

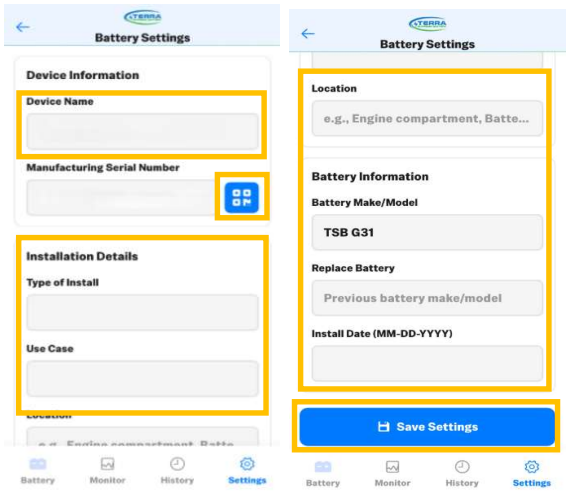
2. Press the camera button next to the Manufacturing Serial Number field

3. Using the camera screen, scan the battery serial number QR code to populate this field.

4. Additional details may be entered in the remaining fields.

5. Press the "Save Settings" button before leaving this screen.

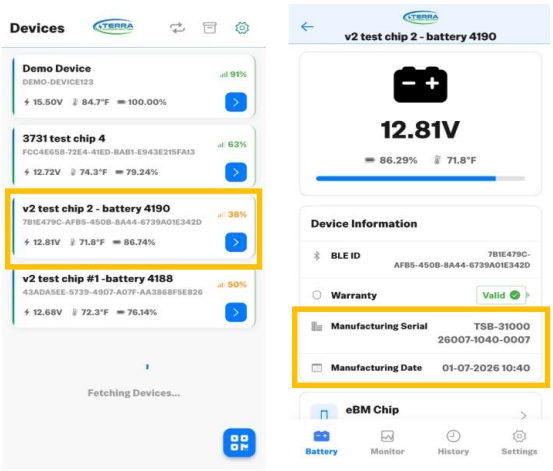
Save Settings



STEP #6	Device Screen

1. The Device screen will now be updated with the user defined battery name from the settings screen.

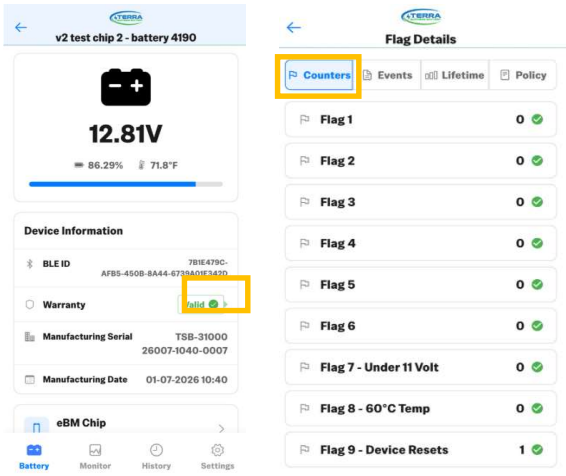
2. The Manufacturing Serial Number and Manufacturing Date will now be populated in the device screen.



STEP #7a	Warranty Screen

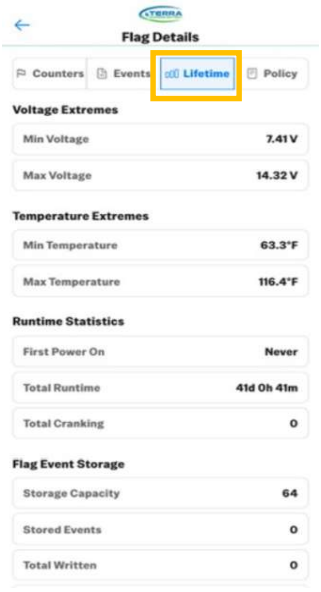
1. On the Device screen, the current warranty status will be displayed.

