

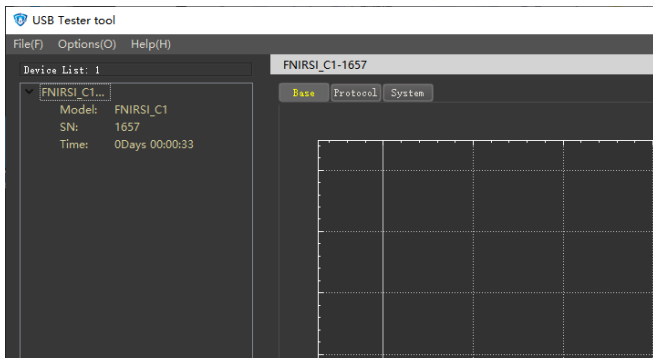
# **Usb Meter Tool manual**

## **(V0.1)**

## 0.0 Version & updates

The manual may be updated at any time. Please be aware. Please get the latest update information on the [official website](#).

## 1.0 connection



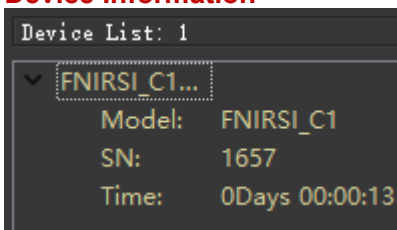
After opening the PC software and connecting to the PC through the micro-USB interface on the meter head, you should see the following interface:

The device list on the left shows the number of currently connected devices.

The model, serial number (SN), and time of connected PC software are displayed under each device.

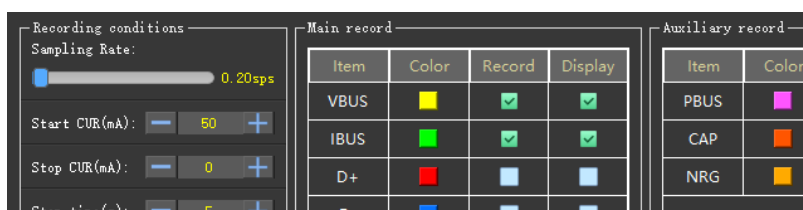
Double-click the device name to change the name to facilitate the distinction when multiple headers are used at the same time.

## Device Information



## 1.0 Basic function-record data

At the same time, record up to 7 data items, namely voltage (VBUS), current (IBUS), power (PBUS), signal (D+), signal (D-), capacity (CAP), and energy (NRG).



## 2.0.0 Create record

Click the "Create" button to create a new record. Before creating, please select the required recording conditions.

The meaning of each parameter is described below.

Tip: Move the mouse to the button and stay for a period of time to get a hint.

## 2.0.1 Recording conditions-sampling rate

You can drag the slider to adjust the sampling rate, ranging from 0.20 – 100sps. The data will be recorded with this data.

## 2.0.2 Recording conditions-starting current

After clicking the start button, the recording will not start immediately. The program will wait until the current is greater than the start current before it starts recording. If you want to start recording directly, you should set "Start Current" to 0.

## 2.0.3 Recording conditions-stop current

You can set to automatically stop recording when the current is less than a certain value by changing

the "Stop Current" item. If this value is 0, it will never stop automatically.

#### 2.0.4 Recording conditions-stop time

In order to prevent the momentary low current from falsely triggering the automatic stop, you can set the "Stop Time" item. Only when the current consumption of the device under test has been less than the automatic end threshold within this time, the automatic end will be triggered.

#### 2.0.5 Record item

"Color" column, you can adjust the curve color of the data item

"Record" column, you can adjust which data will be recorded

"Display" column, you can adjust which data will be displayed

Note: "Record" does not necessarily need to be "displayed", but "display" must be "recorded".

Main record				Auxiliary record			
Item	Color	Record	Display	Item	Color	Record	Display
VBUS	Yellow	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	PBUS	Pink	<input type="checkbox"/>	<input type="checkbox"/>
IBUS	Green	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CAP	Orange	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D+	Red	<input type="checkbox"/>	<input type="checkbox"/>	NRG	Light Orange	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D-	Blue	<input type="checkbox"/>	<input type="checkbox"/>				

#### 2.0.6 Image manipulation

2.0.6.0 Scaling freedom (currently only this item, if you have other needs, welcome to add)

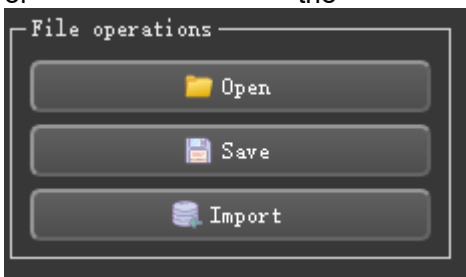
After checking, you can drag the image at will when data is being recorded, otherwise it can't.

