Color screen Bluetooth data transmission version battery capacity monitor

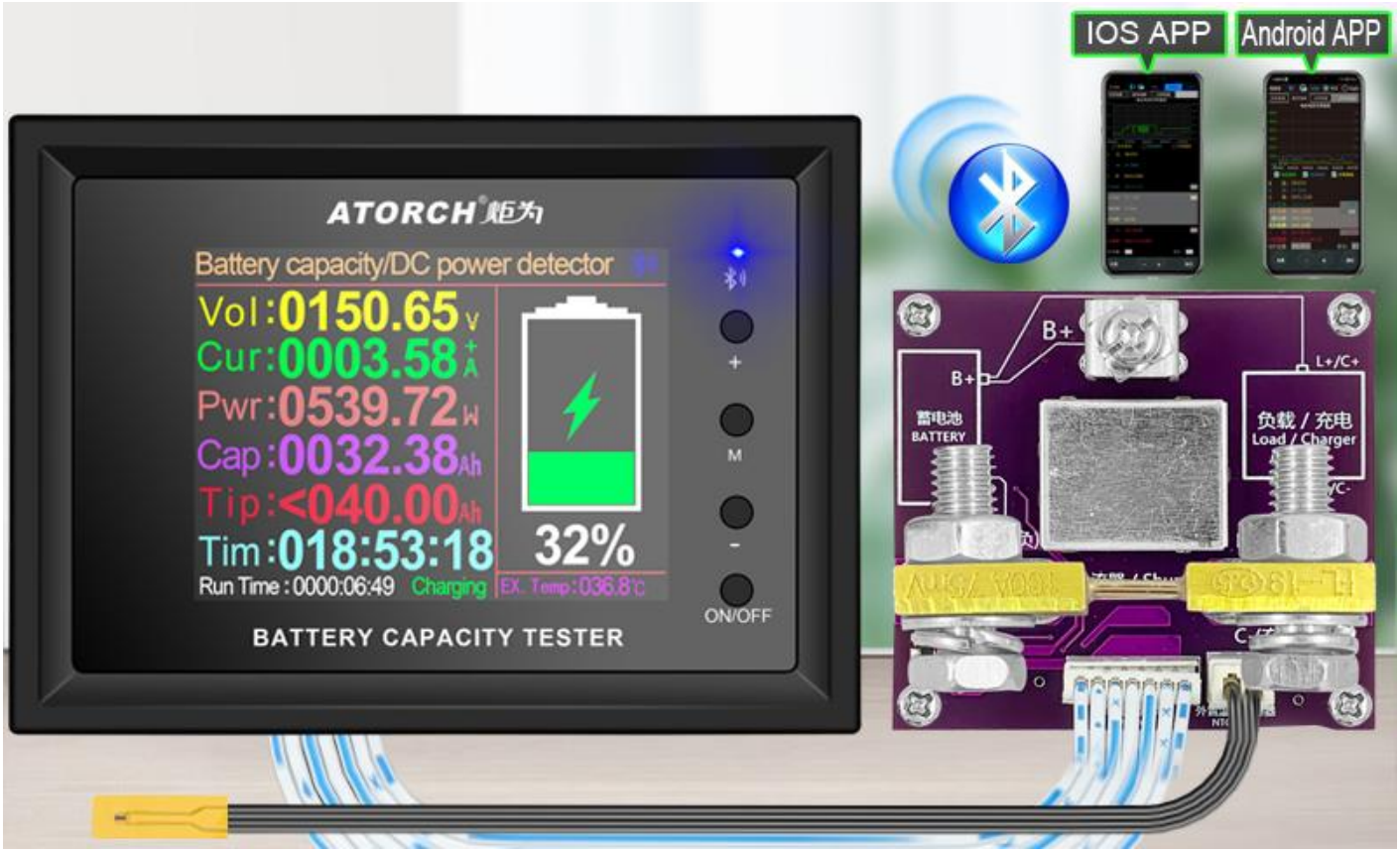
--DT24TW instruction manual--

Important statement: This meter does not immediately display the capacity of the connected battery as soon as it is powered on. After receiving the goods, it is necessary to strictly follow the instructions in the manual for a series of operations in order to accurately display the actual capacity of the connected battery! If you are a novice user, please read the manual carefully or call the manufacturer's technical personnel for help

Voltage measurement range:DC8~240V

Current measurement range:

