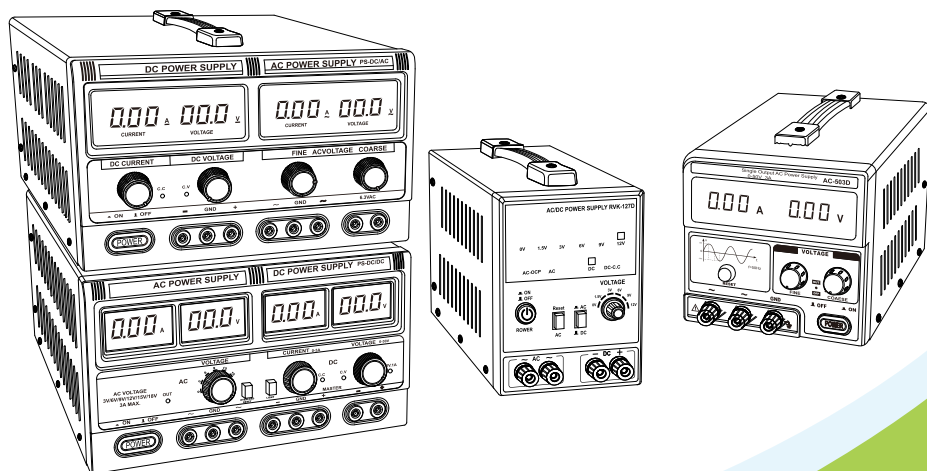


AC/DC Regulated Power Supply

Operating Instruction



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General Safety Profile

Carefully read the safety protective measures as below to avoid the personnel injury, and prevent this product or any other product connected to this product from damage. In order to avoid the possible hazardous conditions, this product shall be used accordance with the regulations. Only qualified personnel can conduct the processes of repairing.

Avoid the fire hazard or personnel injury

Use suitable power lines This product only uses the specialized power line, which has been certificated by the located country / region.

Guarantee correct voltage settings Before the operation, please ensure the line selector is located at the right position to fit the voltage.

Product earthing This product shall be earthed by the earth conductor of power line. In order to avoid the electric shock, the earth conductor must be connected to the ground. Before connecting the input or output terminals, please ensure this product has been correctly earthed.

Follow all rated values of terminals. In order to avoid the risks caused by fire hazard or electric shock, please follow all rated values and signs on this product. Please carefully read this Operating Instruction before connecting the products, understand the detailed information of rated values.

Power off Use the power switch to turn off the power. Please carefully read the instructions of relevant positions. Don't block the power switch; ensure this power switch can be used by the operator at anytime.

Do not operate this product with open cover Do not operate this product with open cover or open panel.

Do not operate this product under the condition of possible danger or trouble.

Please ask the qualified maintenance personnel to inspect this product first under the condition of possible danger or trouble.

Keep away from exposed circuits. When product gets started, please keep away from any exposed circuits or components.

Use suitable fuse.

This product is only used the specified fuses with rated indexes.

Do not operate under humid environment.

Do not operate under flammable or explosive environment.

Keep the product surface clean and dry.

Good Ventilation Please refer to the installation instructions in this manual for the detailed information on how to keep good ventilation.

Technical Terms in this manual

The following terms may be used in this manual:

General Safety Profile



Warning: “warning” means the condition or operation may result in personnel injury or endangering personnel life security.



Caution: “caution” means the condition or operation may result in damage to this product or other properties.

Terms and Signs

The following terms may be used on the product

- “Danger” means the condition or operation may result in damage immediately.
- “Warning” means the condition or operation may result damage, but not immediately.
- “Caution” means the condition or operation may result in damage to this product or other properties. The following signs may be displayed on the product:



Caution



High Voltage



Protective Earthing Terminal



Earthing Terminal



Positive Pole



Negative Pole



ON



OFF

Foreword

Main functions

- Regulated output
- Short-circuit protection
- 3- digit current & voltage display, with precision at 0.1V 0.01A
- Low noise: When the internal temperature is higher then 50°C, the temperature control fan will get started automatically and start cooling the product.

