

## ===Warm Tips===

This product needs to be installed and tested by professionals. If you can't install it, please don't buy this product!

Please purchase a 75X75MM fan according to the requirements, install it and test it again. If you find that the fan is not installed, then the test is damaged. Our store is not responsible for after-sales. The fan starts working at 10W or 55°C.

## Default radiator 150W/180W PCB Board

Bluetooth curve digital control version constant current load

**CAN DIY 1000W/0-200V/0-25A**



iPhone APP + Android APP

PC Online Software

**ATORCH**

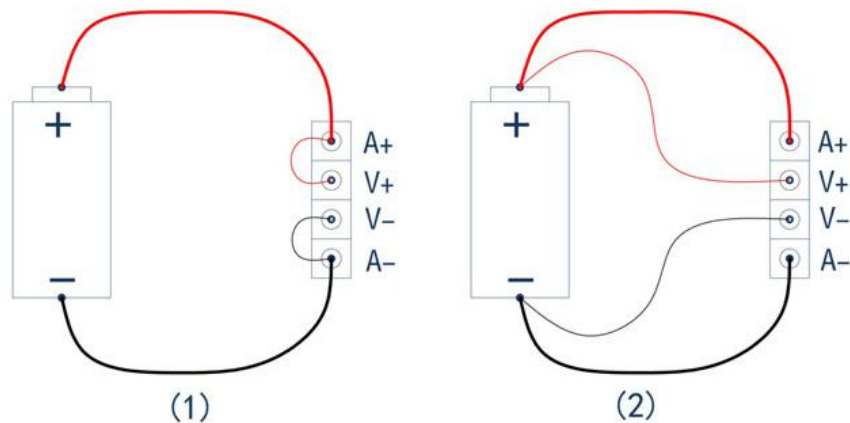
IS=15.00A	CC	RS=0000.80A	CR
Vol:11.796V	Timedischage	Vol:11.872V	Timedischage
Cur:15.000A	01:58	Cur:14.788A	01:58
Pwr:176.94W	Cut off voltage	Pwr:174.85W	Cut off voltage
Res:00.786Ω	<002.0	Res:00.799Ω	<002.0
Ener:1006.0Wh	In Temp:55.9°C	Ener:1006.0Wh	In Temp:55.9°C
Cap:83657mAh	ON	Cap:83658mAh	ON
Timing:021:39:39		Timing:021:39:39	

PS=180.0V	CP	VS=012.0V	CV
Vol:11.818V	Timedischage	Vol:12.001V	Timedischage
Cur:15.229A	01:58	Cur:08.369A	01:58
Pwr:179.96W	Cut off voltage	Pwr:100.43W	Cut off voltage
Res:13.597Ω	<002.0	Res:01.433Ω	<002.0
Ener:1006.0Wh	In Temp:55.9°C	Ener:1006.0Wh	In Temp:55.9°C
Cap:83659mAh	ON	Cap:83655mAh	ON
Timing:021:39:39		Timing:021:39:29	

(Not included Radiator)

**4-WIRE System Version**

# Electronic load wiring diagram



- (1) **Two-wire wiring method:** this method is relatively simple and convenient.  
Note: It must be connected to the 2 terminals [A+] and [A-].
- (2) **The four-wire wiring method:** the voltage measurement is not affected by the voltage drop of the wire, so that the voltage measurement. The quantity is more accurate, and it is recommended that buyers with a certain circuit basis use this method!



## Warm Prompt Tips

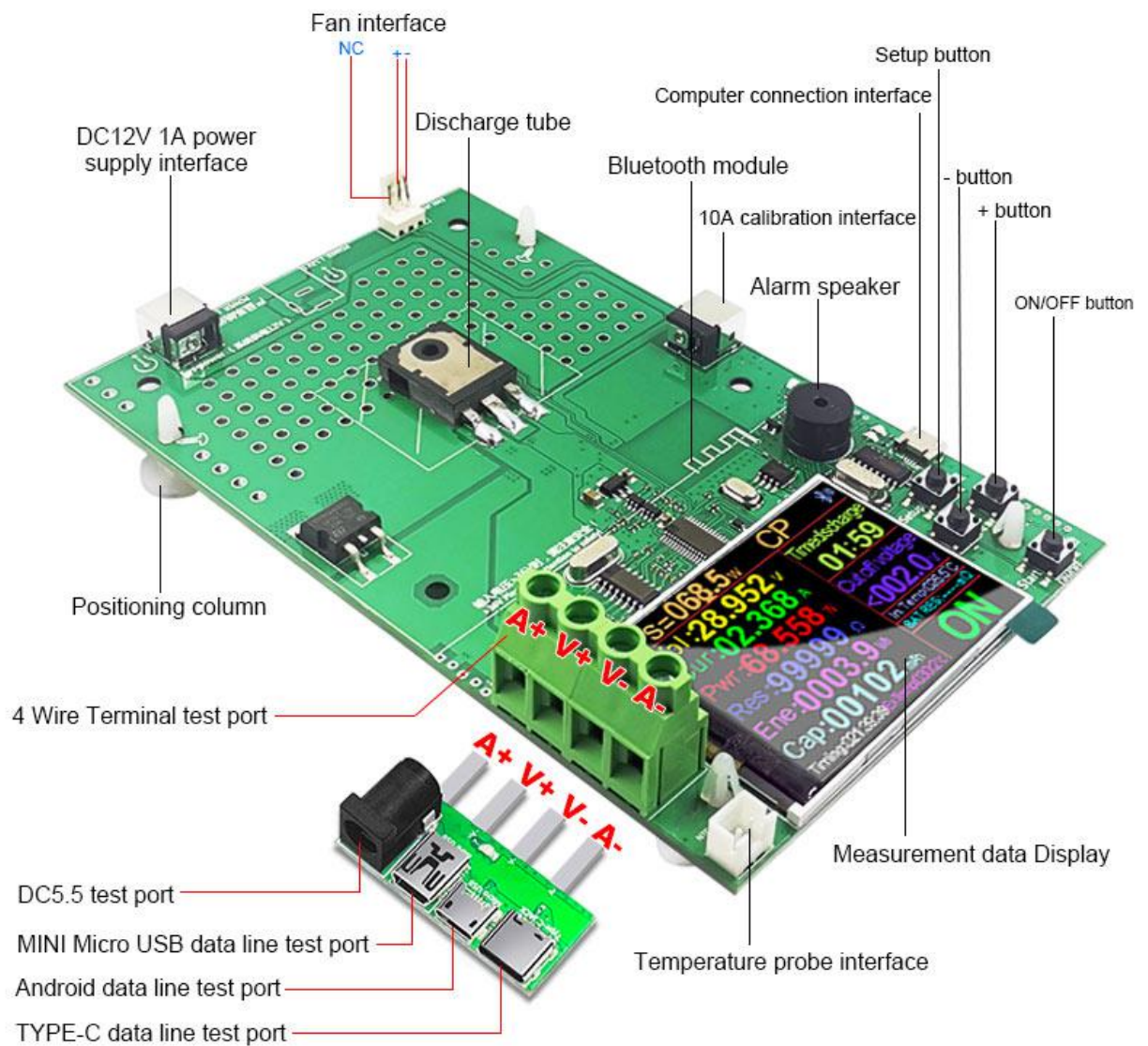
This product is for the convenience of guests DIY, does not include the radiator, please purchase carefully