☐100A ☐200A ☐300A ☐400A ☐500A ☐600A ☐1000A



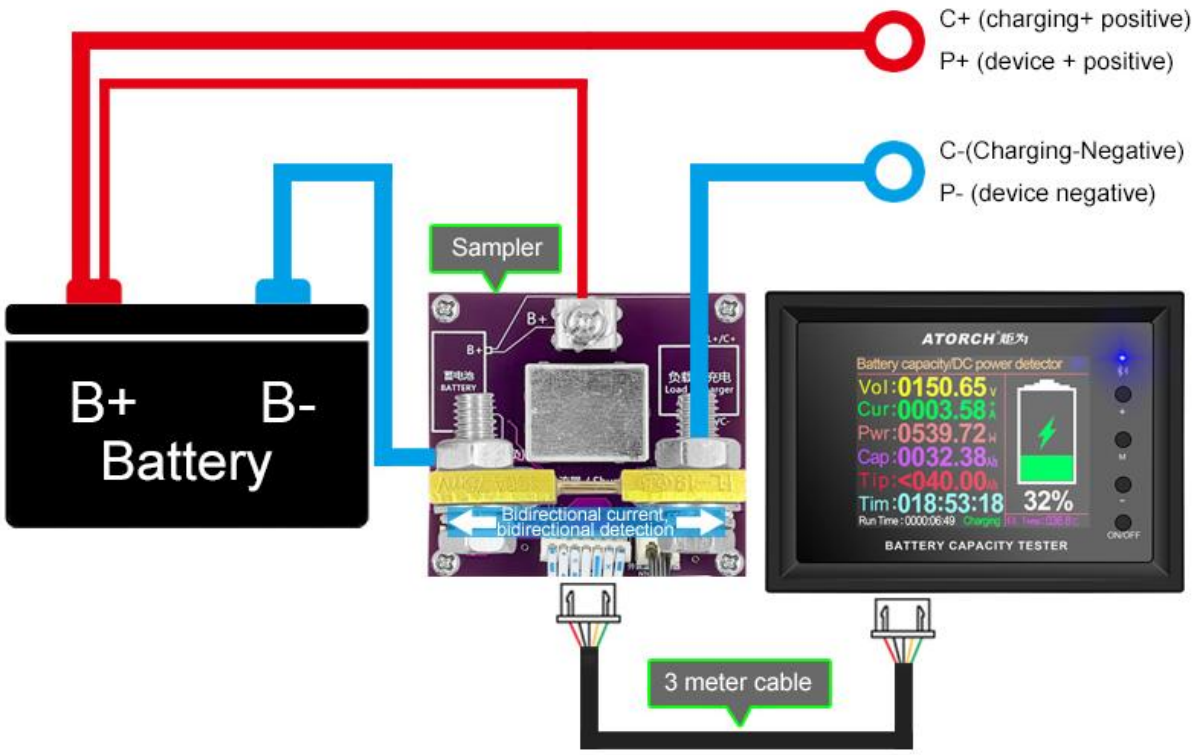
This device is used to measure and display parameters such as voltage, current, power, true capacity, battery temperature, low capacity alarm, low voltage alarm, as well as remaining discharge time and remaining charging time of the battery pack. It accurately displays various working states of the battery pack at any time.

1. Scope of application and electrical measurement specifications

***This instrument is suitable for electric vehicles, RVs, cars, emergency power supplies, energy storage power supplies, measuring equipment, medical equipment, various instruments and other products that use battery equipment.**

***Suitable for all types of battery packs, including lithium batteries, lithium iron phosphate, lead-acid batteries, nickel hydrogen batteries, etc., with operating voltages ranging DC 8~240V.**

2. Wiring Instructions



Attention: Please strictly follow the wiring diagram above. The sampler must be connected in series in the negative**(-)** circuit of the battery, and the shunt must not be connected in the positive**(+)** circuit! The length of the data cable to the panel can be customized and increased as needed, without affecting data transmission and measurement accuracy.

1) The sampler provided with this meter must be connected in series to the negative circuit of the battery pack, with the B - on the sampler connected to the negative B - of the battery pack,Connect the negative electrode P -/C - for charging and discharging at the P- end

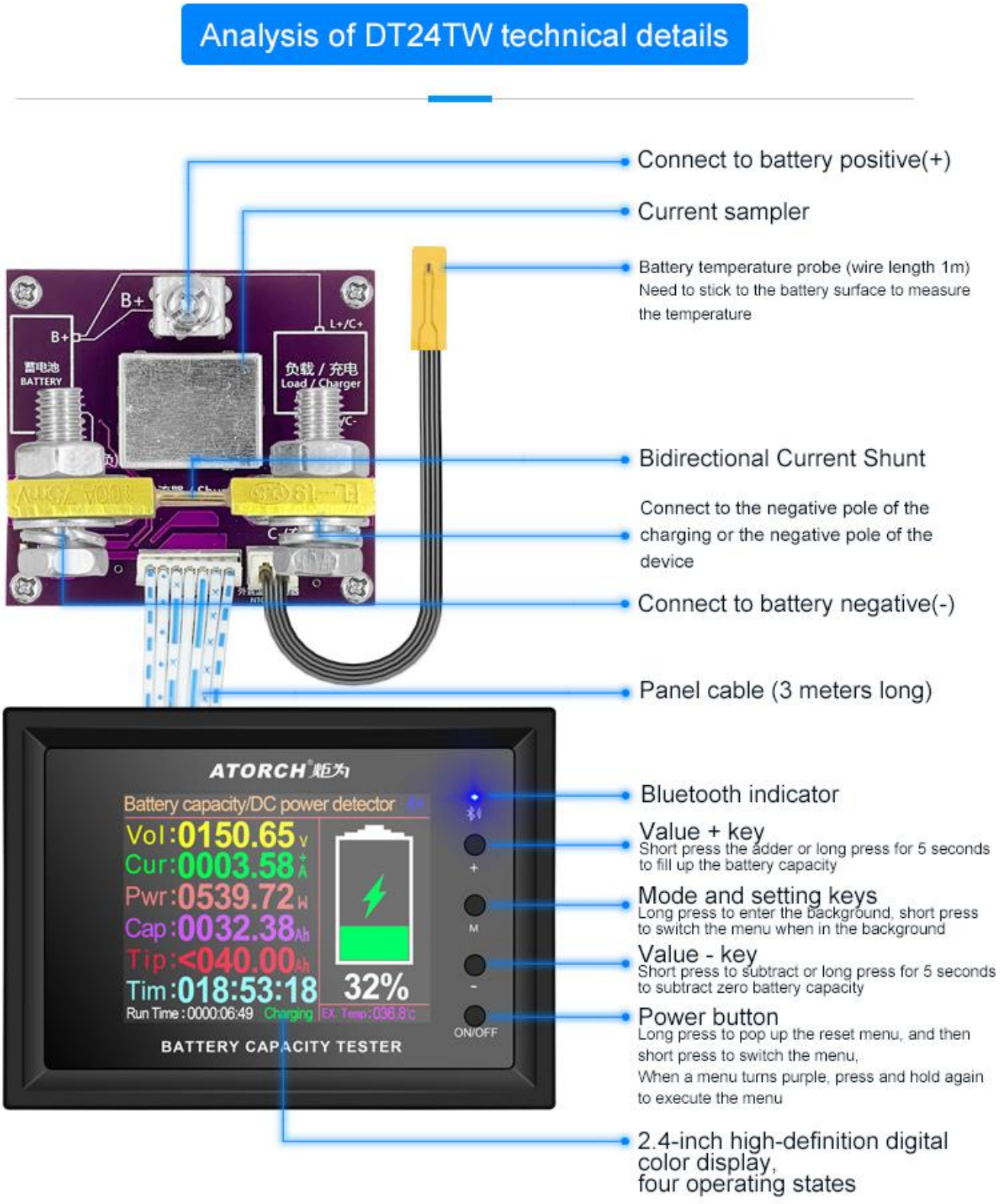
2) Take a thin red wire to connect the positive terminal of the battery to sampler B+, which is used to supply power to this meter and display voltage sampling.

