

BT4-4CHN-18650 Battery tester

# BT4-4CHN

18650三元里锂电池四通道测试仪

Damaged or leaking batteries cannot be tested!!!

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Not supporting charging of lithium iron phosphate batteries

升级款第四代

## 好用更安全

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1. Technical parameters
2. Hardware Introduction
3. Interface Introduction
4. Charging electrical parameters (does not support charging lithium iron phosphate batteries)
5. Physical display
6. Usage method

07:39

## 1、 Technical parameters

Working voltage: DC5V

Power supply interface: Two Type-C power supply interfaces (power supply and power cord provided)

System language: Chinese, English

Test route: 4 charging and discharging measurements, each independent and not affecting each other

Internal resistance measurement: supported, using DC two-wire method to test internal resistance, test results are for reference only

Charging function: Supports, automatically cuts off charging when fully charged (does not

support charging lithium iron phosphate batteries)

Discharge function: supported, automatically stops when conditions are met,

The discharge current is not adjustable

Automatic charging and discharging: supported

Cycle charging and discharging: supported, adjustable from 1 to 9 cycles (only supported in automatic mode)

Status prompt: Support

Cooling method: Fan active cooling

Overheating protection: Supports

Stop discharge voltage: 2.5V, 2.6V, 2.7V, 2.8V, 2.9V, 3.0V, 3.1V, 3.2V

3.3V, 3.4V, 3.5V, a total of 11 adjustable levels

Discharge current: Maximum of about 1A Non constant current, non adjustable, not supported for modification

Charging voltage: 4056 battery charging chip control, maximum charging of about 1A, fixed 4.2V, non adjustable

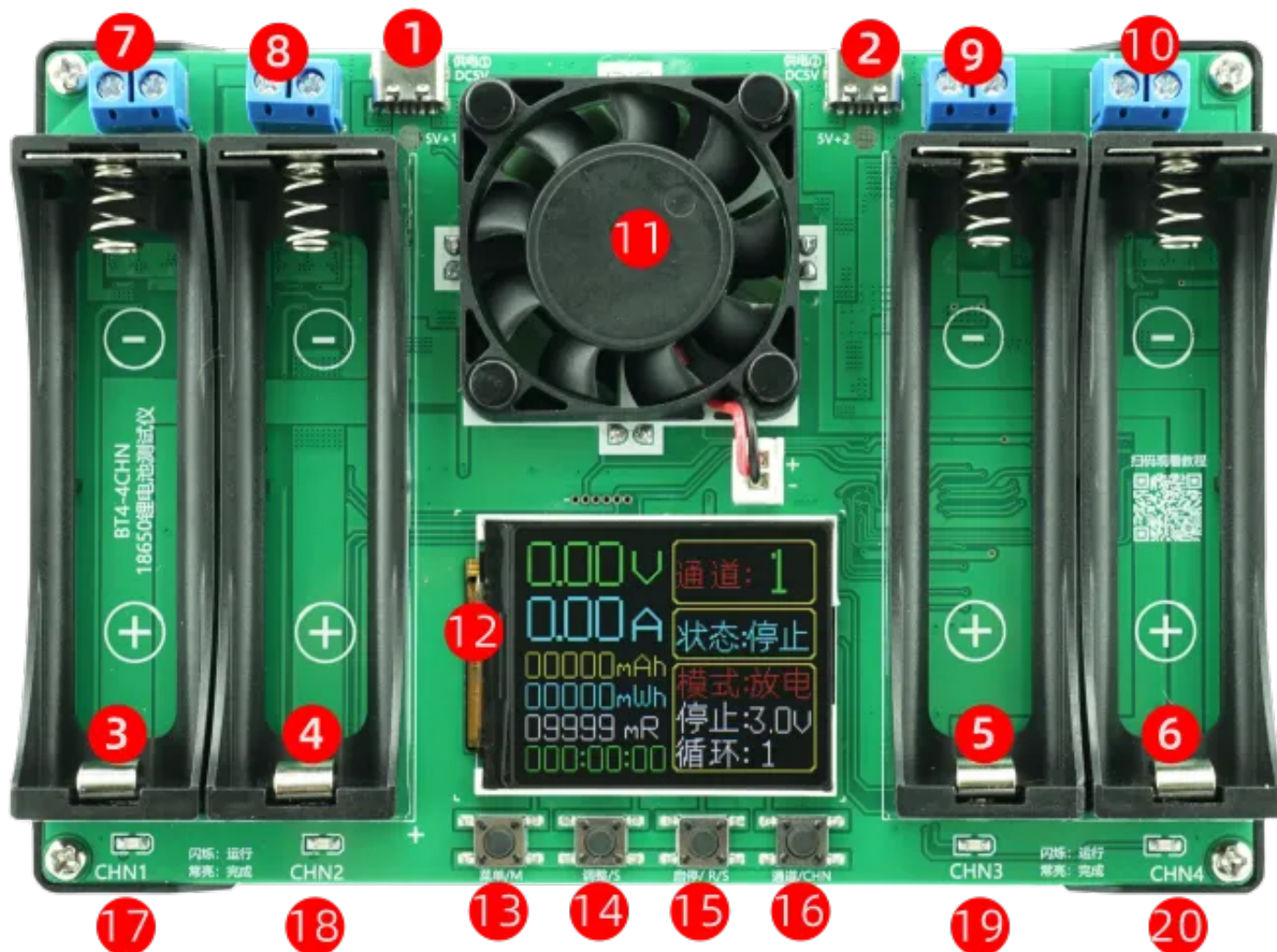
Power off saving: only saves the set parameters, not the measurement data

Product weight: 210g (including packaging)

Product size: 147 × 102 × 34mm

Packaging size: 182 × 112 × 50mm (corrugated cardboard box)

## 2、Hardware Introduction



1. Type-C5V power supply interface No.1
2. Type-C5V power supply interface No.2
3. 1 channel 18650 battery holder
4. 2-channel 18650 battery holder
5. 3-channel 18650 battery holder
6. 4-channel 18650 battery holder
7. 1-channel extension terminal
8. 2-channel extension terminal
9. 3-channel extension terminal
10. 4-channel extension terminal
11. DC5V 40 × 40 cooling fan
12. Display screen
13. Menu/M button
14. Adjust/S button
15. Start stop/R/S button
16. Channel/CHN button
17. CHN1 channel status indicator light

