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› [ALLPOWERS PB100 Laptop Power Bank with SP001 12V21W Portable Solar Charger User Manual](#)

ALLPOWERS AP-SP-002-BLA

ALLPOWERS PB100 Laptop Power Bank & SP001 Portable Solar Charger User Manual

Model: AP-SP-002-BLA | Brand: ALLPOWERS

1. INTRODUCTION

This user manual provides detailed instructions for the safe and efficient operation of your ALLPOWERS PB100 Laptop Power Bank and SP001 Portable Solar Charger. This combined system offers a versatile and powerful solution for charging a wide range of electronic devices, including laptops, smartphones, and cameras, whether you are at home or outdoors.

Please read this manual thoroughly before using the product to ensure proper functionality and to prevent damage.



Image: The ALLPOWERS PB100 Power Bank connected to the SP001 Portable Solar Charger, showcasing the compact design.

2. PRODUCT FEATURES

The ALLPOWERS PB100 Power Bank and SP001 Solar Charger system is designed with advanced features for reliable power on the go:

- **24000mAh Colossal Capacity:** Equipped with a high-quality lithium-ion battery, the PB100 provides substantial power for multiple electronic devices, suitable for travel and outdoor activities.
- **100W Fast Charging (PB100):** The USB-C port supports PD3.0 protocol, delivering up to 100W output for rapid charging of laptops, tablets, and phones. It also supports up to 100W input, allowing the power bank to be fully recharged in approximately 2 hours with a 65W+ charger.
- **Versatile 4 Output Ports (PB100):** Features one PD100W USB-C port, one PD60W USB-C port, and two QC18W USB-A ports, enabling simultaneous charging of various devices.
- **High-Efficiency Solar Conversion (SP001):** The monocrystalline solar cells convert up to 23.5% of solar power into electrical energy.
- **Durable and Weatherproof Design (SP001):** Constructed with PET thin-film solar material for flexibility and durability. The ports are protected by rubber covers, offering resistance against dust and water damage (IP67 rating).

- **Fast Charging USB Ports (SP001):** Includes one USB-A port (5V2A to 12V1.5A auto-adaptive) and one PD18W USB-C port for charging phones, tablets, drones, and cameras directly from the solar panel.

21W Ultra-Portable Solar Panel & 86.4Wh Power Bank

Power Up Your Devices Wherever You Roam



The image shows a man from behind, standing on a mountain peak. He is wearing a dark t-shirt and brown pants. A black backpack is attached to his back, and a foldable solar panel is mounted on the back of the backpack. A small white power bank with a digital display and a USB cable is attached to the solar panel. The background is a vast, misty mountain range under a clear sky.

 86.4Wh High Capacity (PB100)	 100W USB-C Output (PB100)	 22-25% High Efficiency (SP001)	 Foldable & Compact Design (SP001)	 USB-A & USB-C Port (SP001)	 IP67 Water Resistance (SP001)
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Image: The SP001 Solar Charger attached to a backpack, demonstrating its portability for outdoor use.

Universal USB-A & USB-C Ports for Universal Compatibility



Smartphone 18W
4 times



Switch 18W
4 times



Tablet 20W
3.7 times



Fan 20W
14 times



Drone 20Wh
3.7 times



Camping Latern 40W
1.8 times

Image: The power bank and solar panel set up to charge various devices like smartphones, tablets, and fans, highlighting universal compatibility.

3. PACKAGE CONTENTS

Please verify that all items are present in your package:

- ALLPOWERS PB100 100W Power Station (Power Bank)
- ALLPOWERS SP001 21W Solar Panel
- USB-C to USB-C Cable
- Hanging Buckles (x2)
- User Manuals (for PB100 and SP001)

Packaging accessories



SP001 21W Solar Panel



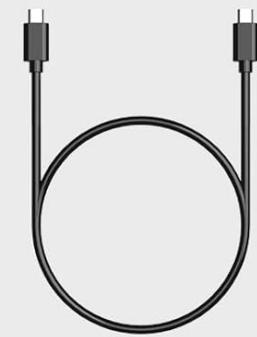
Hanging buckle *2



User Manual



PB100 100W Power Station



USB-C to USB-C Cable



User Manual

Image: A visual representation of all items included in the product packaging, including the solar panel, power bank, cables, and accessories.