3) Connect the sampler to the control panel using a randomly distributed data cable. Once confirmed to be correct, power on to display normally.

4) Wiring principle: It is essential to ensure that all current flowing through the battery passes through the sampler and the shunt on top!

Warning: The wire from battery pack B - to sampler B - should be as short as possible, as thick as possible, and the voltage drop should be as small as possible to ensure more accurate measurement!

3. Main description and key operation method



4. Usage steps

1) Connect and check the current:

After completing the connection according to the wiring instructions, power on and the screen should display the battery voltage, current, and factory default capacity percentage.If there is no display, power off and check if the connection is correct, then discharge or charge the battery and check the displayed current value Is it consistent with the actual current value? If there is a large error, please check the wiring again for correctness.

2) Inspection and setting of effective battery capacity:

The effective capacity of the battery needs to be set correctly for the first use. Please refer to "Usage Settings" for instructions. If the effective capacity of the battery is not，

You need to follow the following steps:

A. Long press the “M” key to enter the settings background interface, and then short press the “M” key until the second item turns purple color . Use the “+” or “-” buttons to adjust the capacity value！Try to set the value as high as possible (for example, if the estimated tested battery is 200Ah, then this meter should be set to 250Ah);

B. Empty the battery pack and reset the capacity of the battery gauge by long pressing the “- ”key for 5 seconds, then charge the battery pack;

C. Set the capacity value displayed after the battery is fully charged to the second capacity setting column in the background of this meter to complete the effective setting

3) Capacity reset (battery capacity reset and full capacity setting):

The capacity value displayed on this meter after the first use or battery replacement is not the actual value of the battery pack, and zero capacity is required Or full capacity operation (requires that the total capacity value in the background of this meter is the same as the total capacity value of the tested battery):

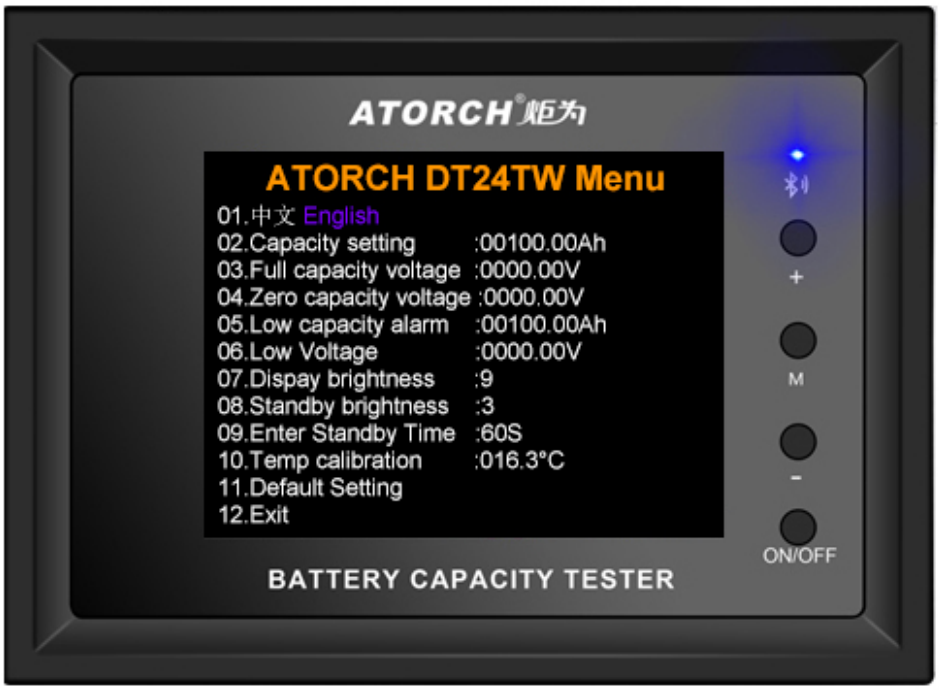
A. After emptying the battery, press and hold the "-" button for 5 seconds to reset the capacity value to 0%;

B. After fully charging the battery, press and hold the "+" button for 5 seconds to set the capacity value to 100%. (The total full capacity value is the value set in the background)

Warning: It is necessary to align the measured battery capacity parameters with this meter according to the steps to ensure the accuracy of the battery capacity values and percentages on this meter!!!

