Circuit Specialists

High Precision Program Control DC Power Supply Series

INSTRUCTION MANUAL

CSI305DB

English

Thank you for choosing this type of DC power supply. Please read the user guide thoroughly before using, and keep it in a safe place for future reference.

I. Product Description

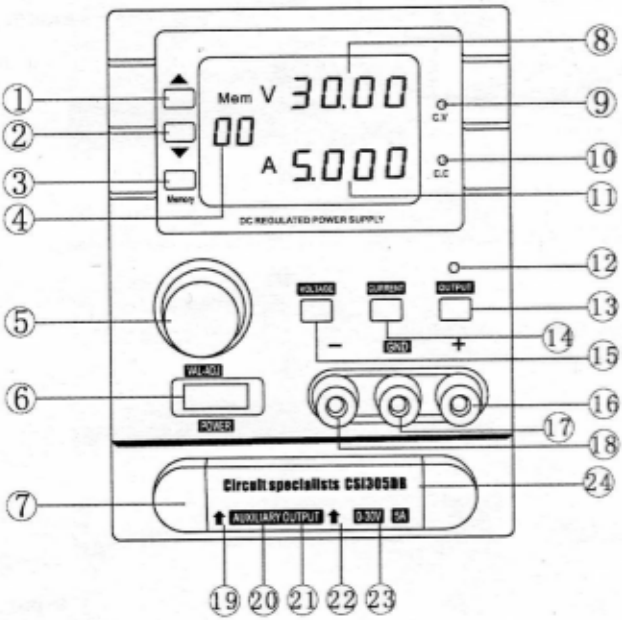
CSI305DB DC power supply is designed for scientific research, product development, laboratories, universities, notebook and computer repair, and electronics production lines. Voltage and current is continuously adjustable within the nominal range of values. The power supply features high accuracy, high reliability, and an improved overload protection circuit, making it ideal for industrial use.

II. Specification

Rated operating conditions		
Voltage	AC110V / 220V ± 10% (as required), frequency is 50HZ / 60Hz	
Operating environment	Temperature: -10°C ~ 40°C	Relative humidity ≤90%
Storage environment	Temperature: -10°C ~ 40°C	Relative humidity ≤80%
Output		
Model	CSI305DB	
Voltage	0~30V	
Current	0~5A	
Power	150W	
Types of protection	Over-current protection, over-voltage protection, over-temperature protection	
Load regulation		
Voltage	0.01%+3mV(I≤3A)	
Current	0.01%+3mA	
Resolution		
Voltage	10mV	
Current	1mA (2mA rated current> 3A)	

Setting accuracy (25 ± 5°C)	
Voltage	≤0.1%
Current	≤0.2% (+ 10mA rated current > 3A)
Ripple (20Hz-20MHz)	
Voltage ripple	≤1mVrms （≤2mVrms>3A)
Current	≤3mArms(≤6mArms>3A)
Temperature coefficient (0-40°C)	
Voltage	≤300ppm+10mV
Current	≤300ppm+10mA
Readout resolution	
Voltage	≤300ppm+10mV
Current	≤300ppm+10mA
Drift	
Voltage	≤300ppm+10mV
Current	≤300ppm+10mA

III. Description of Control Panel



① Storage groups choose increase

② Storage groups choose decrease

③ Storage / Recall button

⑦ Output junction box

⑧ Setting / Output voltage display

⑨ Constant voltage indicator

⑩ Constant current indicator

⑪ Output current setting display

⑫ Power output light

⑬ Output on / Output off

④ Display storage group

⑤ Encoder potentiometer

⑥ Power switch

⑱ Main output -

⑲ Auxiliary output 1+ (in parallel with the main output)

⑳ Auxiliary output 2+ (in parallel with the main output)

㉑ Auxiliary output ground connection

㉒ Auxiliary output 2- (in parallel with the main output)

⑭ Current settings key

⑮ Voltage settings key

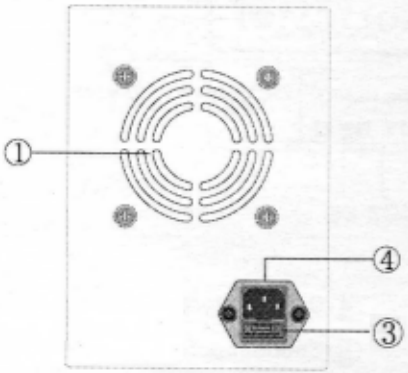
⑯ Main output +

⑰ Main output ground connection

㉓ Auxiliary output 1- (in parallel with the main output)

㉔ Product model

Back Panel Indicators



① Thermal windows

② Electric supply input

③ Fuse holder

Process setting

Set current protection type

↓

Select a storage group (default 00)