## Installation Manual

<http://www.mediafire.com/folder/mqnr9m3svln7v/DL24-PCB>

Thank you very much for your order, you will receive our PCB board

Please read the following interface data carefully for installation

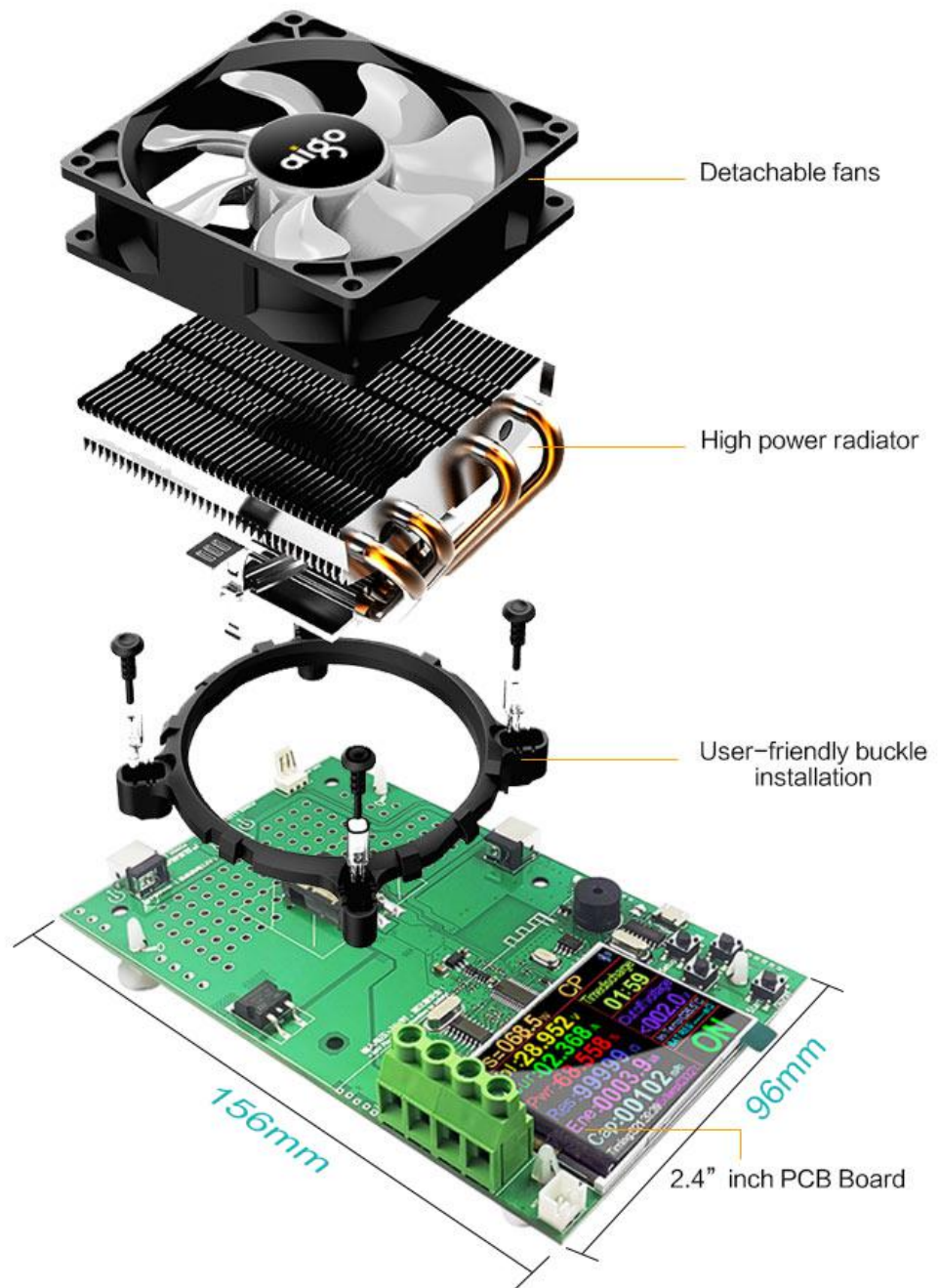


## Installation radiator Diagram

Installing the radiator is very simple, as long as you prepare the computer CPU fan, install all the accessories according to the schematic diagram, especially note that the discharge tube needs to be coated with thermal conductive glue, please rest assured, we have the configuration, you will successfully install



