Bluetooth App User Manual

1. Introduction

This Bluetooth APP is a lithium battery management application. The APP primarily displays lithium battery voltage, current,capacity, temperature curves, charge and discharge switch controls, SOC,battery voltage, charge and discharge current, protection status, and basic parameters. Through authorised administrator permissions, users can also configure the parameters of the lithium battery protection board (BMS) to make the health status of the lithium battery transparent and ensure safe operation. Based on market feedback, this upgraded version optimises the overall interface, adopts a modular layout, and adds more parameters and functional settings to provide users with a faster, more complete, and more robust experience.

IOS-client

Android-client

Scan the code to jump to the download address, and follow the instructions to complete the download and installation.

2. Function introduction

Module	Function	Describe	Example
History	voltage, current, remaining capacity, temperature	Display the battery maximum, minimum, average voltage, battery current, remaining capacity, BMS board temperature change curve	The last 100 pieces of data, one per minute, graph
Control	charging switch, discharge switch, automatic equalisation switch, clear alarm, reset capacity	Issue commands through the APP to control the BMS board; clear alarm data; reset remaining capacity; open equalisation	Control switch: on/off; automatic equalisation switch, clear alarm, reset capacity is not displayed in some BMS versions
Real time	SOC display diagram, estimated filling time, estimated release time, charging switch, discharge switch, equilibrium, protection status, total voltage, current, power, maximum voltage (single string), minimum voltage (single string), average voltage, differential pressure, cycles, temperature, humidity, single string voltage Information	Dashboard, displaying battery voltage, current, temperature, SOC, protection status, differential pressure, cycle times and other data	Real-time data of battery static, charging and discharging

2. Function introduction

Module	Function	Describe	Example
Parameter	Basic information, initial settings	Display the basic information of the protection board	Display BMS basic information; initial settings are not displayed in some BMS versions
M ine	Complete information, unbundle equipment, use instructions for lithium batteries, use instructions for BMS	Display personal information and settings, instructions for use	Account information, manufacturer information, etc.

3. APP User Guide

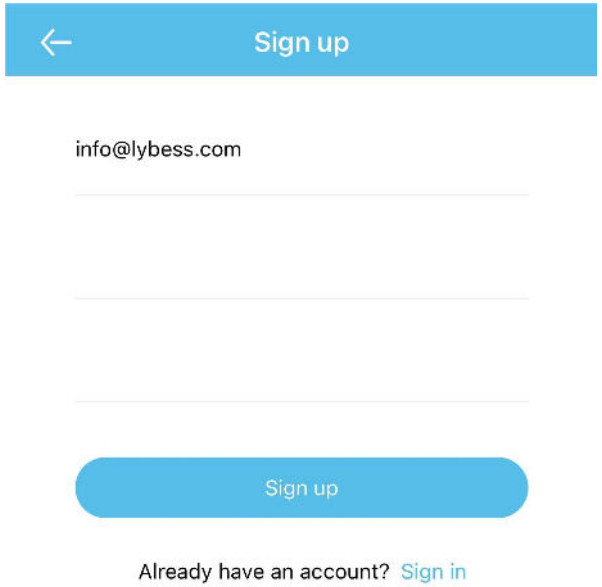
3.1 Operating Environment

Operating System: Android 5.0 or above / iOS 10.0 or above.
Hardware Requirement: Devices must support Bluetooth 4.0 or above.System Permissions: Bluetooth and GPS (Location) permissions must be enabled for the app to function properly.

