

PACUM SPPS-S3010

PACUM SPPS-S3010 Variable DC Power Supply User Manual

Model: SPPS-S3010

1. INTRODUCTION

This manual provides detailed instructions for the safe and efficient operation of your PACUM SPPS-S3010 Variable DC Power Supply. This programmable power supply is designed for a wide range of applications, including laboratory testing, electronic repair, and battery charging. Please read this manual thoroughly before use and retain it for future reference.

2. SAFETY INFORMATION

Always observe the following safety precautions to prevent injury or damage to the device:

- Ensure the power supply is connected to a grounded outlet.
- Do not operate the device in wet or damp conditions.
- Avoid short-circuiting the output terminals.
- Do not open the casing; there are no user-serviceable parts inside. Refer servicing to qualified personnel.
- Ensure proper ventilation to prevent overheating. The built-in cooling fan activates automatically when the internal temperature exceeds 50°C.
- Disconnect power before making any connections or adjustments to the output.

3. PACKAGE CONTENTS

Verify that all items are present in the package:

- 1X PACUM SPPS-S3010 DC Power Supply

- 1X Power Adapter
- 1X Black Output Line
- 1X Red Output Line
- 1X Instruction Book (English)
- 1X Package Box (Hard)
- 2X Protective Sponge
- 1X Certificate of Conformity

4. PRODUCT OVERVIEW

The PACUM SPPS-S3010 features a clear LED display and intuitive controls for precise voltage and current regulation.



Figure 4.1: Front panel of the PACUM SPPS-S3010 DC Power Supply. It shows the LED display for voltage, current, and power, along with control buttons (M1-M4, LOCK, V/A, On/Off, MEMORY/RECALL/SAVE) and the adjustment knob. Output terminals (GND, +, -) are also visible.

4.1 Front Panel Controls and Display

- **LED Display:** Shows real-time Voltage (V), Current (A), and Power (W) output.
- **M1-M4 Buttons:** Memory preset buttons for storing and recalling frequently used voltage and current settings.
- **LOCK Button:** Locks the current settings to prevent accidental changes.
- **V/A Button:** Toggles between voltage and current adjustment modes.
- **On/Off Button:** Controls the output power to the terminals.

- **MEMORY/RECALL/SAVE Button:** Used in conjunction with M1-M4 for saving and recalling settings.
- **ADJUST Knob:** Rotary encoder for fine-tuning voltage and current values.
- **Output Terminals:** Red (+) and Black (-) terminals for connecting the load, and a Green (GND) terminal for grounding.
- **USB Interface:** 5V 2A output for charging mobile phones or powering small devices.

5. SETUP

1. **Unpacking:** Carefully remove the power supply and all accessories from the packaging.
2. **Placement:** Place the power supply on a stable, level surface with adequate ventilation around the unit. Ensure the cooling fan vents are not obstructed.
3. **Power Connection:** Connect the provided power adapter to the AC input on the rear of the power supply and then plug it into a suitable grounded AC outlet (230V $\pm$ 10% 50Hz or 115V $\pm$ 10% 50Hz).
4. **Initial Power On:** Press the main power switch (usually located on the rear or front panel) to turn on the unit. The LED display will illuminate.

6. OPERATING INSTRUCTIONS

6.1 Adjusting Voltage and Current



Figure 6.1: Illustration of how to use the rotary encoder and V/A button to adjust voltage and current settings on the PACUM SPPS-S3010.

1. Ensure the output is OFF (On/Off button LED is off).
2. Press the **V/A** button to select whether you want to adjust voltage or current. The corresponding value on the display will blink.
3. Rotate the **ADJUST** knob to change the value. A short press on the knob allows you to select which digit to adjust for finer control.
4. Once the desired voltage and current limits are set, connect your load to the output terminals using the provided output lines.
5. Press the **On/Off** button to enable the output. The LED will illuminate, and power will be supplied to your load.

