

## SP3005

CNC Programmable DC Power Supply

# User Manual



Please read this manual carefully before use

# 1 User Manual

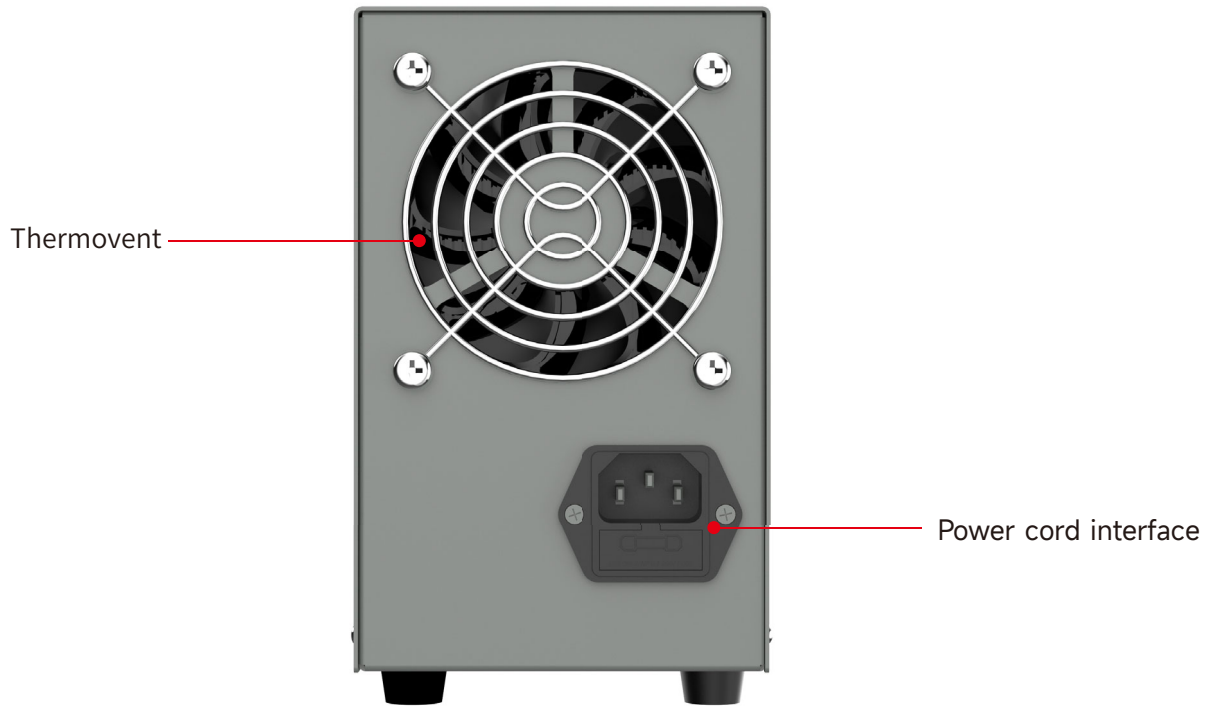
- High precision 4-figure display, adjust the voltage/current to three decimal places
- Over-voltage/current protection, constant voltage/current output  
Enable presetting multiple sets of output voltage/current to meet diverse needs
- Support Type-C 30W and PD/QC fast charging protocols
- Low noise ripple  $\leq 2\text{mVrms}/3\text{mAnms}$ , ensures power supply efficiency
- 3.5-inch HD IPS screen, current and voltage parameters/modes are clear at a glance
- Smart load diagnostics: Automatically detect abnormal load short circuits/over-current, actively protect equipment and quickly locate faults
- USB communication, supports system upgrade, unlimited functions, never outdated