3.2 Login connection

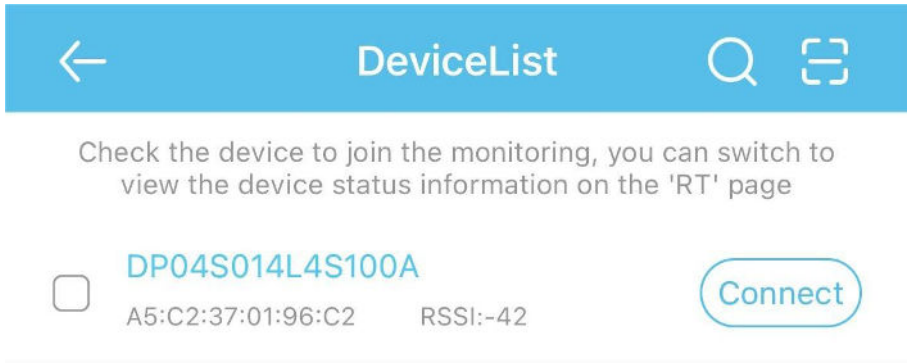
3.2.1 Registering an Account

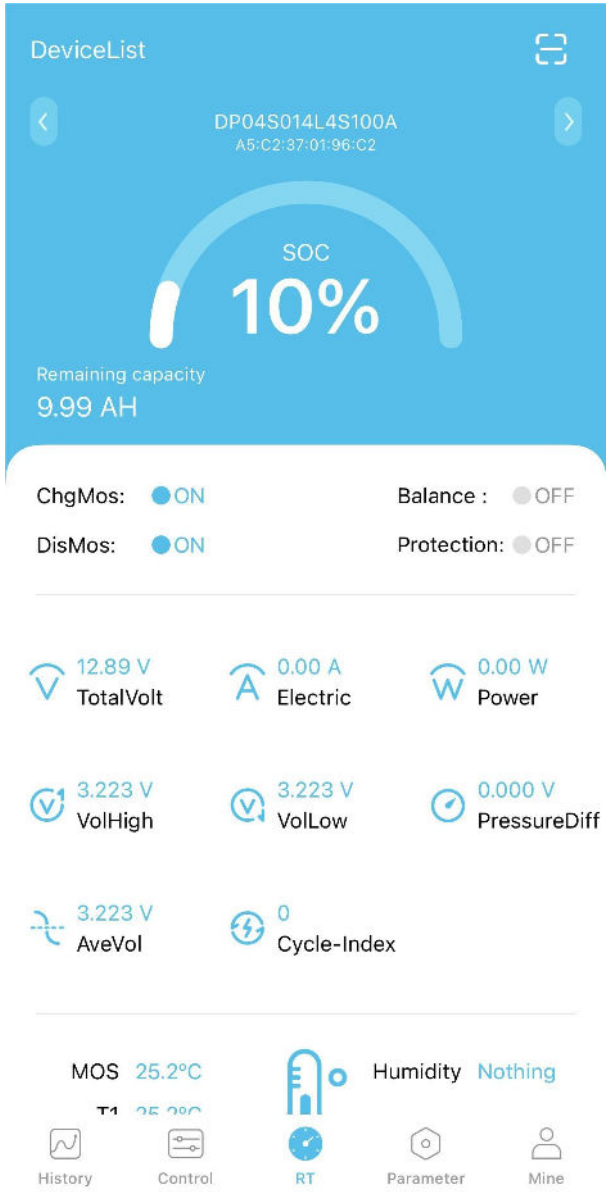
After successfully installing the APP, open it and grant the required permissions for Bluetooth and Location Services. The account registration page will automatically pop up. Please enter your mobile phone number, set a password as prompted, and click Confirm to complete the registration.



3.2.2 Bluetooth Connect/Disconnect

Connect to Bluetooth: After a successful login, the APP will automatically redirect to the Bluetooth device list. Select the desired Bluetooth device name to establish a connection.
Switch Batteries: When multiple batteries are present, you can select multiple Bluetooth names in the device list. This allows you to quickly switch between connected batteries directly from the real-time interface.
Scan Code Connection: Click the barcode scanning button in the upper right corner of the real-time interface to connect directly by scanning the QR code or barcode on the Bluetooth module.
Search for Bluetooth: On the device list page, use the search bar to look up specific Bluetooth names to quickly locate the battery you need to connect to.
Disconnect Bluetooth: To end a connection, navigate to the device list page and click Disconnect.



