

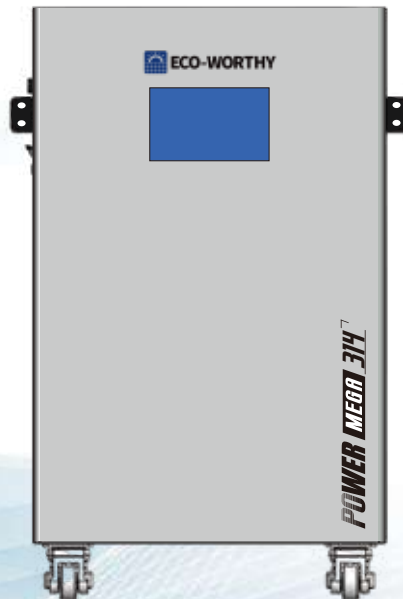
**LiFePO<sub>4</sub>**

# PowerMega 314

## APP & HOST COMPUTER

### User Manual

Operation and Maintenance



#### SUPPORT

If you are experiencing technical problems and cannot find a solution in this manual, please contact ECO-WORTHY for further assistance.



Call:1-866-939-8222(US&CA)  
+49 6175 6514 999(DE)  
+44 7553 406988(UK)

Web:[www.eco-worthy.com/](http://www.eco-worthy.com/)  
E-mail: [essvipsupport@eco-worthy.com.cn](mailto:essvipsupport@eco-worthy.com.cn)

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# I. APP User Guid

## 1.1 Download and Install the App

Based on your mobile system, select the download link:

Android: For phones that support GMS, you can download **BMS-TOOL** through the Google Play Store. For Android phones that do not support GMS, you can directly install the **APK**.

iOS: Search for the **BMS-TOOL** in the App Store, or scan the QR code below to download and install.



## 1.2 App Permissions Settings

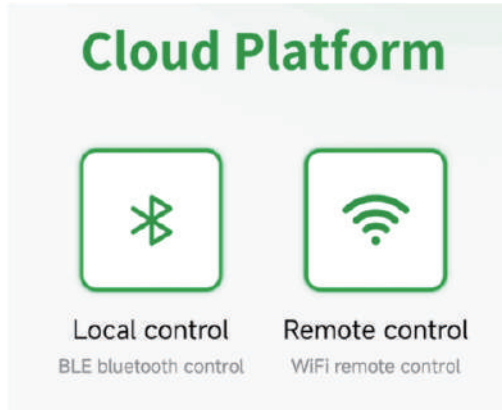
After installing the app, click the launch button to start. Upon first launch, the app will request the user to confirm and grant the following permissions:

- Camera Permission: Used for scanning QR codes to add Wi-Fi devices in remote control mode.
- Location Permission: Used to search for nearby Bluetooth devices in local control mode and to identify the current network information in remote control mode.
- Device Status Information: Used to detect the device's operating status.
- Photos and Audio Permission: Allows the QR code scanning interface in remote control mode to directly access the local photo album.

## 1.3 Battery Connection Mode

**Local Control:** This refers to **Bluetooth communication**, where the app directly searches for nearby Bluetooth signals. Once paired, the connection remains constant, allowing control of the device without the need for account login or binding records. It is ready to use immediately.

**Remote Control:** This refers to **WiFi communication**, enabling control of devices even when not in the same geographic location. It requires account registration and login, with device-account binding records. Network configuration is also required.



### 1.3.1 Bluetooth Control

When the device is in network configuration mode, click the Local Control button. On the Local Control page, you can search for the device. Once found, click on the device to enter the device control page.

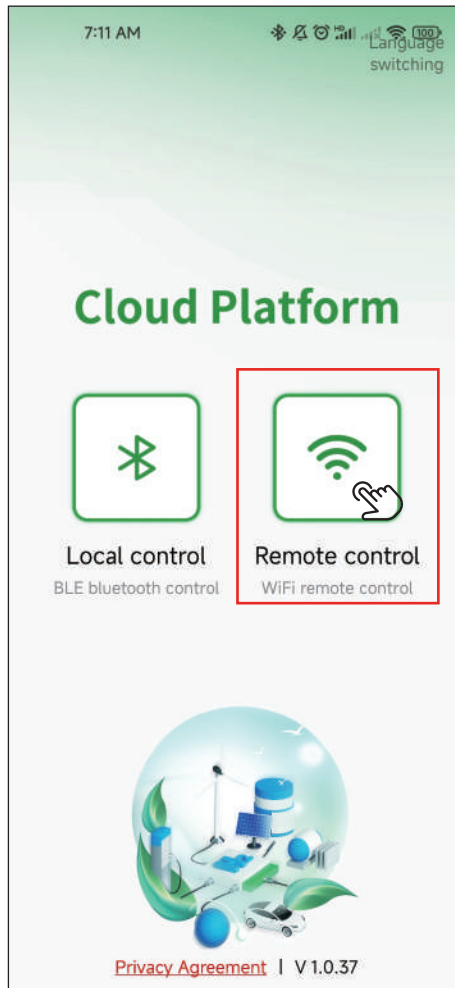


## 1.3.2 Wi-Fi Control

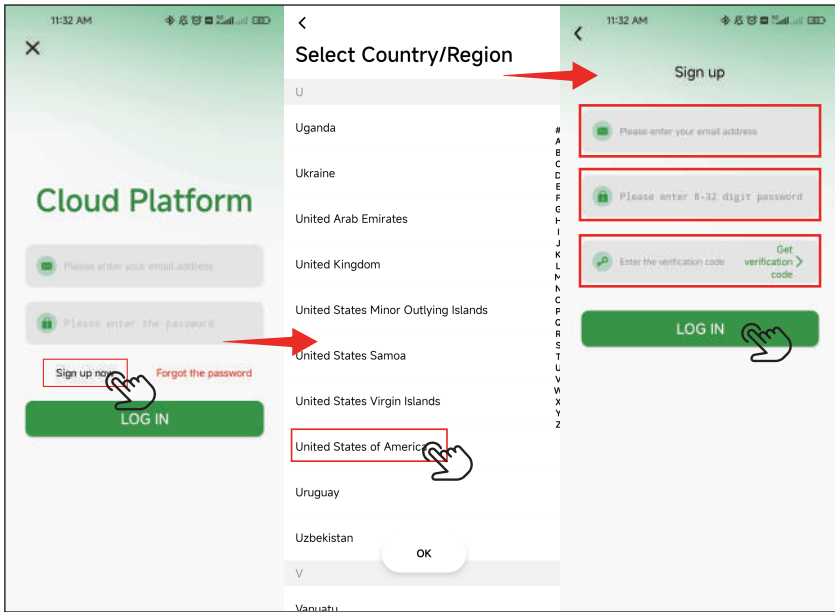
### 1.3.2.1 Account Registration and Login

