

USB 3.0 Comprehensive Tester

-USB3.0 tester

To my dear customers:

Thank you for purchasing USB comprehensive tester produced by Hangzhou Ruideng Technology Co., Ltd. For quickly learn all function of our product to get good experience when using this USB tester. Please read this instruction carefully before using this USB tester, and keep it when necessary.

Technical Parameter:

Voltage measurement range: DC 04.00-24.00V

Current measurement range: DC 0.0000-3.0000A

Capacity accumulation range: 0.0000-9.9999-99.999Ah

Energy accumulation range: 0.0000-9.9999Wh-999.99Wh

Voltage measurement accuracy: \pm (0.2% + 1digit)

Current measurement accuracy: \pm (0.1% + 4 digits)

Time measurement range: 0-99h59min59s

Temperature measurement range: -10°C ~65°C

Temperature measurement error: \pm 2°C

Screen brightness setting: 1-7 level

Delay closing screen time: 1-9 mins

Voltage curve range: 04.0-24.0V

Current curve range:0.00-3.00A

Protection function: OVP (over-voltage protection), UVP (under-voltage protection), OTP (over-temperature protection), OCP (Over-current protection) and UCP (Under-current delay time protection).

Charging mode: Direct Mode, Quick Charge Mode, Disconnected Mode.

Other functions: Screen rotation Shunt-down screen

Update rate: 2Hz

Quiescent current: about 10mA

Product weight: 14g (package 46g)

Product size: 64.0mm*21.6mm*11.2mm (L*W*H)

Port mode: compatibility USB 2.0 USB 3.0

Display screen: 0.91" 128*32 lattice OLED screen

Button instruction

There are 3 kinds button operations: short press, medium press, long press. The flowing is the operation: short press, press the button and release it quickly; medium press, keep pressing the button, until LED flashes one time, you can release the button; long press, keep pressing the button, until LED flashes two times, you can release the button;

Operating instruction:

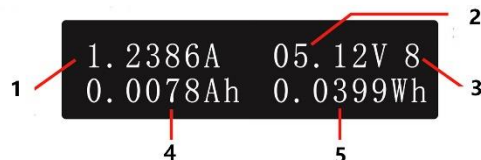
Display interface 1 after power on – as the following picture show:

1-Current measurement value

2-Voltage measurement value

3-Data group number

4-Capacity accumulation value



5-Energy accumulation value

Enter into the data group selection state by long press. In the same time, the data group number was selected. The next data group can be switched by short press in turn. This tester can provide 0-9 data group to be stored and checked.

When data group is 1-9 group, the current capacity will be stored after power off. And the stored capacity will be accumulated after power on. When the data group is 0 group, the current capacity will be stored after power off. When power on next time, the stored mAh and mWh are blinking displayed. When the new mAh is up to 0.1 mAh, the stored mAh will be covered, and the values will start over.

In the state of selecting data group, all capacity accumulation value and energy accumulation value will be cleared by medium press. Selecting data group state can be existed by long press.

Display interface 2 switched by short press – as the following picture show:

6-Run time

7-Screen brightness

8-Temperature display

9-Close screen time



Run time records the accumulated time after power on and is exactly on the second. Display temperature is the inside temperature of tester housing, closely to the outdoor temperature.

Enter the setting of screen brightness by long press, and the corresponding number is selected and displayed. You can change the number by medium press, bigger the number, brighter the screen, totally 7 levels. Enter the setting of closing screen time by short press, and the corresponding number is selected and displayed. You can change the number by medium press. Setting 1m - 9m means the screen will be closed automatically after 1-9 mins. If set 0m, the screen will not be closed. At any interface, the screen was closed, the screen will be waked up by short press. After setting is finished, it will be existed by long press.

Display interface 3 switched by short press – as the following picture show:

This interface shows voltage measurement curve. The range will be automatically changed during 4-24V. This curve can display voltage fluctuations in real time.



Display interface 4 switched by short press – as the following picture show:

This interface shows current measurement curve. The range will be automatically changed during 0-3A. This curve can display current fluctuations in real time.



Display interface 5 switched by short press – as the following picture show:

10- Over-voltage setting value

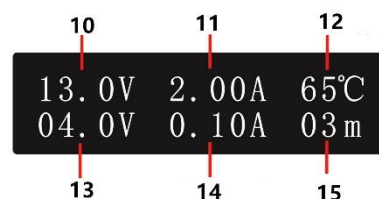
11- Over-current setting value

12-Over-temperature protection value

13-Under- voltage setting value

14- Under-current setting value

15- Under-current delay time setting value



Enter the setting of protection value by long press, and the corresponding value is selected and displayed. You can change the value by medium press and the value place by short press. After

setting finished, it will be existed by long press.

This tester has 5 protection functions: OVP (over-voltage protection), UVP (under-voltage protection), OTP (over-temperature protection), OCP (Over-current protection) and UCP (Under-current delay time protection). When something is wrong, the output will be cut off automatically to protect the load from being burnt. In the meaning time, there are corresponding tips on the screen. When the fault is cleared, you can click the button. Then the tester will work again. If the wrong data setting leads not to be existed from unnormal interface. You can keep press the button to power on, the tester will be restored into the factory default setting.

UCP is the function that cut off output when the current is under the set current on the set time. When the output current is under the set current continuous on the set time, the output current will be cut off automatically. This function is applied to the condition after a full charge of some digit products like phone is reached, output current is cut completely.



Display interface 6 switched by short press – as the following picture show:

Direct mode is that all signal wires are conducted directly. In this mode, USB port can transfer data normally. If you want to measure QC fast charge device, you must choose this mode.



Enter the setting of USB mode by long press, and the corresponding number is selected and displayed. You can change USB mode by short press. Number 0 represents direct mode; number 1 represents disconnected mode; number 2 represents quick charge mode.



Disconnected mode is that the two middle signal wires are disconnected. In this mode, USB port cannot transfer data. Quick charge mode is that the two middle signal wires are connected with the special charge chip. This chip can simulate quick charge agreement from different manufacturers to make different device matched automatically. So it can get quick charge. This mode can be compatible with apple intelligent device to realize fast charge in the condition of not using original charger, while the USB port cannot transfer data.



Display interface 7 switched by short press – as the following picture show:

Enter the setting of screen rotation by long press, and the corresponding number is selected and displayed. You can change display direction by short press. Number 0 represents positive display; number 1 represents reverse display.



Enter into the state of closing screen by short press, the LED is flashing in this moment and it can come back to the display interface 1 by short press. When you charge normally and insert it into charger for long time, kindly advise you close the screen. For this can conserve electricity and prolong lifespan.