↓

Confirm the set voltage

↓

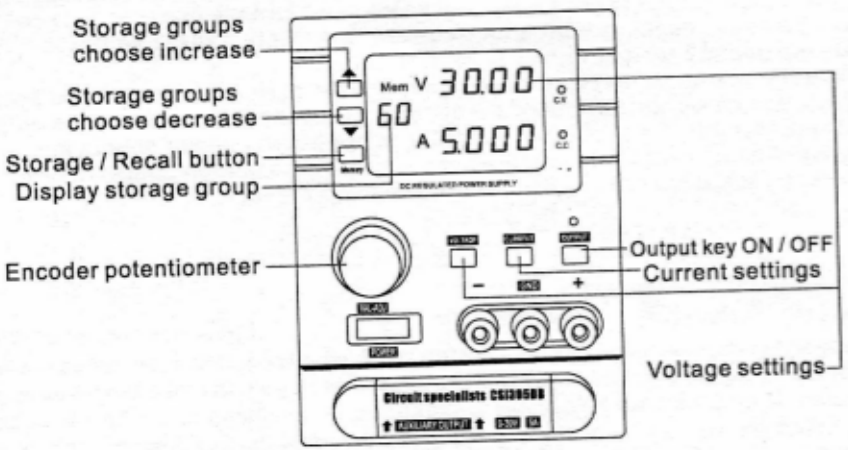
Confirm the set current

↓

Press the output key ON / OFF

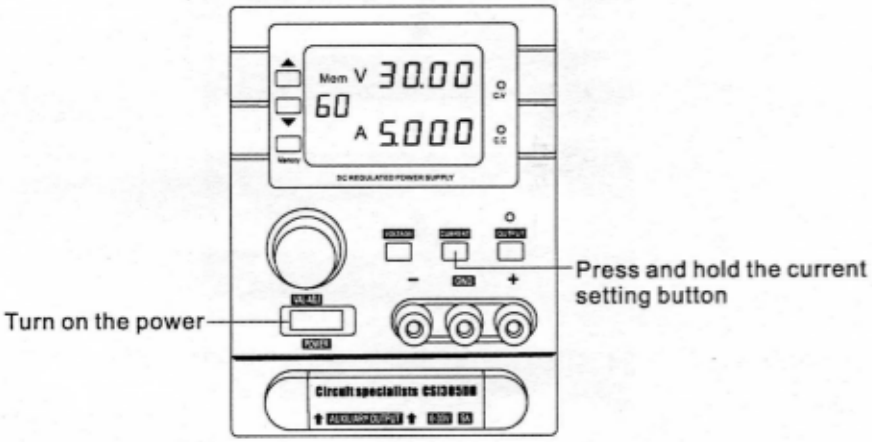
↓

Load



Selection Current Protection Type

The BD Series current protection is divided into two modes: steady-state current output and over-current shutdown. Modes are set as follows: Press and hold the current settings key, flip the power switch to on, and release the current settings key after "H" is displayed to enter steady-state current mode; release the current settings key after "C" is displayed to enter over-current shutdown mode; release the current settings key to automatically store the current protection type and enter normal operating mode. As shown below

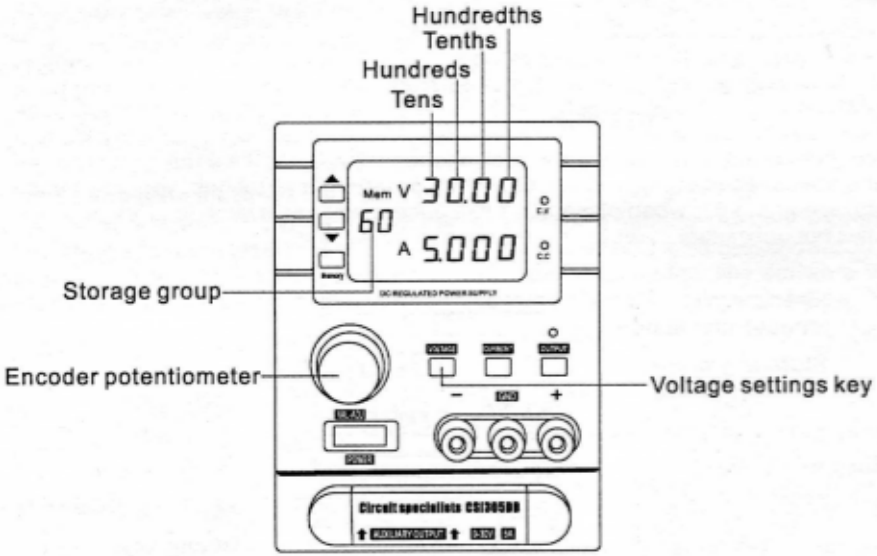


When current protection is set to steady-state current output, set the maximum power supply output to the set current value to protect the power supply device from damage resulting from under-current, and protect the load device from damage due to over-current.

When the current protection mode is set to over-current shutdown, the power supply device will automatically cut off the power supply output when the output current exceeds the set current in order to protect the power supply and load device. Ensure that the current is not set too low (less than 20mA) in order to prevent a surge charging current activating the protection.