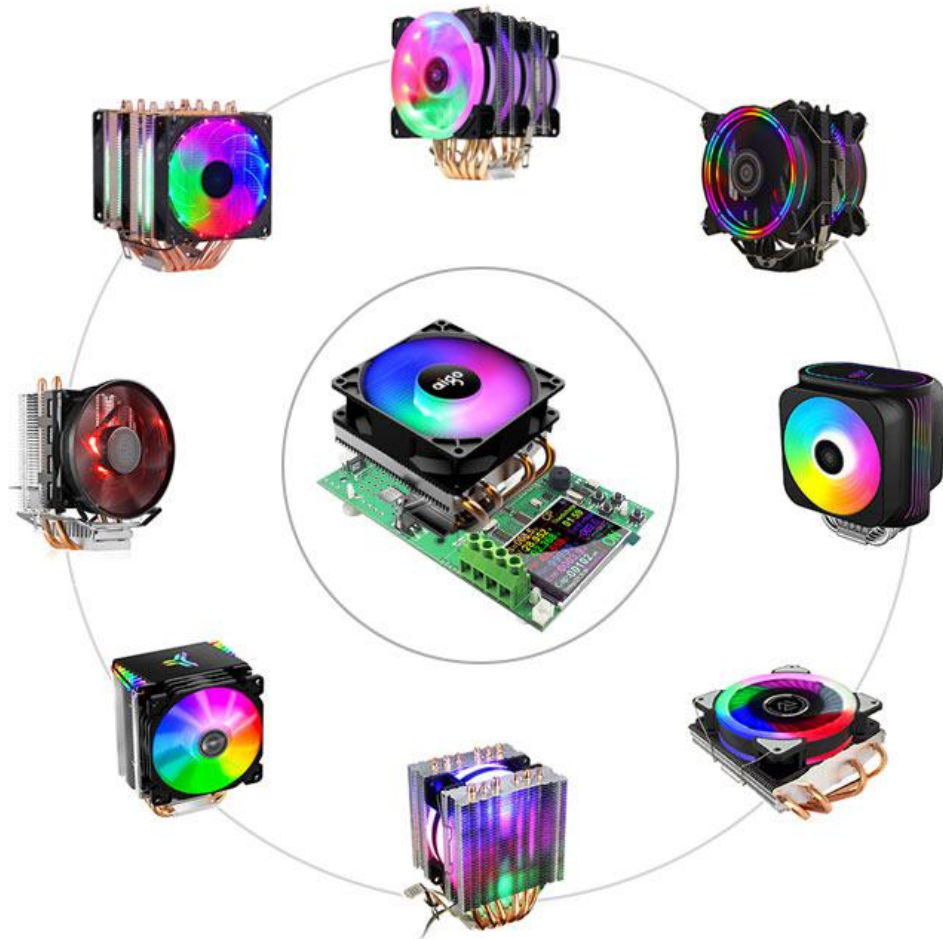
# Installation Diagram



## Compatible with 99% of Computer CPU Fans on the Market

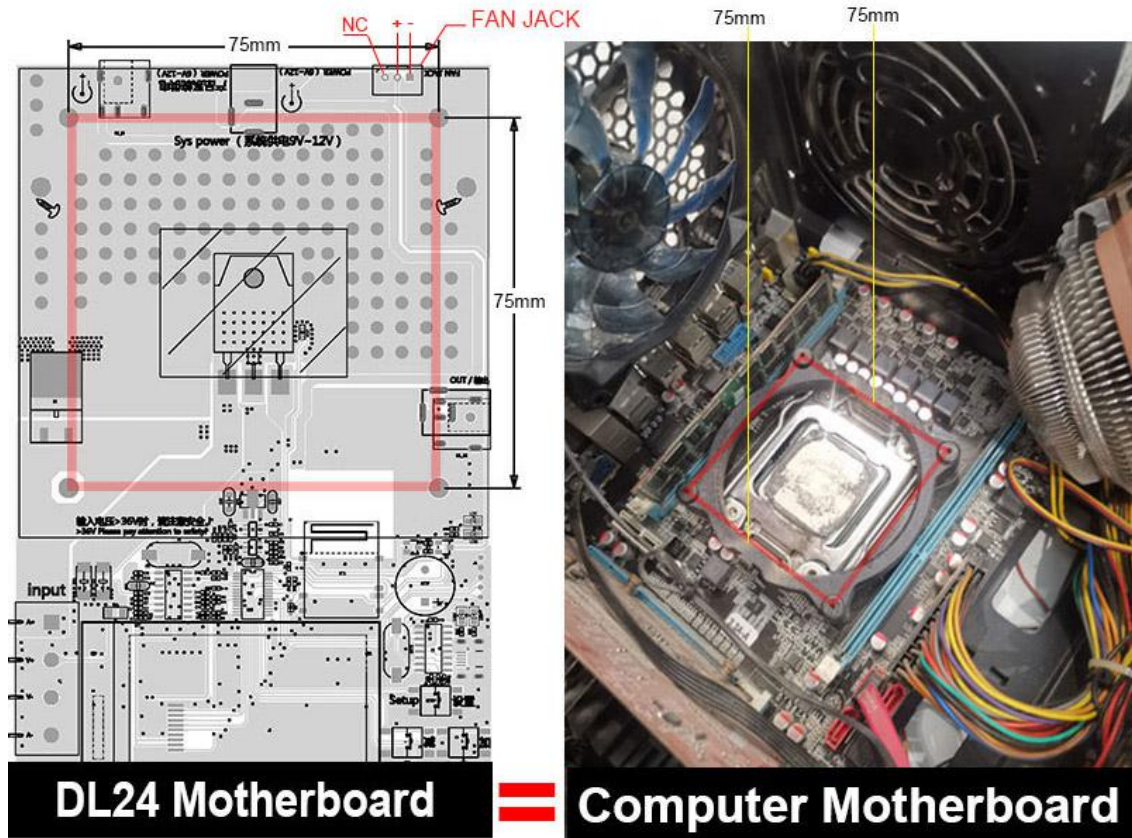
As long as you have discarded computer CPU fans in your home, they are all radiator fans that can be found everywhere. They can all be installed on our PCB boards and become a finished product!

## **Compatible with 99% of Computer CPU Fans on the Market**



### **Radiator fan installation size**

The size of the radiator fan installed in our product is the same as the size of the computer CPU radiator fan!



Our PCB board default assembly fan is 150W or 180W

Please purchase or install the CPU fan yourself, you can use it!

If you have strong hands-on ability, you can DIY set up 1000W products, you need a powerful radiator fan!

If you need DIY 1000W, you need to meet 3 conditions

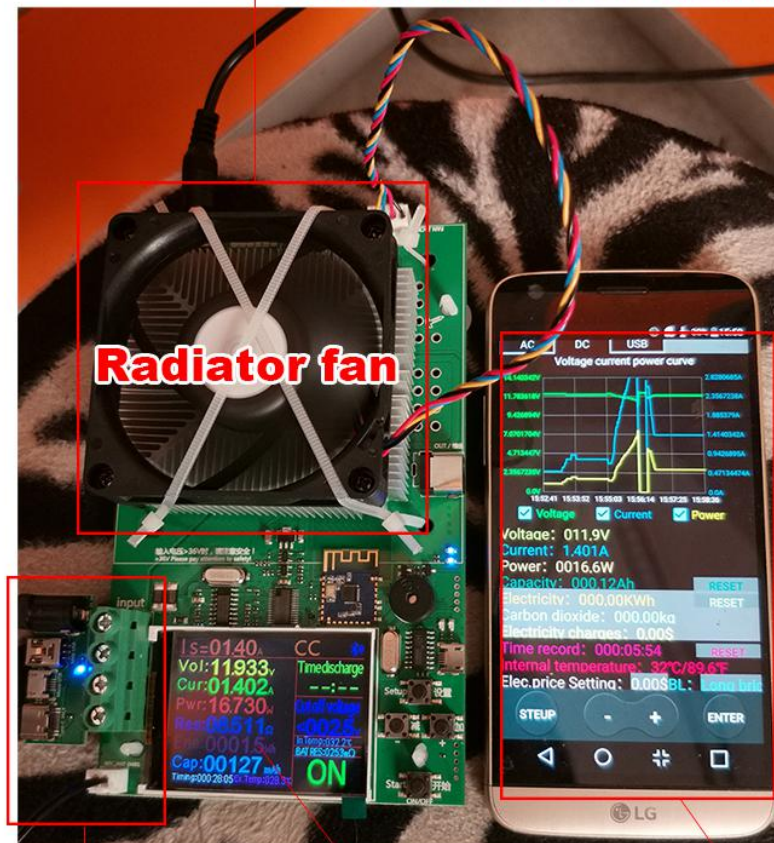
1. Need to add IRFP260N (150W) discharge tube
2. Need to add a powerful radiator (support 1000W)
3. Need strong modification ability!



