

Instructions for USB Intelligent electronic load

-Model: LD25

Dear Customer,

Thank you for purchasing this USB electronic load from Ruideng Technology Co. Ltd. Prior to using this product we recommended that you briefly familiarize yourself with these instructions. In order to ensure the correct operation and use of the device. We also advise that you keep these instructions in a safe place for future reference as may be needed.



NOTE:

This product has no reverse connection protection, the input polarity cannot be reversed, otherwise the product is permanently damaged and cannot be repaired.

Technical Parameters:

Rated operational voltage: DC4-25.0V

Max discharging power: 25W

Rated operational current: 0.25-4.00A (when fan don't work, the minimum constant current is 0.05A)

Fan Speed: Large size intelligent temperature control fan, speed $5800 \pm 10\%$ RPM

Constant current resolution: $\pm(1\%+3 \text{ digits})$

Heat dispatch method.: intelligent temperature control fan + All aluminum fan

Working temperature: $-10^{\circ}\text{C}-40^{\circ}\text{C}$

Adjustable potentiometer : Precision multiloop adjustable potentiometer

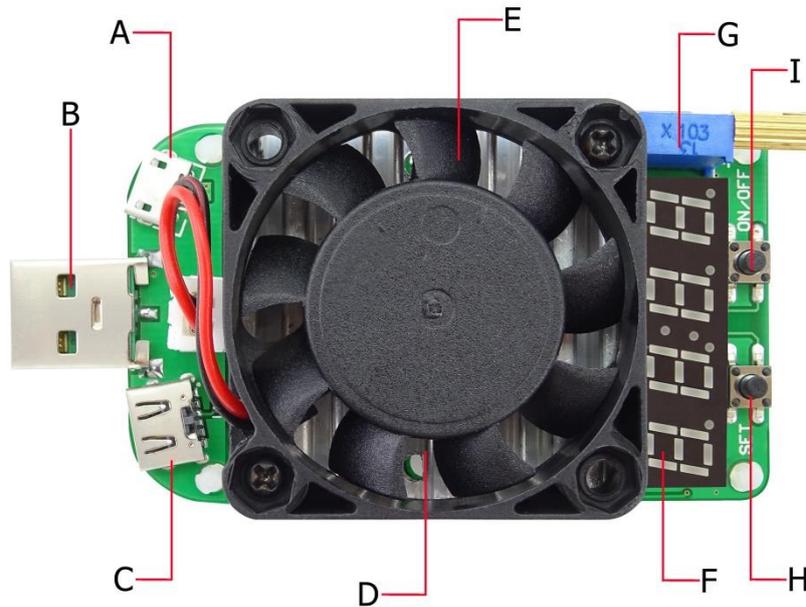
Display mode : 4 bit LED tube

Expansion port: Micro USB port、Type-C port

Product weight: 56.51g

Product size: 83.8x41.1x27.9mm

Product Structure



- A. Micro USB port: MAX current 2A
- B. USB male port (widened power wire, MAX current 4A)
- C. Type-C port: MAX current 4A
- D. All aluminum fan
- E. Intelligent temperature control fan
- F. 4 Bit LED tube
- G. Precision multiloop adjustable potentiometer
- H. "SET" button: press "SET" to switch display status, Press and hold the button to set the load output recovery mode after protection removed.
- I. "ON/OFF" button: press the button to open or close output. Press and hold the button to set the boot default status of open or close.

Function Introduction:

a. Protection function:

OVP (over-voltage protection): there is OVP at 25-30V; it will be damaged permanently over 30V.at OVP, LED show OVP, as picture 1 show)

OTP(over-temperature protection): load temperature is over 80°C, the LED show OTP, as picture 2 show.

OPP(over-power protection): the power is over 80°C, the LED show OPP, as picture 3 show.

b. Set output recovery mode after load entering protection status, manual or automatic

c. View the voltage value, current value and power value of the load.

d. Intelligent temperature control fan. When the current is over 2A or the temperature is over



picture 1



picture 2



picture 3

40°C, the fan will start.

- e. Precision multiloop adjustable potentiometer: you can adjust the current precisely, upto 0.01A. so you don't need to adjust a big current mistakenly to damage the power supply. So the power supply will not be damaged due to mistakenly adjustment
- f. you can set default boot status freely, open or close.

Operation Instruction

The load is powered at the range of 4-25.0V (the input polarity cannot be reversed, otherwise the product is permanently damaged and cannot be repaired), the LED will be flashing to remind current setting value, waiting for output. Press ON/OFF button, open output to start work.

1. Adjust output current value.

Turning the rotary control clockwise increases the value and anticlockwise decreases the value. According to the needs of the situation, the potentiometer can realize coarse adjustment or fine adjustment. The fine adjustment can be accurate to 0.01A.

2, Adjust LED display status

Press "SET" to adjust the LED display status, default display output current value. Press "SET" button to display *.*A、**.*P、**.*V followed by recycling.

3. Open or close load output

Press "ON/OFF" button, you can open or close load output

4, Set load default boot status (open or close status, Factory default close status)

Press and hold "ON/OFF" button to set load default boot status freely. Press and hold "ON/OFF" button, if the LED will display "--ON", as picture 4, the load will open output when power on next time; If the LED display "-OFF", as picture 5 show, the LED will display current value flashing at last shutdown when power on next time, then press "ON/OFF" button to open output.



picture 4

5, Set the load output recovery mode after protection removed.

Press and hold "SET" button, to set output recovery mode after protection removed. Press and hold "SET" button, if the LED will display "--ON", as picture 4, and the protection was removed, the load will recover to work; If the LED display "-OFF", as picture 5 show, and the protection was removed, the LED still show protection status, then press "ON/OFF" button, the display will display present setting current flashing, then press "ON/OFF" button again, the load recover to work.



picture 5

NOTE: Please check the output current of power bank carefully. The current of the general power bank is generally small, so adjust smaller current when the load was used.

Application

- Assist to measure Micro USB cable good or not
- Assist to measure Type-C cable good or not
- Assist to measure output current capacity of charger good or not
- The usage of large batch ageing test at the charger factory