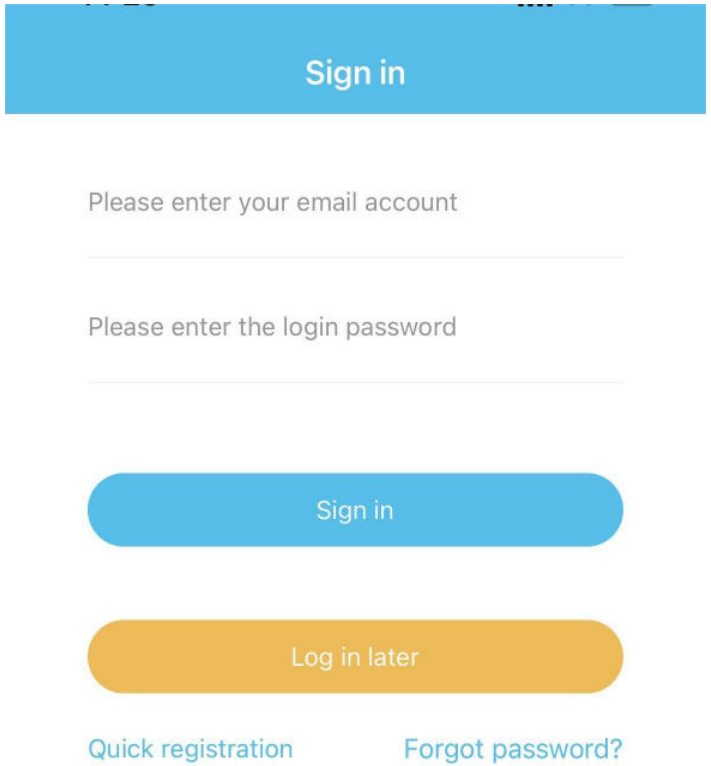


3.2.3 Guest Mode

When the mobile signal is poor or you want to skip account registration, you can choose to use Guest Mode.

Note: Because no account is logged in, this mode does not allow you to modify or save settings. To adjust system parameters, you must log into a registered account.

Operation Steps: Open the APP, navigate to the login interface, select Log In Later, and the APP will directly enter the user interface.



3.3 Real-time interface

Capacity Information: Displays the battery SOC percentage and remaining capacity when the system is idle. During charging, it displays the estimated time to full charge. During discharging, it displays the estimated remaining runtime (time to empty).

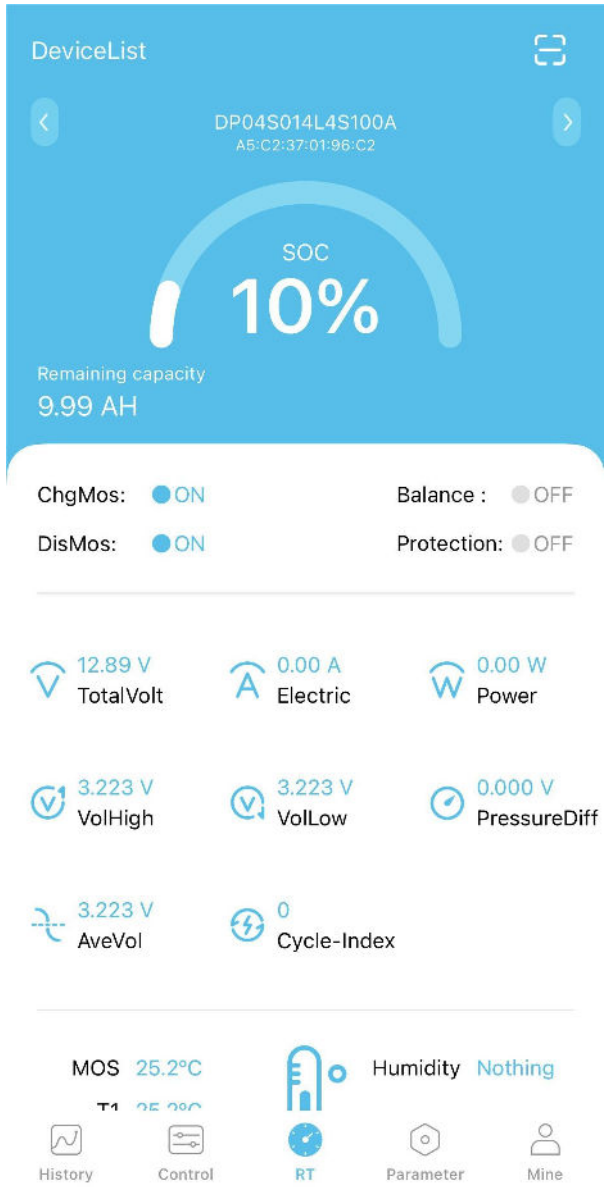
Switch and Protection Status: Displays the current status of the charge and discharge switches (On/Off), as well as the balancing status (On/Off). If a protection threshold is triggered or if charging/discharging is manually restricted, the specific protection state is displayed; otherwise, it shows "Off" when no protection is active.