18. CHN2 channel status indicator light

19. CHN3 channel status indicator light

20. CHN1 channel status indicator light



▲ Indicator light status description

### 3、Interface Introduction



1. Real time voltage

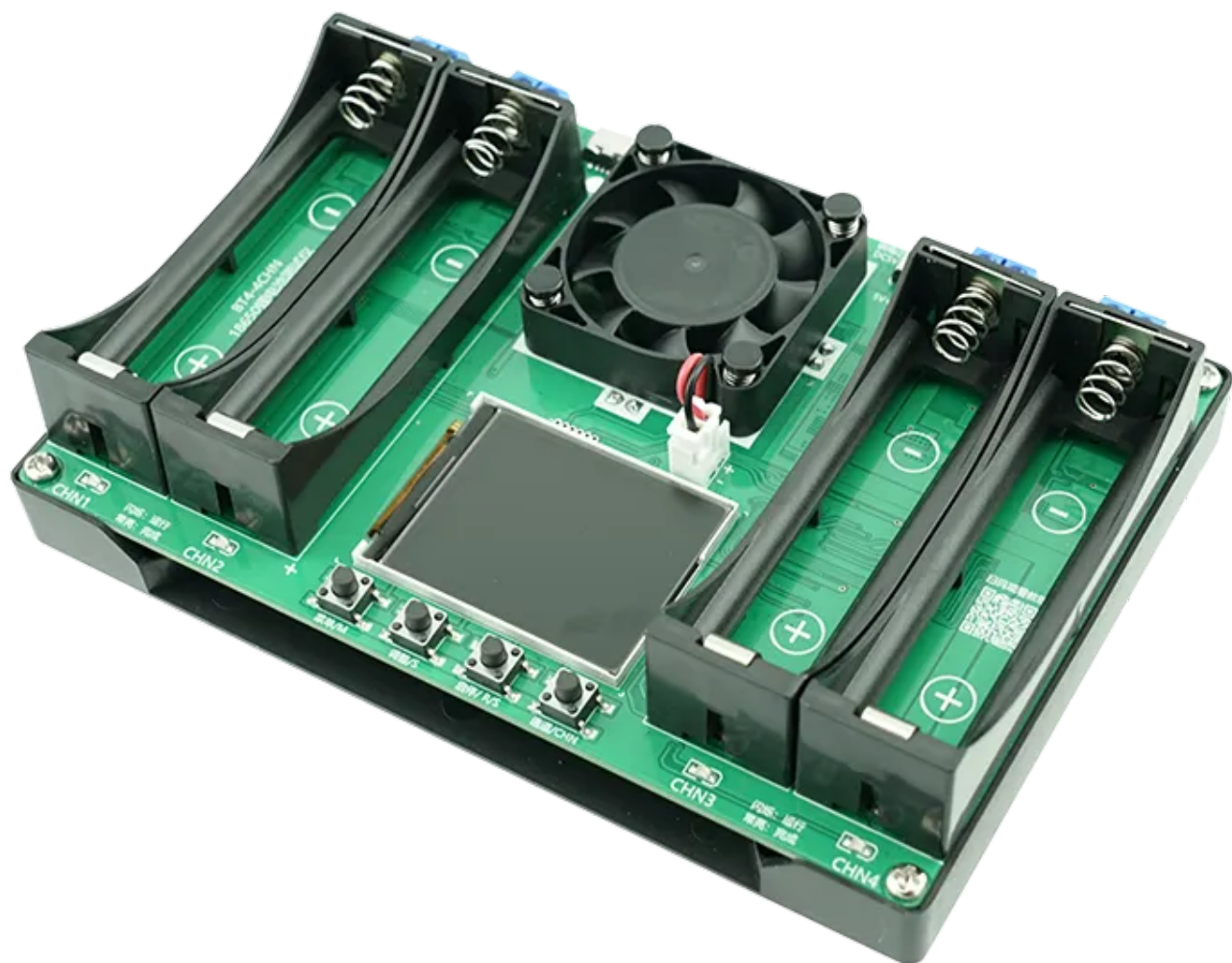
2. Real time current

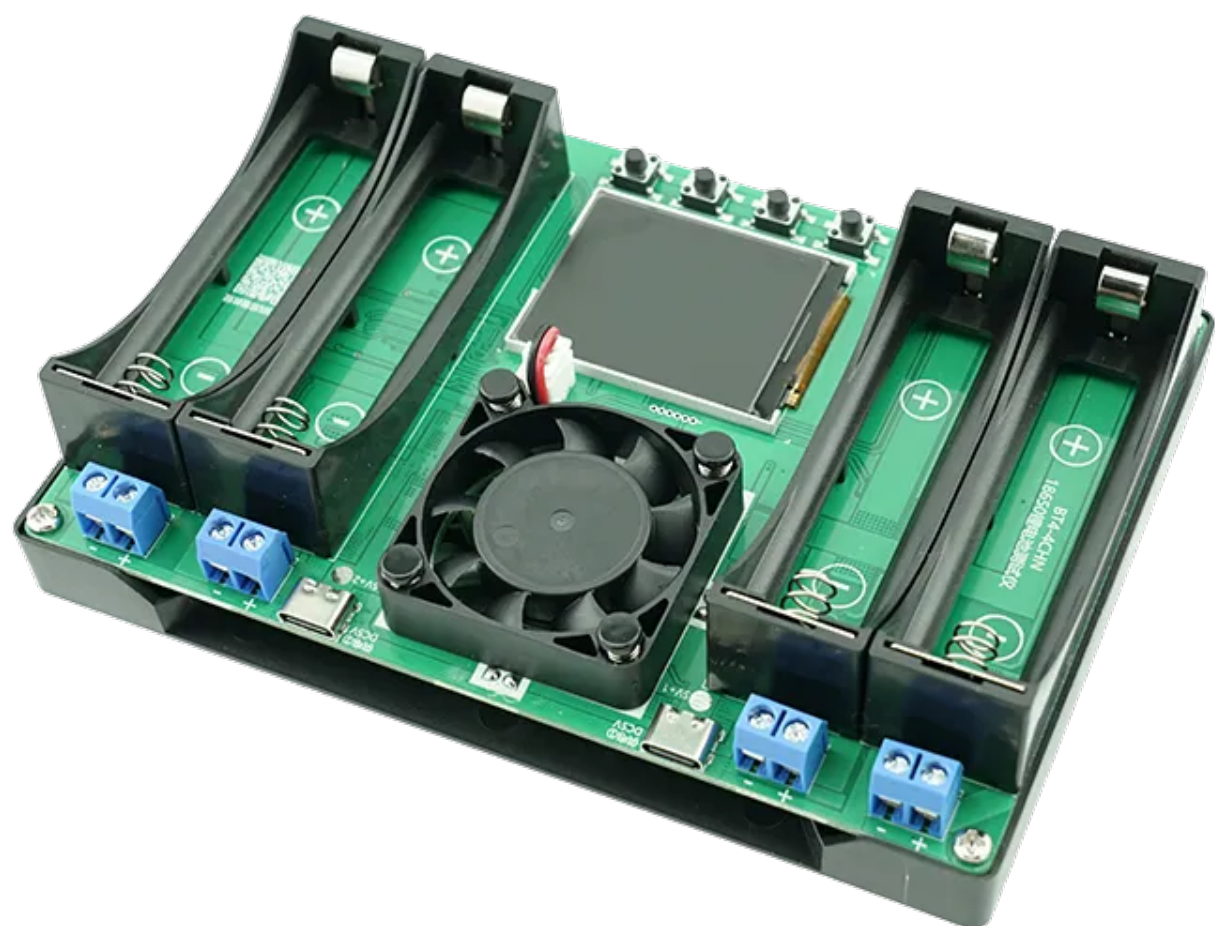
- 3. Accumulated capacity
- 4. Accumulated energy
- 5. Internal resistance of battery
- 6. Accumulated running time - hhh: mm: ss (hours: minutes: seconds)
- 7. Number of cycles
- 8. Stop discharging low voltage
- 9. Working mode menu
- 10. Status indication
- 11. Channel indication

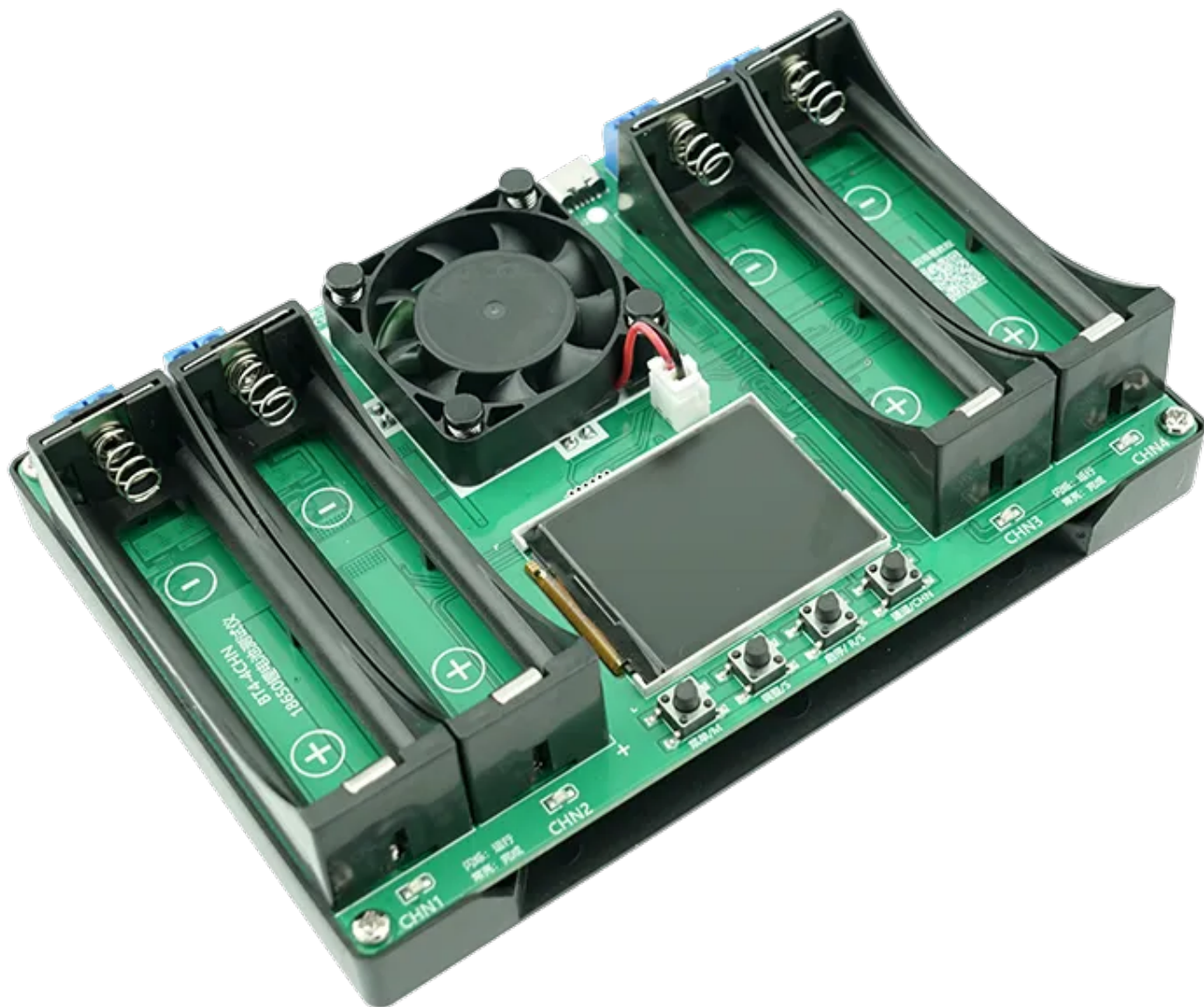
4、Charging electrical parameters (does not support charging lithium iron phosphate batteries)