5. Use Settings

Long press the "M" button to enter the background settings interface, then short press the "M" button to switch the settings section. If there is a flashing number, short press the "+"/ "-" button again to adjust the number. Long press the "+"/ "-""button again at this time to adjust the flashing number by advancing or retreating:



1) Effective capacity of battery: The default value at the factory is 100Ah. Please set it according to the actual effective capacity of the battery pack, otherwise the capacity value and battery percentage displayed in this meter will be inaccurate,
Please be sure to follow the recommended steps to align the measured battery capacity value;
2) Full capacity voltage: When the voltage is higher than this, the capacity value automatically reaches 100%;
3) Zero capacity voltage: When the voltage value is lower than this, the capacity value will automatically set to 0%. If the discharge continues, an alarm will be displayed and beeped;
4) Low capacity alarm: When the capacity is lower than this, the alarm interface pops up and the horn beeps (every 3 minutes)
5) Low voltage alarm: When the voltage is below this level, the alarm interface pops up and the horn beeps (every 3 minutes)
6) Factory reset: Restore all data to factory settings (short press the M key to this column, then long press the "+" key for 3 seconds to reset the system)

Pay attention to the order of events:

The factory default for full capacity voltage and zero capacity voltage is 0V, which is invalid. Do not set these two options without understanding the voltage characteristics of the battery pack (full charge voltage and discharge voltage)

(If you have accurate battery total capacity, zero capacity voltage, and full capacity voltage, simply set the parameters to the background)

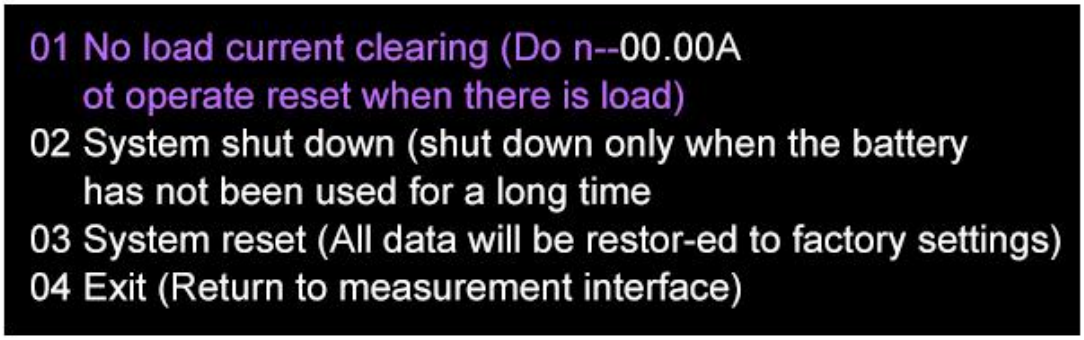
6. Simple tips for setting battery capacity in two situations: known measured battery capacity and unknown battery capacity

1.Set the known measured battery capacity AH directly to the background of this meter;

2.When the capacity of the battery being tested is unknown, the capacity value displayed after fully charging or discharging the battery once can be set to this meter to complete the synchronization and alignment of the battery capacity value

7. System shutdown and current reset interface usage

Long press the "ON/OFF" button to enter the interface shown in the figure below, then short press the "M" button to change color and switch to the settings section, and then long press to execute the section:



ON/OFF

1) Empty current reset: When the product still displays a current value when unloaded, please press and hold the button to reset the current to "0A"

2) System shutdown: To avoid power loss when the battery is not used for a long time, the system can be shut down and enter zero power mode (when the battery is not used for a long time)

Do not shut down when passing current to avoid the significant risk of incorrect display on the meter and actual battery capacity;

3) System reset: In case of system instability or data disorder, perform this operation to restore the system to its factory default value (system)

After resetting, all parameters such as the capacity of the battery that you have already set will be cleared. Please be cautious when operating this item;

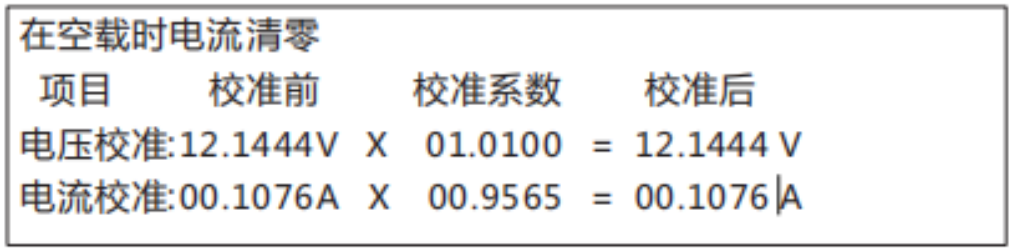
3) **Exit:** Exit and return to the main measurement interface

