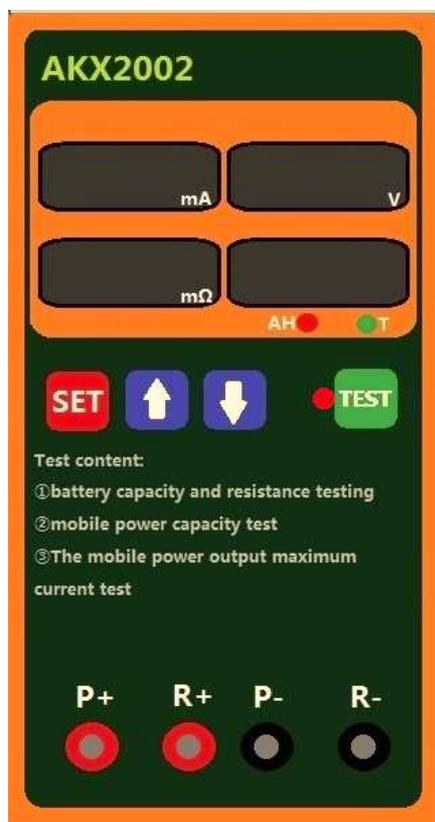


Operating Manual



Applicable Environment of Instrument:

- 1) Temperature: 0~40°C
- 2) Operating Altitude: Can be used within altitude 2Km
- 3) Relative Humidity: 40~80% Humidity

Measuring Range:

- 1) Testing Range of Battery's Voltage: 0~10V Minimum Resolution 10mV
- 2) Testing Range of Current: 0~3000 mA Minimum Resolution 1mA
- 3) Testing Range of Internal Resistance: 0~1000 mΩ Minimum Resolution 1mΩ
- 4) Testing Range of Capacity: 0~9999AH Minimum Resolution 1mAH (0.001AH)

Testing Speed:

- 1) Static Testing (Testing All Functions) : 3~5 Seconds
- 2) Capacity Testing (Current Discharge) : 3~4 Hours

Testing Accuracy:

- 1) Voltage Testing Accuracy: 10.00V±0.1% (After Calibration)
- 2) Current Testing Accuracy : 3A±0.5%
- 3) Internal Resistance Testing Accuracy: 1000mΩ±2%
- 4) Testing Time: 0-100 Hours Minimum Timekeeping 1 minute (00 Hour: 00 Minute)
- 5) Battery Capacity Testing Accuracy: 9999AH ± 2%

Power Supply:15V DC

Standby Power Consumption <3W

I . Preface

Common rechargeable batteries contain lithium battery, nickel cadmium battery, nickel metal hydride battery, and sealed lead-acid battery, etc.

Lithium battery has the features such as big capacity, light weight, high cycle times etc, is widely used in mobile phones, PDA, digital cameras, camcorders, laptop computers, and other fields, and it is currently the most advanced rechargeable battery; The lithium battery which is referred to here is finished lithium one ; The battery which is composed of lithium-ion batteries (lithium ion batteries or polymer batteries) plus lithium battery protection board is early applicably rechargeable battery, which has the features such as low cost, low internal resistance, large current discharge.

Nickel metal hydride battery and nickel-cadmium battery are similar, however, since it does not contain heavy metals, nickel metal hydride battery makes less pollution to the environment than that of nickel-cadmium battery; At present, nickel metal hydride battery is widely used in common consumer electronics, and as for the application field, nickel cadmium battery almost has been replaced with nickel metal hydride battery.

Small sealed lead-acid battery, also called maintenance-free lead-acid battery, whose current technology is mature, is mainly used in stationary backup power supply occasions such as uninterruptible power supply, emergency lamp and so on.

Aimed at the necessary of rechargeable battery production testing, we have specially developed a dedicated rechargeable battery comprehensive tester ; The tester can make a precise quantitative measurement for some basic parameters of the battery, can measure battery's open circuit voltage, load current, internal resistance, and can accurately measure battery' capacity and mobile power supply' capacity, which greatly facilitates battery production and pre-sales and after-sales service work; The performance affects of battery can be intuitively judged with very simple steps by the tester, at the same time, it also has the function of rapid screening, can set the upper and lower limits of measurement parameters, and bad batteries can be easily detected out from a lot of finished batteries by the tester, which improve production efficiency. In addition, it also has some special functions, which make it have the characteristics of some common instruments and equipment, and expand usage flexibility of tester, and has feature of widely usage range.