#### Register Account & Login

**STEP 1** Select Remote Control:

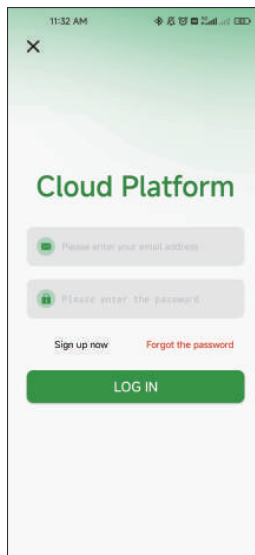


**STEP 2** Click “Sign up now” , then enter your email and password. After that, retrieve the verification code sent to your email and enter it to complete registration.

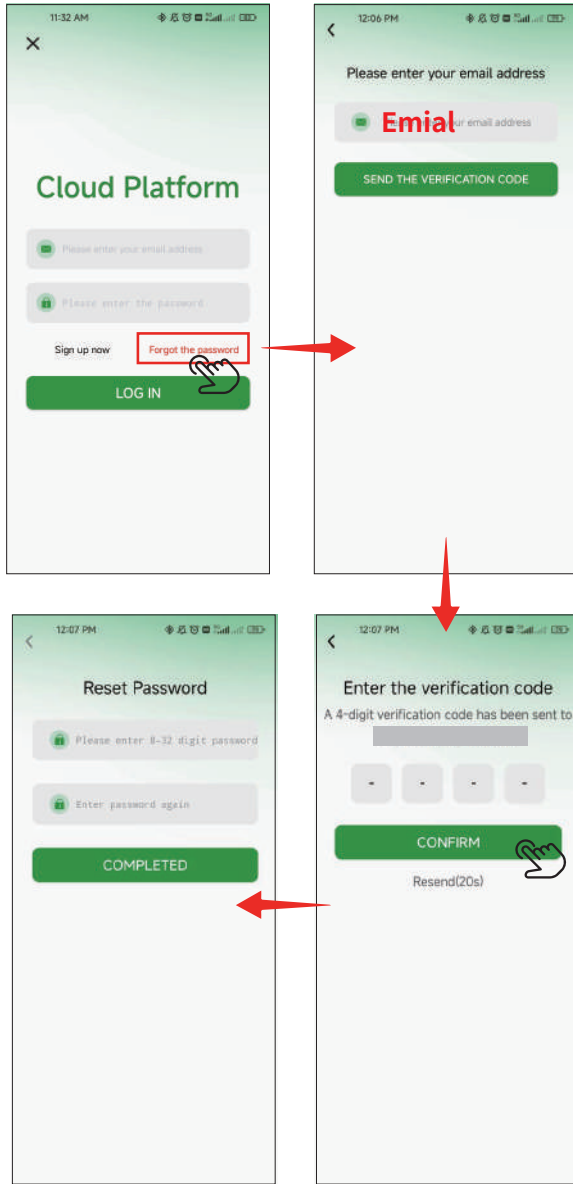


## Log in directly

Simply enter your email address and password to log in.



If you forgot your password, you can reset it via your email.



### 1.3.2.2 Add device under the account.

#### STEP 1 WiFi module factory reset.

Press and hold the reset button for 10-13 seconds. The SOC and other indicators will light up in sequence. Release the button when all the lights stay on for 5 seconds and then turn off.

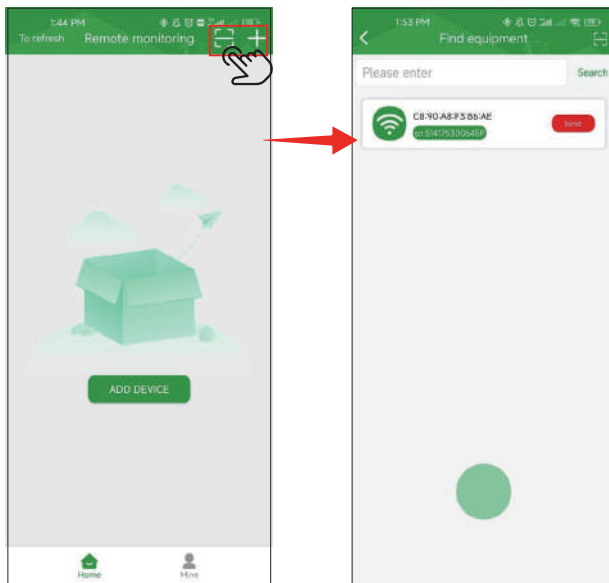
#### Step 2 Add the device.

Simply click ADD DEVICE or the “+” in the top-right corner to add a device.



**NOTE**

This step requires your phone to have Bluetooth, Location, and Wi-Fi enabled, otherwise, the device search and subsequent network configuration cannot be completed.



### STEP 3 Proceed with the network configuration setup.

▪ Click on the device found in Step 2 to go to the network configuration page. Enter the WiFi account and password for the device to connect to. You can also change the WiFi if needed. After confirming the password is correct, click Next to proceed to the network configuration waiting page.