8. Installation and fixation instructions for panel

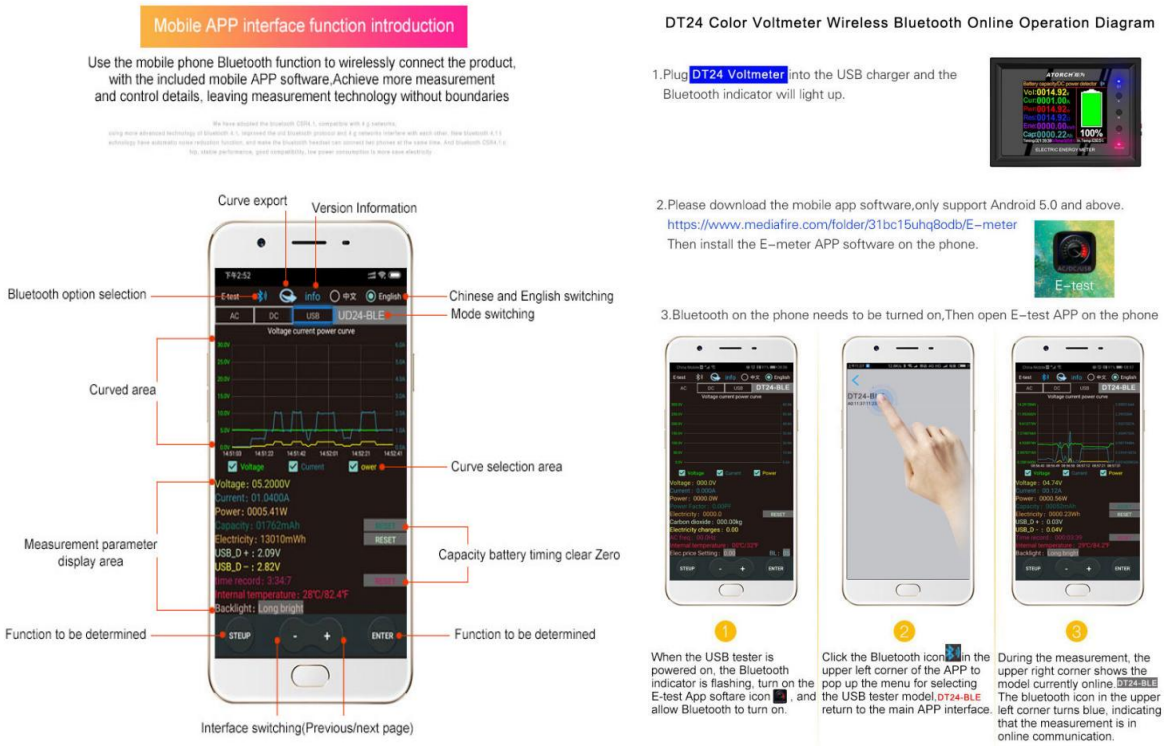
Dig out the installation rectangular hole according to the installation size, then tear off the double-sided adhesive tape and white paper strip around the back of this table and directly insert it into the rectangular hole. Press the edges firmly to make the adhesive stick to the panel, and the installation is complete.

9. User initiated calibration

When setting up the interface in the background, long press and hold the+/- keys simultaneously to enter the user calibration mode shown in the figure below. Short press the M key to change color and switch columns. The color change will be displayed in the no-load current reset column. Short press the+/- keys to perform current reset. The color change will be displayed during voltage and current calibration. Short press the+/- keys to adjust the calibration coefficient so that the calibrated voltage and current are the same as the displayed value of the user's own standard instrument



10. Connecting a mobile app via Bluetooth:



1) Apple Mobile APP:

Please search for **E_test** in the **Apple store** to download and install, then click the Bluetooth APP icon to open the software, and then click the Bluetooth icon above the software to enter the selection DL24-BLE to connect, you can achieve mobile phone remote wireless remote control settings and Measurement function, the discharge status can be viewed at any time on the mobile phone, various data cleaning is visible, the voltage and current power curve of the discharge, etc.

2) Android phone APP(Only support Android 5.0 and above):

Scan the QR code on the back of the host to download the corresponding APP software or Android APP: search **E-test** at Google play to down load . After the installation is complete, open the software and click the Bluetooth icon to enter the direct selection of DL24-BLE to successfully use it online. (No need for Bluetooth pairing, the software Bluetooth icon directly selects DL24. can)

Android APP Download Address:http://www.mediafire.com/folder/31bc15uhq8odb/E-meter

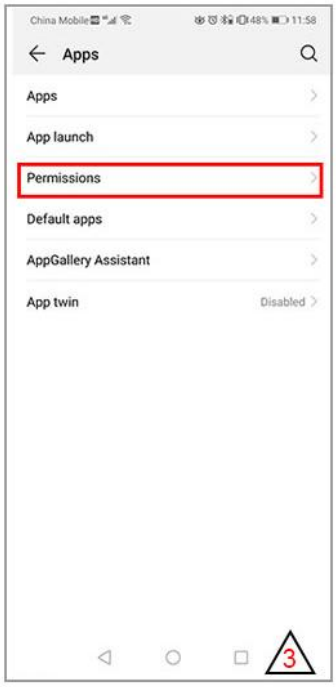
How to find the Bluetooth symbol in E-Test APP

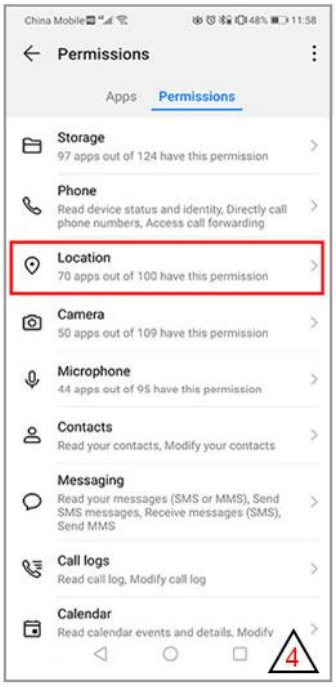
This operating instruction applies to all the company's Bluetooth products (UD18/DT24/DL24/AT3010/DPT3010/T18... etc.)