# 2 Structure Introduction

## || Front side



## Back side



## Product accessories



Power cord



Banana plug alligator clip



User manual card



Certificate

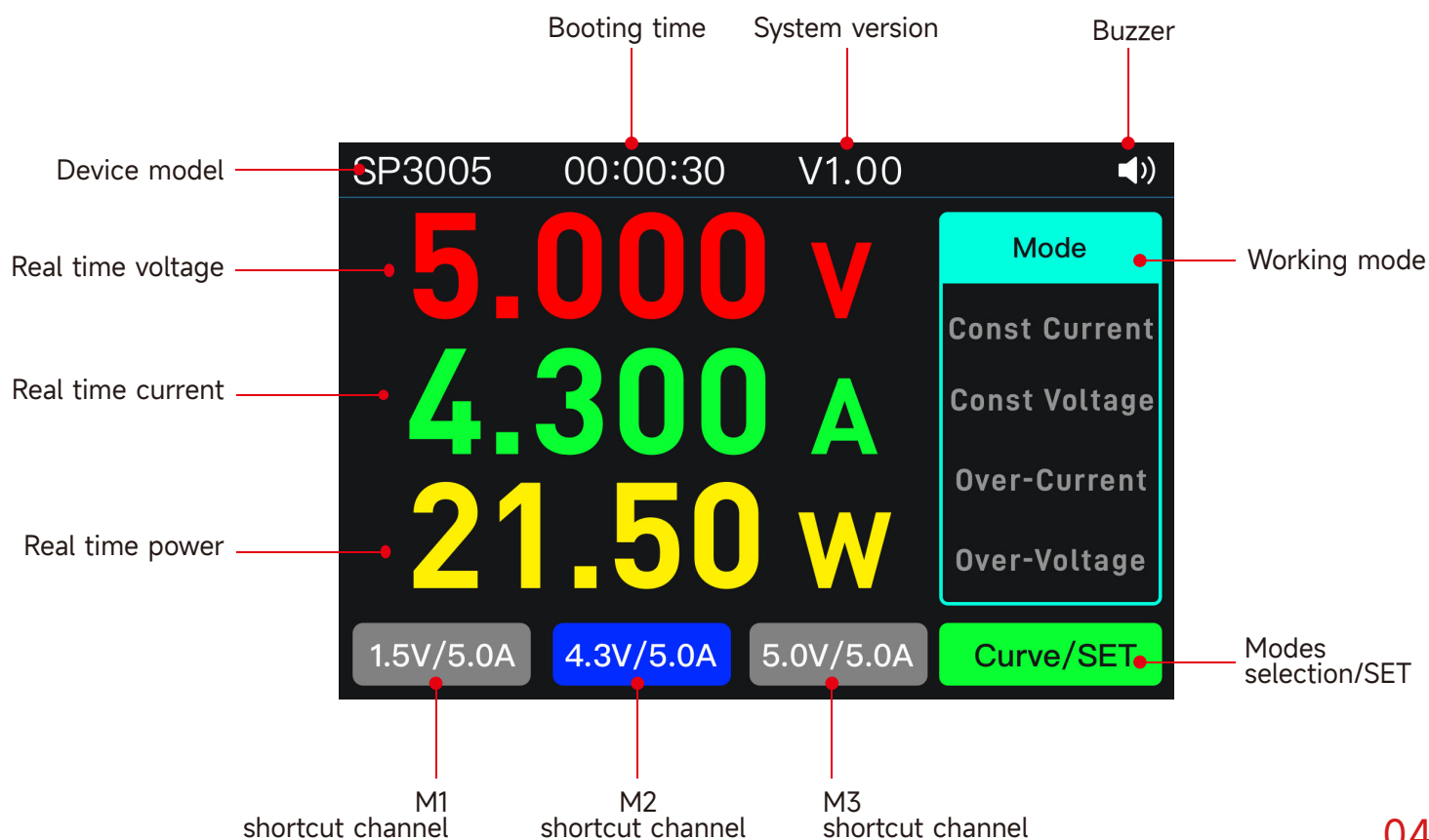
## 3 Product Parameters

### Host

Product name: Programmable DC Power Supply	Model : SP3005
Communication: USB communication	Screen size: 3.5inch IPS color screen
Resolution: Voltage: 10mV/ Current: 1mA	Net weight: 4.6kg
Rated power: 150W	Host dimension: 200*100*170mm
Ripple: Voltage $\leq$ 2mVrms / Current: $\leq$ 3mArms	Linear regulation: Voltage: $\leq$ 0.01%+3mV/Current: $\leq$ 0.1% + 3mA
Working mode: Constant current/voltage mode; over-voltage /current protection	Load regulation: Voltage: $\leq$ 0.01%+2mV/Current: $\leq$ 0.1% + 5mA