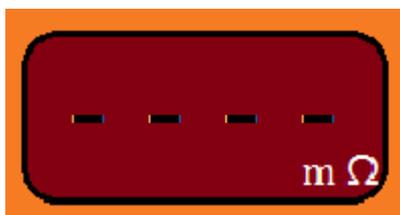
II . Appearance Instruction of Instrument



Current



Voltage



Internal Resistance



Time and Capacity

III. Operating Manual of Product

1. The testing of phone charger output current (This product can test all of the mobile phone chargers which are within 5V3A)

At firstly, Long press of SET , OFF or ON will be shown on window at Lower –left corner ; Secondly, press UP and DOWN button to adjust to the OFF state (It means that internal resistance test is closed); Then short press SET to save; After testing interface restored is shown, short press SET, current window will be flashed, and press UP and Down arrow to adjust to 3000 Ma; Press again SET, voltage window will be flashed, press UP and Down arrow to adjust to 4.20 V (Battery whose charger voltage is below 4.2 V can't be fully charged.);After setting , press SET to save . Current no-load voltage can be shown on tester which is connected with tested charger; Directly press TEST button, current begins to rise rapidly until the alarm is alarmed at the same the maximum output current of current tested charger can be shown on current window. Press again TEST, testing is finished. (The maximum output current of mobile power supply can

be tested in the same way.)

2.The testing of battery's internal resistance capacity

At firstly, Long press SET, OFF or ON will be shown on window at Lower –left corner; Secondly, press UP and DOWN button to adjust to the ON state (It means that internal resistance test is opened); Then short press SET to save; Setting other places is not needed when internal insistance is tested , the internal insistance value can be quickly shown when the pens of tester are directly connected with the tested battery .(cross the electrodes (Err will be shown on voltage window of tester if positive and negative electrodes are inversely connected).

3.The Testing of Battery's Capacity and Mobile Power Supply's Capacity

At firstly, Long press of SET, OFF or ON will be shown on window at Lower –left corner ; Secondly, press UP and DOWN button to adjust to the OFF state (It means that internal resistance test is closed); Then short press SET to save; After testing interface restored is shown, short press SET, current window will be flashed, and press UP and Down arrow to adjust to required discharge current;(Discharge current should be set according to capacity size, in general, it is set to the range from 1/2 to 1/5 of capacity ; For example, as for 1000 mA battery current , it can be set to 500 mA - 200 mA; As for very large capacity battery , discharge current is recommended to be set between 1000 mA - 2000 mA); Press again SET, voltage window will be flashed, press UP and Down arrow to adjust to 2.75 V; After setting , press SET to save .Press Test to start testing after tested battery is connected with tester; Capacity begins to slowly rise, and press UP and DOWN button to switch time and capacity; After discharge is finished , the tester will alarm for several times and screen will be flashed at the same time, now, the capacity of window is the actual capacity of battery (Remember that before capacity testing, battery should be fully charged by charger, otherwise the Tested data won't be accurate.)

IV.Testing Demonstration



Maximum Current Testing of Charger, Maximum Current of Tested Charger is 2.17A.



Maximum Current Testing of Charger, Maximum Current of Tested Charger is 0.86A.



The Testing of Battery's Internal Resistance 125mΩ



The Testing of Mobile Phone Battery's Capacity 1370mAh



The Testing of 18650 Battery



The Capacity of Mobile Power Supply Is Testing.

- Notes:
1. The Voltage of Tested Battery Should not be more than 10V;
 2. Please insert ahead pen line of Tester when current or capacity is tested with two small ports on the right side;
 3. When Tester is not connected with tested object sometimes, voltage window occasionally appears ERR, which is normal phenomenon because pens sense weak voltage in the air; When test line is pulled out , the phenomenon will disappear;
 4. When large current is discharged, internal temperature of Instrument will rise, and built-in fan will start; When temperature is lowered, fan will automatically be shut down (When fan turns up, it will make a little noisy since the space is too small, which needs large power fan for cooling).

If you run into any technical and usage problems, please contact the seller, we will be patient to serve you, thanks for your support!

2015-06-24