

## PeakTech P 6145

# PeakTech P 6145 Digital Double Laboratory Power Supply

User Manual

## 1. INTRODUCTION

The PeakTech P 6145 is a high-quality, stabilized digital double laboratory power supply designed for various applications requiring precise and reliable DC voltage and current. It features two independent, linearly adjustable outputs (0-30V / 0-5A DC) and an additional fixed 5V / 3A output. This manual provides essential information for the safe and efficient operation of your device.



Image 1.1: Front view of the PeakTech P 6145 Digital Double Laboratory Power Supply, showing the dual digital displays for voltage and current, and control knobs for each channel.

## 2. SAFETY INSTRUCTIONS

Before operating the device, please read and understand all safety instructions. Failure to comply may result in injury or damage to the equipment.

- Ensure the power supply is connected to a grounded outlet.
- Do not operate the device in wet or damp conditions.
- Avoid blocking ventilation openings to prevent overheating.
- Do not attempt to open or repair the device. Refer all servicing to qualified personnel.
- The device is equipped with overload and short-circuit protection. However, always ensure proper load connections.
- Safety standards: EN-61010-1 and safety transformer according to EN-61558-2-6.

## 3. SETUP

Follow these steps to set up your PeakTech P 6145 power supply:

1. **Unpacking:** Carefully remove the power supply from its packaging and inspect it for any signs of damage. Retain the packaging for future transport or storage.
2. **Placement:** Place the unit on a stable, level surface. Ensure adequate ventilation around the device, leaving at least 10 cm of space on all sides, especially around the rear fan.
3. **Power Connection:** Connect the provided power cord to the AC input socket on the rear panel of the power supply and then to a suitable grounded mains outlet. Ensure the mains voltage matches the rating specified on the device.
4. **Initial Check:** Before connecting any load, ensure all control knobs are set to their minimum positions.



Image 3.1: Rear view of the PeakTech P 6145, showing the power input, fan, and ventilation grilles.

## 4. OPERATING INSTRUCTIONS

---

The PeakTech P 6145 offers flexible operation with its dual adjustable outputs and a fixed output.

### 4.1 Front Panel Overview

- **Digital Displays:** Two sets of displays show the output voltage (V) and current (A) for the Master and Slave channels.
- **Voltage Adjustment Knobs:** Fine and coarse adjustment for output voltage on each channel.
- **Current Adjustment Knobs:** Fine and coarse adjustment for output current limit on each channel.
- **Output Terminals:** 4mm safety sockets for Master (0-30V/0-5A), Slave (0-30V/0-5A), and Fixed (5V/3A) outputs.
- **Mode Selection Switches:** For Master/Slave operation (Normal, Series, Parallel).
- **Output ON/OFF Button:** Toggles the output for the adjustable channels. The fixed 5V/3A output is always active.
- **Power Switch:** Main power switch for the unit.

### 4.2 Basic Operation (Independent Mode)

1. Ensure the Master/Slave mode switch is set to **NORMAL**.
2. Turn on the power supply using the main power switch.
3. Adjust the voltage and current limit for the Master channel using its respective knobs. The displays will show the set values.
4. Repeat for the Slave channel.
5. Connect your load to the appropriate 4mm safety output terminals.
6. Press the **OUTPUT ON/OFF** button to enable the output. The displays will now show the actual voltage and current delivered to the load.
7. For the fixed 5V/3A output, simply connect your load to its dedicated terminals.

### 4.3 Master/Slave Operation

The two adjustable channels can be configured for series or parallel operation:

- **Series Mode:** Select **SERIES** on the mode switch. This combines the voltage of both channels, providing up to 60V (e.g., 30V + 30V) at the current limit of the Master channel (up to 5A). Connect the load to the Master output terminals.
- **Parallel Mode:** Select **PARALLEL** on the mode switch. This combines the current of both channels, providing up to 10A (e.g., 5A + 5A) at the voltage of the Master channel (up to 30V). Connect the load to the Master output terminals.

In both series and parallel modes, the Master channel controls the overall output, and the Slave channel automatically adjusts accordingly.

## 5. MAINTENANCE

---

Proper maintenance ensures the longevity and reliable operation of your power supply.

- **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 fan are free from dust and debris. Use compressed air to clear any blockages if necessary.
- **Fuse Replacement:** If the unit fails to power on, check the fuse located in the power input socket on the rear panel. Replace it only with a fuse of the same type and rating (e.g., 250V/T3.15A).

## 6. TROUBLESHOOTING

If you encounter issues with your power supply, refer to the following common problems and solutions:

- **No Power:**
  - Check if the power cord is securely connected to both the unit and the mains outlet.
  - Verify that the mains outlet is functional.
  - Check and replace the fuse if blown (refer to Section 5. Maintenance).
- **No Output Voltage/Current:**
  - Ensure the **OUTPUT ON/OFF** button is pressed (output enabled).
  - Check if the voltage and current limit knobs are set above zero.
  - Verify that the load is correctly connected and not short-circuited.
  - If the unit is in Constant Current (CC) mode, the current limit has been reached. Increase the current limit or reduce the load.
  - If the unit is in Constant Voltage (CV) mode, the voltage limit has been reached. Increase the voltage limit or reduce the load.
- **Overload/Short-Circuit Protection Activated:**
  - The unit automatically protects itself from overload and short circuits. Disconnect the load, resolve the issue (e.g., reduce load resistance, fix short), and then re-enable the output.

If the problem persists after following these steps, contact customer support or a qualified service technician.

## 7. SPECIFICATIONS

Feature	Specification
Model Number	P 6145
Output Channels	2 x Adjustable, 1 x Fixed
Adjustable Output 1 (Master)	0 - 30 V DC, 0 - 5 A DC
Adjustable Output 2 (Slave)	0 - 30 V DC, 0 - 5 A DC

Fixed Output	5 V DC, 3 A
Output Terminals	4 mm Safety Sockets
Protection	Overload Protection, Short-Circuit Protection
Safety Standards	EN-61010-1, EN-61558-2-6
Dimensions (L x W x H)	35.5 x 26.5 x 17 cm
Weight	Approximately 9 g (Note: This weight seems unusually low for a power supply of this type and may be a data entry error. Please refer to product packaging for accurate weight.)

## 8. WARRANTY AND SUPPORT

---

For warranty information, technical support, or service inquiries, please refer to the documentation provided with your purchase or contact your retailer or the manufacturer directly. Keep your proof of purchase for warranty claims.

---