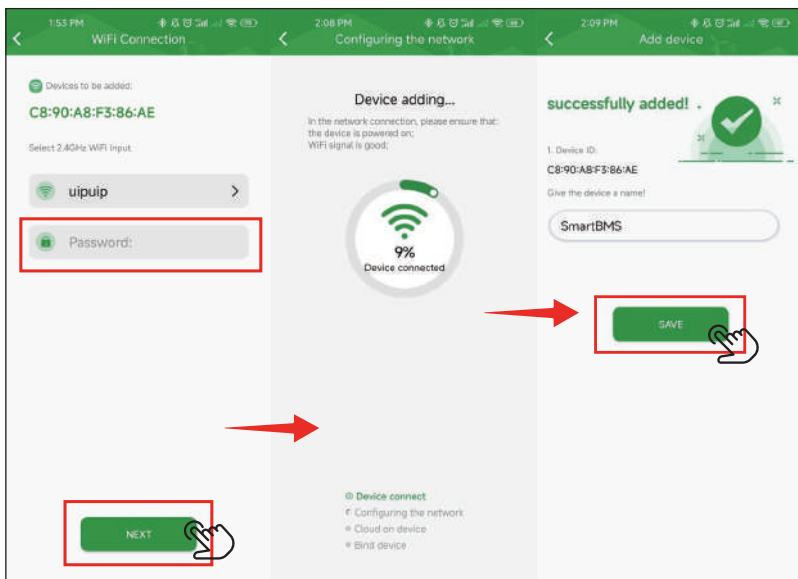


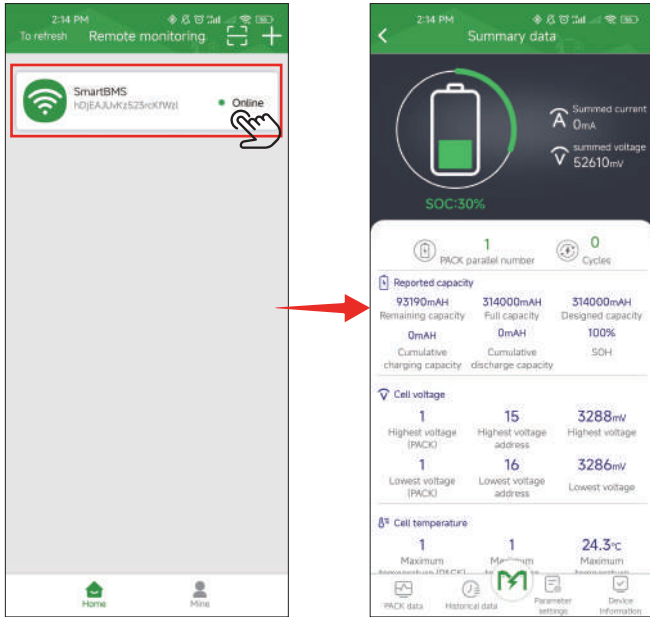
The phone must connect to the WiFi first, and the module only supports 2.4G WiFi. Please verify accordingly.

▪ The app and device will automatically perform the following steps: Connect device, Configure network, Upload device to the cloud, and Bind device. Please wait patiently. When the network configuration is complete, it will redirect to this page. Click Save to successfully add the device and automatically return to the device list page.



If the network configuration fails, follow the app's prompt instructions to check the steps and try again. If it still fails after multiple attempts, save the error





### 1.3.2.3 To edit or share the device.



# 1.4 Device Information Viewing and Control

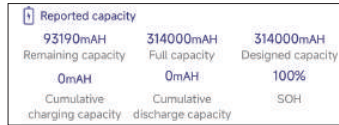
## 1.4.1 View Summary Data



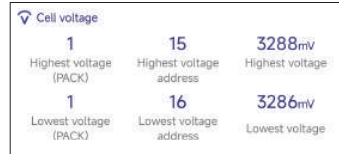
### View the Number of Battery Parallels



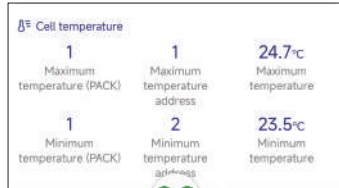
### View the Battery Capacity



### View the Cell voltage



### View the Cell temperature



## 1.4.2 View individual packet data

Summary data

SOC:30%

Reported capacity

93190mAh	314000mAh	314000mAh
Remaining capacity	Full capacity	Designed capacity
0mAh	0mAh	100%
Cumulative charging capacity	Cumulative discharge capacity	SOH

Cell voltage

1	15	3288mV
Highest voltage address	Highest voltage address	Highest voltage
16	3286mV	
Lowest voltage address	Lowest voltage address	Lowest voltage

Cell temperature

1	24.3°C
Maximum temperature address	Maximum temperature

PACK data

Click on Pack Data to switch the interface

PACK 1

Basic data

Voltage temperature

Status data

PACK total current

0mA

PACK voltage

52600mV

SOC:30%

Cell voltage

14	3288mV
Highest voltage address	Highest voltage
16	3286mV
Lowest voltage address	Lowest voltage

Cell temperature

1	24.9°C	24.9°C
Maximum temperature address	Maximum temperature	MOS temperature
2	23.6°C	33.9°C
Minimum temperature address	Minimum temperature	ambient temperature

PACK data

View the basic data of the individual Pack.

52790mV	0mA	0Times
Independent voltage	Independent current	Cycles

93160mAh	314000mAh	314000mAh
Remaining capacity	Full capacity	Designed capacity
0mAh	0mAh	100%
Cumulative charging capacity	Cumulative discharge capacity	SOH

14	3288mV
Highest voltage address	Highest voltage
16	3286mV
Lowest voltage address	Lowest voltage

1	24.9°C	24.9°C
Maximum temperature address	Maximum temperature	MOS temperature
2	23.6°C	33.9°C
Minimum temperature address	Minimum temperature	ambient temperature

PACK 1

Voltage temperature

Status data

Cells Number of PACK

16

PACK voltage

52600mV

PACK cell

1	2	3	4
3288mV	3286mV	3288mV	3288mV
5	6	7	8
3288mV	3286mV	3286mV	3286mV
9	10	11	12
3288mV	3288mV	3286mV	3286mV
13	14	15	16
3288mV	3288mV	3286mV	3286mV

PACK Cell temperature

T1: 24.9°C	T2: 23.6°C	T3: 24.3°C
T4: 23.7°C	T5: --	T6: --
T7: --	T8: --	T9: --
T10: --	T11: --	T12: --
T13: --	T14: --	T15: --
T16: --		

PACK data

View the more detailed temperature and voltage data of the individual Pack.