## 4 Product Operation

### Main Interface

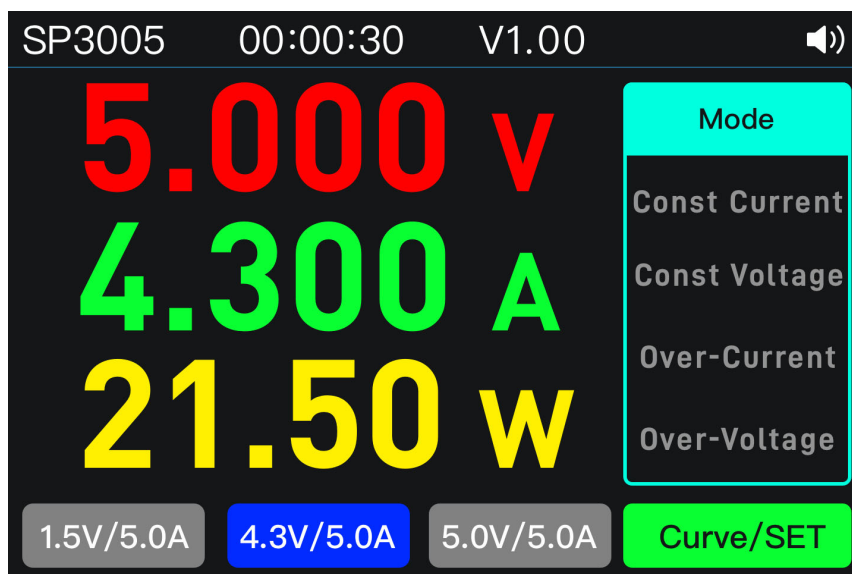


## 5 Product Operation

### || Shortcut operation of the host

#### ➤ Shortcut channel switch

"Single press" **M1** **M2** **M3** to switch among three current and voltage shortcut channels, press the knob to output power, and press the knob again to turn off power output



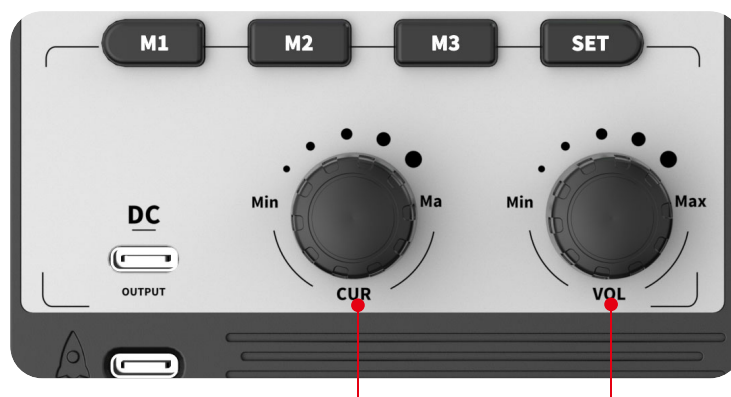
M2 shortcut channel output

#### ➤ Shortcut channel parameters setting

Long press "M1, M2, M3" to save the current value as parameters of shortcut buttons

#### ➤ Parameters adjustment

On the main interface of the system, rotate the left knob to adjust the current parameters, rotate the right knob to adjust the voltage parameters, and single press the knob to start the power output