Battery Information: Displays the total voltage, current, power, maximum cell voltage, minimum cell voltage, average voltage, voltage difference, and cycle count, all read or calculated directly from the BMS protection board.

Temperature and Humidity: Displays the MOS temperature (the internal temperature of the protection board) and external NTC temperatures (monitoring individual battery cells). Humidity displays ambient humidity, which requires an optional humidity probe to be installed.

Single String Voltage: Displays the individual cell voltages collected by the protection board. To easily identify cell balance, the highest cell voltage is highlighted in green, the median values in blue, and the lowest cell voltage in gray.

3.3 Real-time interface



3.4 Control interface

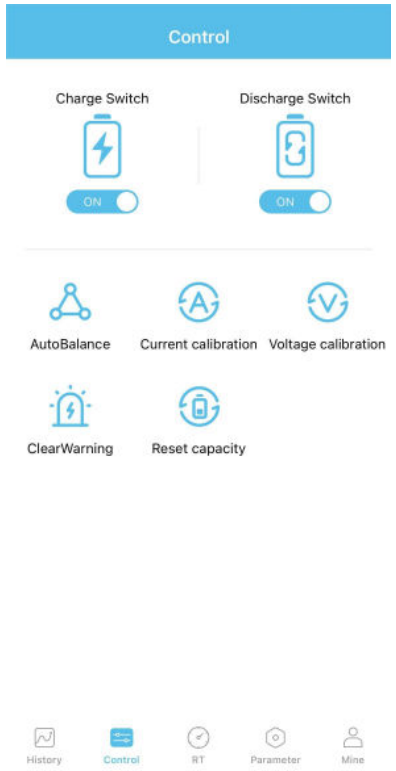
Charge and Discharge Switch: Allows you to directly open or close the charge and discharge switches via the APP to manually control battery charging and discharging.

Automatic Equalisation: Forces the cell balancing function to turn on. Once successfully enabled, the active balancing status will be displayed on the real-time interface.

Clear Alarm: Clears the active alarm data and logs from the interface.

Reset Capacity: Re-estimates and recalibrates the remaining battery capacity based on the current real-time voltage value.

Note: The automatic equalisation switch, clear alarm, and reset capacity functions are not displayed or supported in certain BMS versions.



3.5 Parameter interface

Primary Information	Secondary Information	Example
Basic Information	Bluetooth name	can be modified
	serial number	Can be modified according to customer needs
	Bar-code	Can be modified according to customer needs
	battery model	Can be modified according to customer needs
	battery manufacturer	can be modified
	BMS version number	cannot be modified
	BMS model	cannot be modified
	Production Date	cannot be modified
	BMS address	24 digits, cannot be modified
	Rated charging current	cannot be modified
	Rated discharge current	cannot be modified
	Rated shop power	cannot be modified
Default setting	Nominal capacity	10000mAH, can be modified
	Cycle capacity	8000mAH, can be modified