#### 2.0.7 File operations

"Open"-Open the recorded data saved on the PC

"Save"-save the current record data to the PC

"Import"-Import the curve recorded offline in the meter head to the PC and create a record in the PC (Because the meter head may use the sampling rate that does not exist in the host computer, the sample rate displayed after the curve is imported is different from the general sampling rate of the host computer. The imported curve can be recorded on the host computer to break through the capacity limit of the meter head )



#### 2.0.8 Extreme value and cumulative value

The extreme value in the record curve, as well as the cumulative value, will be displayed.

```

  v Extremum
    v VBUS
      MAX 0.00000 V
      MIN 9999.99999 V
    v IBUS
      MAX 0.00000 A
      MIN 9999.99999 A
  v Accumulated
    TIME 00:00:00.000

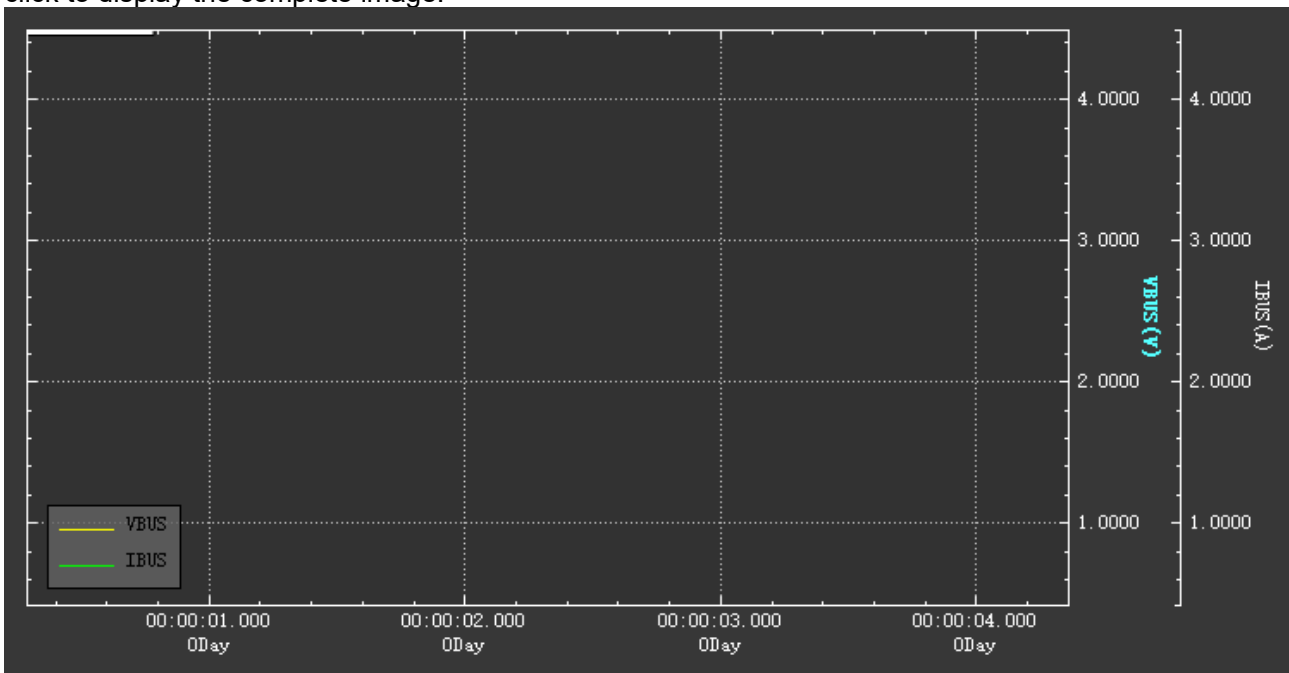
```

### 2.0.9 Image manipulation

"Left mouse button", double click to show/hide the cross cursor

"Middle mouse button", press and drag the image, scroll to zoom the image. If you place the mouse on the right Y-axis coordinate, "middle-click scrolling" can zoom the image of a certain piece of data separately; place the mouse on the lower X-axis coordinate, you can zoom the time separately. In the same way, "middle key press tight" can also act on the X axis or Y axis alone.

