

Green Marine Lithium Battery Guide

The Green Marine Lithium battery chemistry is lithium iron phosphate (LiFePO₄ or LFP) the safest and most stable of commonly used lithium battery. All Green Marine Lithium Battery's come with BMS (battery management systems).

BMS

The BMS protects Lithium Battery cells against over-charge, under-charge, low and high temperatures surges and short circuiting. The BMS also provides integrated cell balancing, Temperature and Voltage control system. The BMS will turn off loads or chargers accordingly to any breach in the pre set parameters within the BMS. Each Green Marine Lithium battery has bluetooth connectivity to allow customers to monitor and control the battery performance and to ensure the battery has the stated capacity.

WARNING: Always keep all lithium batteries fully charged when not in use. Insure lithium batteries are continually topped up whilst in storage and check every weeks via the bluetooth app. BMS consumes power when in storage.

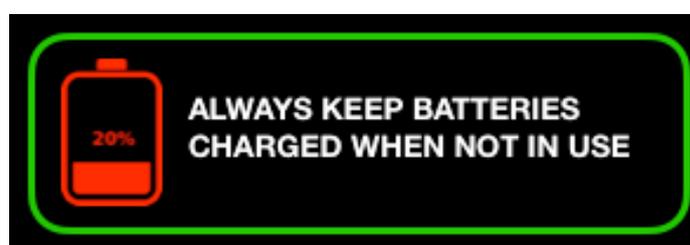
Android phones: download the smart bms APP in the Android Application Center
You can also click this link to jump directly to download
<https://play.google.com/store/apps/details?id=com.inuker.bluetooth.daliy&hl=zh>

PS:Other mobile phones can also be installed directly through the browser by clicking the link below https://www.dalyelec.cn/daly/SMART_BMS.apk

IPhone: Search for the APP smart bms in APP STORE
You can also click this link to jump directly to download
<https://apps.apple.com/cn/app/smart-bms/id1519968339>

IMPORTANT: ALWAYS KEEP BATTERIES CHARGED WHEN NOT IN USE.

Fully charge batteries after use and check at least every week or leave charger connected and switched on. Ensure the correct voltage charger is always used.



After downloading and installing, the following smart BMS icon will appear on the phone