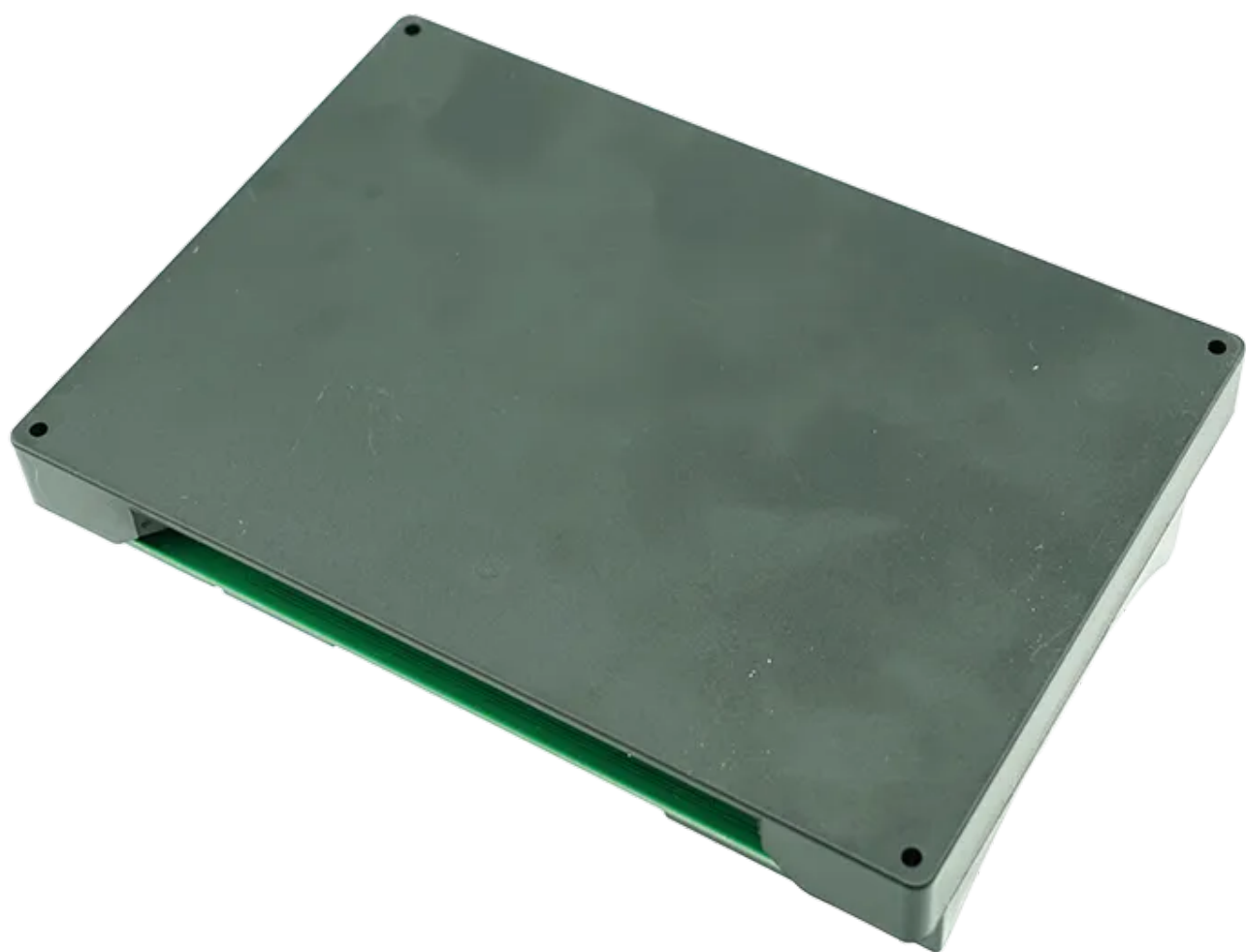
符号	参数	测试条件	最小值	典型值	最大值	单位
V <sub>CC</sub>	输入电源电压		4	5	6	V
V <sub>FLOAT</sub>	输出浮充电压	0°C≤T <sub>A</sub> ≤85°C	4.158	4.2	4.242	V
I <sub>TRIKL</sub>	涓流充电电流	V <sub>BAT</sub> <V <sub>TRIKL</sub> ,R <sub>PROG</sub> =1.2K	100	120	150	mA
V <sub>TRIKL</sub>	涓流充电阈值电压	R <sub>PROG</sub> =1K, V <sub>BAT</sub> 上升	2.8	2.9	3	V
V <sub>TRHYS</sub>	涓流充电迟滞电压	R <sub>PROG</sub> =1K	60	80	100	mV