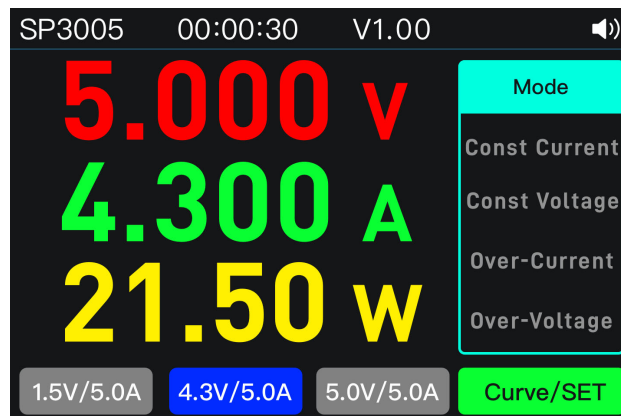
Rotate to adjust  
current parameters

Rotate to adjust  
voltage parameters

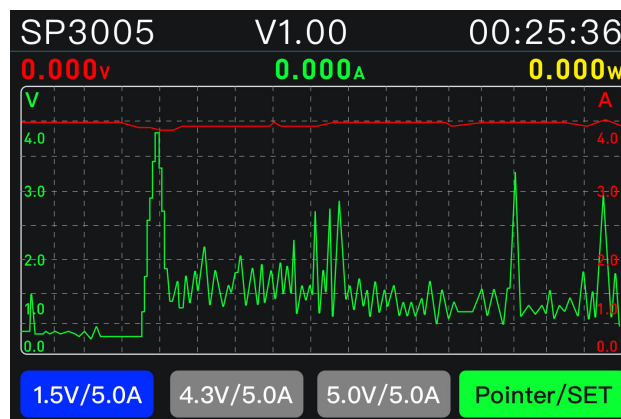
## Display modes switch

- On the main interface, "single press" **SET** to switch among voltage and current digital display/curve display/ammeter pointer display interface.

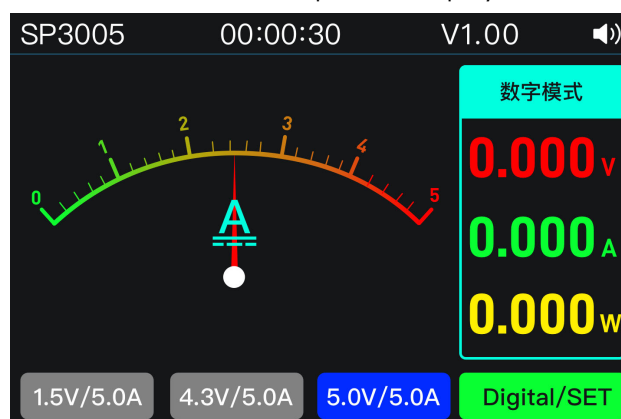
【Digital display】



【Curve display】



【Ammeter pointer display】



## 6 Host Settings

Long press the **SET** button to enter the system settings interface

- Operate through buttons, you can press buttons below the display screen to perform relevant settings.

**M1** **M2** **M3** **SET**



### ➤ Example of knob operation - Turn on/off sound

1. Long press the "SET" button to enter the system settings interface
2. Rotate the knob to move to the sound switch
3. Single press the knob to select ON or OFF
4. After selection, single press M3 (Back) to the system menu list

### ➤ Example of button operation - Turn on/off sound

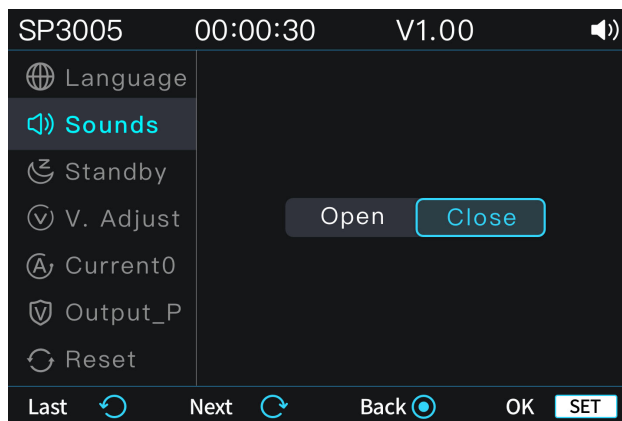
1. Long press the "SET" button to enter the system settings interface
2. Single press M2 (Next) to move to the sound switch
3. Single press the SET button to select ON or OFF
4. After selection, single press M3 (Back) to the system menu list