6.2 Constant Voltage (CV) and Constant Current (CC) Modes

The power supply automatically operates in either Constant Voltage (CV) or Constant Current (CC) mode depending on the load and your set limits:

- **Constant Voltage (CV):** When the load resistance is high, the output voltage remains at the set value, and the

current varies according to the load. The CV indicator will be lit.

- **Constant Current (CC):** When the load resistance is low, the output current remains at the set value, and the voltage varies according to the load. The CC indicator will be lit.

6.3 Using Memory Presets (M1-M4)

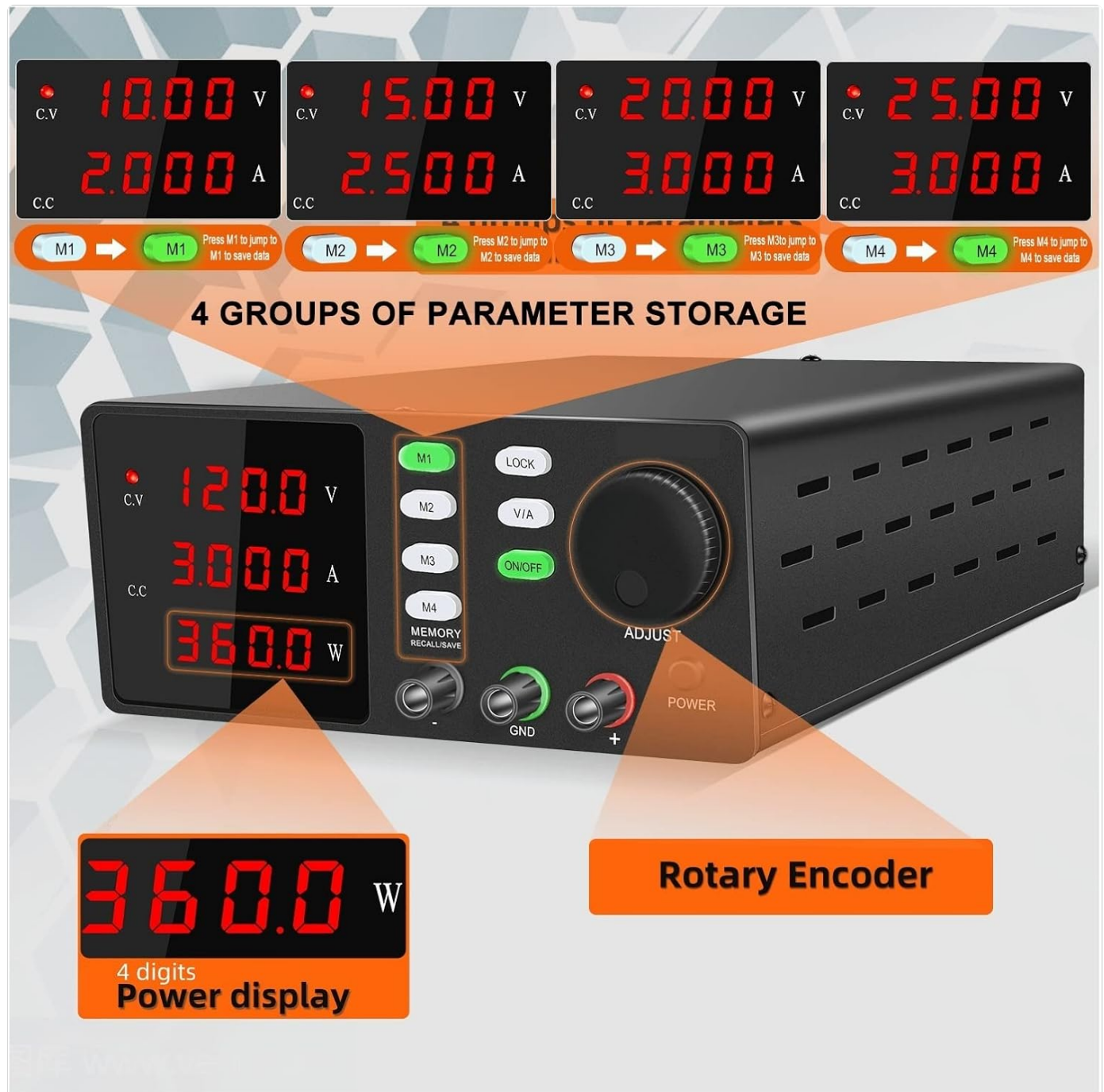


Figure 6.2: The PACUM SPPS-S3010 allows storage of four groups of voltage and current parameters for quick recall.