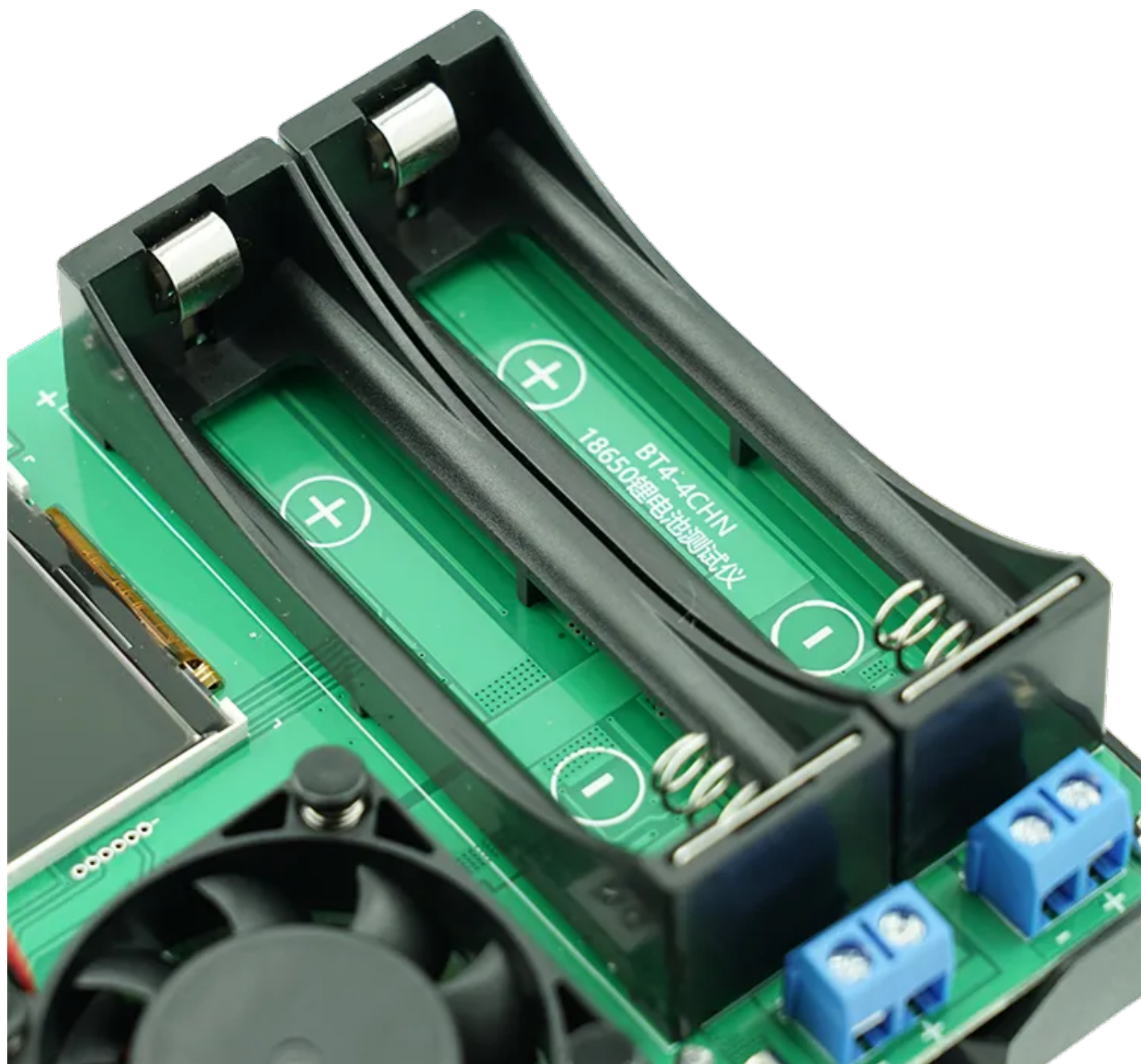
5、Physical display

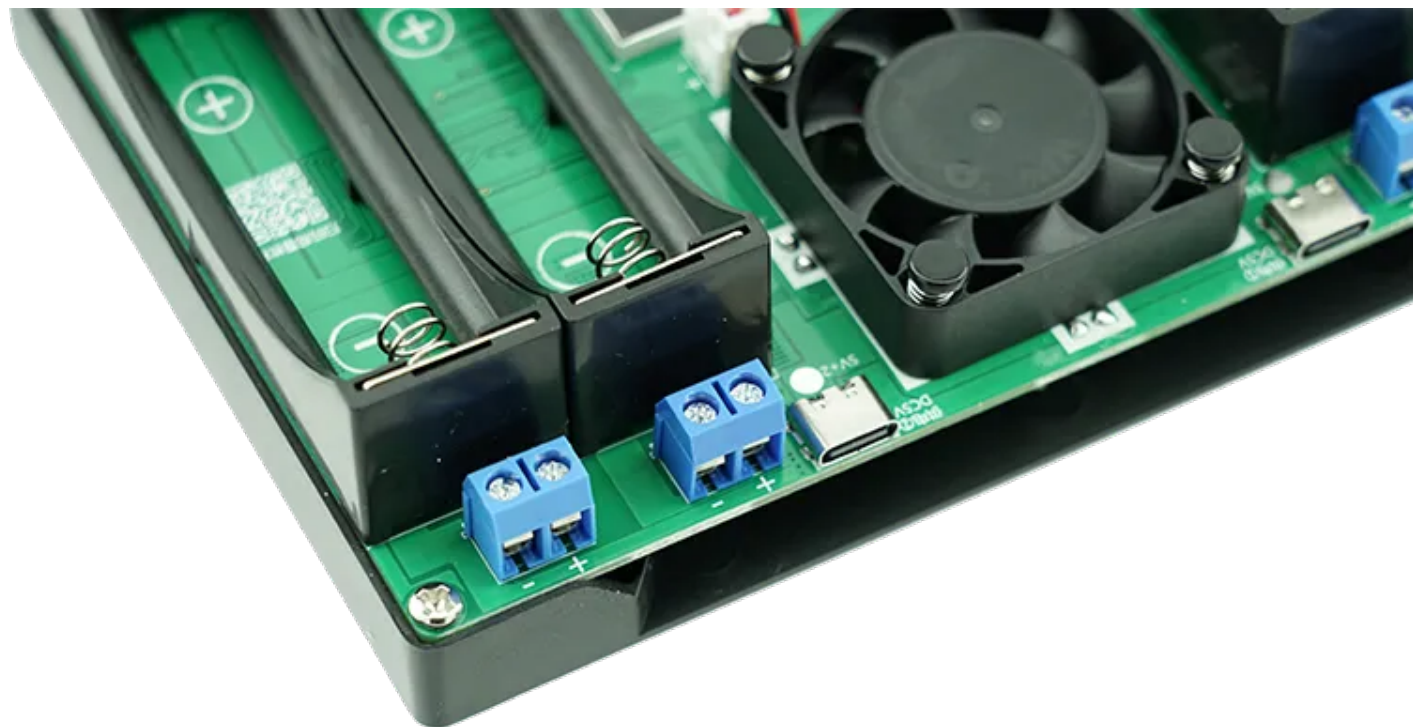


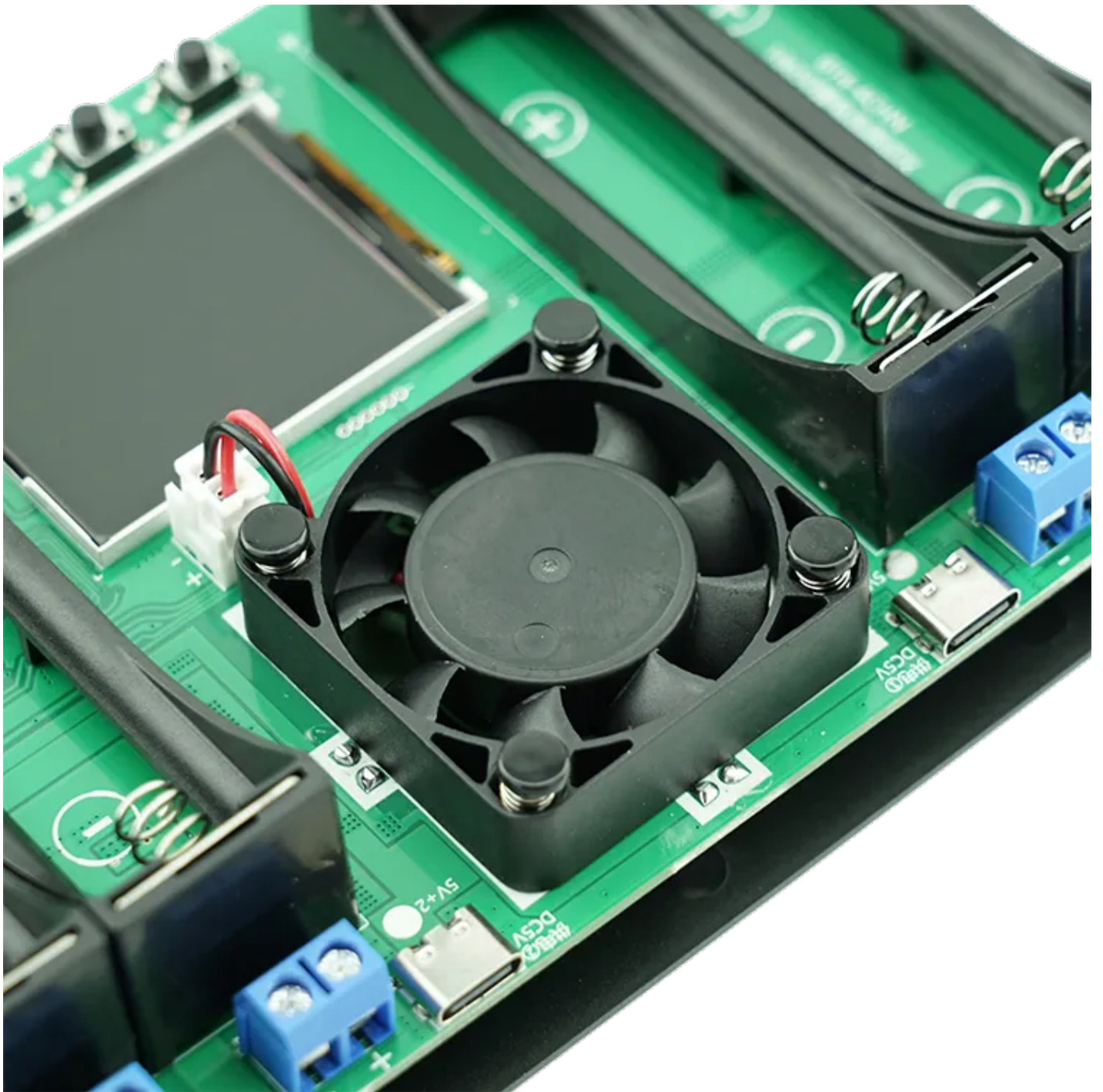


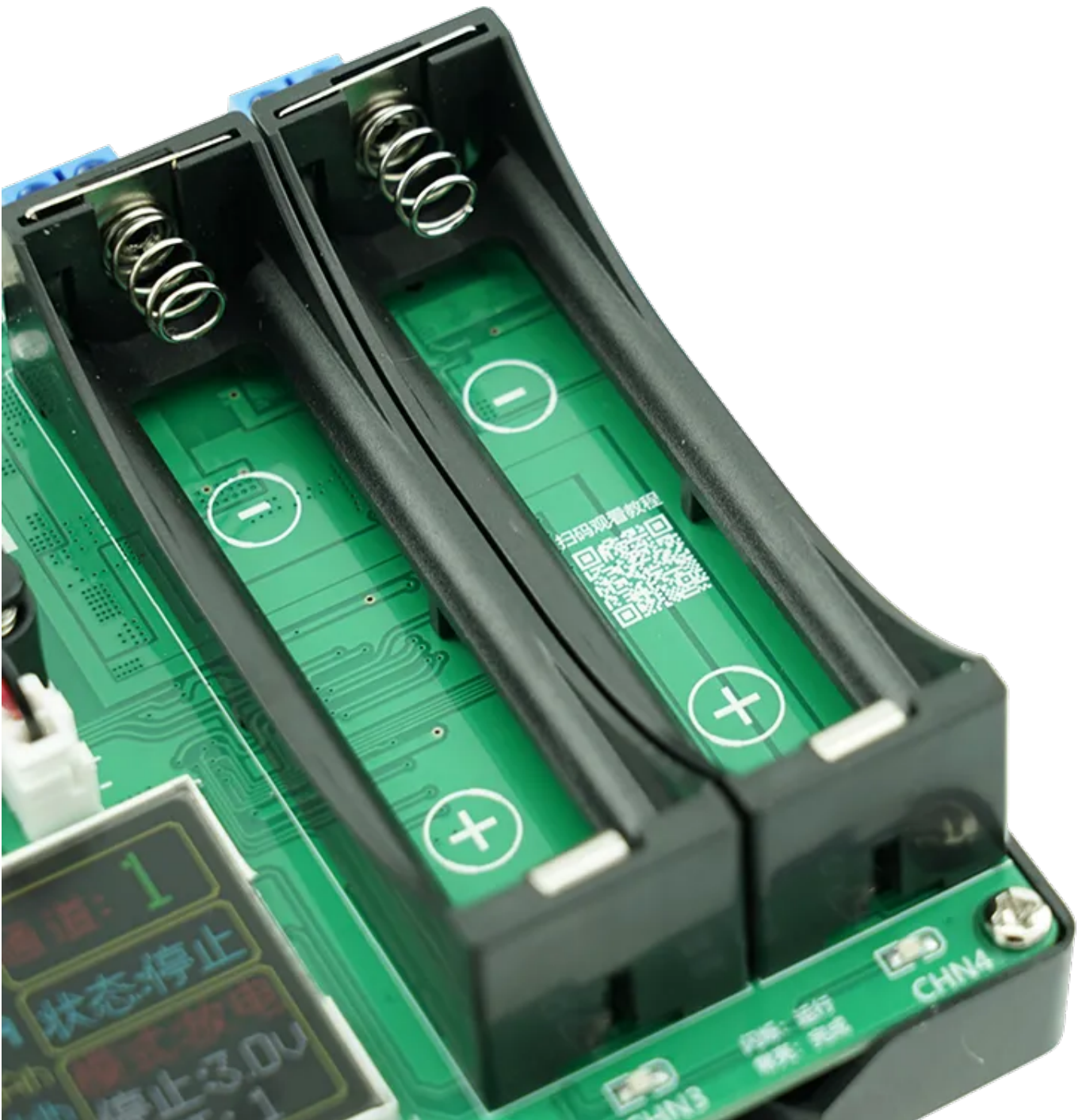












## 6.Usage method

### 6.1、ON/Off

The product has no on/off key, automatically starts when powered on, and shuts down when powered off.

### 6.2、Language

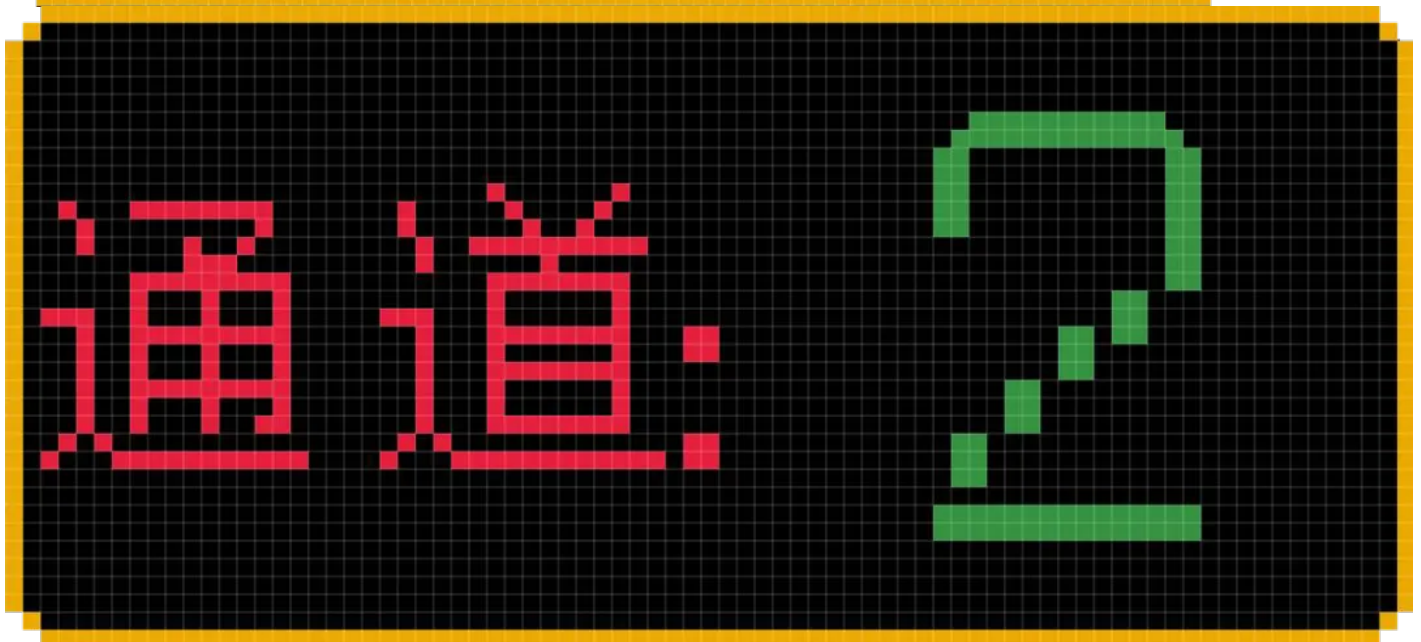
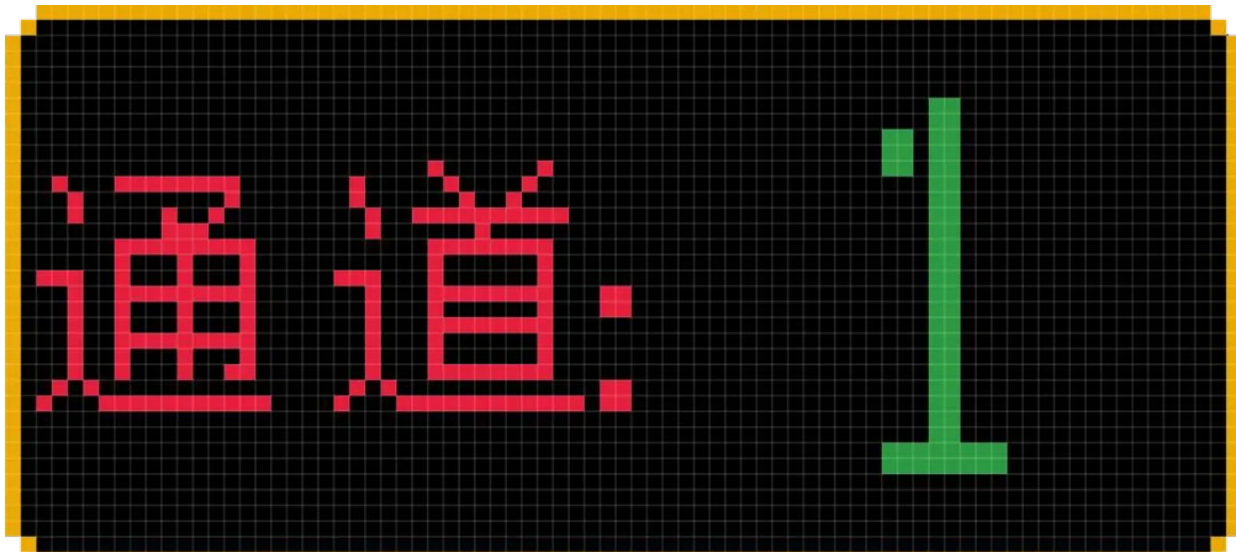
Press and hold the "菜单/M" button before powering on. After the main interface is displayed on the screen, release the "Menu/M" button and wait for 10 seconds before

shutting down and restarting!

### 6.3、Switching Display Channels

Each channel is independent of each other and does not interfere with each other. Click the "通道/CHN" button to switch the display channels and view the parameters of each channel, and set the parameters of each channel.

After filling the empty channel with the battery, the display interface will automatically switch to the new channel. The initial battery installation requires waiting for 3 seconds for the loading signal.