1	2	3	4
3288mV	3286mV	3288mV	3288mV
5	6	7	8
3288mV	3286mV	3286mV	3286mV
9	10	11	12
3288mV	3288mV	3286mV	3286mV
13	14	15	16
3288mV	3288mV	3286mV	3286mV

T1: 24.9°C	T2: 23.6°C	T3: 24.3°C
T4: 23.7°C	T5: --	T6: --
T7: --	T8: --	T9: --
T10: --	T11: --	T12: --
T13: --	T14: --	T15: --
T16: --		



## View protection

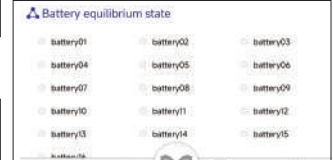
Protection status: Null

## View Indication status.

Indication status:

- Off Heating film indication
- Off ACin
- Off Pack power supply
- On CFET indication
- Off Shutdown
- Off Charger Explanation:
- On DFET indication
- Off Current limit indication

## View the cell balancing status.



## View Control Status.

In control

- Off Enter Test mode
- On Charging current limiting function
- On DFET function
- Off Buzzer alarm function
- On LED alarm function
- high Limiting gear
- On CFET function

## View Fault Status.

Fault state: Null

## View Alarm Status.

Alarm status: Null

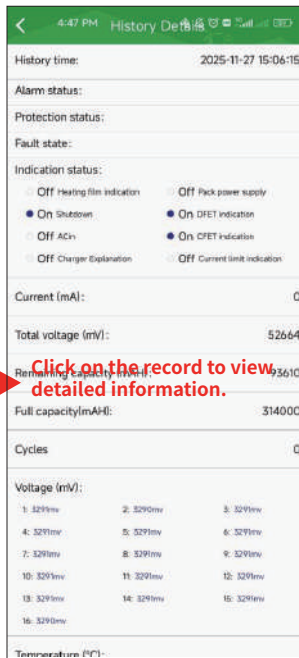
## 1.4.3 View historical record data



Enter the number of records to query.

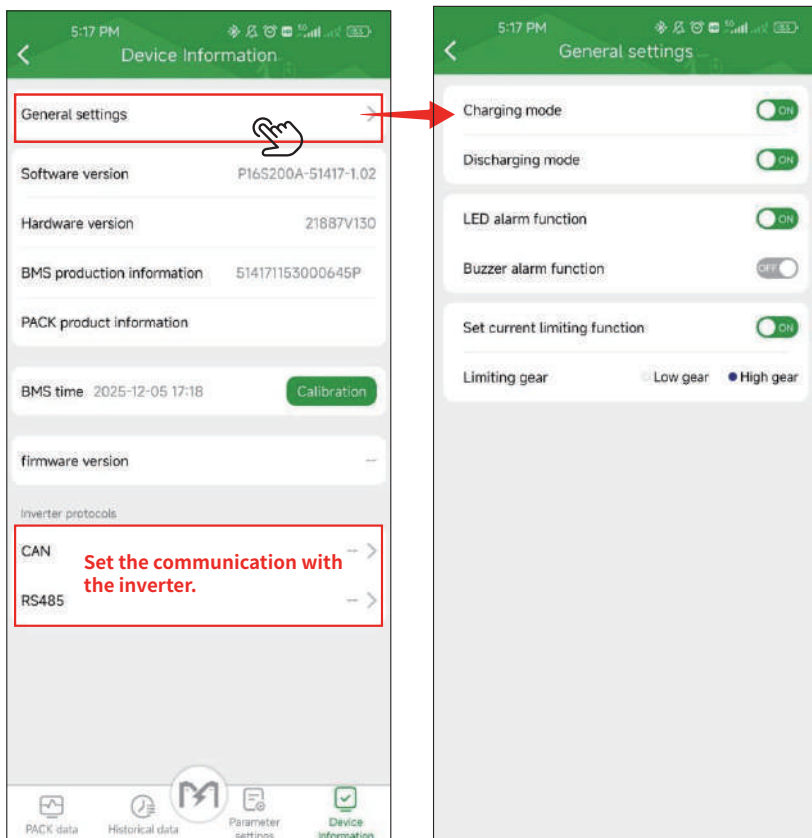
The total number of records currently available.

① Click on Historical Data to switch the interface.



Click on the record to view detailed information.

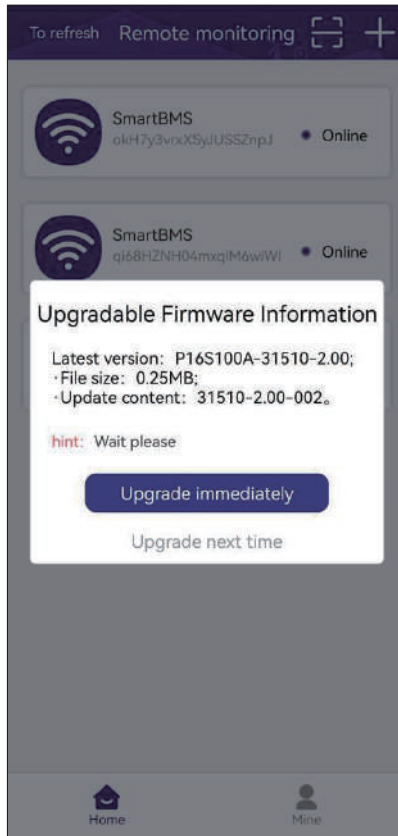
## 1.4.4 View Device Information



## 1.5 OTA Upgrade

**When a new firmware version is available in the backend, the APP will display an upgrade pop-up prompt. Here are the two actions users can take:**

- Click "Upgrade Now": The device will start the firmware upgrade process.
- Click "Remind Me Later": The user is taken to the device parameter display and settings pages as usual, without initiating the firmware upgrade.