The device can store four groups of voltage and current settings for quick access:

- **To Save Settings:** Adjust the voltage and current to the desired values. Press and hold the **MEMORY/RECALL/SAVE** button, then press one of the **M1-M4** buttons until the display indicates the settings are saved.
- **To Recall Settings:** Briefly press one of the **M1-M4** buttons. The stored voltage and current values will be loaded.

6.4 Lock Function

Press the **LOCK** button to prevent accidental changes to the set voltage and current values. Press it again to unlock.

6.5 USB Charging Port

The front panel includes a 5V 2A USB port, suitable for charging mobile phones or powering small USB-compatible devices. This output is independent of the main DC output.

7. APPLICATIONS

The PACUM SPPS-S3010 is versatile and suitable for various applications:

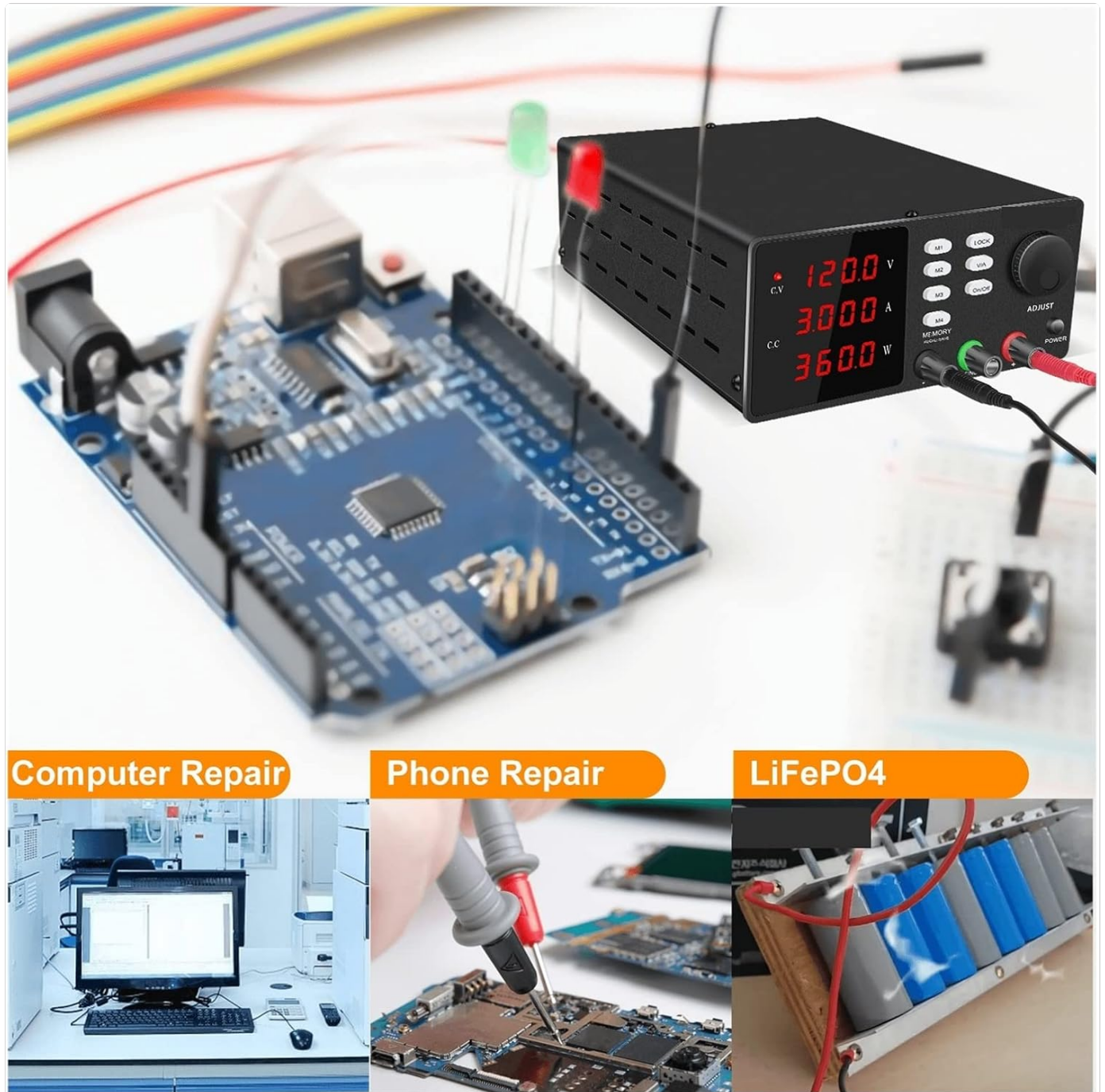


Figure 7.1: Examples of the PACUM SPPS-S3010 in use for electronic repair and battery charging.

- Factory production line testing.
- Mobile phone, computer, and electrical appliance maintenance and repair.
- Product aging tests for components like resistors, jewelry, capacitors, relays, DC motors, and LEDs.

- Charging various types of batteries, including car batteries.
- Laboratory and scientific research.

8. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the unit. Do not use abrasive cleaners or solvents.
- **Ventilation:** Regularly check that the ventilation openings are clear of dust and debris to ensure proper cooling.
- **Storage:** When not in use for extended periods, store the power supply in a cool, dry place away from direct sunlight and extreme temperatures.

9. TROUBLESHOOTING

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

- **No Power:** Check the power cord connection and the wall outlet. Ensure the main power switch is ON.
- **No Output:** Verify that the output On/Off button is pressed (its LED should be lit). Check for short circuits in your load.