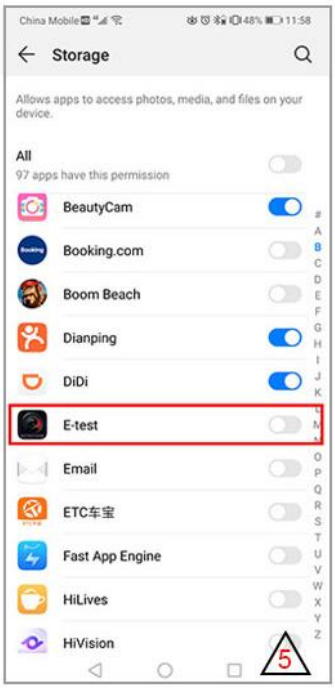
Please open your phone, **Setting**>>find the **Apps**>>manage the **Permissions**>>**Location**>>find our **E-test app**>>find the **storage information** and **location information**>>open the permissions **allow**, you can find us bluetooth symbol In the E-test list.

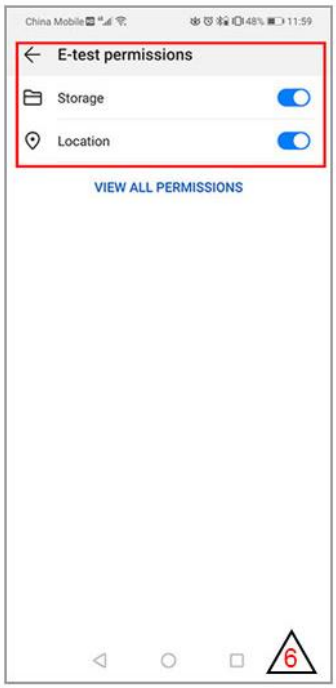
1 Please open your phone settings

Click settings









11. Charging and discharging wiring methods, supporting bidirectional current

12. Support firmware upgrade for mobile apps

Product parameters

Measuring voltage range: 8~240V

Measuring current range: 0.1~100A/ 0.1~200A/ 0.2~300A/ 0.3~400A/ 0.4~500A/ 0.5~600A/ 1~1000A

Different color styles are equipped with different shunts to measure different current ranges

Measuring capacity range: 0-~99999AH

Panel size: length 85.7mm X width 63mm

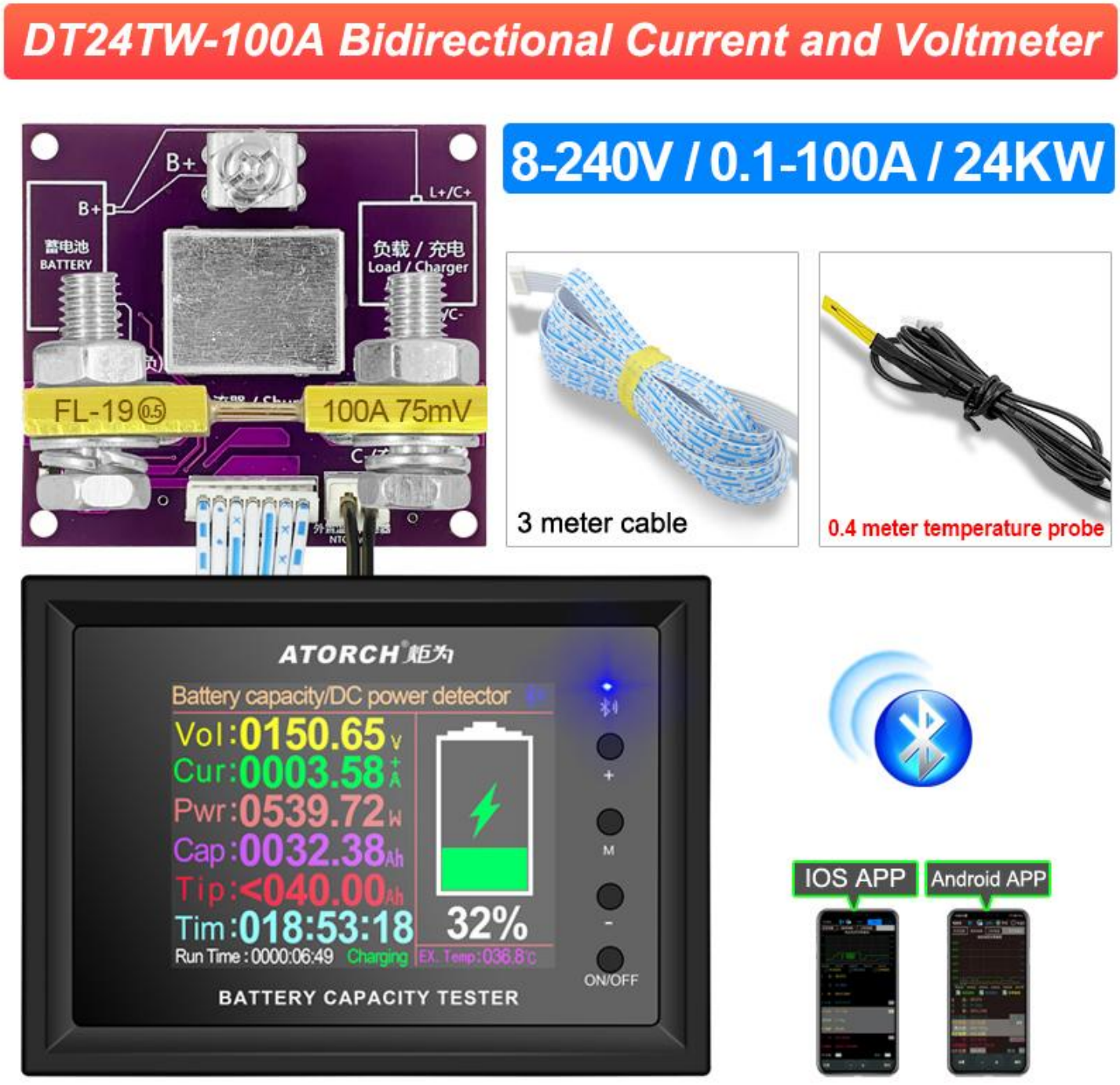
Panel installation size: length 75.8mm X width 52.6mm