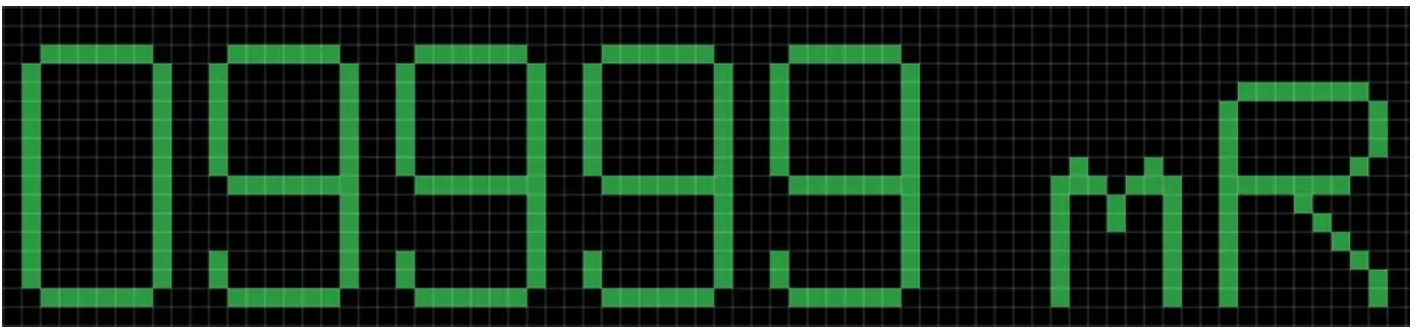




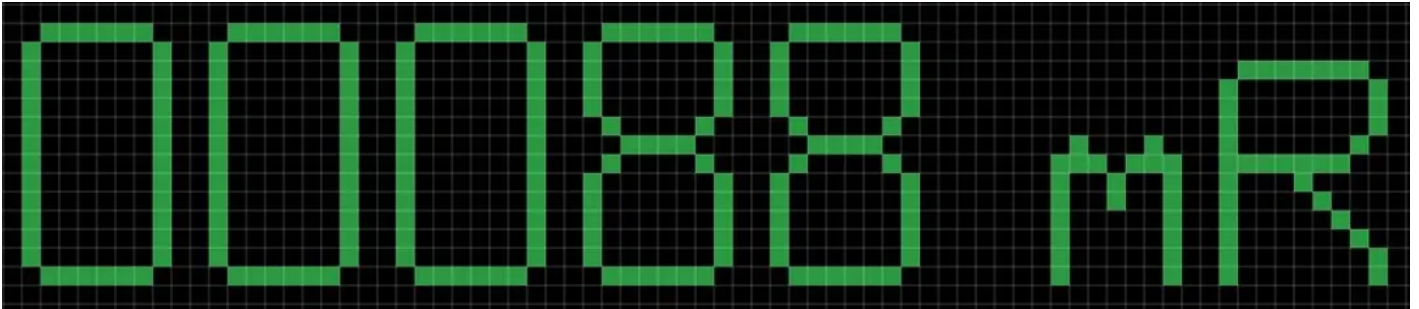
#### 6.4、Testing Internal Resistance

Install the battery, turn it on, wait for 10 seconds, and display the battery voltage and internal resistance test results. This product uses the DC two wire method to test the internal resistance. Due to the limitations of the testing principle, there may be situations where the battery cannot be recognized and the internal resistance always displays 9999.

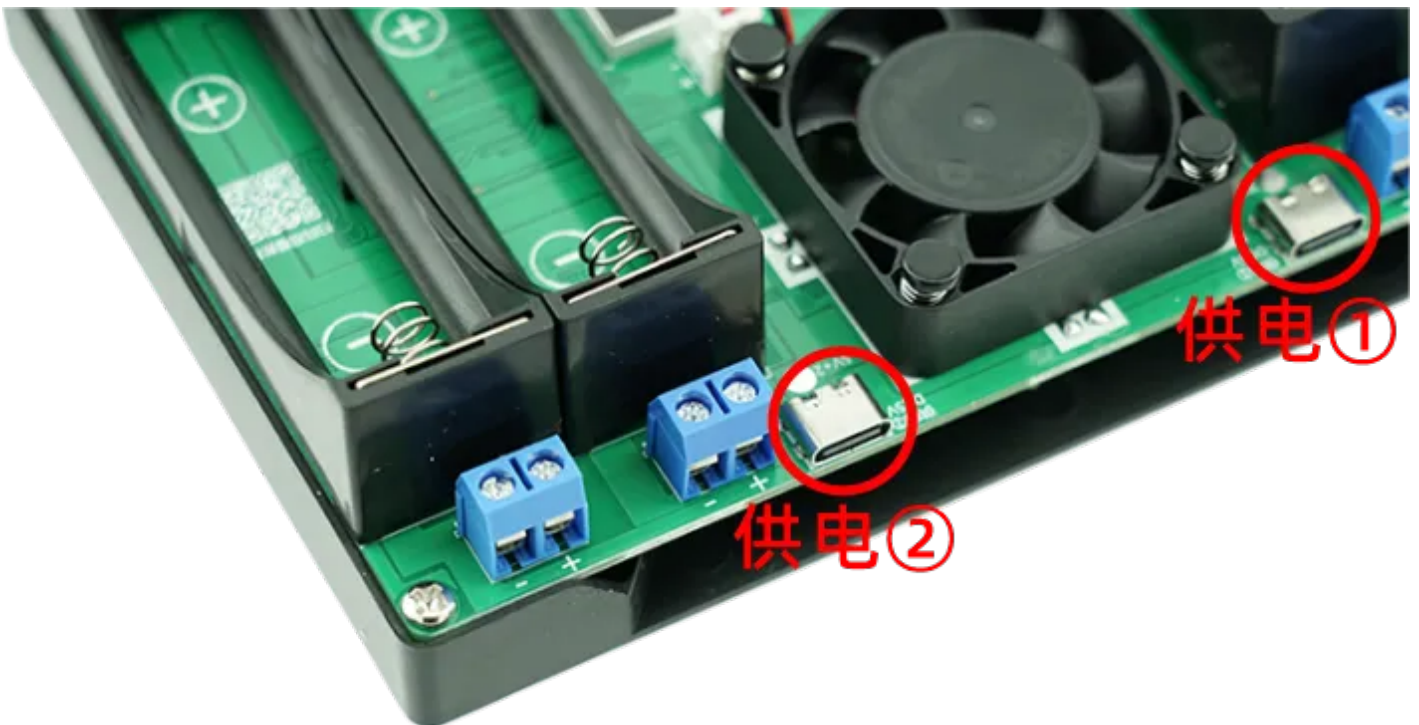
When the battery is not installed, the test circuit is open circuit, and the internal resistance shows 9999 milliohms due to the infinite resistance value.



After installing the battery, the circuit is complete and shows the internal resistance of the tested battery.