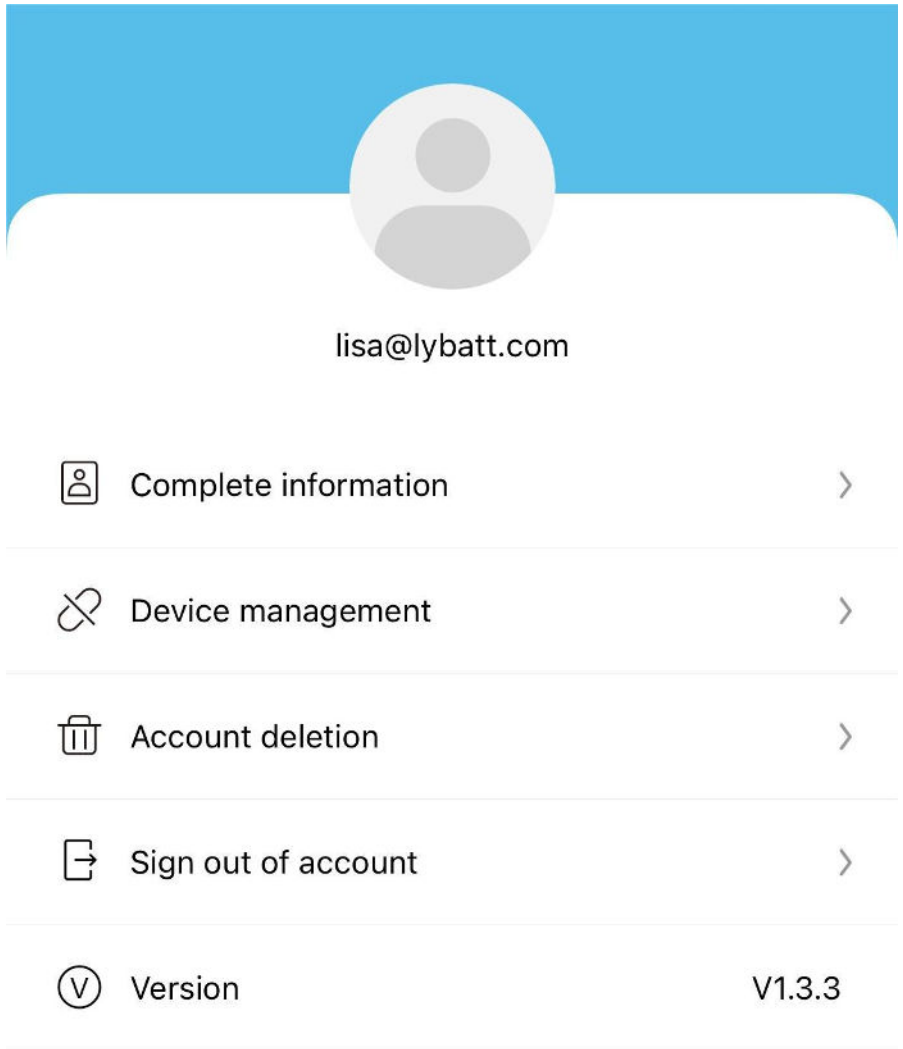
3.6 My interface

3.6.1 Interface introduction

Primary Information	Secondary Information	Example
Complete material	Phone number	Phone number
	Mail	email address
Device bound	Bluetooth list	Unbind the device
Lithium battery notice	Web links	Web links
Instructions for using BMS	Web links	Web links
Logout	Log out of current account	quit

-

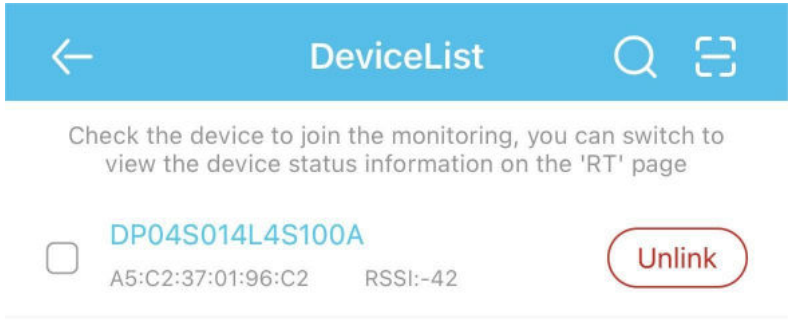
3.6.1 Interface introduction



3.6.2 Bind/Unbind Device

Binding a Device: When connecting to a Bluetooth device for the first time, a dialog box will automatically pop up asking if you want to bind the device. Click OK to bind it. Note that modifying parameters and obtaining configuration settings requires administrator approval.

Unbinding a Device: Navigate to the My interface, select the device you wish to remove, and click Unbind. A single account can be bound to multiple devices simultaneously.



3.6.3 Reset password

If you forget your login password, you can reset it using your registered email address. The steps are as follows:

1.Open Reset Interface: Open the login interface, locate and click Forgot Password, and the password reset screen will pop up.

2.Request Verification Code: Enter your bound email address and click Send Verification Code. The verification code is typically sent within 60 seconds; please check your inbox (and spam folder) to retrieve it.

3.Set New Password: Enter the received verification code, input your new password, and click OK to complete the reset.

3.6.3 Reset password