External shunt board size: length 58.5mm X width 54mm

13. Product series

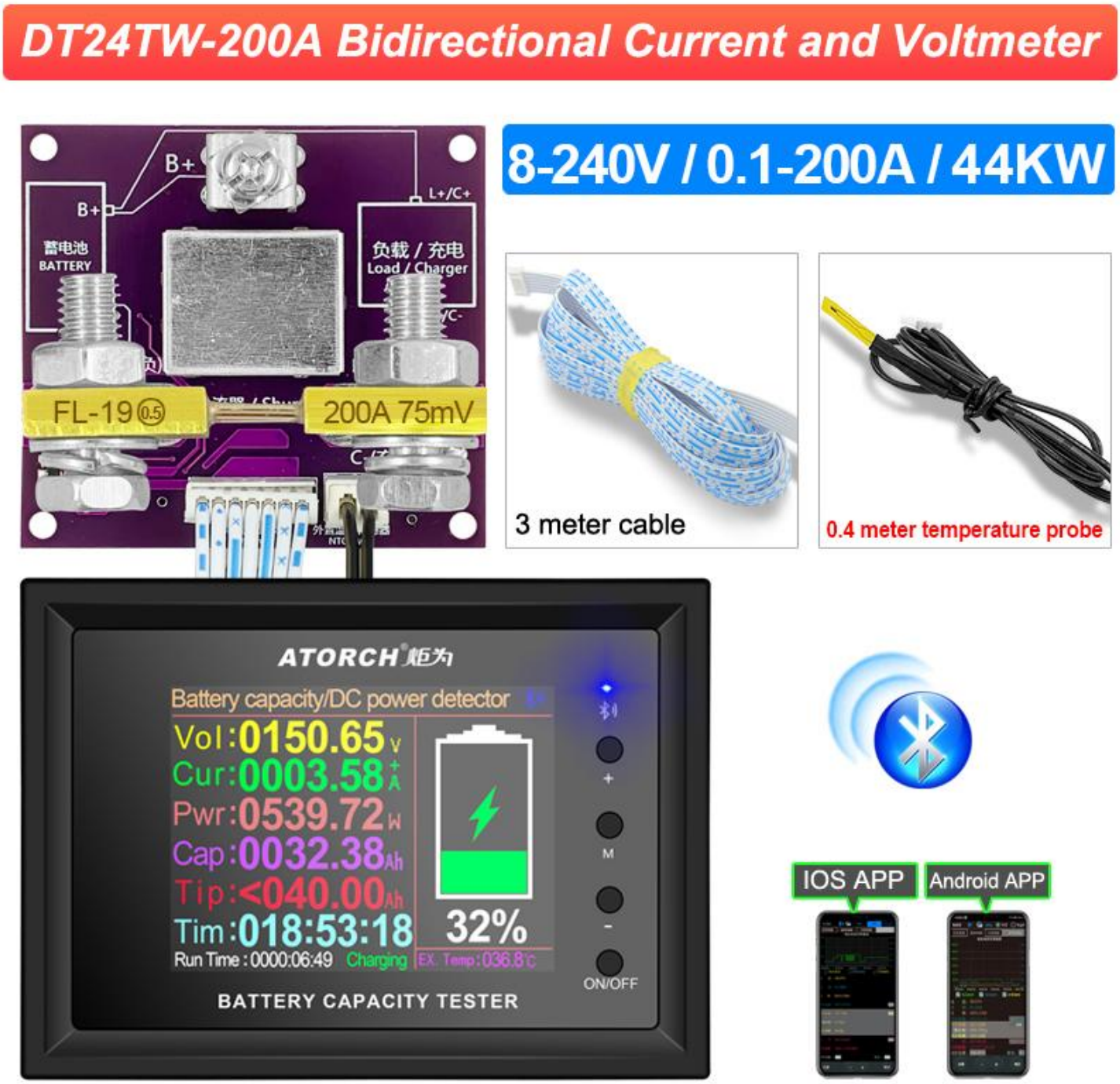
DT24P-100A Bidirectional Current and Voltmeter List