# Customer Feedback

## Please install the radiator fan

If you need Aging discharge , a radiator must be installed

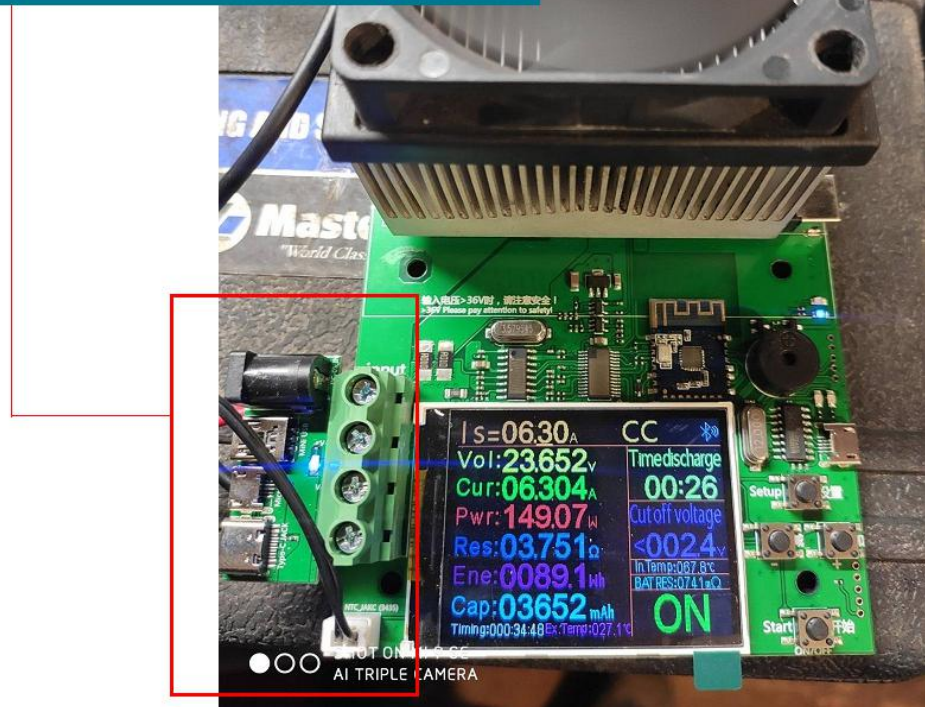


Please connect an input voltage

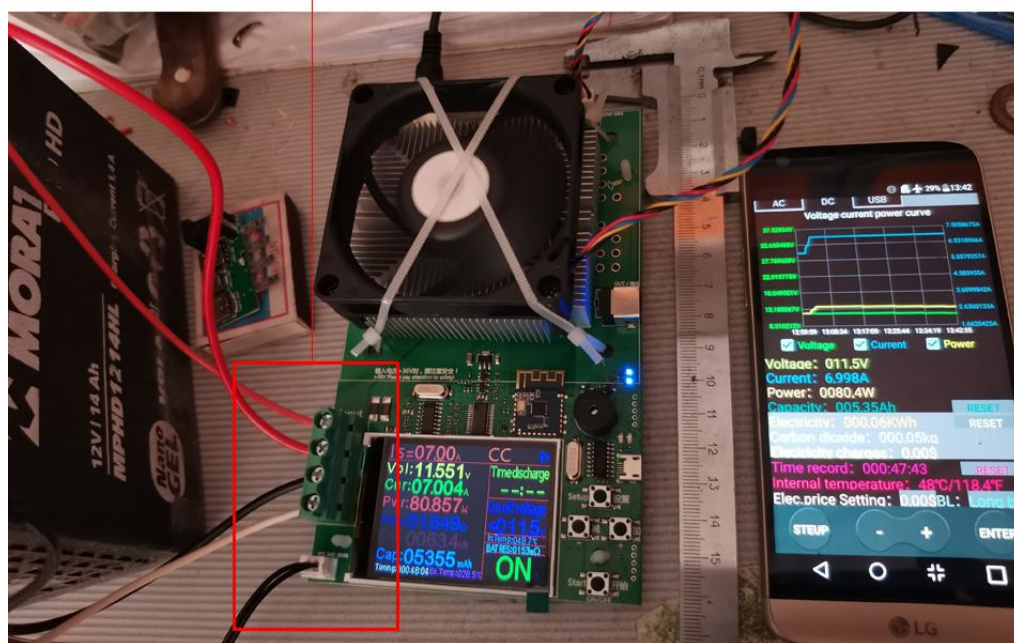
APP controllable



## 4-wire board adapter



## 4-wire test method



After installing the radiator fan successfully, you will refer to the following instructions for application

## File Download Way

- 1, User manual, PC software installation instruction and PC software and Android APP download link : <http://www.mediafire.com/folder/m09i9bjv8703d/DL24-DL24P>
- 2, IOS APP: search E\_test on iphone APP store to download
3. Android APP: search E-test at Google play to down load

## DL24

**ATORCH®**  
**DL24 Bluetooth Color Digital Control Curve LOAD Tester**  
**150W**

PC Online Software

iPhone APP + Android APP

Support 4 kind of Apps



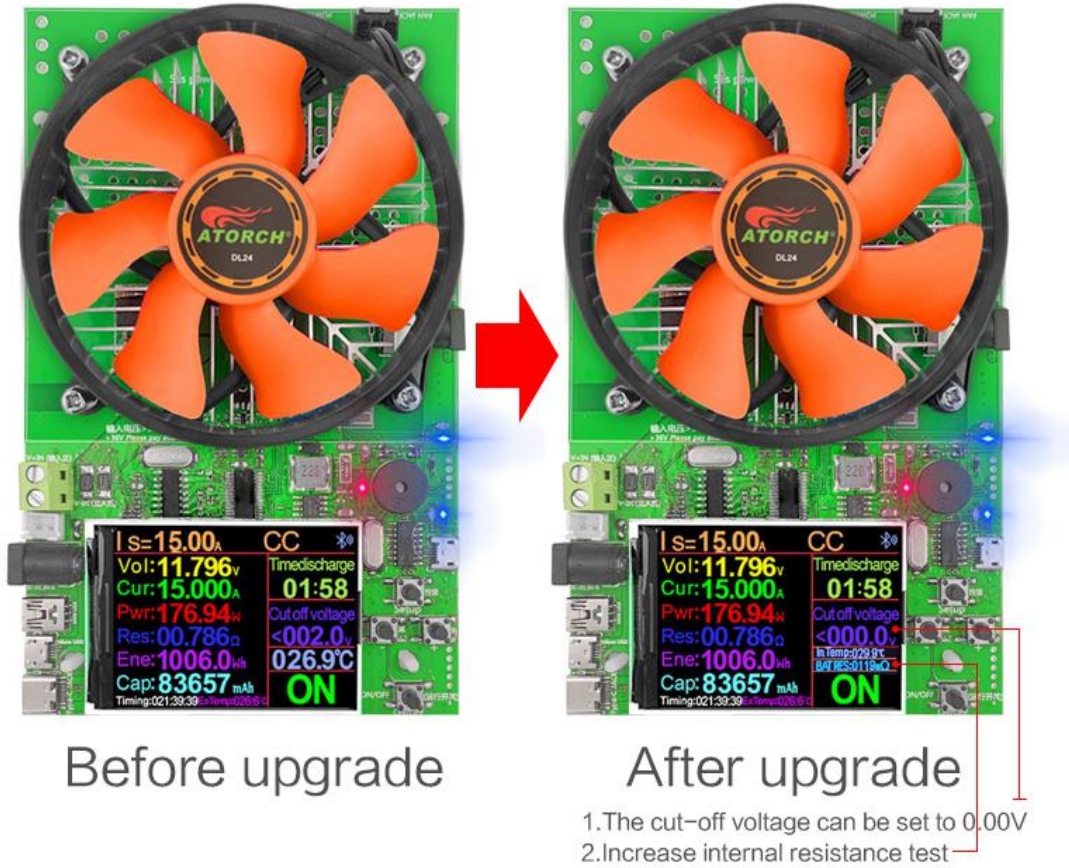
The image shows the ATORCH DL24 load tester, a green PCB with a large orange fan. It features a color LCD screen displaying various test parameters. To the left, a laptop displays the PC software interface. To the right, a smartphone displays the mobile app interface. Below the main device, there are four small inset images showing different screen displays.

