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› Kiprim DC620S Programmable 400W DC Power Supply User Manual

## Kiprim DC620S

# Kiprim DC620S Programmable 400W DC Power Supply User Manual

Model: DC620S

## INTRODUCTION

This manual provides essential information for the safe and efficient operation of your Kiprim DC620S Programmable DC Power Supply. Please read this manual thoroughly before use and retain it for future reference.

## SAFETY INSTRUCTIONS

### WARNING:

- Always connect the device to a properly grounded power outlet.
- Do not operate in wet or damp conditions.
- Do not open the casing; refer servicing to qualified personnel.
- Ensure proper ventilation to prevent overheating.
- Verify voltage and current settings before connecting to a circuit.

# Description of Function



Figure 1: Rear panel with safety warnings and connections.

## PACKAGE CONTENTS

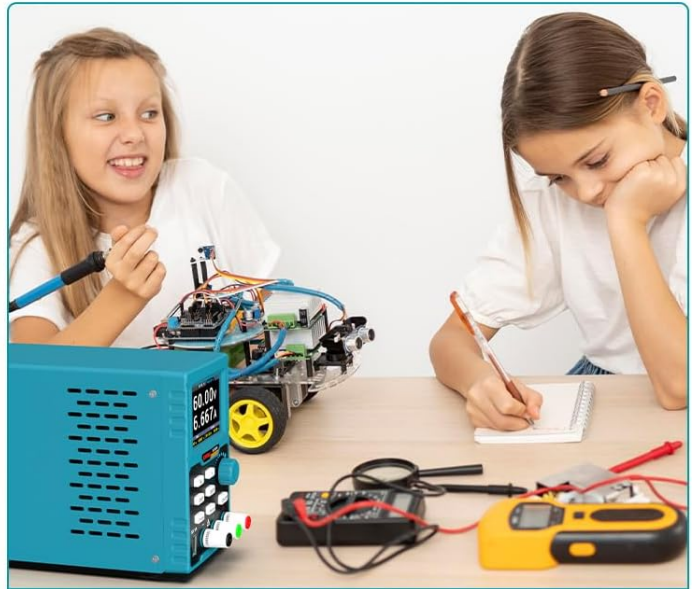
Verify that all items are present upon unpacking:

- 1 x Kiprim DC620S Programmable DC Power Supply (60V/20A)
- 1 x User Manual
- 1 x Fuse
- 1 x Banana head to alligator clip cable
- 1 x Power cable
- 1 x U disk (containing software and drivers)

## Wide Applications



Laboratory Measurement



School Experiment



Electronic Production



Electronic Equipment Maintenance

Figure 2: Included accessories with the DC620S unit.

## PRODUCT OVERVIEW

### Front Panel Controls and Display

# Description of Function



Figure 3: Front and rear panel components and their functions.

- **2.8-inch TFT LCD Screen:** Displays voltage, current, power, execution time, and output status. Can show data numerically or as a curve.
- **Voltage Setting Key (V):** Used to adjust output voltage.
- **Current Setting Key (I):** Used to adjust output current.
- **Over Voltage Protection (OVP) Key:** Sets the overvoltage protection limit.
- **Over Current Protection (OCP) Key:** Sets the overcurrent protection limit.
- **Memory Button:** Saves and recalls up to 4 sets of channel parameters (M1-M4).
- **Display Switch Button:** Toggles between numerical and curve display modes.
- **USB Charging Port (5V 1A):** For charging mobile devices.
- **Output Terminals:** Red (+) and Black (-) for connecting loads. Green terminal for ground strap.
- **Voltage / Current Adjust Knob:** Rotary encoder for fine-tuning voltage and current settings.
- **On/Off Key:** Toggles the power output.

## Rear Panel Components

- **Cooling Fan:** Provides intelligent fan cooling to prevent overheating.
- **AC Power Input:** Connects the power cable to the mains supply.
- **Device USB Port:** For PC software control and firmware upgrades.
- **Fuse Box:** Contains the protective fuse.
- **Power Switch:** Main power switch for the unit.

## SETUP

### 1. Power Connection

1. Ensure the power switch on the rear panel is in the "OFF" position.
2. Connect the provided power cable to the AC Power Input on the rear panel of the DC620S.
3. Plug the other end of the power cable into a grounded 110V AC power outlet.

### 2. Output Connections

1. Connect your load to the output terminals using the banana head to alligator clip cable.
2. Ensure the red cable connects to the red (+) terminal and the black cable to the black (-) terminal.
3. For safety, connect the ground strap to the green terminal if required by your application.

#### CAUTION:

Do not connect the power supply directly to a battery for charging without appropriate charging circuitry, as this can damage the unit or the battery. The device is not designed for direct battery charging.



Figure 4: Correct load connection and warning against direct battery charging.

### 3. PC Software and Driver Installation

1. Insert the provided U disk into your computer's USB port.
2. Install the PC software and drivers from the U disk.
3. Connect the DC620S to your computer using a USB cable via the Device USB Port on the rear panel for software control.



Figure 5: PC software control setup.

## OPERATING INSTRUCTIONS

### 1. Powering On/Off

1. Flip the main power switch on the rear panel to "ON".
2. Press the **On/Off** button on the front panel to enable or disable the output.



Figure 6: Location of the On/Off button.

