DC BENCH POWER SUPPLY
CONSTANT VOLTAGE & CONSTANT CURRENT

OPERATION INSTRUCTION

English

Made in China

Thank you for purchasing this product. Please read the manual carefully before operating and keep this manual for future reference.

Statement: The company reserves the right to improve & upgrade products, product specifications and design are subject to change without notice.

SPECIFICATION

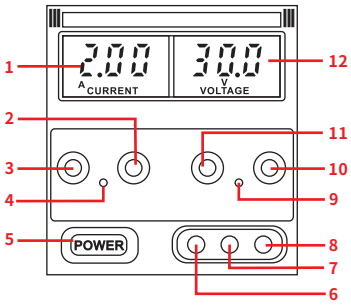
Model	602D	603D	605D	3010D
Control Unit Dimensions	L272xW124xH154mm ±5mm			
Operating Ambient Temperature	-10°C～40°C/14°F～104°F			
Operating Humidity	<90%			
Output Voltage	0~60V	0~60V	0~60V	0~30V
Input Current	0~2A	0~3A	0~5A	0~10A
Voltage / Current Display	LED display (3-Digit)			
Display Accuracy	±1% + ±1 increment			
C. V.(Constant Voltage) Mode				
Line Regulation	⩽0.01%+2mV			
Ripple & Noise	1mV(Effective Value)			
Load Regulation	⩽0.01%+2mV			
Temperature Coefficient	⩽200PPM/℃			
C. C. (Constant Current) Mode				
Line Regulation	⩽0.1%+3mA			
Load Regulation	⩽0.2%+3mA			
Ripple & Noise	2mA(Effective Value)			

I. APPLICATIONS & FEATURES

The PS series of DC bench power supply is designed specifically for R&D, product development, lab testing, educational uses, laptop repair, and electronics assembly lines. The voltage and current are continuously adjustable in its rated range. The power supply is highly accurate, reliable, and it is equipped with a well-engineered overload protection circuit. These make the tool an ideal choice for the industry.

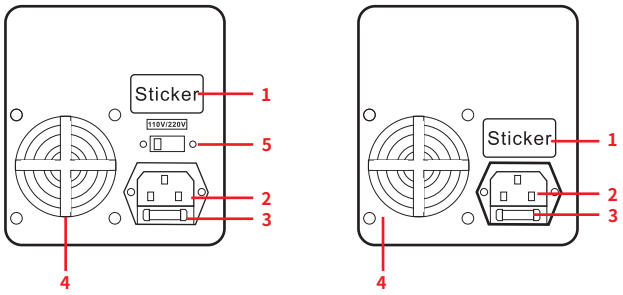
II. PART LIST

Control Panel Guide



1. 3-Digit Current Display
2. Coarse Adjustment Knob C. C.)
3. Fine Adjustment Knob (C. C.)
4. C. C. (constant current) Indicator
5. Power Switch
6. Output Terminal(Negative)
7. Output Terminal (Ground)
8. Output Terminal (Positive)
9. C. V. (constant voltage) Indicator
10. Coarse Adjustment Knob (C.V.)
11. Fine Adjustment Knob (C.V.)
12. 3-Digit Voltage Display

Rear Panel Guide



1. Product Plaque
2. AC Input Terminal
3. Fuse Box
4. Cooling Fan
5. AC Input Voltage Selector Switch

III. OPERATION

1. Connect the power supply's power cord to an electrical outlet. If your station comes with an input line voltage selector, ensure the voltage selector is at an appropriate voltage (Use the same electrical rating as the electrical outlet that power supply is connected to).
2. Turn ON the power switch, and the CV indicator will turn ON(When the current coarse and fine adjustment knobs are not turned to 0). The current and voltage display will turn ON, and the current display will show "000" while the voltage display shows the output current.
3. Adjust the voltage coarse/fine adjustment knob to the desired output voltage (when the current coarse/fine adjustment knob is not at 0)
4. **CC Mode**
   4.1. Turn the voltage coarse/fine adjustment knob to any value between 2 to 5V. (When the current coarse/fine adjustment knobs are not at 0)
   4.2. Turn the current coarse/fine adjustment knob to 0 (Turn anticlockwise to the end of the adjustment range)
   4.3. Use the test leads to connect the "+" side with the "-" side.
   4.4. Adjust the current coarse/fine adjustment knob clockwise to the desired current before operation.
5. Connect the load to the power supply's "+" end and "-" end to power up the load.
6. **CV / CC Characteristics**
   This power supply's function characteristic is defined as automatic CC/CV switching. It changes between CC or CV mode depending on the changes in the load. The point of change between CC and CV is defined as the point of switch.

Eg., If the load prompts the power supply to go into CV mode, and the output voltage is constant. Meaning, the voltage does not change depending on the size of the load. The output current changes based on the size of the load. When the load increases (less resistance),the voltage will decrease. The CV and CC switching statuses are indicated by the LED indicators. When the voltage is constant, the CV indicator turns ON. When the current is constant, the CC indicator turns ON.

IV. MAINTENANCE & PRECAUTIONS

1. When charging a battery, DO NOT connect the positive terminal to a negative terminal, or the negative terminal to a positive.
2. The power supply is not meant to be used in its maximum capacity for a long duration. Keep the usage rate within 60%, or the power supply may fail to operate normally due to human error. Buffer for additional current capacity when ordering this product.
3. The power supply's cooler is located at the rear of the power supply, reserve enough room for heat dissipation. When the power supply is ON, the cooler will activate. DO NOT use the power supply in an environment where the ambient temperature is above 40°C/104°F.
4. DO NOT short the circuit when outputting above 5V, since the output power is significant.