Basic Terms

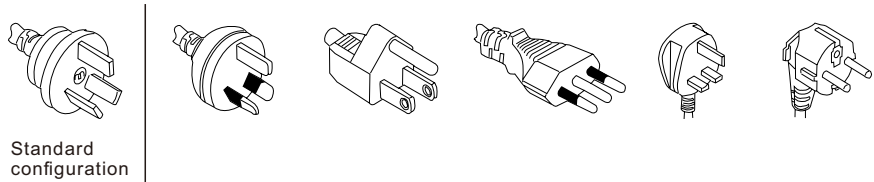
Standard spare parts and accessories

Table 1:Standard spare parts

Power host	1
Input power line	1, equipped with the national standard line
Operating Instruction	1
Warranty card	1

Table2:Accessories (for power plugs)

North America AC 110V	Commonly used in Europe AC 220V
United Kingdom AC 220V	Australia AC 220V
Switzerland AC 220V	India AC 220V
Brazil AC 220V	



Technical Data

Table 3.

Model	AC-303D	AC-305D	AC-365D	AC-503D	AC-602D	AC-603D
Input voltage	■ AC 220V±10% 50Hz AC 110V±10% 60Hz AC 240V±10% 50Hz					
Temperature	Working temperature: -10℃ ~ 40℃ Relative humidity < 80% Storage temperature: -10℃ ~ 40℃ Relative humidity < 90%					
Output voltage	AC 0-30V	AC 0-30V	AC 0-36V	AC 0-50V	AC 0-60V	AC 0-60V
Output current	AC 3A	AC 5A	AC 5A	AC 3A	AC 2A	AC 3A
AC Voltage stabilized state	non-load voltage 5%+0.3V(±10%) Full-load voltage drop 5%+0.6V					
Display accuracy	AC Voltage ±1% ±0.2V/ AC Current ±1% ±0.02A					
Overall dimension	299(depth)×155(width)×162(height)					
Weight	5.3KG	5.3KG	5.3KG	5.3KG	5.3KG	5.3KG

Table 4.

Model	PS-DC/AC	PS-AC/DC
Input voltage	■ AC 220V±10% 50Hz AC 110V±10% 60Hz AC 240V±10% 50Hz	
Temperature	Working temperature: -10°C ~ 40°C Relative humidity < 80% Storage temperature: -10°C ~ 40°C Relative humidity < 90%	
AC Output voltage	0-30V	Fixed output 0V/3V/6V/9V/12V/15V/18V
AC Output current	2A	3A
AC fixed output	6.3V 6A	
DC Output voltage	0-30V	0-30V
DC Output current	0-5A	0-3A
DC Fixed output		12V 1A
AC regulated Voltage state	No load voltage output error 5%+0.3V(±10%) Full load output voltage drop 5%+0.6V	No load voltage output error 20%+0.3V(±10%) Full load output voltage drop 10%+0.6V
DC regulated Voltage state	Voltage stabilized degree ≤0.01%+1mV Load stabilized degree ≤0.01%+3mV Ripper noise ≤1mV RMS	
DC regulated Current state	Current stability ≤0.2%+1mV Load stabilized degree ≤0.01%+3mV	
Protected mode	DC:Current limit protection	AC:Short circuit cut-off protection
Display precision	DC Voltage/Current 3 digital LED display ±1% ± 2 Word	DC Voltage/Current 3 digital LCD display ±1% ± 2 Word
	AC Voltage/Current 3 digital LED display Voltage: ± 1% ± 0.2V Current: ± 1% ± 0.02A	AC Voltage/Current 3 digital LCD display Voltage: ± 1% ± 0.5V Current: ± 1% ± 0.2A
Dimension	378(depth)×265(width)×172(height)	
Fuse	3A	3A
Weight	9.48Kg	9.48Kg

Technical Data

Table 5.