1. DT24P-100A Bidirectional Current and Voltmeter 1pcs
2. 3m cable 1pcs
3.0.4 meter temperature probe 1pcs



DT24P-200A Bidirectional Current and Voltmeter List

1. DT24P-200A Bidirectional Current and Voltmeter 1pcs
2. 3m cable 1pcs
3. 0.4 meter temperature probe 1pcs



DT24P-300A Bidirectional Current and Voltmeter List

1. DT24P-300A Bidirectional Current and Voltmeter 1pcs
2. 3m cable 1pcs
3. 0.4meter temperature probe 1pcs

DT24P-400A Bidirectional Current and Voltmeter List

1. DT24P-400A Bidirectional Current and Voltmeter 1pcs
2. 3m cable 1pcs
3. 0.4meter temperature probe 1pcs

DT24P-500A Bidirectional Current and Voltmeter List

1. DT24P-500A Bidirectional Current and Voltmeter 1pcs
2. 3m cable 1pcs
3. 0.4 meter temperature probe 1pcs

DT24P-600A Bidirectional Current and Voltmeter List

1. DT24P-600A Bidirectional Current and Voltmeter 1pcs
2. 3m cable 1pcs
3. 0.4 meter temperature probe 1pcs

DT24P-1000A Bidirectional Current and Voltmeter List

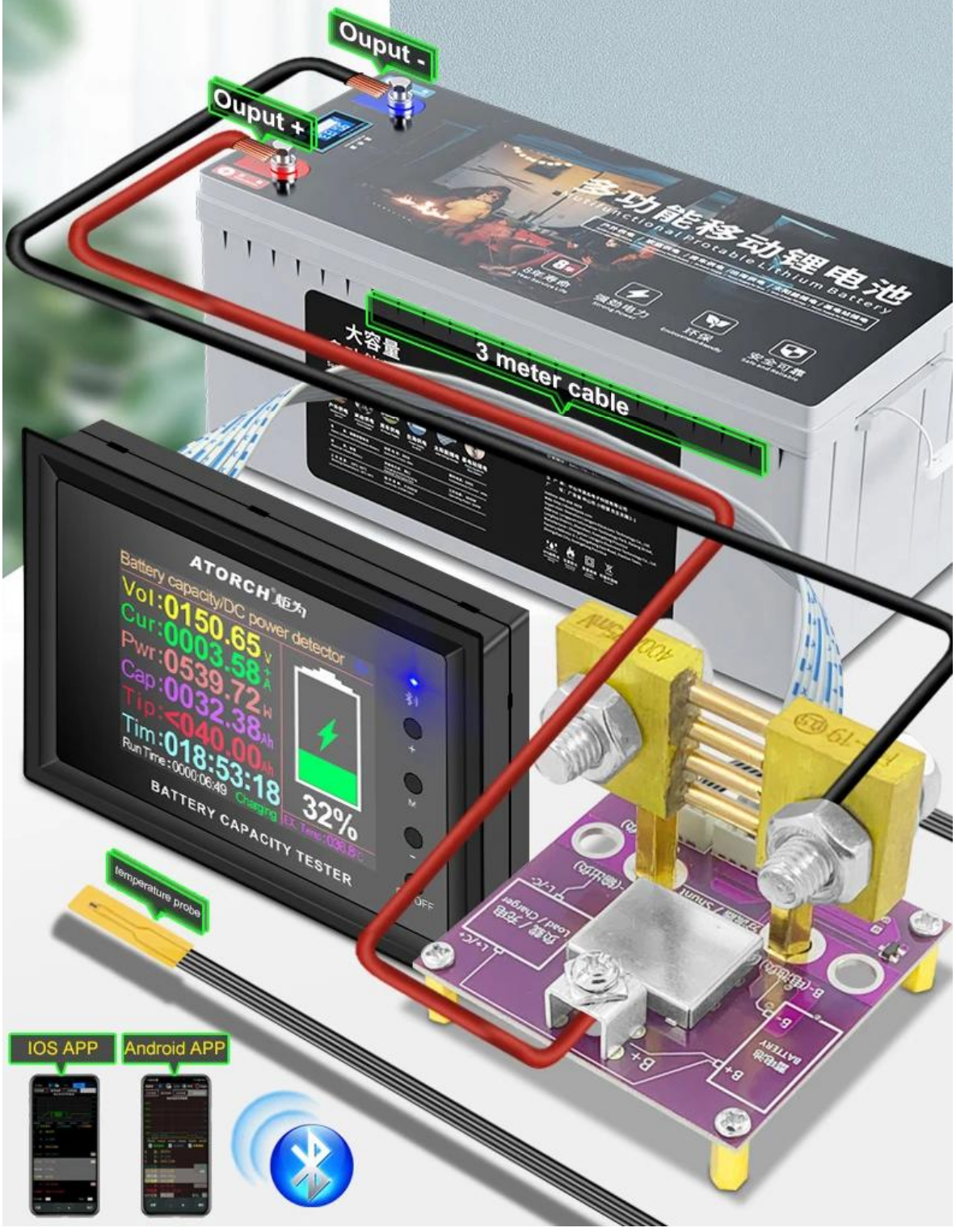
1. DT24P-1000A Bidirectional Current and Voltmeter 1pcs
2. 3m cable 1pcs
3. 0.4 meter temperature probe 1pcs

Refit various RVs/electric vehicles and measure various battery capacity, voltage, current and other data

DT24TW bidirectional current type high-definition color screen bluetooth digital curve version battery capacity monitor

Voltage range: DC8~240V Capacity range: 0~99999AH

Shunt selection: 100A 200A 300A400A 500A 600A 1000A



Zero-power shutdown function and low-power standby brightness adjustable mode

(Warn! This state can only be entered when there is no current)

Long press the ON/OFF button to enter

Short press to the second item, then long press

Long press the M key

Then short press to the 8th and 9th items

Panel size ■ Installation size ■ Shunt Panel Size ■