"Right mouse button", click tightly to select the frame, you can zoom in on the image details. Double click to display the complete image.



### 1.0 protocol function

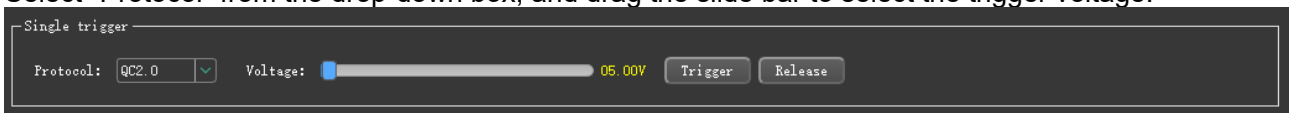
Currently, it supports triggering 5 protocols from the host computer, namely QC2.0, QC3.0, Huawei FCP, Huawei SCP, and Samsung AFC.

Support "single trigger" and "smart trigger".

Note: Due to the special nature of Huawei's SCP protocol, when switching from SCP to other protocols, the charging head may restart and cause the trigger to fail.

### 3.0.1 Single trigger

Select "Protocol" from the drop-down box, and drag the slide bar to select the trigger voltage.



### 3.0.2 Smart trigger

First, develop a trigger plan.

"Add" and "Delete" buttons to add/delete trigger steps

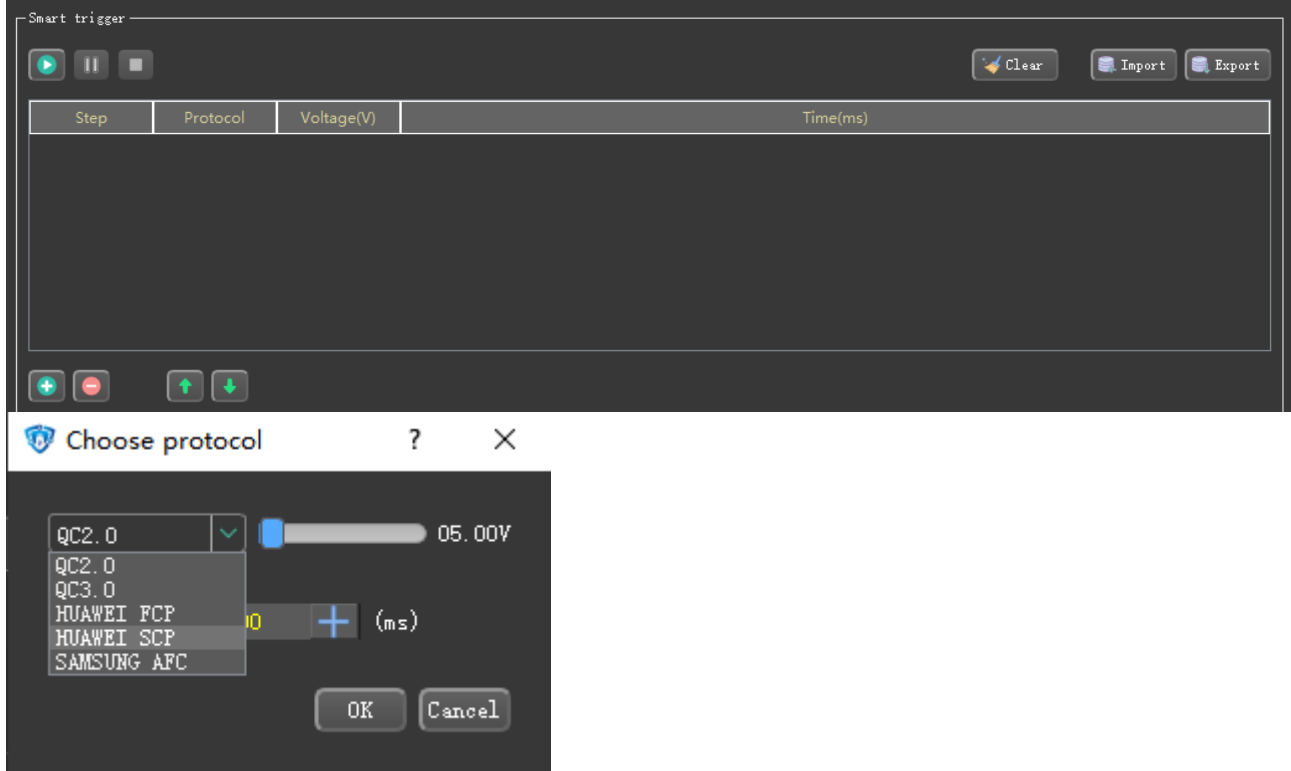
"Move up" and "Move down" buttons to move up/down the steps