Model	ADC-127A
Input voltage	■ AC 220V±10% 50Hz AC 110V±10% 60Hz AC 240V±10% 50Hz
Temperature	Working temperature: -10℃ ~ 40℃ Relative humidity < 80% Storage temperature: -10℃ ~ 40℃ Relative humidity < 90%
AC Output voltage	Fixed output 0V/1.5V/3V/6V/9V/12V
AC Output current	7A
DC Output voltage	Fixed output 0V/1.5V/3V/6V/9V/12V
DC Output current	7A
AC regulated Voltage state	No load voltage output error 5%+0.3V(±10%) Full load output voltage drop 5%+0.6V
DC regulated Voltage state	Voltage stabilized degree ≤0.5%+1mV Load stabilized degree ≤0.5%+3mV Ripper noise ≤0.3% mV RMS
DC regulated Current state	Current stability ≤0.5% Load stabilized degree ≤0.5%
Protected mode	DC:Current limit protection AC:Short circuit cut-off protection
Dimension	275(depth)×110(width)×165(height)
Fuse	2A
Weight	9.48Kg

Operation requirements

- 1.Put the instrument on working table or similar plane.
- 2.Ensure the environmental temperature is within the range of +0°C to +40°C (+32°F to +104°F)before operation.



Warning: In order to ensure the normal cooling, please don't pile up objects around the instrument, reserve at least 3cm space for ventilation at its both sides and rear part.Ensure the ventilation around the instrument.



Warning: Please follow all safety protective measures listed in this manual before using this instrument or other relevant instruments.

Although some instruments and spare parts are only used under non-hazardous voltage, the hazardous conditions may occur too.

In order to avoid the possible injuries, this product shall only be used



by the qualified personnel, who can recognize the risks of electric shock and know the safety protective measures well.

Please carefully read and follow the requirements of installation, operation and maintenance before using this product. Please refer to this manual for the complete technical specifications of the product.

Turn off the power and disconnect all tested cables before conducting any maintenance. Operator of this instrument must take the electric protective measures at any time. The involved organization or

department shall ensure that the operator can't touch any connecting point, and/or keep insulation from all connecting points. Sometimes, the connecting point has to be exposed and may result in body contact.

In such case, the operator must be trained and understand well the way to protect himself from electric shock. If the circuit can work under the voltage equal to or higher than 72V, no conductive part in the circuit can be exposed.



Warning: the wire should work suitable rated load. The capacity of all load wires should stand the maximum



Warning: Don't loose any screw on this product. No repairable components are kept inside.



Warning: In order to reduce the risks of fire hazard and electric shock, the product shall be used within the range of rated values of the electric power supply source.

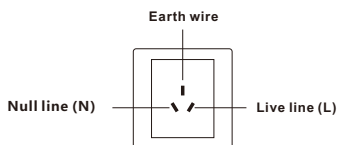
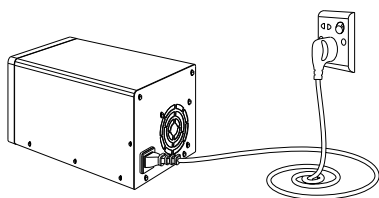
System Installation

- Open the package of this instrument and check the objects inside, ensure that all items listed in the Standard Spare Parts are in the package.
- Meanwhile, inspect other spare parts purchased with this instrument, ensure they are arrived.
- Please visit the Website- www.zhaoxinpower.com and get the newest information. If you want to ensure whether the power supply is under the condition of standby, please conduct the following steps:

Turn on and turn off the instrument power

If you want to turn on the instrument power, please conduct the following steps:

1. Complete all connections.
2. Connect the instrument's attached power line to the power connector, which is located at the rear plate. Then connect the power plug to the correct earthed power socket.



3. Press the power button on the front panel. If you want to turn off the instrument power, press the power button on the front panel.



Warning: In order to meet the safety requirements, please use the load wire which can always stand the maximum short-circuit output current of the power supply without over-heating. In the case of several loads, each pair of load wires can safely stand the full load rated current of the power supply.

How to solve the problem if the product can't get started

If you have problems to get start this product, please conduct the following steps:

1. Inspect the AC input terminals of the power supply and ensure AC does work there. Firstly, inspect the connection between the AC power line and power connector, which is located at the instrument rear panel. Ensure they are firmly connected. Inspect the AC power line connected to the power supply equipment, and ensure the power line has been powered on. Secondly, inspect the power switch, and ensure the power switch has been turned on.

Clean

Regularly inspect the power supply as the operation conditions required.

Please clean the external surface of this instrument by the following steps:

1. Use a lint-free cloth to clean the dusts on the instrument surface.

Don't scrape the display screen.