## 1.6 Account logout and cancellation.

Account logout: After logging out, you can switch to another account to log in and use it.

Account cancellation: Once canceled, all information and binding relationships of the account will be cleared, and re-registration will be required for future use.

## II. Host Computer User Guide

### 2.1 Download

Download the file from:

<https://app.eco-worthy.com:9008/common/identifier/static/86052e23-5cc9-4a02-bb5a-46513d551e1c>



### 2.2 Connect the Battery

#### Preparations

Prepare the communication cable in advance; it can be purchased from the official website(RS232 to USB Adapt Cable).




Connect the RS232-to-USB cable between the battery and the PC.

#### Connect the battery to the PC


Unzip:

 PBmsLVTools.zip

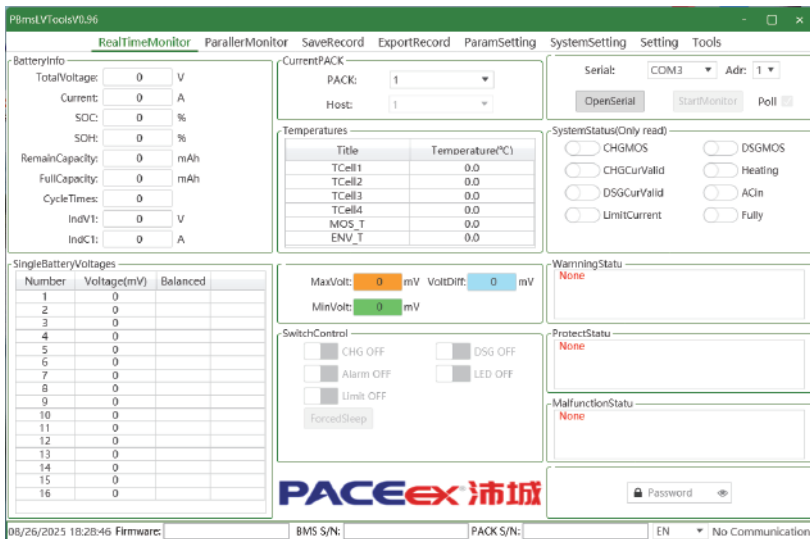
Click the folder: PBmsLVTools

 PBmsLVTools

Locate and double-click: PBmsLVTools.exe

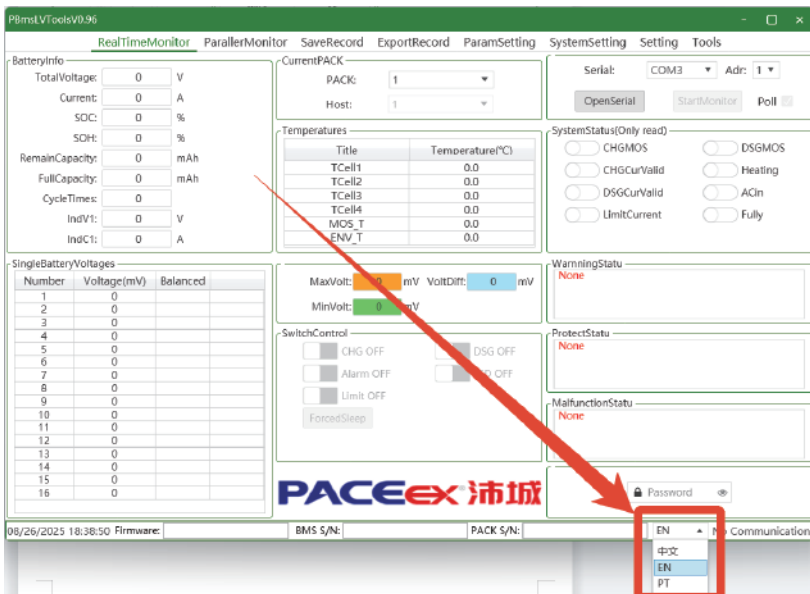
 PBmsLVTools.exe

## Initial interface



## Set Language

In the bottom-right corner of the interface, select your preferred language.



## Choose the corresponding COM port:

The screenshot shows the 'SystemSetting' tab in the PBmsLVToolsV0.96 software. The 'Serial' dropdown menu is open, showing 'COM3' selected. A red box highlights the dropdown, and a red arrow points from it to the 'OpenSerial' button.

Number	Voltage(mV)	Balanced
1	0	
2	0	
3	0	
4	0	
5	0	
6	0	
7	0	
8	0	
9	0	
10	0	
11	0	
12	0	
13	0	
14	0	
15	0	
16	0	

Title	Temperature(°C)
TCCell1	0.0
TCCell2	0.0
TCCell3	0.0
TCCell4	0.0
MOS_T	0.0
ENV_T	0.0

MaxVolt:	0	mV	VoltDiff:	0	mV
MinVolt:	0	mV			

CHG OFF	DSG OFF
<input type="checkbox"/>	<input type="checkbox"/>
Alarm OFF	LED OFF
<input type="checkbox"/>	<input type="checkbox"/>
Limit OFF	
<input type="checkbox"/>	

SystemStatus(Only read)	
<input type="checkbox"/> CHGMOS	<input type="checkbox"/> DSGMOS
<input type="checkbox"/> CHGCurValid	<input type="checkbox"/> Heating
<input type="checkbox"/> DSGCurValid	<input type="checkbox"/> ACIn
<input type="checkbox"/> LimitCurrent	<input type="checkbox"/> Fully

WarningStatus
None

ProtectsStatus
None

MalfunctionStatus
None

08/26/2025 18:42:21 Firmware: BMS S/N: PACK S/N: EN No Communication

## Then click OpenSerial:

The screenshot shows the 'SystemSetting' tab in the PBmsLVToolsV0.96 software. The 'OpenSerial' button is highlighted with a red box. A red arrow points from the 'Serial' dropdown menu to the 'OpenSerial' button.