2. Press the status button to bring up the Flag Details screen. The Counters screen indicates the number of events that triggered each of the warranty flag conditions.



STEP #7b	Warranty Screen

1. Press the "Lifetime" button to view the min/max voltage & temperature and the total run time & flag events.

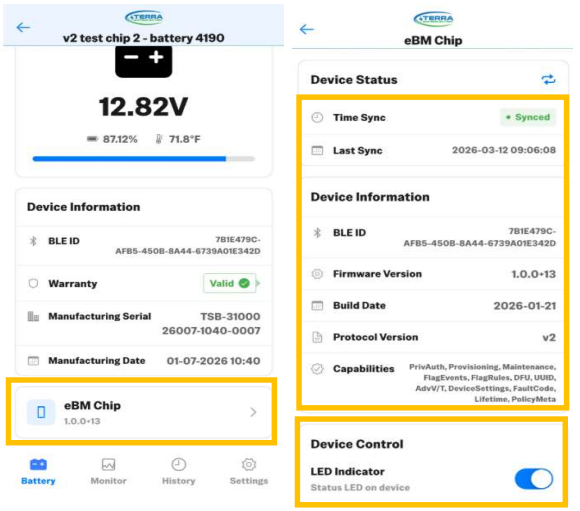


STEP #8a	eBM Chip Screen

1. From the Device screen, press the "eBM Chip" button.

2. The eBM Chip screen provides these details
   - Time Sync status
   - Last Sync time
   - BLE ID
   - Firmware Version
   - Build Date
   - Protocol Version
   - Capabilities

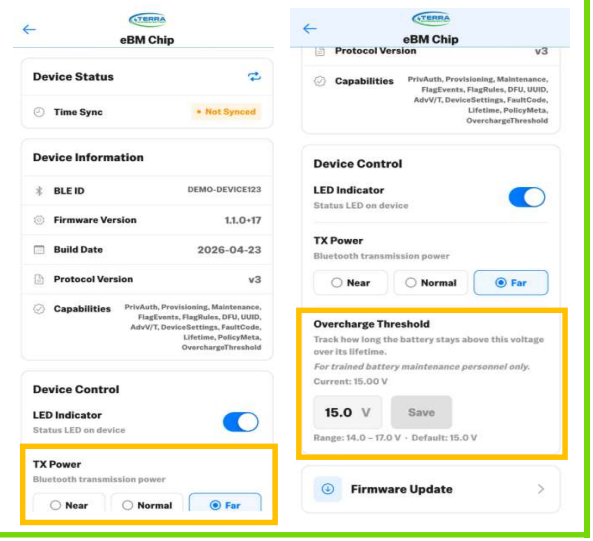
3. The LED Indicator light can be toggled off/on
   - the LED indicator light flashes every 10 seconds indicating the device is running normally, but not connected to a bluetooth device.
   - the LED indicator will flash with a green light to indicate warranty parameters are valid, it will flash red if any of the warranty parameters have been violated.
   - the LED indicator will flash every 1 second when connected to a bluetooth device.



STEP #8b	eBM Chip Screen

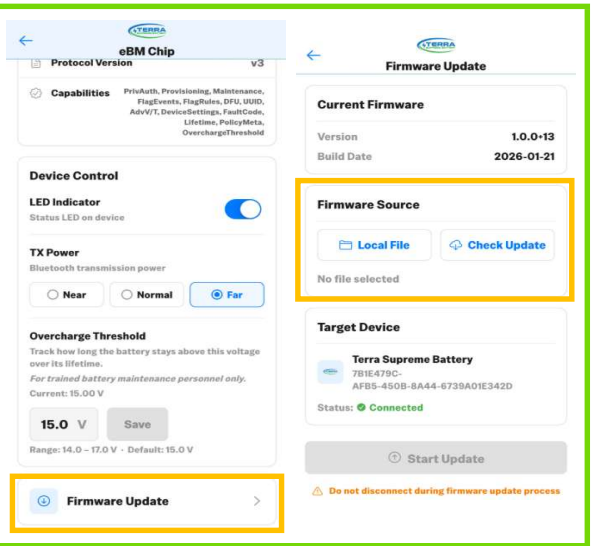
4. The bluetooth transmission power can be configured to reduce power draw on the battery if desired.