2. Use a wet soft cloth to clean this instrument. If you want to clean it completely, use 75% isopropyl-aqueous solution.



Caution: In order to prevent the surface from damage, don't use any abrasive or chemical cleaner.

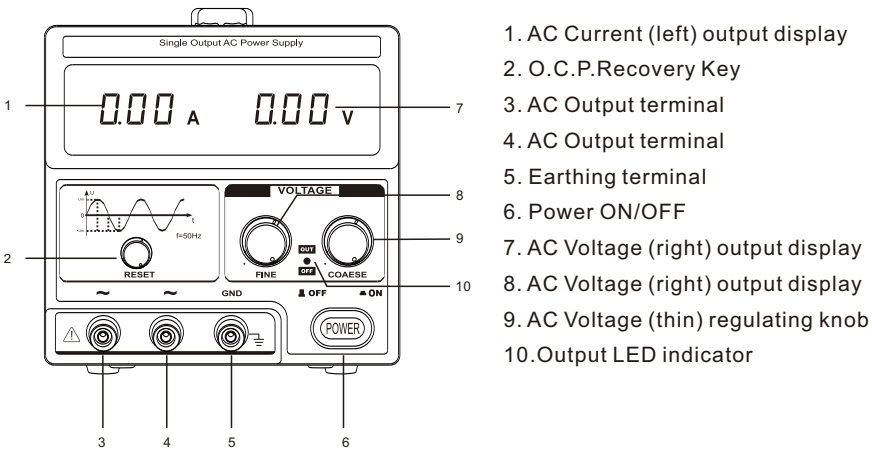


Caution: When cleaning the external surface of this instrument, please ensure that no moisture enter the inside. You only need to wet the soft cloth or cotton swab with cleaning agent.

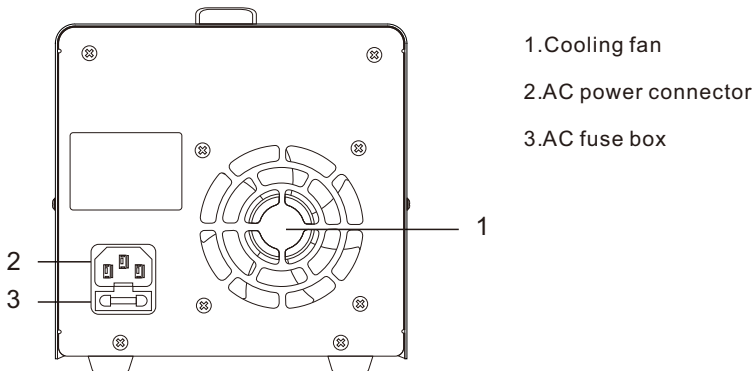
Basic Operation

Front panel overview

The following Schematic Diagram and Table describe all control parts and display elements.