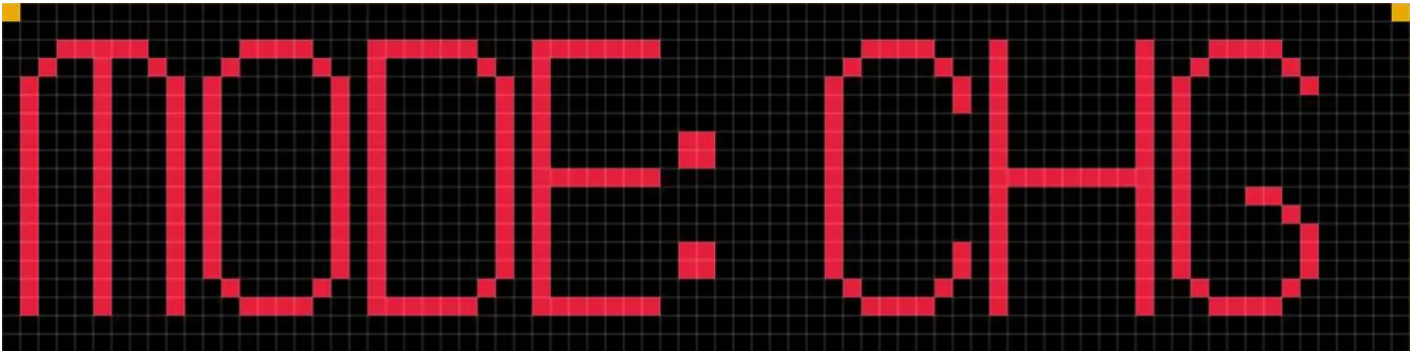
## 6.5、Charging



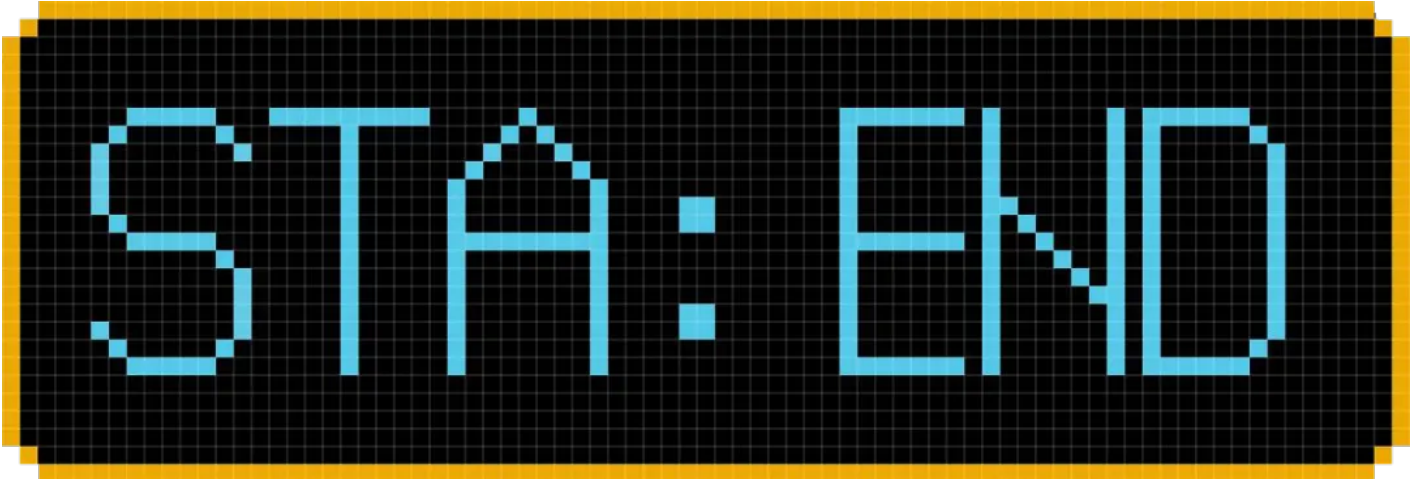
供电 ① provides charging power for channels 1 and 2

供电 ② provides charging power for channels 3 and 4

Install the battery in the battery holder, adjust the mode to "CHG" mode, and click "启停 / R/S" to run the program

A pixelated red text "MODE: CHG" on a black background. The text is rendered in a blocky, digital font style.

After charging, the status indicator END indicates completion

A pixelated cyan text "STA: END" on a black background, enclosed within a yellow border. The text is rendered in a blocky, digital font style.

The charging process records the capacity, energy, and charging time. The charging metering capacity is for reference only, please refer to the discharge capacity.



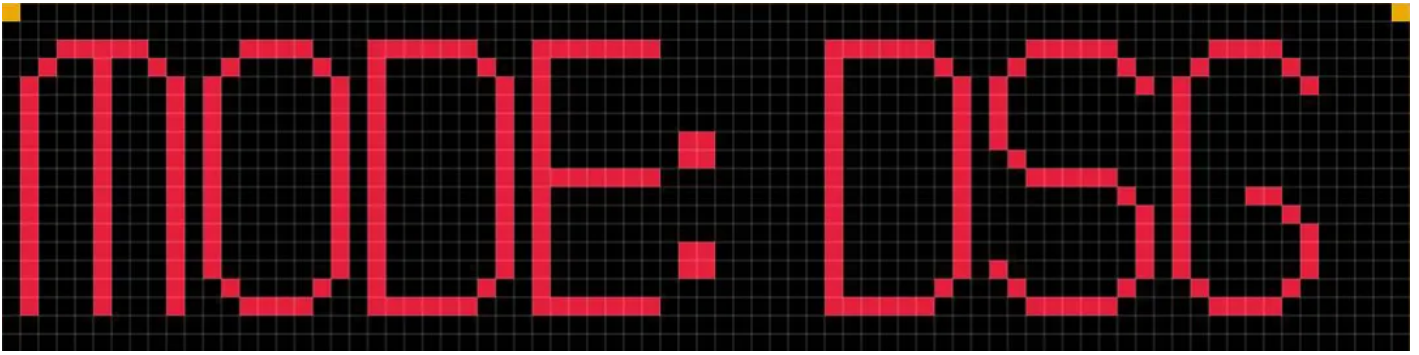
One click all channel charging: Press and hold the "启停/R/S" button for 3 seconds to run the "charging" mode for the all channel.

## 6.6、Capacity measurement

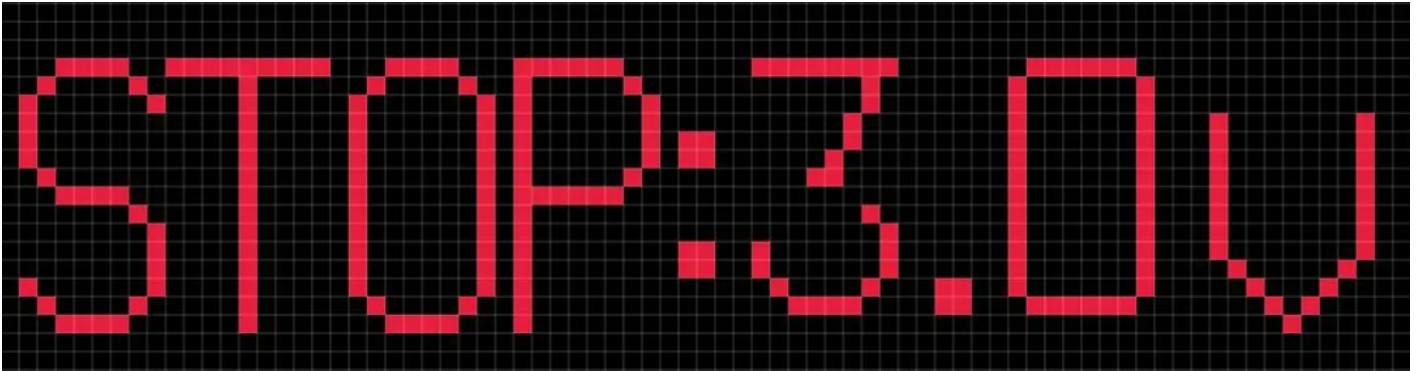
The capacity test is conducted through resistance discharge, which generates high temperature due to the heating of the resistor during discharge. Do not touch it directly with your hands to avoid external burns.

The capacity test result is only the capacity measured during the testing phase from the start of battery discharge to the triggering stop.

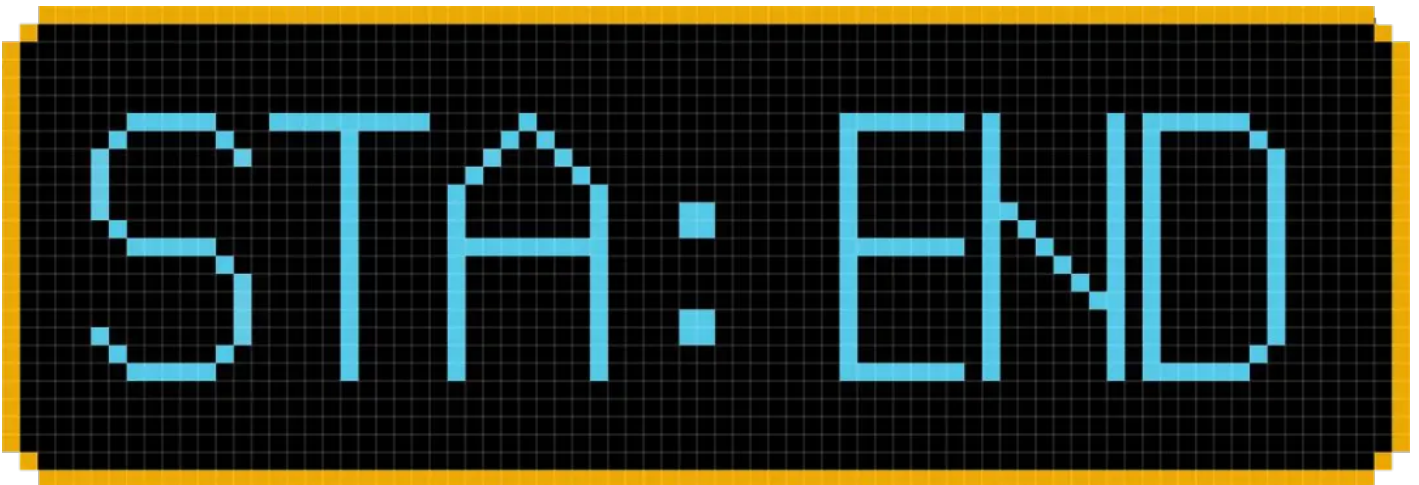
Install the battery and adjust the mode to "DSG" mode

A red pixelated font on a black background displaying the text "MODE: DSG". The characters are composed of small squares, giving it a digital or retro aesthetic.