### 2. Setting Voltage and Current

1. Press the **V** button to select voltage adjustment. The voltage value on the display will blink.
2. Rotate the Voltage / Current Adjust Knob to set the desired voltage.
3. Press the **I** button to select current adjustment. The current value on the display will blink.
4. Rotate the Voltage / Current Adjust Knob to set the desired current.
5. Press the **V** or **I** button again to confirm the setting, or wait a few seconds for it to auto-confirm.

### 3. Multi-Function Display

The 2.8-inch color LCD displays real-time output voltage, current, actual output power, and cumulative execution time. It also shows the channel output status.

- Press the **Display** key to switch between numerical data display and curve display.



Figure 7: Display showing numerical and curve data.

## 4. Programmable Features (Memory and List Waveform)

### Memory Function

- The unit can save 4 sets of channel parameters (M1 to M4).
- To save: Set desired voltage and current, then press and hold the **Memory** button. Select a memory slot (M1-M4) using the knob and press the knob to confirm.
- To recall: Press the **Memory** button. Select the desired memory slot (M1-M4) and press the knob to load the parameters.

# Professional Programmable DC Power Supply

Professional Programmable DC Power Supply Supports Memory Output Function, CV, CC, OVP, OCP, Voltage/current Output Timing, Etc. to Meet Your Various Needs.



Figure 8: Memory function display showing saved parameters.

## List Waveform Output Settings

- The unit supports editing and outputting waveform sequences.
- A waveform set contains 10 editable points.
- For each point, you can set output voltage, output current, and waveform duration.
- Refer to the detailed instructions in the PC software manual for advanced waveform programming.



Figure 9: Example of a list waveform output on the display.

## 5. USB Charging Port

The front 5V 1A USB interface can be used to charge mobile phones or other compatible USB-powered devices.



Figure 10: Using the front USB charging port.

## MAINTENANCE

### 1. Cleaning

Wipe the unit with a soft, dry cloth. Do not use abrasive cleaners or solvents.

### 2. Cooling Fan

The intelligent fan cooling system operates automatically. Ensure the rear cooling fan is not obstructed to maintain proper airflow.



Figure 11: Cooling fan operation.

### 3. Fuse Replacement

If the unit fails to power on, check the fuse located in the fuse box on the rear panel. Replace with a fuse of the same type and rating (e.g., F10A 250V for 110V AC input).

#### **WARNING:**

Always disconnect the power cable before attempting to replace the fuse.

## TROUBLESHOOTING

| Problem                                                                 | Possible Cause                                                | Solution                                                                                                                                                                                               |
|-------------------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unit does not power on.                                                 | No AC power;<br>Blown fuse.                                   | Check power cable connection and wall outlet. Replace fuse if necessary.                                                                                                                               |
| Output voltage/current cannot reach maximum values simultaneously.      | Power limit reached.                                          | The unit has a 400W power limit. For example, 60V and 20A cannot be achieved simultaneously ( $60V \times 20A = 1200W$ , which exceeds 400W). Adjust voltage or current to stay within the 400W limit. |
| Overvoltage Protection (OVP) or Overcurrent Protection (OCP) activates. | Output exceeds set OVP/OCP limits.                            | Check your load and adjust OVP/OCP settings if appropriate for your application.                                                                                                                       |
| Unit overheats.                                                         | Insufficient ventilation;<br>Excessive load.                  | Ensure cooling fan is unobstructed. Reduce load or operate in a cooler environment. The unit has an overheat protection function (85°C).                                                               |
| PC software not connecting.                                             | Drivers not installed; Incorrect USB port;<br>Software issue. | Install drivers from the U disk. Ensure connection to the rear Device USB Port. Restart software/computer.                                                                                             |

## SPECIFICATIONS

| Feature                                 | Detail                                        |
|-----------------------------------------|-----------------------------------------------|
| Model Name                              | DC620S                                        |
| Rated Output Voltage                    | 0-60V                                         |
| Rated Output Current                    | 0-20A                                         |
| Output Wattage                          | 400 Watts                                     |
| Setting / Readback Resolution (Voltage) | 10mV                                          |
| Setting / Readback Resolution (Current) | 1mA                                           |
| Display                                 | 2.8-inch Color LCD                            |
| Input Voltage                           | 110 Volts (AC)                                |
| Overvoltage Protection (OVP)            | 0-61V                                         |
| Overcurrent Protection (OCP)            | 0-20A                                         |
| Overheat Protection                     | 85°C                                          |
| Cooling Method                          | Intelligent Fan Cooling (Air)                 |
| Front USB Port                          | 5V 1A (for charging)                          |
| Rear USB Port                           | For PC control and firmware upgrade           |
| Product Dimensions (L x W x H)          | 22.6 x 8.2 x 14.2 cm (8.9 x 3.2 x 5.6 inches) |
| Item Weight                             | 2.38 kg                                       |
| Country of Origin                       | China                                         |



Figure 12: Product dimensions.

## WARRANTY AND SUPPORT

### Warranty Information

The Kiprim DC620S Programmable DC Power Supply comes with a **12-month warranty** from the date of purchase.

## Customer Support

If you have any questions, require technical assistance, or need to claim warranty service, please contact Kiprim customer support through Amazon. We are committed to providing a satisfactory resolution to your inquiries.

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### ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

**Name**

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

**Question**

Example: How do I reset this device or fix this error?

**Details**

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question