Double-click the trigger step to make changes

After the plan is developed, you can use the "Start", "Pause", and "Stop" buttons to operate.

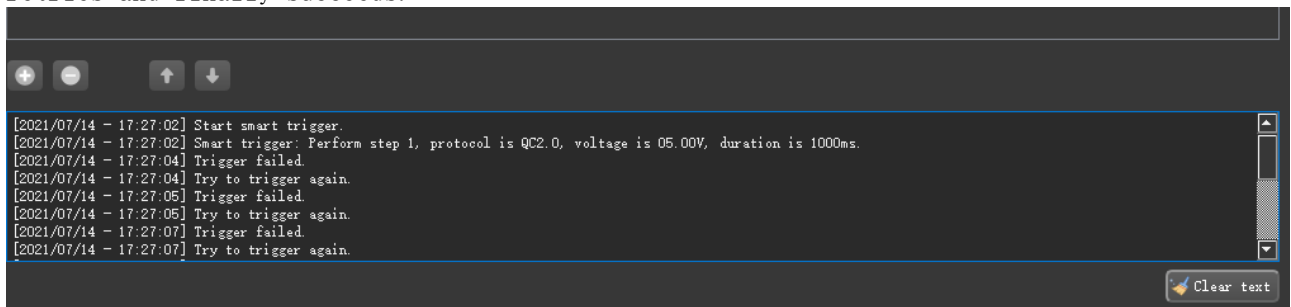
The "Import"/"Export" button can import the trigger scheme from the PC to the upper computer, or export it from the upper computer and save it to the PC.

"Clear plan" can clear the current plan, so as to avoid the trouble of clicking "Delete" one by one.



After clicking "Start", the trigger step can trigger log browsing below.

As can be seen from the trigger log below, due to the special nature of the SCP protocol, when switching from SCP to triggering AFC, the trigger fails, but the system automatically retries and finally succeeds.



### 1.0 system function

The system function is mainly the firmware upgrade function, and some basic information of the tester is displayed here.

"Open file" select to upgrade the firmware. "Upgrade" begins to upgrade.

When upgrading, you need to make the device enter the booter mode, usually by pressing the "OK" button when shutting down, and connecting to the PC via micro-USB.



### 1.0 Overvoltage and overcurrent alarm

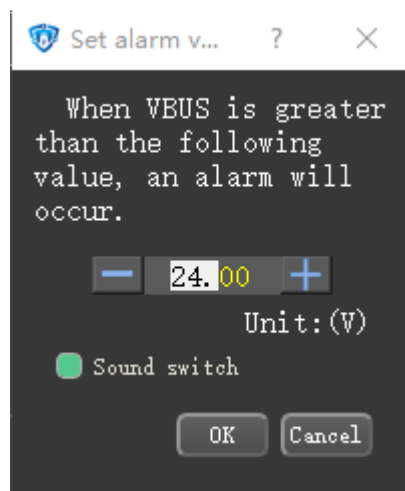
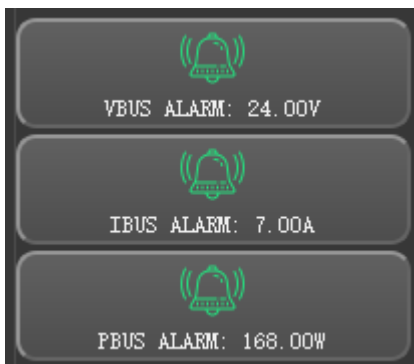
The button on the right can be used to set the alarm parameters, and you can choose whether to ring the alarm.

VBUS: 0-28V

IBUS: 0-8A

PBUS:

0-224W



1.0

Other

functions

6.0.1 Multi-language support—7 types

Simplified Chinese

traditional Chinese

English language

Russian

Japanese

Portuguese

Spanish

6.0.2 The temperature unit can be switched: °C°F