Adjust the stop discharge voltage according to the battery demand, and click "启停/R/S" to run the program after completion

A red pixelated font on a black background displaying the text "STOP: 3.0V". The text is centered and uses the same digital style as the previous image.

After the discharge is completed, the status indicator END indicates completion

A cyan pixelated font on a black background displaying the text "STA: END". The text is framed by a thick yellow border, which is also pixelated. The font style is consistent with the previous images.

Record the cumulative capacity, energy, and time during the discharge process

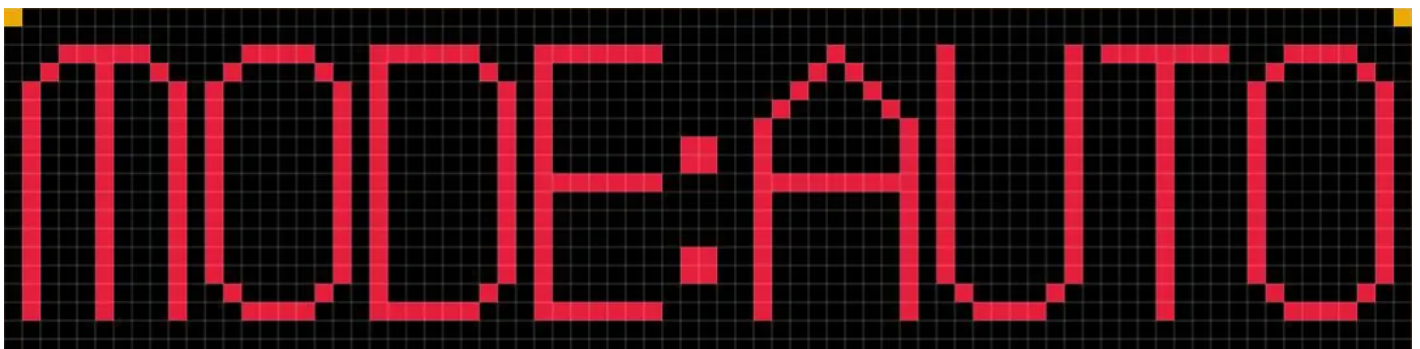


One click all channel discharge capacity measurement: Press and hold the "通道/CHN" button for 3 seconds, and the full channel will run in the "discharge" mode according to the preset stop voltage of 3.0V.。

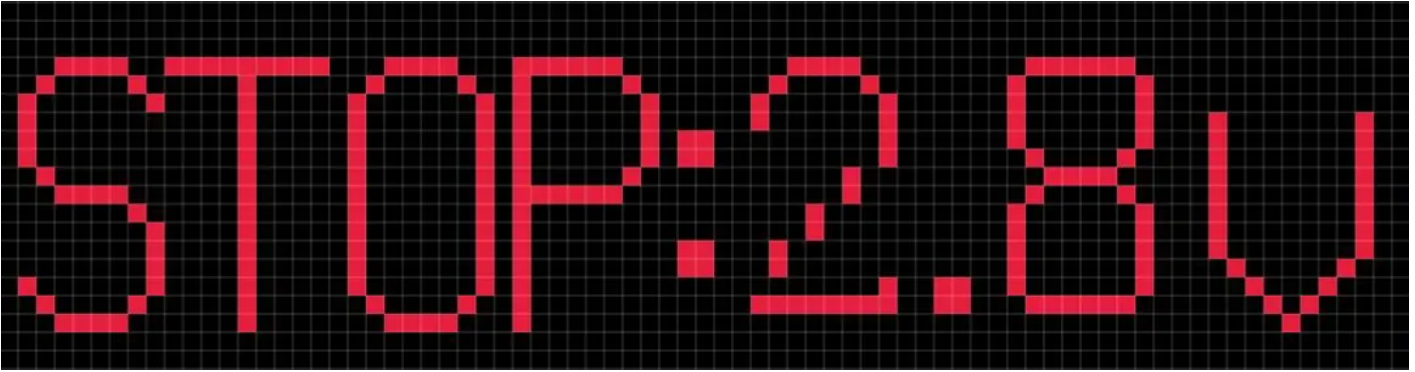
### 6.7、Split capacity and running cycle

The split capacity running cycle is a process of charging, discharging, and recharging. When using it, the stop voltage should not be lower than 2.8V, otherwise it cannot be charged and the program cannot run normally.

Install the battery and adjust the mode to "AUTO" mode

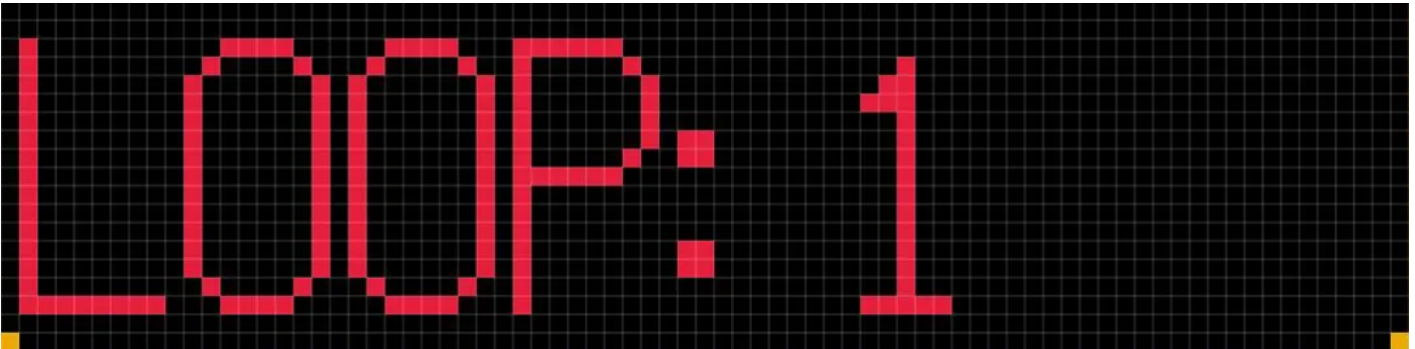


Set the stop discharge voltage according to the demand, but it cannot be less than 2.8V



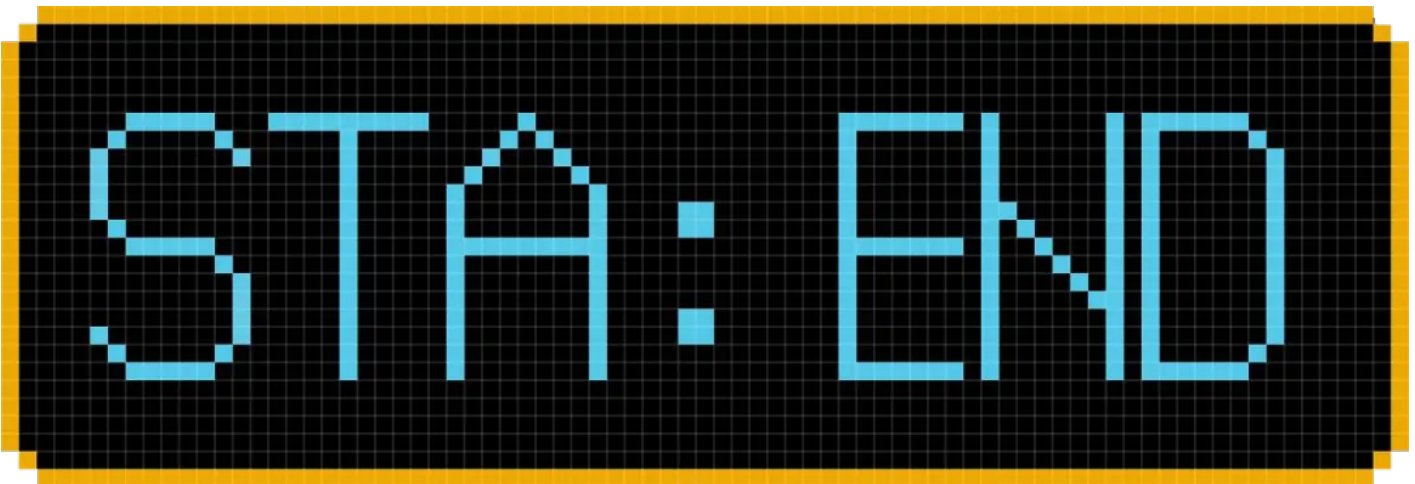
STOP:2.8V

Set the number of cycles according to the requirements, and click "启停/R/S" to run the program after completion



LOOP:1

After the program ends, the status indicator END indicates completion



STA:END

Process record single discharge capacity, discharge energy, and cumulative time



#### 6.8、Data Clear

Shut down, switch modes, and the capacity, energy, and time data will automatically reset to zero.

02231mAh

08010mWh

00031mR

002:24:25



—END—