- **Incorrect Voltage/Current:** Ensure the LOCK function is not active. Re-adjust the settings using the ADJUST knob and V/A button.
- **Overheating:** Ensure the ventilation vents are clear. The cooling fan should activate automatically when needed. If the unit frequently overheats, reduce the load or ensure adequate ambient temperature.

For persistent issues, contact customer support.

10. SPECIFICATIONS



Figure 10.1: Physical dimensions and weight of the PACUM SPPS-S3010 DC Power Supply.

Parameter	Value
Model Name	SPPS-S3010
Output Voltage	0-30V (Continuously Adjustable)
Output Current	0-10A (Continuously Adjustable)
Output Power	300W
Input Voltage	230V $\pm$ 10% 50Hz or 115V $\pm$ 10% 50Hz
Working Temperature	0-40°C, <80%RH
Storage Temperature	-10-70°C, <70%RH
Data Storage Function	Four groups of voltage and current settings

Parameter	Value
Constant Voltage Stability	0.1%±3mV
Constant Voltage Load Stability	0.5%±3mV
Constant Voltage Ripple Noise	30mVrms
Constant Current Stability	0.2%±3mA
Constant Current Load Stability	0.2%±3mA
Constant Current Ripple Noise	20mArms (Valid Value)
Recovery Time	500μS
Temperature Coefficient	100ppm/°C
Display Type	LED Screen (5.3cm*4.8cm)
Display Accuracy	0.5%±2digits
Display Resolution (Voltage)	0.01V
Display Resolution (Current)	0.001A
Display Resolution (Power)	0.001W
Product Size (L x W x H)	25.2cm x 17cm x 8.4cm (9.9" x 6.7" x 3.3")
USB Interface	5V 2A
Net Weight	1.9Kg (4.19 lbs)
Fuse Standard	3.15A (AC 230V input), 5A (AC 115V input)
Cooling Fan	Smart turn on when temperature over 50°C

11. WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the contact details provided with your purchase or visit the official PACUM website. Keep your purchase receipt as proof of purchase.

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.

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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.

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