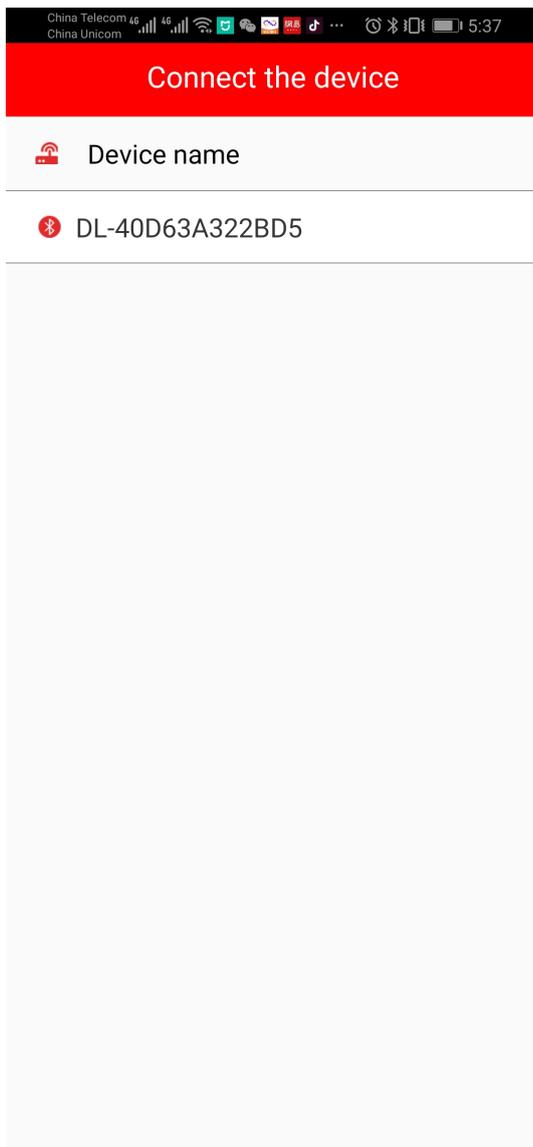
ANDROID



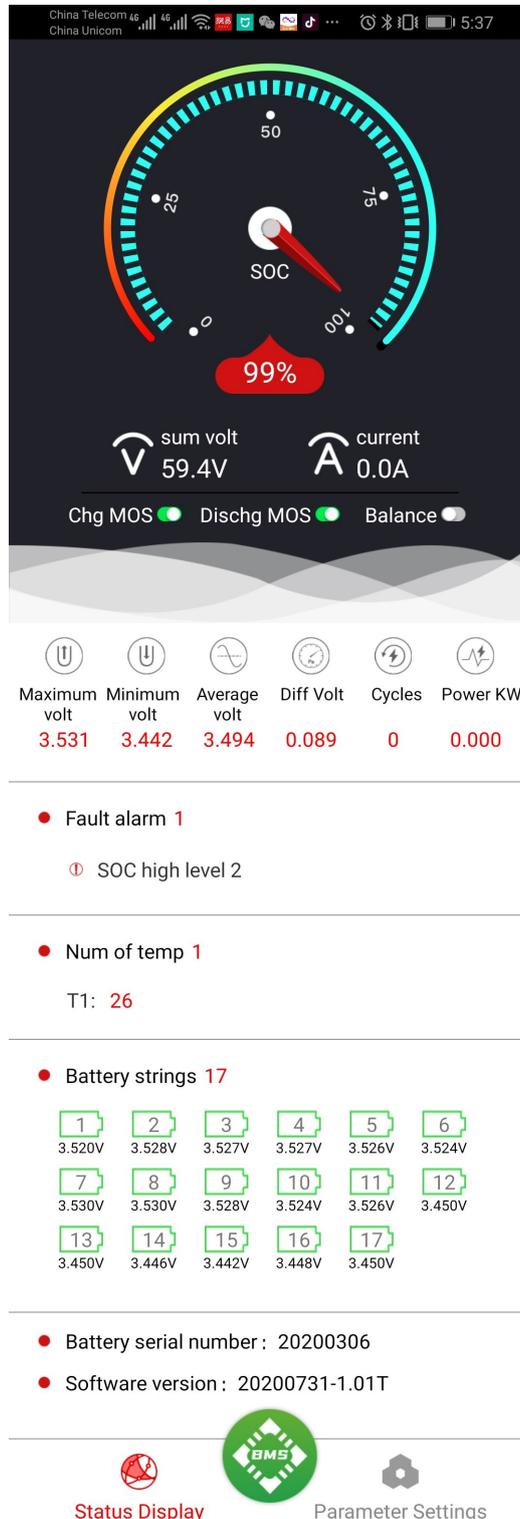
APPLE IOS



Click to enter the APP and select the corresponding Bluetooth. The first time it needs to be charged and activated.



Click the Bluetooth serial number to enter the real-time status interface. You can see the real-time voltage, current, the percentage of battery capacity remaining SOC %, the MOS state of charging and discharging, whether the balance is on, etc. This is now operational and no further setting changing are required.

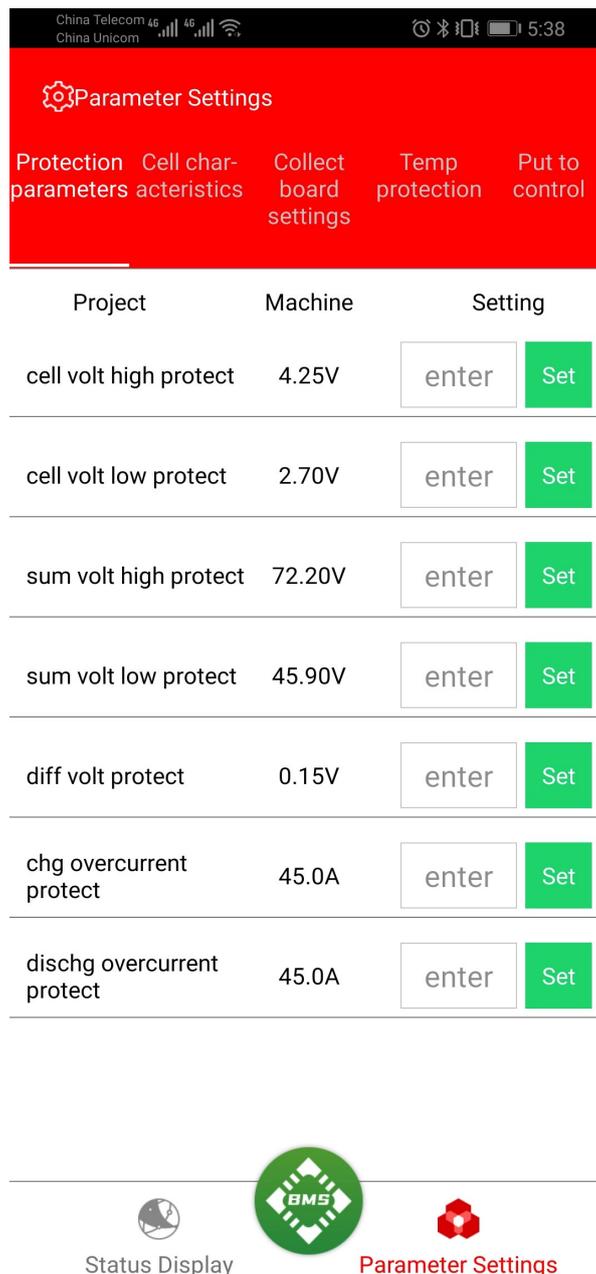


There are parameter setting interface, you can see five major sections:

- ① Protection parameters
- ② Battery core characteristics
- ③ Collection board settings
- ④ Temperature protection
- ⑤ Charge and discharge control

Note: To ensure the stability of the data, it is not recommended for non-professionals to set this parameter.

① In the protection parameter interface, the protection values of voltage and current can be set.

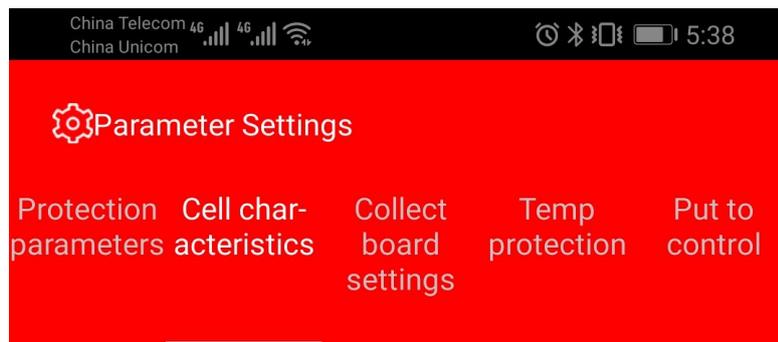


The screenshot shows a mobile application interface for 'Parameter Settings'. At the top, there are five menu items: 'Protection parameters', 'Cell characteristics', 'Collect board settings', 'Temp protection', and 'Put to control'. Below this is a table with columns for 'Project', 'Machine', and 'Setting'. Each row contains a project name, a machine value, and an 'enter' button followed by a 'Set' button. At the bottom, there is a navigation bar with three icons: 'Status Display', 'BMS' (highlighted), and 'Parameter Settings'.

Project	Machine	Setting
cell volt high protect	4.25V	enter Set
cell volt low protect	2.70V	enter Set
sum volt high protect	72.20V	enter Set
sum volt low protect	45.90V	enter Set
diff volt protect	0.15V	enter Set
chg overcurrent protect	45.0A	enter Set
dischg overcurrent protect	45.0A	enter Set

Navigation Bar: Status Display | BMS | Parameter Settings

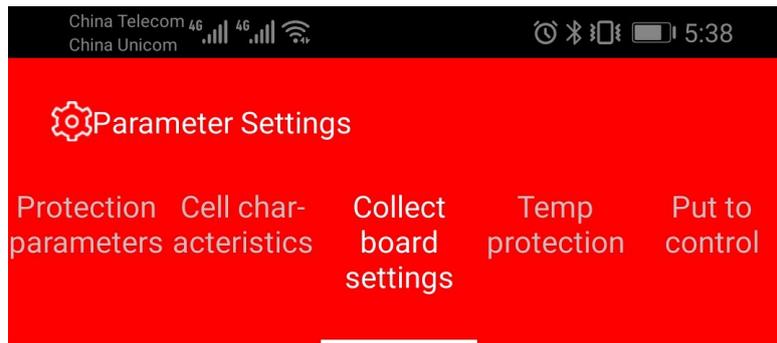
②In the battery cell characteristics, you can set the total capacity of the battery, the remaining capacity, and the balanced opening conditions.



Project	Machine	Setting	
type of battery	Li-ion	<input type="button" value="Set"/>	
rated capacity	50.0AH	<input type="text" value="enter"/>	<input type="button" value="Set"/>
cell reference volt	3.60V	<input type="text" value="enter"/>	<input type="button" value="Set"/>
sleep waiting time	65535S	<input type="text" value="enter"/>	<input type="button" value="Set"/>
SOC set	99.1%	<input type="text" value="enter"/>	<input type="button" value="Set"/>
balanced open start volt	3.80V	<input type="text" value="enter"/>	<input type="button" value="Set"/>
balanced open diff volt	0.07V	<input type="text" value="enter"/>	<input type="button" value="Set"/>