IS	CC	RS	CR
I: 01.00	CC	R: 0009.30	CR
Vol: 15.023	Timedischage	Vol: 12.733	Timedischage
Cur: 00.999	01:58	Cur: 01.383	01:58
Pwr: 12.459	Cutoff voltage	Pwr: 16.629	Cutoff voltage
Res: 12.434	<002.0	Res: 09.206	<002.0
Ene: 1006.0	026.9°C	Ene: 1006.0	026.9°C
Cap: 83657	ON	Cap: 83658	ON

PS	CP	VS	CV
P: 012.0	CP	V: 014.9	CV
Vol: 12.308	Timedischage	Vol: 15.023	Timedischage
Cur: 00.957	01:58	Cur: 00.080	01:58
Pwr: 12.086	Cutoff voltage	Pwr: 03.575	Cutoff voltage
Res: 13.597	<002.0	Res: 188.48	<002.0
Ene: 1006.0	026.6°C	Ene: 1006.0	026.8°C
Cap: 83659	ON	Cap: 83655	ON



## DL24/DL24P Upgrade Tips



2020.05.08

### --Product Parameter--

Electrical parameters

Test voltage: 2~200V

Working current: 0.2~20A

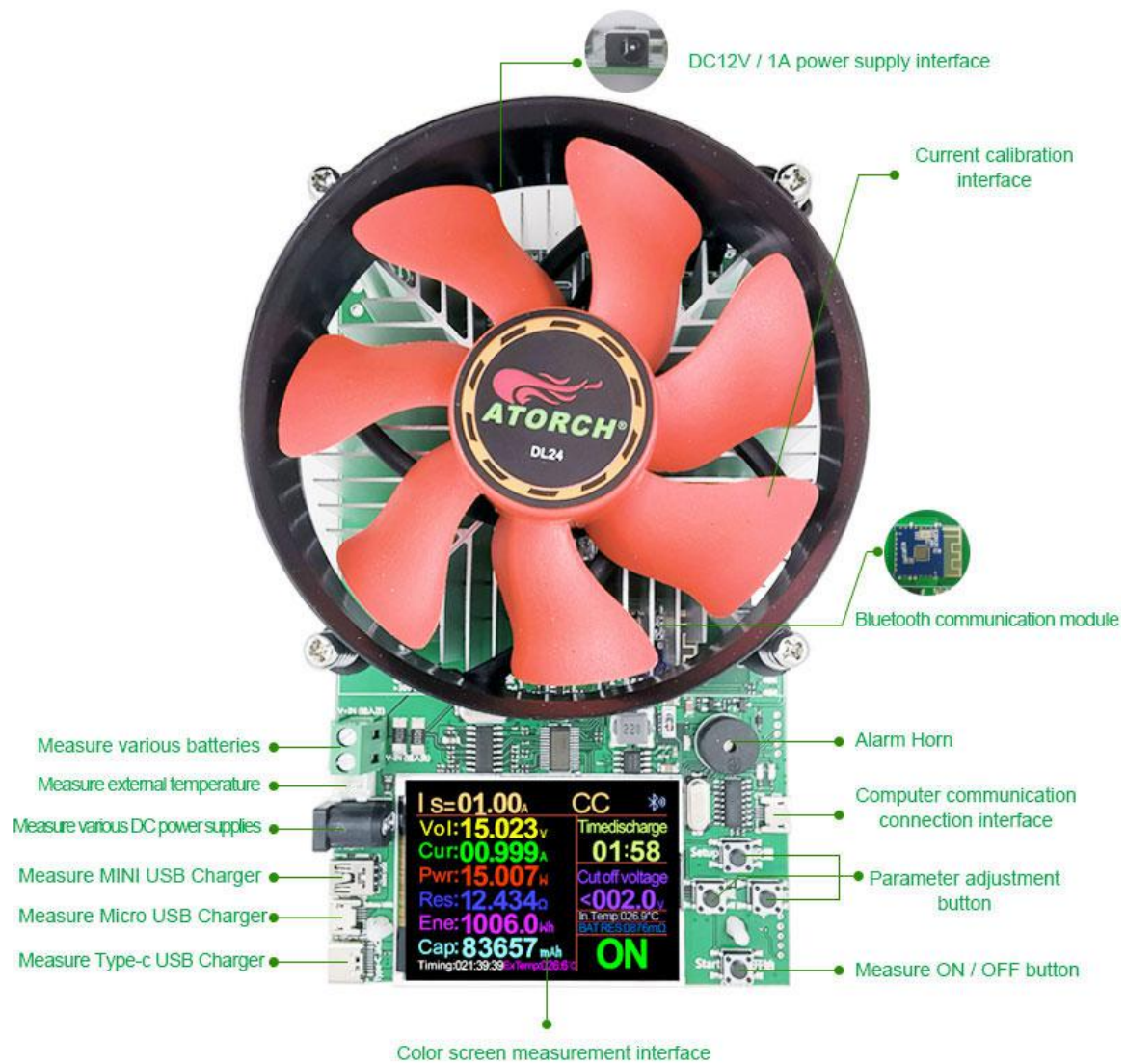
DL24 Discharge power: voltage \* current < 150 W

DL24P Discharge power: voltage \* current < 180 W

(The actual running current is limited by the maximum power, please adjust the current according to the law of energy conservation)

The built-in over-current, over-temperature, over-power safety protection functions, if the protection interface is popped up, please pay attention to the parameter adjustment, shall adjust to the maximum power, and then discharge, you can first slowly and smoothly adjust the preset value in the start and discharge, in order to adjust up to the maximum power for discharging





## Four operating modes of operation

- 1.Constant current operation (CC)
- 2.Constant resistance operation (CR)
3. Constant power operation (CP)
4. Constant voltage operation (CV)



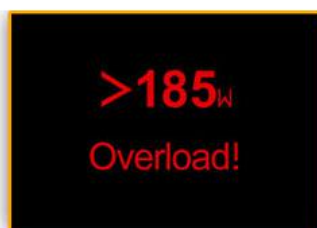
Startup screen



## Protection

1. Overload protection
2. Overcurrent protection
3. High temperature protection

## Protection Reminder



Overload protection



Overcurrent protection



High temperature protection







## >Time-limited discharge

(--:-- OFF discharge, 00H: 01S ~ 99H: 59S regular discharge)

## >Cut-off voltage

(<002.0 ~ 150V), when the voltage is less than the set value voltage (such as <3.7V), the device will stop discharging!



## Voltage accuracy evaluation



## Current accuracy evaluation



Device background settings (Chinese / English settings)