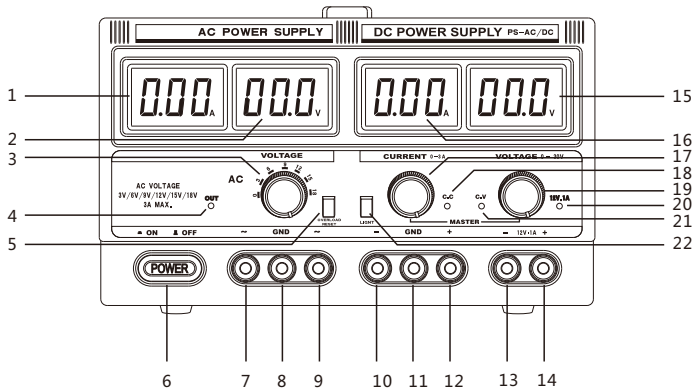
Rear panel overview



Basic Operation

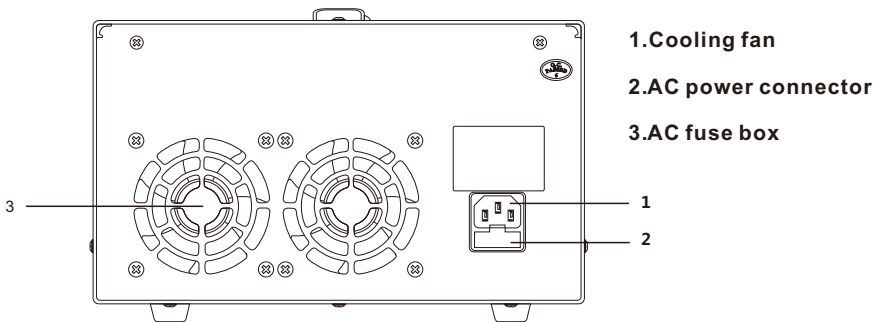
Front panel overview

The following Schematic Diagram and Table describe all control parts and display elements.



- | | |
|--|--|
| 1. AC Current output display | 12. DC Output terminal (+) Positive Pole |
| 2. AC Voltage output display | 13. DC Fixed output (-) |
| 3. AC Fixed output | 14. DC Fixed output(+) |
| 4. Output LED indicator | 15. DC Voltage output display |
| 5. O.C.P.Recovery Key | 16. DC Current output display |
| 6. Power ON/OFF | 17. DC Current regulating knob |
| 7. AC Output terminal | 18. DC C.C. LED indicator |
| 8. GND terminal | 19. DC Voltage regulating knob |
| 9. AC Output terminal | 20. DC Fixed output LED indicator |
| 10. DC Output terminal (-) Negative Pole | 21. DC C.V. output LED indicator |
| 11. Earthing terminal | 22. Backlight ON/OFF |

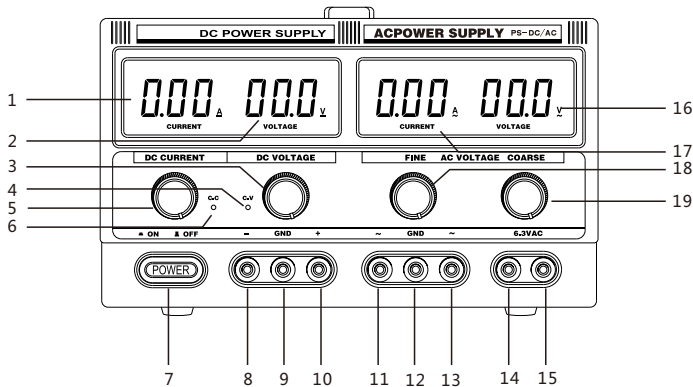
Rear panel overview



Basic Operation

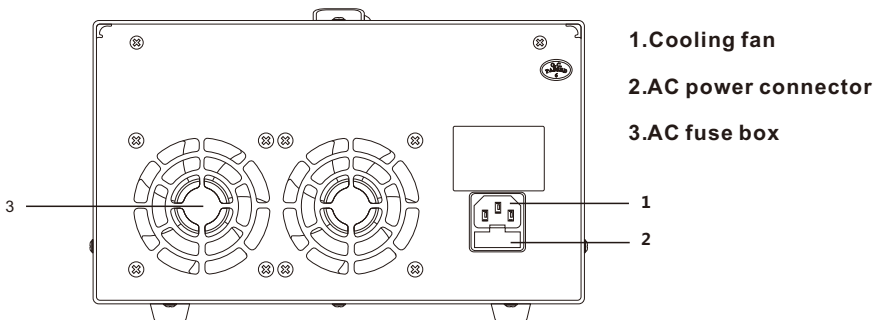
Front panel overview

The following Schematic Diagram and Table describe all control parts and display elements.



- | | |
|--|--|
| 1. DC Current output display | 11. AC Output terminal |
| 2. DC Voltage output display | 12. GND terminal |
| 3. DC Voltage regulating knob | 13. AC Output terminal |
| 4. DC C.V. output LED indicator | 14. AC Fixed output |
| 5. DC Current regulating knob | 15. AC Fixed output |
| 6. DC C.C. LED indicator | 16. AC Voltage output display |
| 7. Power ON/OFF | 17. AC Current output display |
| 8. DC Output terminal (-) Negative Pole | 18. AC Voltage (thin) regulating knob |
| 9. Earthing terminal | 19. AC Voltage (thick) regulating knob |
| 10. DC Output terminal (+) Positive Pole | |