5. the Overcharge threshold can be user configured, defaulted to 15.0V. This will track the total amount of time the battery OCV is above this setting.



STEP #8c	eBM Chip Screen

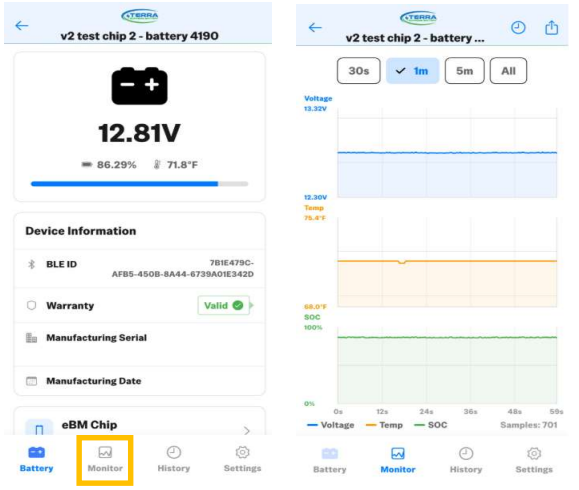
6. the firmware can be updated by Over-The-Air transmission from your connected device.



STEP #9	Monitor Screen

1. From the main Device Screen, select the Monitor button 

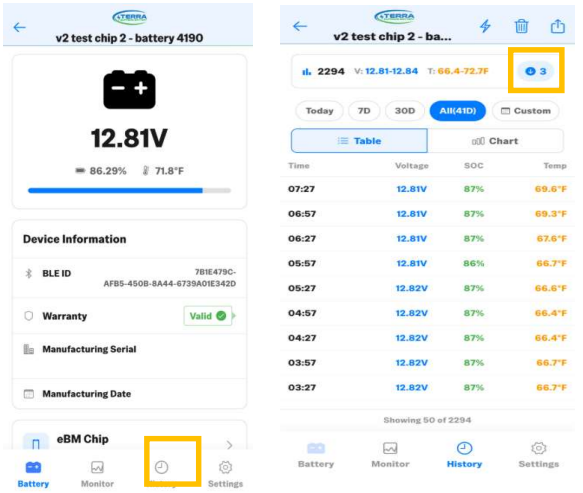
2. The Monitor Screen provides real time voltage, temperature and SOC data in graph form.



STEP #10a	History Screen

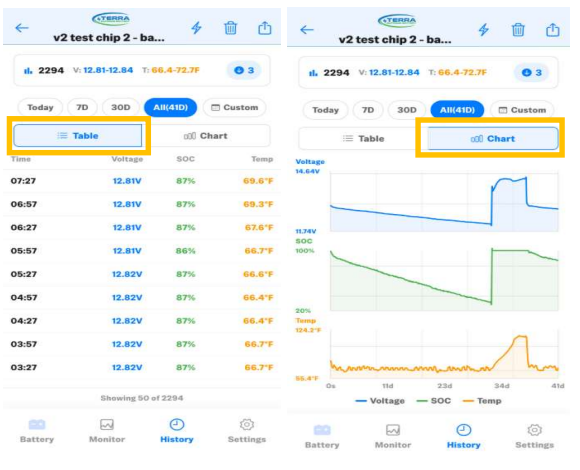
1. From the main Device Screen, select the History button 

2. The History Screen provides tracks historical data records in both table and chart formats.
To download the data records to your connected device, press the dowload button. 



