Eventek 30V 10A

Eventek 30V 10A Laboratory Bench Power Supply User Manual

Model: 30V 10A (KPS3010D)
Brand: Eventek

Introduction Safety Information Product Overview Setup Operating Instructions Maintenance Troubleshooting Specifications Warranty & Support

1. Introduction

This manual provides detailed instructions for the safe and efficient operation of your Eventek 30V 10A Laboratory Bench Power Supply. Please read this manual thoroughly before use and retain it for future reference.

Key Features:

- High-definition LED display with 3-digit readings for voltage and current, visible in low light. Adjustable range: 0-30V and 0-10A.
- Automatic conversion between Constant Voltage (C.V.) and Constant Current (C.C.) modes based on load connection. Fine and coarse adjustment knobs for precise value setting.
- Stable output with low noise (ripple less than 200mV) and sustained performance. Integrated thermal sensor for intelligent temperature control, enhancing stability and lifespan.
- Multiple safety features: short-circuit protection, thermal protection, and overload protection.
- Compact and lightweight design (under 3.2 lbs), saving workbench space. Suitable for various applications including laboratory work, repairs, electrolysis, burn-in testing, electroplating, brush plating, and electronic DIY projects.

2. Safety Information

Always observe the following safety precautions to prevent electric shock, injury, or damage to the device.

- Ensure the power supply is connected to a properly grounded outlet.

- Do not operate the device in wet or damp conditions.
- Do not open the casing; there are no user-serviceable parts inside. Refer servicing to qualified personnel.
- Verify the input voltage switch on the rear panel matches your local power supply (115V/230V) before connecting to mains power.
- Always turn off the power supply and disconnect the load before making any connections or adjustments.
- Avoid short-circuiting the output terminals for extended periods, even with protection features enabled.
- Use appropriate test leads and alligator clips for your application.
- Keep the ventilation openings clear to ensure proper cooling.

3. Product Overview

Familiarize yourself with the components and controls of your Eventek power supply.

Front Panel Controls and Display

Image: Front view of the Eventek 30V 10A power supply, highlighting the digital display for voltage and current, along with coarse and fine adjustment knobs for both parameters.

- **Digital Display:** Shows real-time voltage (V), current (A), and power (W) readings.
- **Voltage Coarse/Fine Knobs:** Adjust the output voltage. Coarse for large changes, Fine for precise adjustments.
- **Current Coarse/Fine Knobs:** Adjust the output current limit. Coarse for large changes, Fine for precise adjustments.
- **Output Terminals:** Red (+) and Black (-) terminals for connecting the load.
- **Power Switch:** Turns the unit ON/OFF.
- **USB-A / USB-C Ports:** 18W fast charging ports for electronic devices.
- **OCP Button:** Over Current Protection function.

Rear Panel and General Operation Overview

Your browser does not support the video tag.

Video: This video provides a comprehensive overview of the power supply, demonstrating its physical rotation (0:00-

0:18), how to set the rear voltage selector switch (0:18-0:22), coarse and fine adjustment of voltage and current (0:22-0:30), muting the key tone (0:30-0:35), high-precision voltage and current testing (0:35-0:42), USB-A/Type-C fast charging (0:42-0:59), the Over Current Protection (OCP) function (0:59-1:05), and the effect of connecting a fan (1:05-1:10).

- **AC Input Socket:** For connecting the main power cord.
- **Voltage Selector Switch (115V/230V):** Must be set to match your local mains voltage.
- **Cooling Fan:** Automatically activates to dissipate heat, ensuring stable operation and extending product life.

4. Setup

1. **Unpacking:** Carefully remove the power supply from its packaging. Inspect for any signs of damage.
2. **Placement:** Place the unit on a stable, level surface with adequate ventilation around it. Ensure the rear cooling fan is not obstructed.
3. **Voltage Selection:** Before connecting the power cord, locate the voltage selector switch on the rear panel. Use a small tool (like tweezers) to set it to either 115V or 230V, matching your local mains voltage. (Refer to the video in Section 3, timestamp 0:18-0:22 for demonstration).
4. **Power Connection:** Connect the provided power cord to the AC input socket on the rear panel, then plug it into a grounded wall outlet.
5. **Initial Power On:** Flip the front panel power switch to the "ON" position. The digital display should illuminate.