- 1.Chinese settings
- 2.English settings

Compatible with the current mainstream four online APPs

**(Android/IOS/PC system) online testing**



IOS App

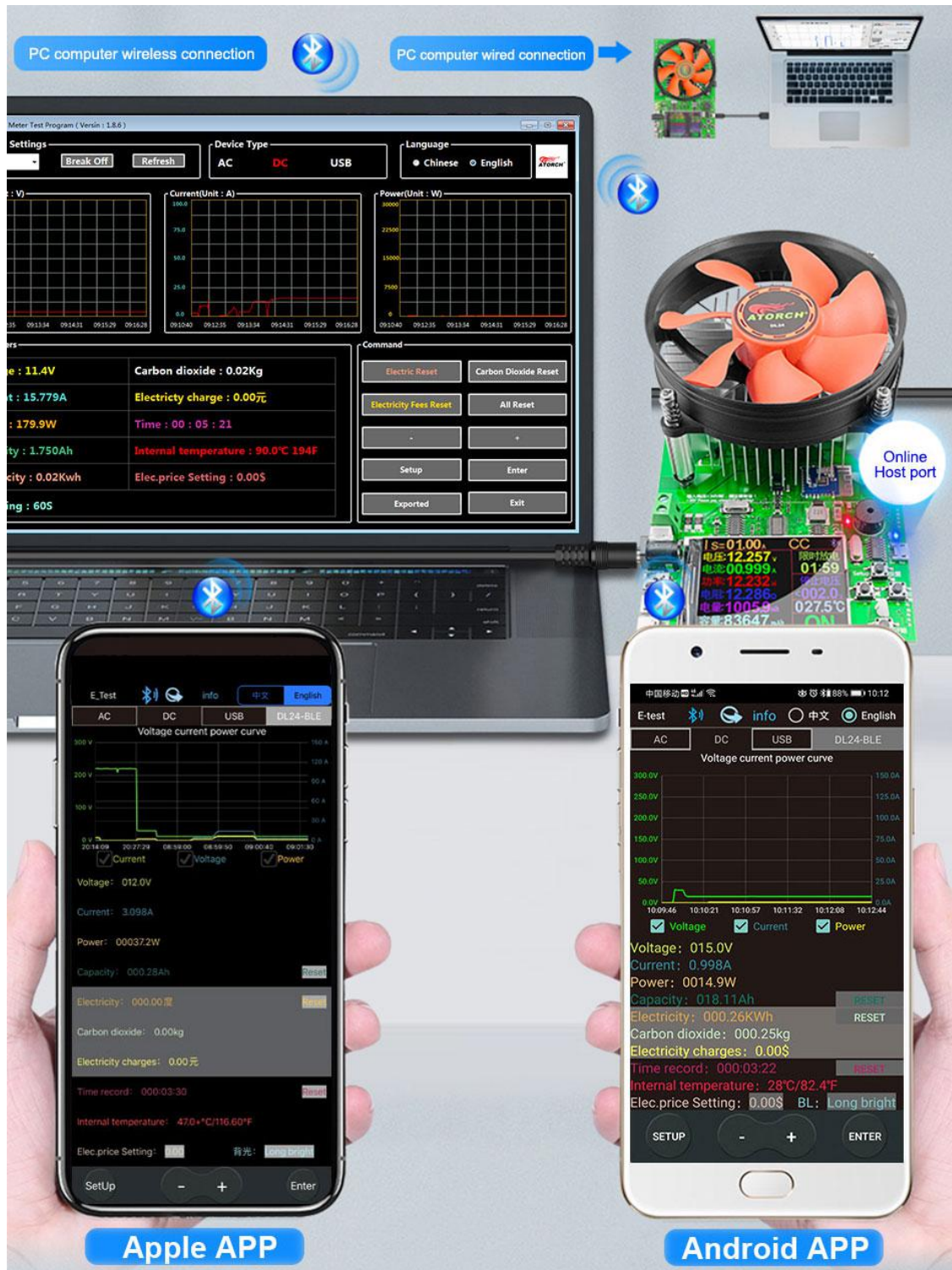


Android App



PC Computer App





## 1) Apple Mobile APP:

Please search for E\_test in the application 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:**

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 download. 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)

## **3) Computer wired online APP:**

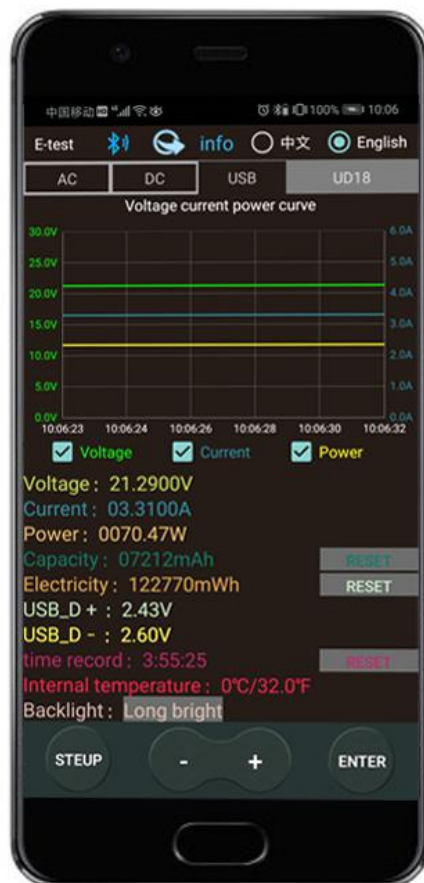
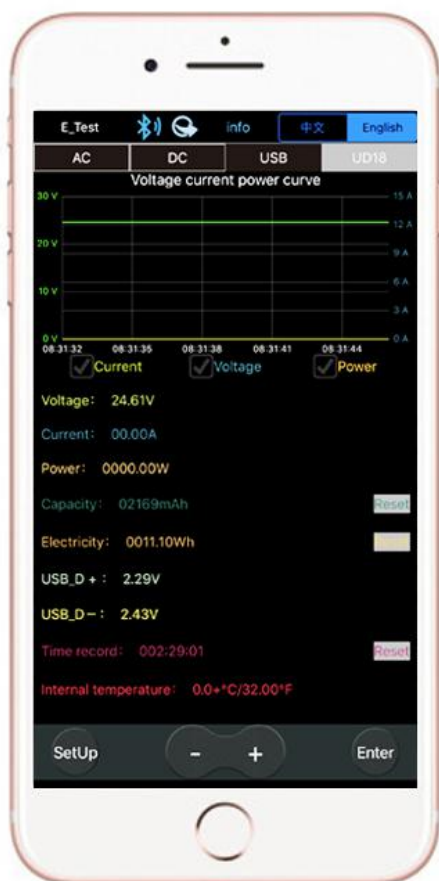
After the host is powered on, connect the USB port of the computer with the provided data cable, and then install the CH340 serial port driver, then scan the QR code on the back of the host to download the corresponding APP software. After the installation is complete, select the software you just installed and add The serial port model can be successfully used online, of course, this APP style using the installation method is also compatible with the serial port device of the Bluetooth device!

## **4) Computer Bluetooth wireless online APP:**

First add the Bluetooth device to the serial port device of DL24-SPP on the computer, then scan the QR code on the back of the host to download the corresponding APP software and store it. Open the software without installing and select the Bluetooth serial port model just added. You can successfully use online



# ***Good News***



iPhone APP



Android APP

1. New addition iPhone App, In the Apple Store, search for: **E\_Test**, Click Download to install it.
2. Android APP: <http://www.mediafire.com/folder/31bc15uhq8odb/E-meter>



## DL24 / DL24P Color Display Bluetooth Digital Control Curve Version Load Tester App Connection Method

1. Plug **DL24/DL24P** into the USB charger and the Bluetooth indicator will light up.

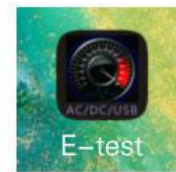


**DL24**

2. Please download the mobile app software, only support Android 5.0 and above.

<https://www.mediafire.com/folder/31bc15uhq8odb/E-meter>


Then install the E-meter APP software on the phone.



3. Bluetooth on the phone needs to be turned on, Then open E-test APP on the phone




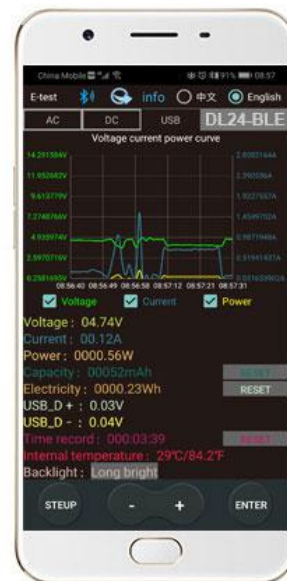
1

When the USB tester is powered on, the Bluetooth indicator is flashing, turn on the E-test App software icon , and allow Bluetooth to turn on.