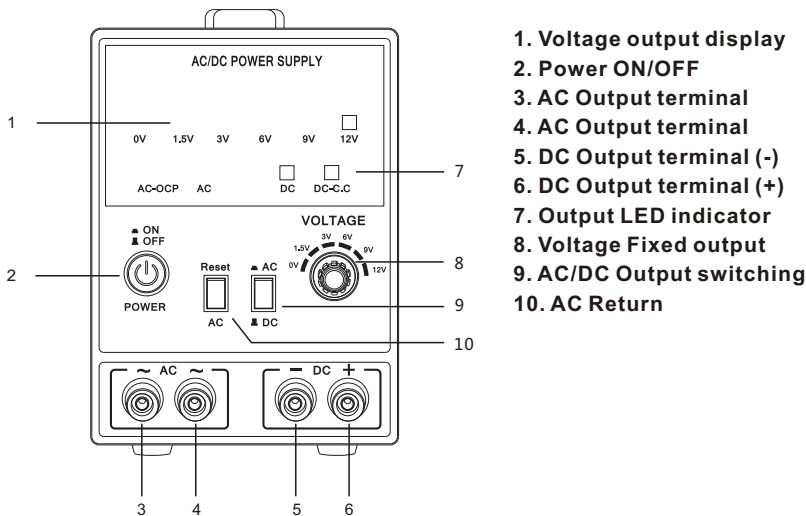
Rear panel overview



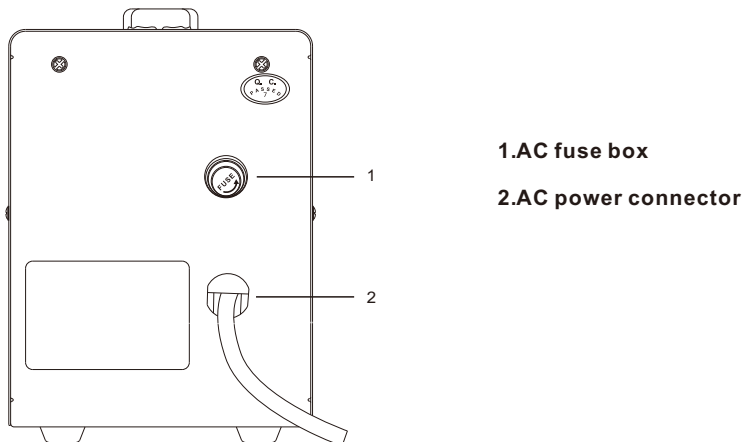
Basic Operation

Front panel overview

The following Schematic Diagram and Table describe all control parts and display elements.



Rear panel overview



Common trouble shooting

Press the power switch on the front panel, if the display device shows a black screen.

1. Inspect the power connectors, and ensure they are connected correctly.
2. Inspect the fuses, and ensure they are connected correctly or no damage to them.

Abnormal constant voltage output

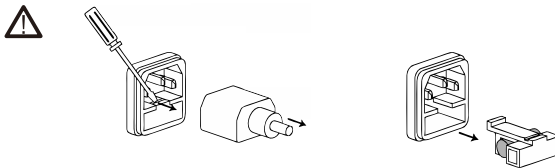
1. Inspect the maximum output power, and ensure it can meet the requirements of load.
2. If yes, please further inspect the current setting value. If the current setting value is too low, properly increase the value. Inspect the connecting cable between the load and power supply, and ensure there is no short circuit or open circuit. Inspect the connecting conditions, and ensure it works normally; Inspect the loads, and ensure they are under good condition.

Abnormal current voltage output

1. Inspect the maximum output power, and ensure it can meet the requirements of load.
2. If yes, please inspect the voltage setting valve. If the voltage setting value is too low, properly increases the value; Inspect the connecting cable between the load and power supply, and ensure there is no short circuit or open circuit; Inspect the connecting conditions, and ensure it works normally; Inspect the loads, and ensure they are under good condition.

Change fuse

1. Power off and take the fuse holder out with a straight screwdriver.
2. Change fuse



In order to ensure safe and effective fire prevention, this product only works with fuses at specific models and rated values. Before the changing operation, power off and remove the power line from the socket