5. Operating Instructions

Adjusting Voltage and Current

The power supply allows for precise adjustment of both voltage and current limits. (Refer to the video in Section 3, timestamp 0:22-0:30 for demonstration).

1. **Voltage Adjustment:**
    - Use the "V-COARSE" knob for large adjustments to the voltage (digits above the decimal point).
    - Use the "V-FINE" knob for small, precise adjustments to the voltage (digits below the decimal point).
2. **Current Adjustment:**
    - Use the "A-COARSE" knob for large adjustments to the current limit.
    - Use the "A-FINE" knob for small, precise adjustments to the current limit.

Connecting a Load

Before connecting any device, ensure the power supply is off or the output is disabled (if applicable) and the voltage/current limits are set appropriately for your load.

1. Connect the positive (+) terminal of your load to the red output terminal of the power supply.

2. Connect the negative (-) terminal of your load to the black output terminal of the power supply.
3. Turn on the power supply (if off) or enable the output. The display will show the actual voltage and current being supplied to the load.

Image: The Eventek power supply connected to a circuit board using test leads, demonstrating a typical load connection.

Over Current Protection (OCP) Function

The OCP function automatically cuts off output and sounds an alarm if a short circuit or overcurrent condition occurs. (Refer to the video in Section 3, timestamp 0:59-1:05 for demonstration).

1. Press the OCP button to activate the overcurrent protection.
2. If a short circuit or overcurrent is detected, the output will be interrupted, and an alarm will sound.
3. To reset, resolve the short circuit/overcurrent condition, then press the OCP button again or cycle the power.

USB Charging Ports

The power supply includes 18W USB-A and USB-C ports for fast charging electronic devices. (Refer to the video in

Section 3, timestamp 0:42-0:59 for demonstration).

1. Connect your electronic device (e.g., smartphone, tablet) to either the USB-A or USB-C port using an appropriate charging cable.
2. The device will begin charging automatically. The power supply's display will show the charging status if applicable.

6. Maintenance

- **Cleaning:** Disconnect the power supply from the mains before cleaning. Use a soft, dry cloth to wipe the exterior. Do not use abrasive cleaners or solvents.
- **Ventilation:** Regularly check that the ventilation openings and the cooling fan on the rear panel are free from dust and obstructions. Blocked vents can lead to overheating and reduced performance.
- **Storage:** When not in use for extended periods, store the power supply in a cool, dry place, away from direct sunlight and extreme temperatures.
- **No User Serviceable Parts:** The internal components are not user-serviceable. Any repairs should be performed by qualified service personnel.

7. Troubleshooting

Problem	Possible Cause	Solution
No power/display off	Power cord not connected, power switch off, mains power issue, incorrect voltage selection.	Check power cord connection. Ensure power switch is ON. Verify mains power. Confirm voltage selector switch (115V/230V) is correctly set.
No output voltage/current	Output disabled (if applicable), OCP triggered, load not connected correctly, internal fault.	Ensure output is enabled. Check if OCP is active and reset if necessary. Verify load connections. If problem persists, contact support.
Output voltage/current unstable	Loose connections, excessive load, poor ventilation.	Check all connections. Reduce load if it exceeds specifications. Ensure adequate ventilation around the unit.
Unit overheats	Blocked ventilation, prolonged high load operation.	Clear all ventilation openings. Ensure the cooling fan is operating. Reduce load or allow unit to cool down.
Display readings inaccurate	Calibration required (unlikely for new units), external interference.	Compare readings with a calibrated multimeter. If significant discrepancy, contact support.

8. Specifications

Feature	Detail
Manufacturer	Eventek
Model Number	30V 10A (3010D-1)
Item Weight	1.66 Kilograms
Package Dimensions	29.1 x 20.5 x 11.7 cm
Output Voltage Range	0-30V
Output Current Range	0-10A
Display	LED backlit, 3-digit (Voltage, Current, Power)
Output Ripple	< 200mV
Protection Features	Short-circuit protection, Thermal protection, Overload protection (OCP)
USB Charging Ports	18W USB-A, USB-C
Batteries Included	Yes
Batteries Required	No

9. Warranty and Support

Eventek is committed to providing reliable products. For any questions, technical assistance, or warranty claims, please refer to the official Eventek brand store or contact customer service.
Visit the official Eventek Store for more information and support:**Eventek Store**
The manufacturer emphasizes reliability, high safety, and precision in their regulated DC power supplies.