2

Click the Bluetooth icon  in the upper left corner of the APP to pop up the menu for selecting the USB tester model **DL24-BLE**, return to the main APP interface.



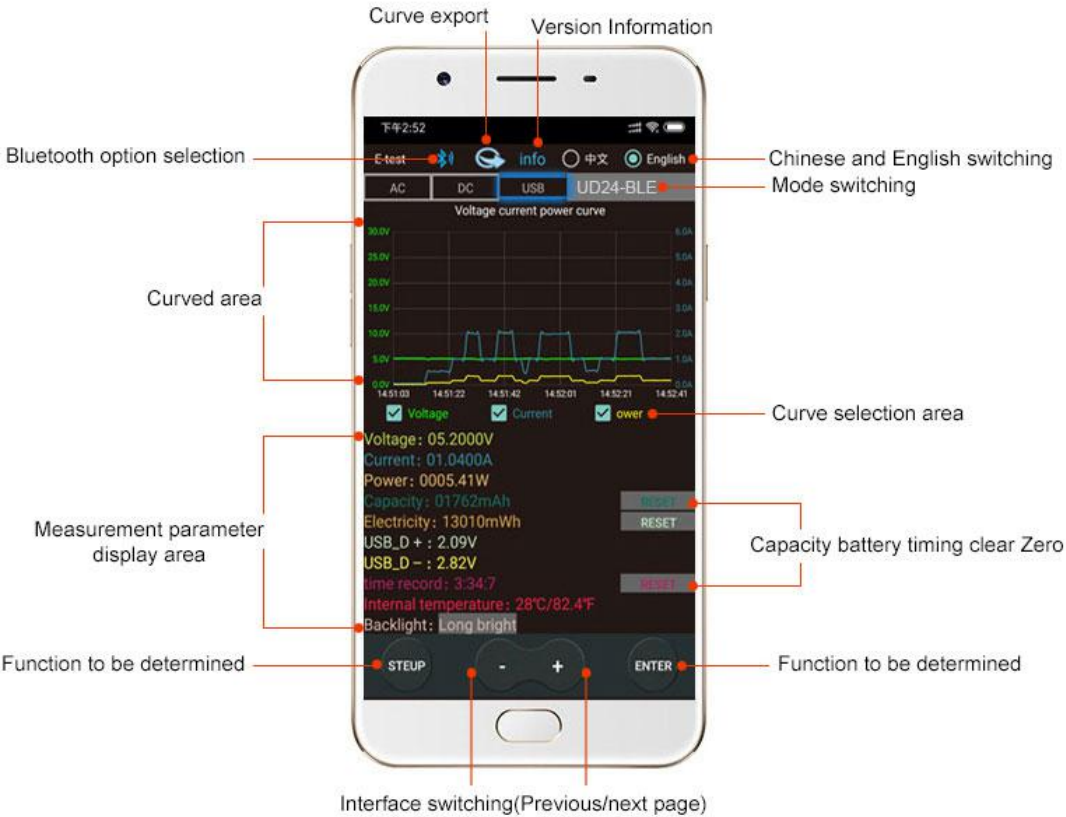
3

During the measurement, the upper right corner shows the model currently online **DL24-BLE**. The bluetooth icon in the upper left corner turns blue, indicating that the measurement is in online communication.

## Mobile APP interface function introduction

Use the mobile phone Bluetooth function to wirelessly connect the product, with the included mobile APP software, Achieve more measurement and control details, leaving measurement technology without boundaries

We have adopted the bluetooth CSR4.1, compatible with 4 g networks, using more advanced technology of bluetooth 4.1, improved the old bluetooth protocol and 4 g networks interfere with each other. New bluetooth 4.1.1 technology have automatic noise reduction function, and make the bluetooth headset can connect two phones at the same time. And bluetooth CSR4.1 g has, stable performance, good compatibility, low power consumption is more save electricity



# How to find the Bluetooth symbol in E-Test APP

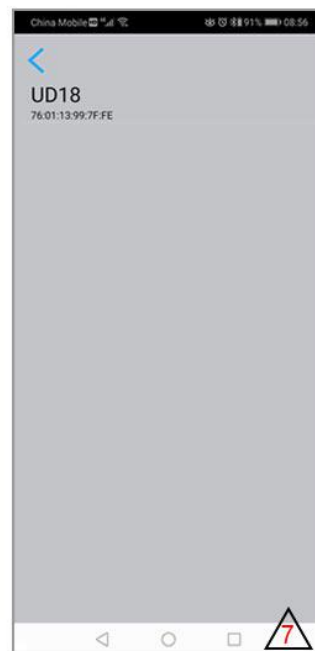
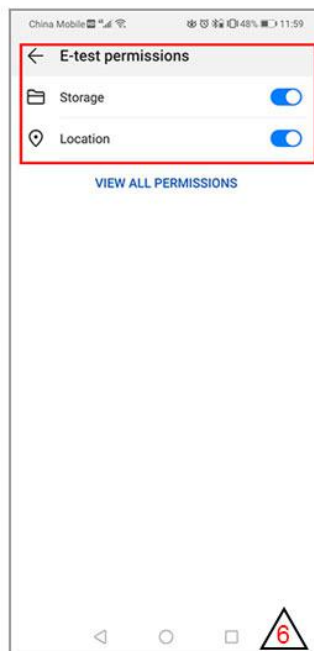
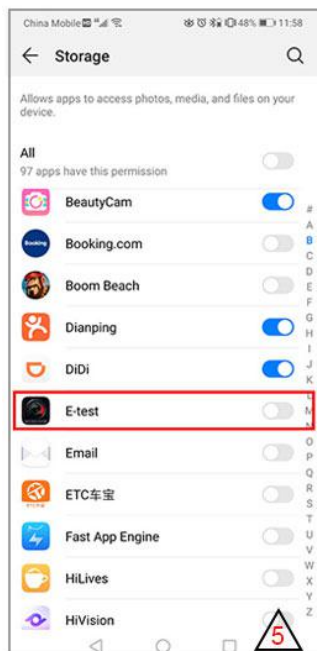
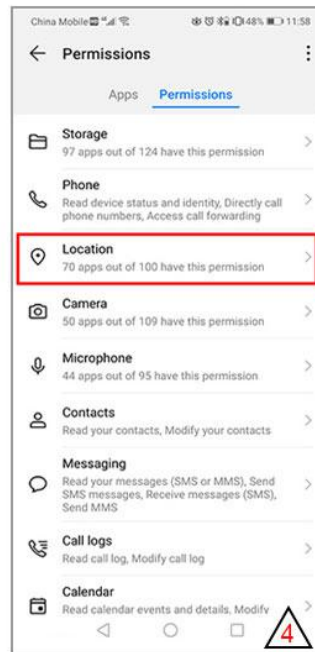
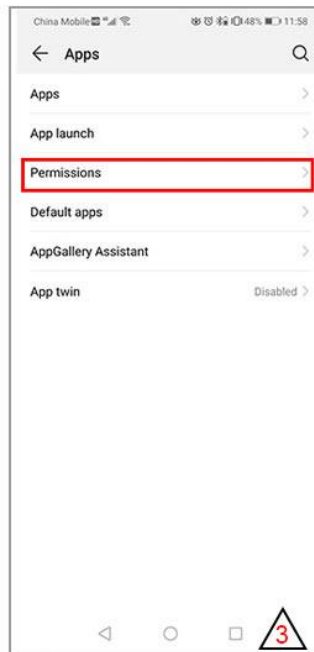
This operating instruction applies to all the company's Bluetooth products  
(UD18/DT24/DL24/AT3010/DPT3010/T18... etc.)