Host settings

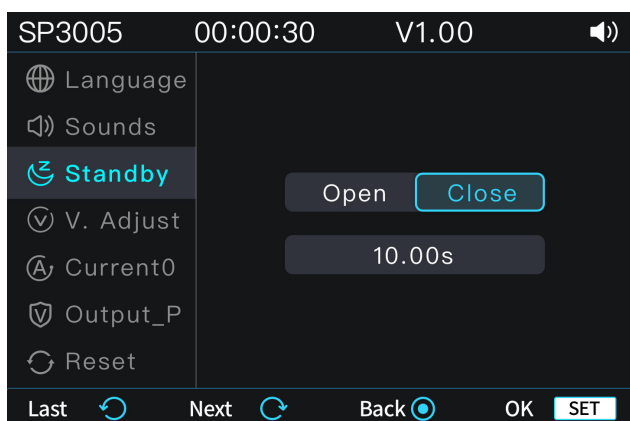
【Language】



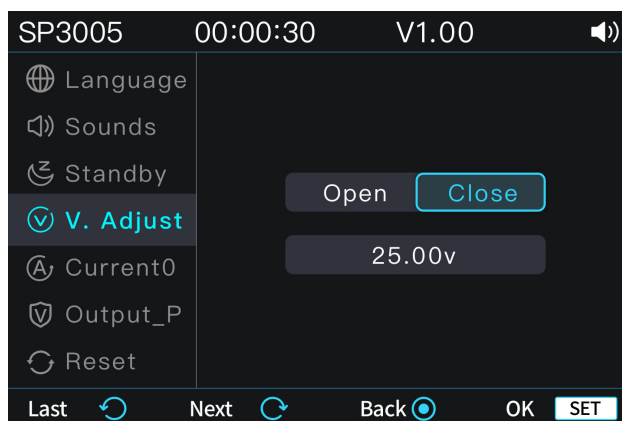
【Sounds】



【Standby setting】



【Voltage setting】



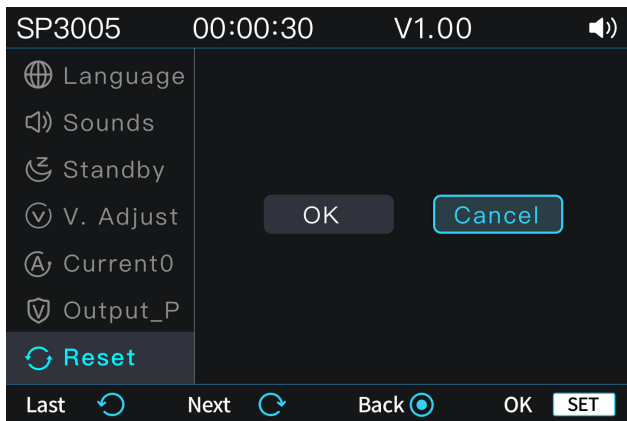
【Current clear】



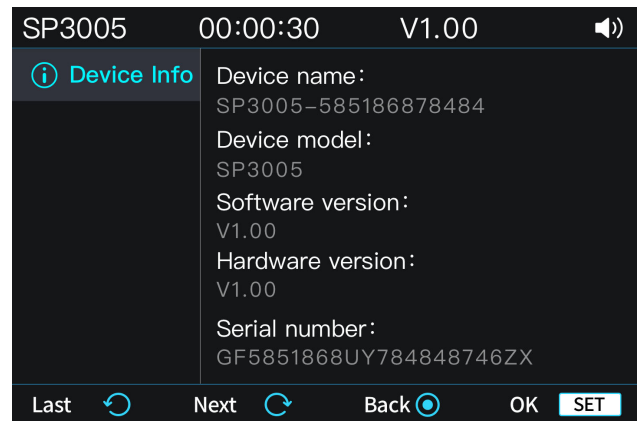
【Output protection】



## 【Reset】



## 【Device info】



## 7 System upgrade

- Connect to the computer (AiXun Assistant) via Type-C to upgrade the host system



AiXun Assistant download: <https://aixun.com/>

## 8 Precautions

- **To avoid power supply damage and keep safe working environment, the following items should be observed:**
  - The product uses a three wire grounding plug, which must be inserted in a three hole grounding socket. Do not change the plug or use an ungrounded three plug adaptor to avoid poor grounding. To lengthen the wire, please use a grounded three wire power cord.
  - Built-in precision electronics, non-professionals please do not disassemble without authorization.
  - Please adjust strictly according to the official parameters. Do not exceed the value range to prevent product damage and malfunction.
  - Banana plug DC output regulated power supply, please connect strictly according to the (+) (-) marked on the device. Do not reverse the connection, otherwise it will cause a short circuit.
  - Please do not mix metal flakes and wire debris into this product, otherwise it may cause electric shock, fire, or failure.
  - Replace fittings with original accessories.
  - If it is in idle for a long time, please place it in a dry environment.
  - Please strictly follow this manual when using.



This product has anti-static measures, please be sure to use grounding.

## 9 After-Sales Service

### ● Warranty regulations:

- The product is guaranteed for one year from the date of purchase (subject to the purchase certificate).
- The warranty service is only valid under normal use. Any man-made damage, such as the use of inappropriate accessories, failure to use in accordance with the instructions, damage caused by non official maintenance, wrong use or negligence, the warranty service will be invalid immediately.
- The company has the final right to interpret the above regulations for users who do not comply with the above regulations.

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