STEP #10b	History Screen

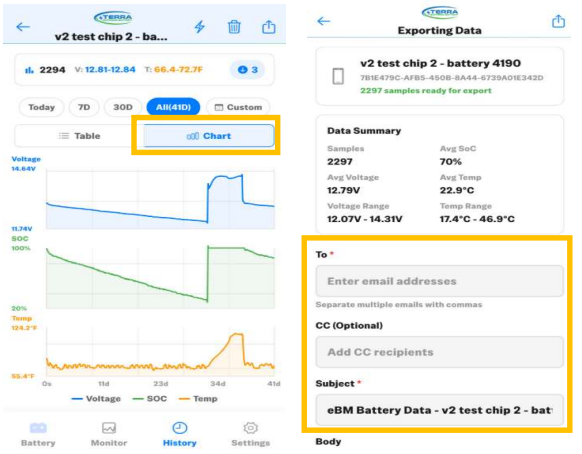
1. Press the "Table" or "Chart" button to toggle the display



STEP #10c	History Screen

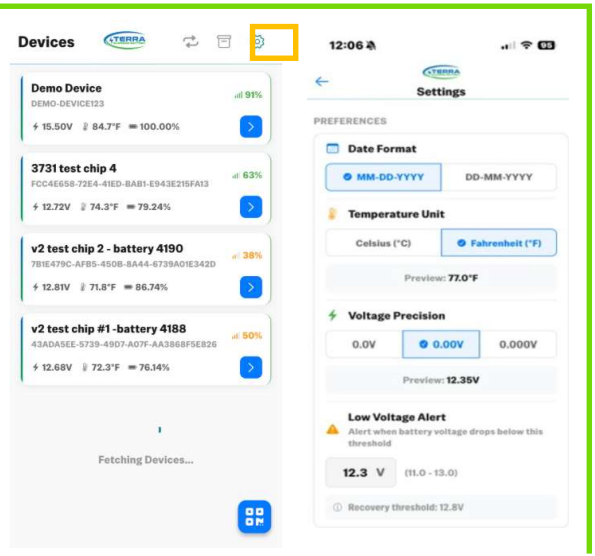
1. To export the data file, press the export button in the upper right corner of the screen.

2. The user can then enter the recipient email address to send the file.



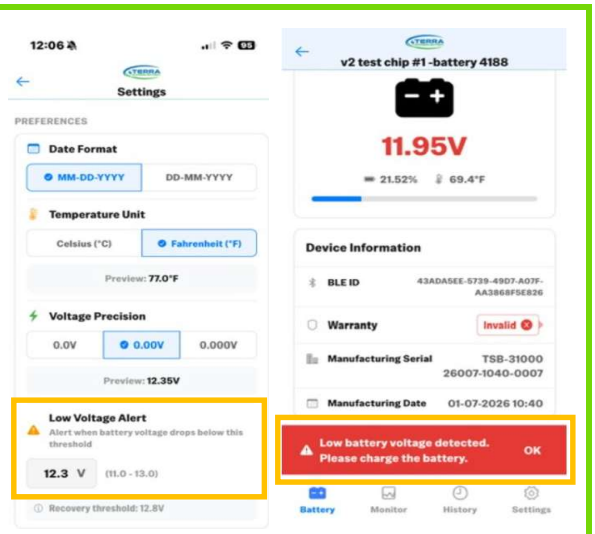
STEP #11a	App Settings
Frequency 100%	

1. The app settings can be accessed by pressing the icon in the upper right corner of the screen.
   - Data format preference can be changed
   - Temperature Unit preference can be changed
   - Voltage Precision



STEP #11b	App Settings
Frequency 100%	

1. The Low Voltage Alert voltage threshold can be configured by the user to trigger an alarm for recharging the battery.



Date	Modified by	Description	Revision	Approved by
10/10/2025	A. Givens	Initial Release	0	A.Givens
11/25/2025	A. Givens	updated for new app release - includes camera function for scanning BLE ID and battery s/n	1	A.Givens
3/16/2026	A. Givens	Revised for GEN2 chip and app functionality	2	A.Givens
4/29/2026	A. Givens	Revised for additional GEN2 app functionality	3	A.Givens