This tester can be used with lithium ion or lead acid batteries. The resistor gets hot during operation! We have used these extensively when testing 18650, prismatic and pouch lithium ion cells, and suggest using a cooling fan if you are going to be testing a lot of cells in succession.

This includes two 7.5 ohm 5-watt resistor for up to 1000 mA (1 amp) discharge rate. You can add additional resistors to up the discharge rate up to 3 amps; please contact us prior to order if you need more.

This accepts a 5v input via micro USB connector. It can also be hard-wired by soldering to the '+' and '-' terminals on the underside of the board. Each board uses less than 70 mA current during operation, meaning that several can be connected to a single household 5v USB power outlet.

Battery, holder and power supply not included. We sell a kit with the holder! <a href="https://www.ebay.com/itm/123886669489">https://www.ebay.com/itm/123886669489</a>

Please contact us with any questions before purchase.

## Instructions

- 1. Fully charge the battery before test.
- 2. Connect input power first, then battery power. Connect resistor(s) to the outer two terminals, and battery positive and negative to the inner two. See markings on the underside of the board for proper connections. Reversing battery voltage will damage the tester!
- 3. Press the '+' or '-' buttons to set cutoff voltage (in steps of 0.1v). Default is 3.0v with lithium ion (3.7v nominal) batteries.
- 4. Press "OK" to begin testing. LED will start flashing three times, then begin testing. The readout will scroll through discharge current (amps), battery voltage (volts), and running capacity (Ah). A corresponding LED will flash for reference.
- 5. When the battery voltage reaches the set cut-off voltage, the load control switches off and the total battery capacity (Ah) quickly flashes.
- 6. Press the "OK" button to clear test results.

## **Error Codes**

Err1: Battery voltage is above 15v

Err2: Battery voltage is lower than the termination voltage

Err3: Battery can not afford to load or discharge current line too much resistance

Err4: Overcurrent (current exceeds 3.1A)

## Specifications

Power supply voltage: DC4.5-6V (micro USB connector)

Operating current: less than 70mA

Discharge voltage: 1.00V-15.00V 0.01V resolution

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Termination voltage range: 0.5-11.0V

Supported current: 3.000A 0.001A resolution

Maximum voltage measurement error: 1% +- 0.02V Maximum current measurement error: 1.5% +- 0.008A

Maximum battery capacity range: 9999Ah (1Ah = 1000mAh) greater value by shifting the decimal point to switch, when the display is less than 10Ah X.XXX, as shown above to achieve 10Ah XX XX, and so on

to achieve 10Ah XX.XX, and so on.

Board size: 50mm x 37mm

Finished Size: 50mm x 37mm x 17mm (length x width x height maximum position size,

includes copper foot height)

## **Shipping and Returns**

To keep your costs down, we ship lower quantities via USPS First Class.

Please contact us within 30 days to schedule a return. Buyer is responsible for return shipping. We can ship a replacement in the event of a faulty part.

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