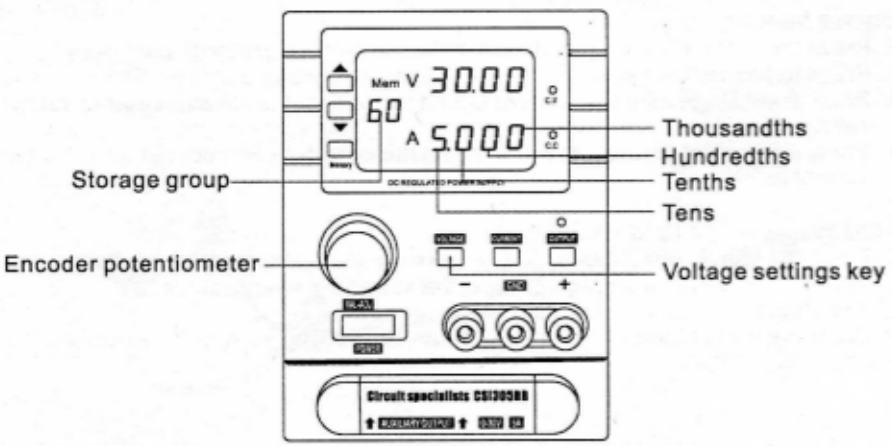
Voltage setting

Press the voltage settings key to make the voltage units column flash; press the key again to make the tenths column flash; press the key again to make the hundredths column flash; press the key again to make the tens column flash. The encoding potentiometer can be used to change the set voltage for the flashing column (shown in the Figure). After the set voltage data has been changed, the new value will be automatically saved to the current storage group.



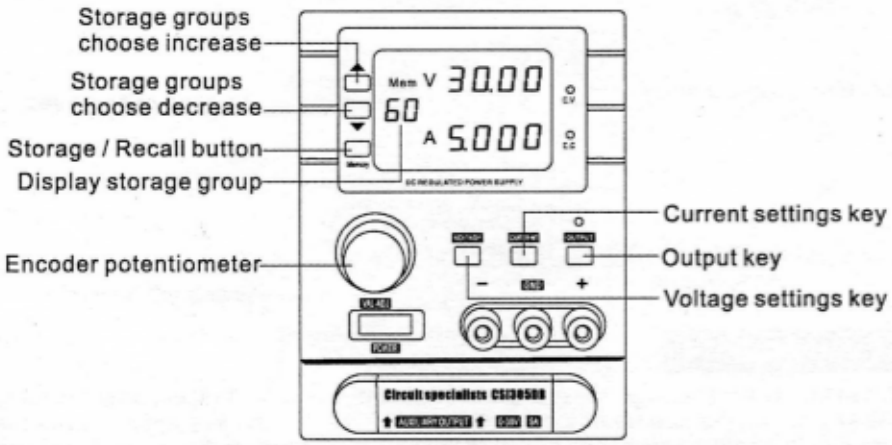
Current setting

When the current settings key is pressed, the tenths column flashes; after pressing the key again, the hundredths column flashes; pressing the key again makes the thousandths column flash; and pressing the key once more makes the units column flash. The encoding potentiometer can be used to change the set current for the flashing column (shown in the Figure). After the set current data has been changed, the new value will be automatically saved to the current storage group.



Use of storage group

For each device, the power supply voltage and current value is fixed. For example, when supplying power to a notebook of a certain brand (hereinafter referred to as the notebook), the power supply setting is 19V, 2A; the settings for the notebook are saved to storage group 01. The power supply setting of a cell phone of a certain brand (hereinafter referred to as the cell phone) is 5V, 0.5A; the settings for the cell phone are saved to storage group 02. When powering a notebook, you can switch to storage group 01; when powering a cell phone, you can switch to storage group 02. It is not necessary to repeat the settings.



Storage/transfer methods are explained using the example of notebook power supply settings

Storage method:

1. Press the storage/transfer button to make the storage group display flash
2. Press to add/remove storage groups, the storage group displays "01"
3. Press the voltage settings key and adjust the encoder potentionmeter to set the voltage to 19V.
4. Press the current settings key and adjust the encoder potentionmeter to set the current to 2A.

Transfer method (see Figure above):

5. Press the storage/transfer button to make the storage group display flash
6. Press to add/remove storage groups, the storage group displays "01"
7. Then, set the voltage to 19V, and set the current to 2A
8. Press the output button, the notebook can be charged when the output light is on.

Product certification

Model NO.	
Product ID	
Examine	Upon examination products meet technical standards QC PASS
Sales Date	
Date of manufacture	

Warranty Card

Thank you for choosing this type of products, please read the following terms before using:

1. From purchasing date within 7 days, under normal use(Artificial damage),new package, not be disassemble and repaired ,enjoy replacement service.
2. From purchasing date within one year, under normal use, if there are quality problem, not be disassemble and repaired ,enjoy free repair service.
3. For more than warranty, we provide a lifetime warranty service, free of labor costs, charge only spare parts costs.
4. Failure to present warranty card during warranty period, the company will not be a free service.
5. Users need warranty service, please contact your original sales unit.
6. When users need warranty service, please provide warranty card and purchase invoice, or receipt of the certificate of the company seal.
7. Warranty does not include transportation costs and provide on-site service.

Maintenance records

NO.	Date for repair	Cause	Fix date	Repairer