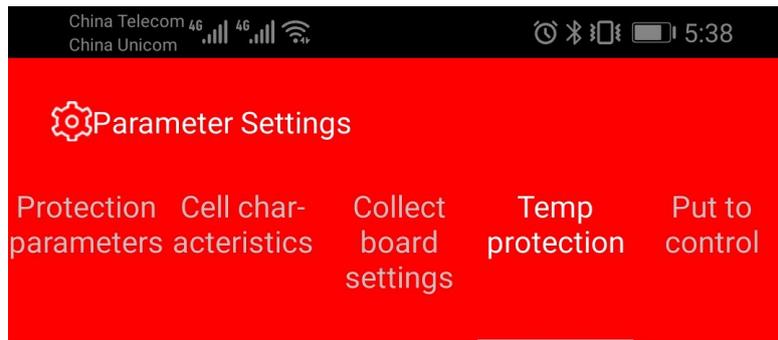
③In the acquisition board setting interface, it needs to be set together with the hardware device. It is not recommended that the user set this



Project	Machine	Setting	
boards num	2	<input type="text" value="enter"/>	<input type="button" value="Set"/>
board 1 cell num	11	<input type="text" value="enter"/>	<input type="button" value="Set"/>
board 2 cell num	6	<input type="text" value="enter"/>	<input type="button" value="Set"/>
board 3 cell num	0	<input type="text" value="enter"/>	<input type="button" value="Set"/>
board 1 temp num	1	<input type="text" value="enter"/>	<input type="button" value="Set"/>
board 2 temp num	0	<input type="text" value="enter"/>	<input type="button" value="Set"/>
board 3 temp num	0	<input type="text" value="enter"/>	<input type="button" value="Set"/>



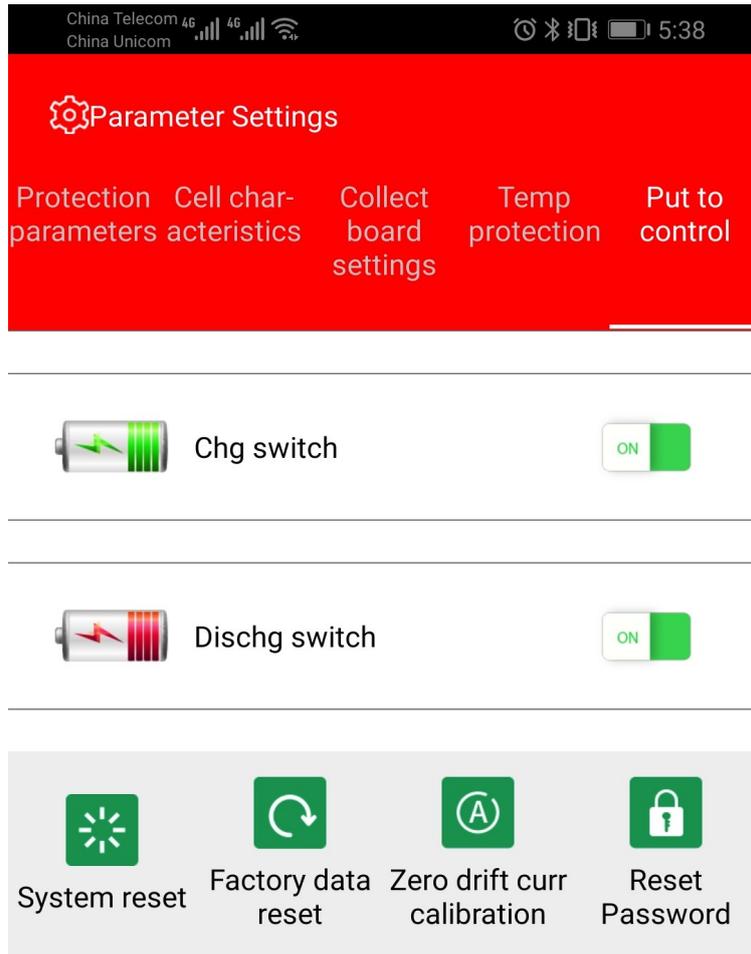
④ In the temperature protection setting, the protection temperature of charge and discharge can be set



Project	Machine	Setting	
chg high temp protect	65°C	<input type="text" value="enter"/>	<input type="button" value="Set"/>
chg low temp protect	-40°C	<input type="text" value="enter"/>	<input type="button" value="Set"/>
disChg high temp protect	70°C	<input type="text" value="enter"/>	<input type="button" value="Set"/>
disChg low temp protect	-40°C	<input type="text" value="enter"/>	<input type="button" value="Set"/>
diff Temp protect	15°C	<input type="text" value="enter"/>	<input type="button" value="Set"/>
MOS temp protect	47°C	<input type="text" value="enter"/>	<input type="button" value="Set"/>



⑤ On the charge and discharge control interface, you can switch the charge and discharge MOS tube, and you can reset the password



The introduction to the simple tutorial of using the mobile phone APP to connect to the Lithium BMS is complete.

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