Number	Voltage(mV)	Balanced
1	0	
2	0	
3	0	
4	0	
5	0	
6	0	
7	0	
8	0	
9	0	
10	0	
11	0	
12	0	
13	0	
14	0	
15	0	
16	0	

Title	Temperature(°C)
TCCell1	0.0
TCCell2	0.0
TCCell3	0.0
TCCell4	0.0
MOS_T	0.0
ENV_T	0.0

MaxVolt:	0	mV	VoltDiff:	0	mV
MinVolt:	0	mV			

CHG OFF	DSG OFF
<input type="checkbox"/>	<input type="checkbox"/>
Alarm OFF	LED OFF
<input type="checkbox"/>	<input type="checkbox"/>
Limit OFF	
<input type="checkbox"/>	

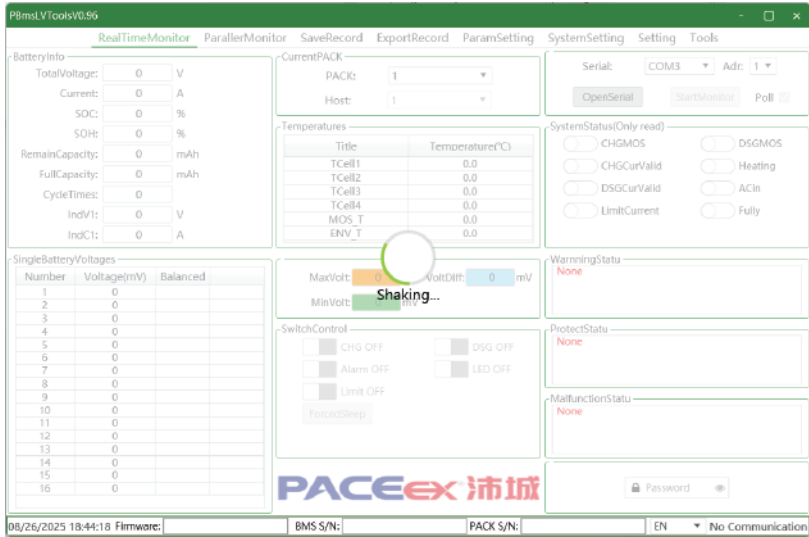
SystemStatus(Only read)	
<input type="checkbox"/> CHGMOS	<input type="checkbox"/> DSGMOS
<input type="checkbox"/> CHGCurValid	<input type="checkbox"/> Heating
<input type="checkbox"/> DSGCurValid	<input type="checkbox"/> ACIn
<input type="checkbox"/> LimitCurrent	<input type="checkbox"/> Fully

WarningStatus
None

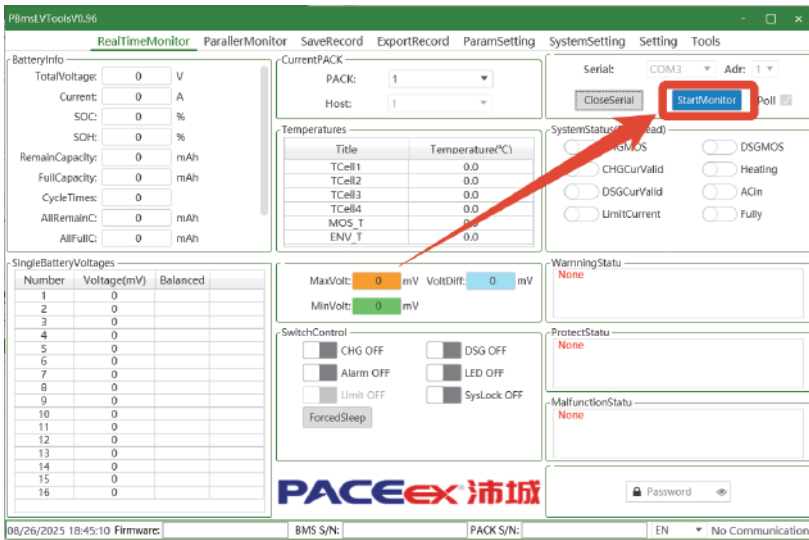
ProtectsStatus
None

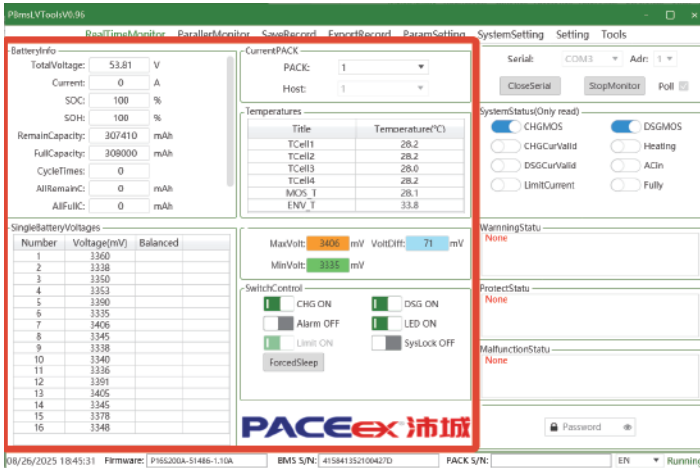
MalfunctionStatus
None

08/26/2025 18:43:16 Firmware: BMS S/N: PACK S/N: EN No Communication



Once connected, click StartMonitor to view the parameters.