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.



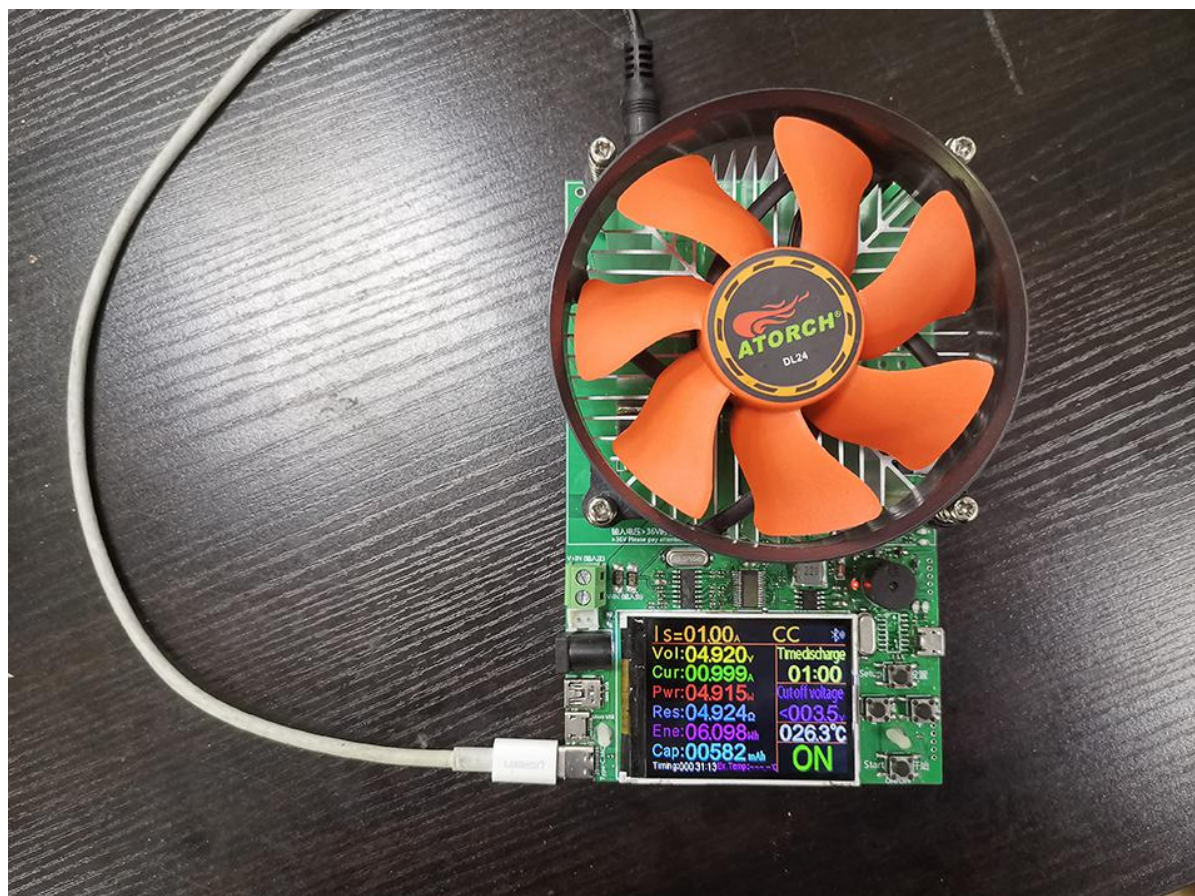
1 Please open your phone settings

Click settings

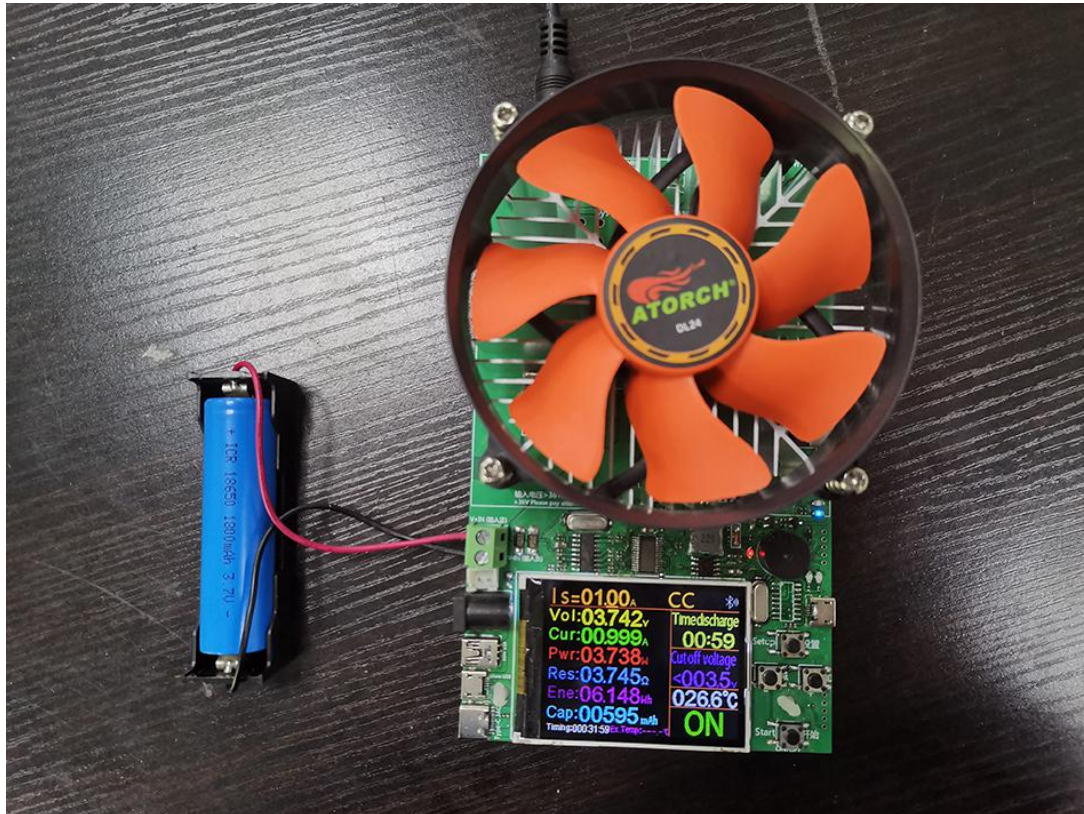




## Products Applications







## Product List

- 1.DL24 PCB Board(not include radiator ) x1
- 2.DC12V 1A power supply x1
- 3.2M PC computer online line x1

4. Temperature probe x1
5. Red and black single line crocodile clip line x1
6. US to EU adapter x1
7. 18650 BOX X1



## Users to share

After the user use pictures of feedback