## 2.3 Advanced Account Login

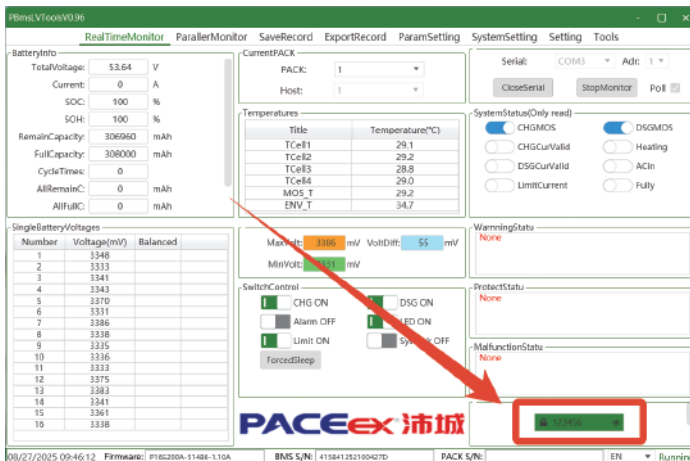
### 2.3.1 Log in with a high-privilege account

Logging in with a high-privilege account allows you to modify various settings and parameters.

**WARNING**

Modifying BMS parameters with the upper computer software requires authorisation from ECO-WORTHY. Otherwise, it will be considered an illegal modification and will result in the loss of warranty eligibility.

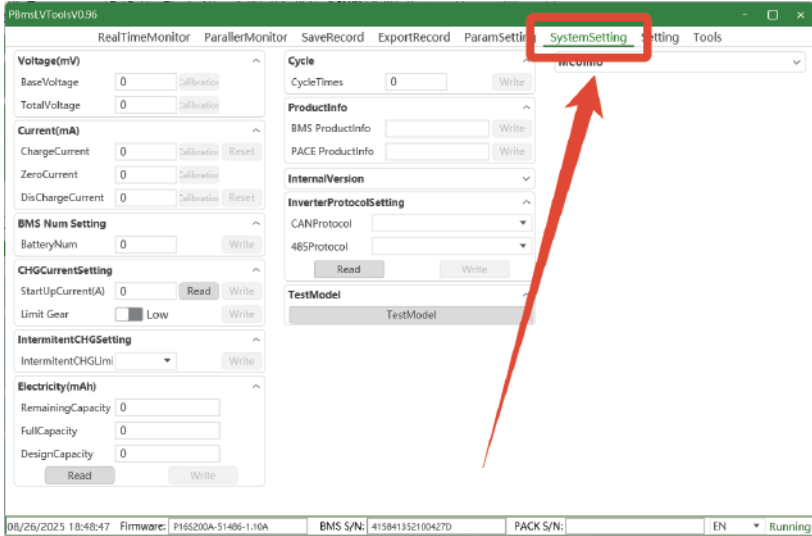
Enter the high-privilege password in the bottom-right corner:123456



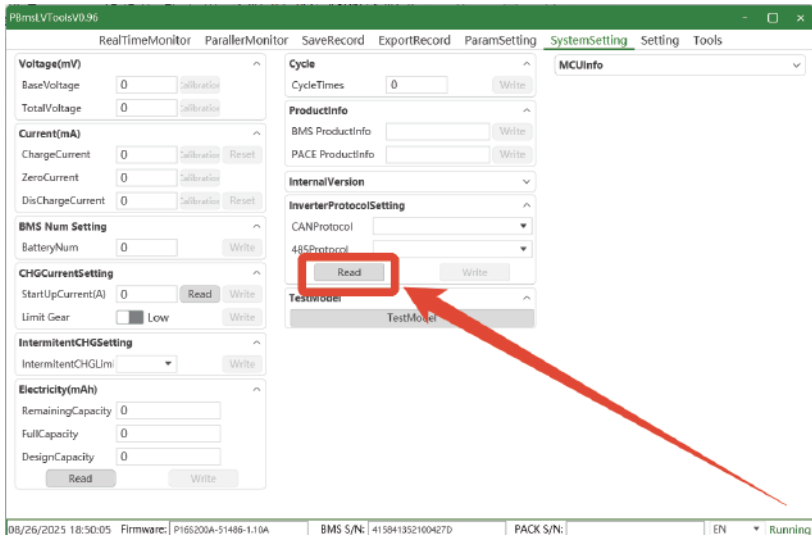
## 2.4 Modifying the Communication Protocol

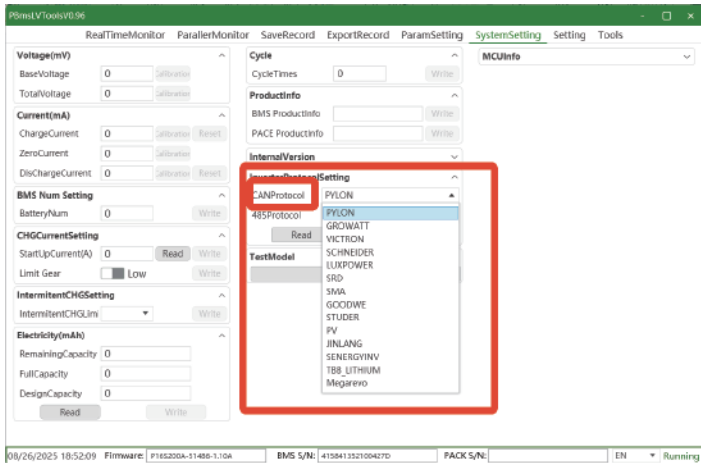
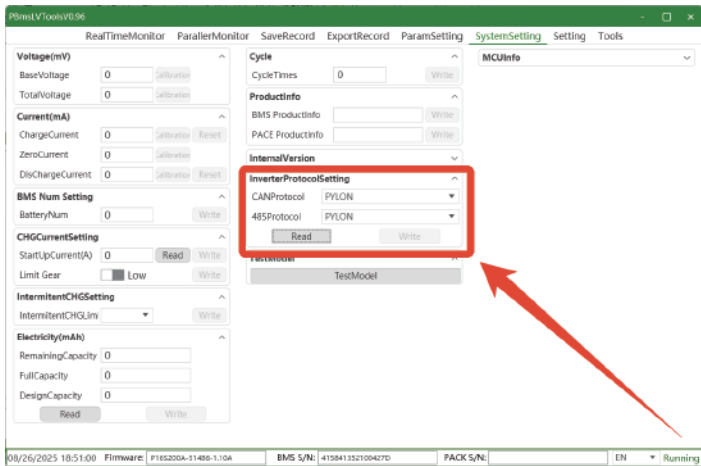
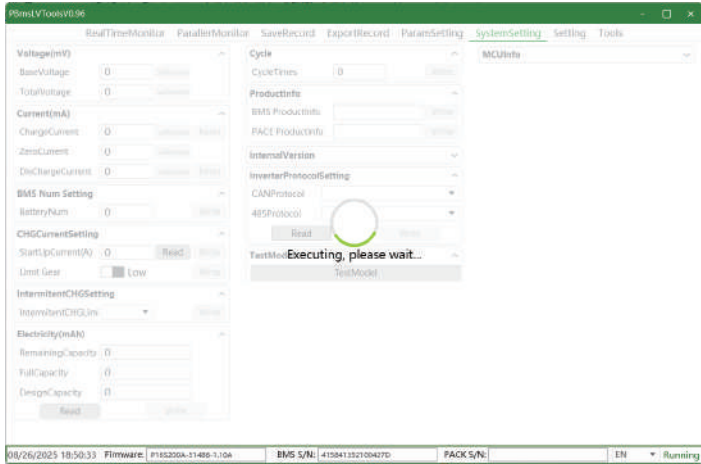
### 2.4.1 Change the communication protocol

Click SystemSetting at the top to open the SystemSetting page.

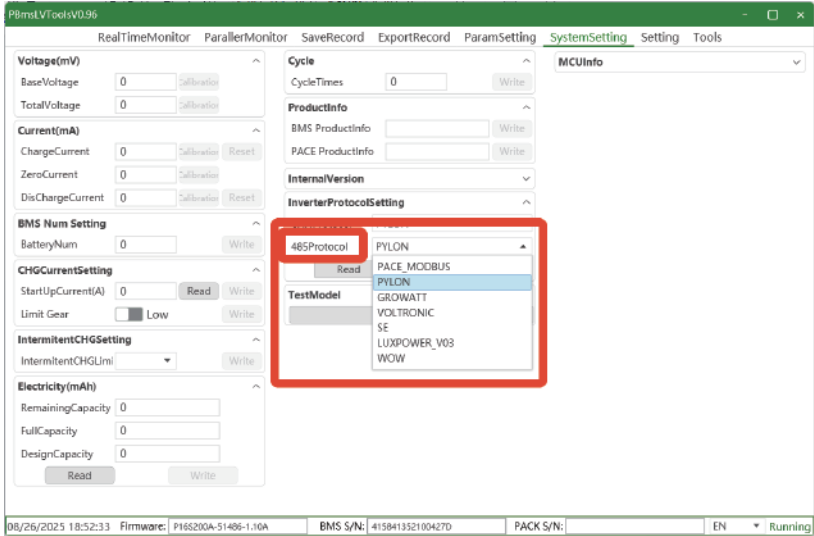


Click Read to retrieve the current protocol:

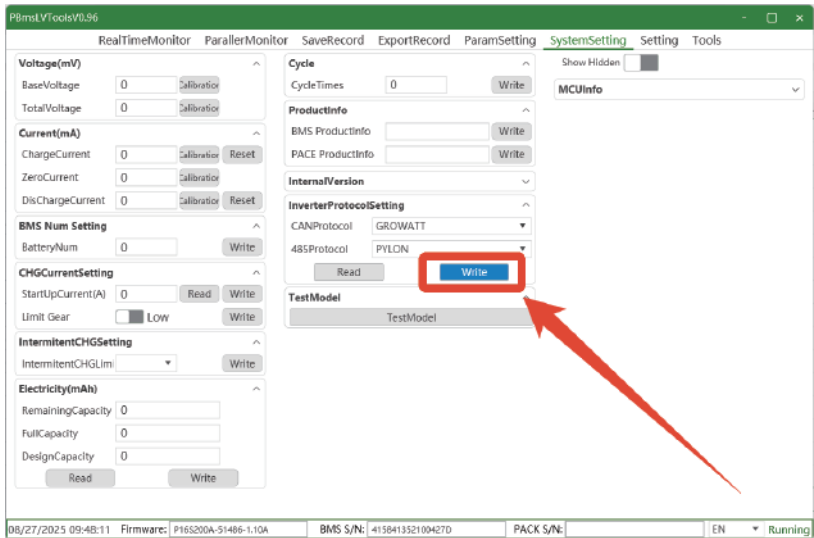




## RS485 protocol:



Select the required protocol and click Write:



PBms\_VToolsV0.96

RealTimeMonitor ParallelMonitor SaveRecord ExportRecord ParamSetting SystemSetting Setting Tools

Voltage(mV)

RateVoltage

TotalVoltage

Current(mA)

ChargeCurrent

ZeroCurrent

DisChargeCurrent

BMS Num Setting

CHGCurrentSetting

StartUpCurrent(A)

Idle Gear  Low

IntermittentCHGSetting

Electricity(mAh)

RemainingCapacity

FullCapacity

DesignCapacity

Cycle

CycleTimes

ProductInfo

BMS ProductInfo

FACT ProductInfo

InternaVersion

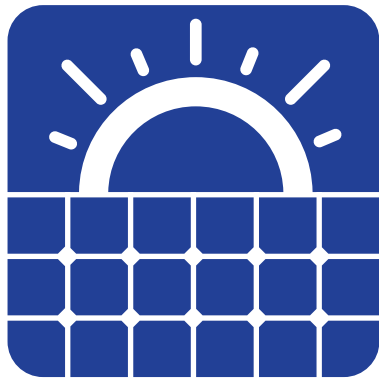
InverterProtocolSetting

CANProtocol

CEPProtocol

TestModel **Execution Success!**

08/27/2025 09:48:52 Firmware: P165200A-51486-1.10A BMS S/N: 4158413521004270 PACK S/N: EN Running



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