4. SETUP GUIDE

4.1 Initial Charging of PB100 Power Bank

Before first use, it is recommended to fully charge the PB100 Power Bank.

1. Connect the provided USB-C to USB-C cable to the 100W USB-C input/output port on the PB100.
2. Connect the other end of the cable to a compatible USB-C wall charger (not included, 65W+ recommended for fastest charging).
3. The digital display on the PB100 will show the charging status and battery percentage. Charge until it reaches 100%.

4.2 Connecting SP001 Solar Charger to PB100

To charge the PB100 using the SP001 Solar Charger:

1. Unfold the SP001 Solar Charger and place it in direct sunlight. Ensure no shadows are cast on the solar panels for optimal efficiency.
2. Locate the output ports on the SP001 Solar Charger (USB-A and USB-C).
3. Connect the USB-C to USB-C cable from the SP001's USB-C output port to the 100W USB-C input/output port on the PB100.
4. The PB100 display will indicate that it is receiving power, and the battery percentage will increase.

5. OPERATING INSTRUCTIONS

5.1 Charging Devices with PB100 Power Bank

The PB100 Power Bank can charge up to four devices simultaneously.

1. Identify the appropriate charging cable for your device.
2. Connect one end of the cable to your device and the other end to one of the available output ports on the PB100 (PD100W USB-C, PD60W USB-C, or QC18W USB-A ports).
3. The PB100 will automatically detect the connected device and begin charging. The display will show the output voltage and current.
4. Disconnect your device once fully charged.

5.2 Direct Charging with SP001 Solar Charger

The SP001 Solar Charger can directly charge small devices without the PB100.

1. Unfold the SP001 Solar Charger and position it to receive maximum direct sunlight.
2. Connect your device's charging cable to either the USB-A or USB-C output port on the SP001.
3. Charging will begin automatically. Note that charging efficiency depends heavily on sunlight intensity.

Stay Powered on Every Adventure and Beyond



Hiking



Camping



Cycling



Photography

Image: Depicts the versatility of the power bank and solar panel for activities like hiking, camping, cycling, and photography.

6. MAINTENANCE

- Cleaning:** Wipe the power bank and solar panel with a soft, dry cloth. Do not use abrasive cleaners or solvents. For the solar panel, ensure the surface is clean to maximize light absorption.
- Storage:** Store the product in a cool, dry place away from direct sunlight and extreme temperatures. If storing for extended periods, charge the PB100 to approximately 50-70% every 3-6 months to preserve battery health.
- Handling:** Avoid dropping or subjecting the product to strong impacts. Do not disassemble the unit.
- Water Resistance:** While the SP001 solar panel has an IP67 rating for dust and water resistance, avoid submerging it in water. Ensure rubber covers on ports are securely closed when not in use, especially in wet conditions.

Rugged & Weatherproof

IP67 Rating Keeps It Safe from Water and Dust in Any Environment



Image: The SP001 Solar Charger demonstrating its IP67 water and dust resistance.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
PB100 not charging devices.	Low battery on PB100; incorrect cable; device not compatible; cable loose.	Recharge PB100; ensure cable is functional and correctly connected; verify device compatibility; try a different cable.
PB100 not charging from wall adapter.	Wall adapter not powerful enough; faulty cable; wall outlet issue.	Use a 65W+ PD charger; try a different USB-C cable; test the wall outlet with another device.
SP001 solar panel not charging PB100 or devices.	Insufficient sunlight; panel not positioned correctly; dirty panel surface; faulty cable.	Move panel to direct sunlight; adjust angle for optimal exposure; clean panel surface; try a different cable.

Problem	Possible Cause	Solution
Slow charging speed.	Cable quality; device input limits; multiple devices charging simultaneously; low solar intensity.	Use high-quality cables; check device's maximum input; charge fewer devices at once; ensure optimal sunlight for solar charging.

8. SPECIFICATIONS

Feature	Detail
Product Model	AP-SP-002-BLA
Battery Capacity (PB100)	24000 mAh (86.4 Wh)
USB-C Output 1 (PB100)	PD100W (5V/3A, 9V/3A, 12V/3A, 15V/3A, 20V/5A)
USB-C Output 2 (PB100)	PD60W (5V/3A, 9V/3A, 12V/3A, 15V/3A, 20V/3A)
USB-A Output (PB100)	QC18W (5V/3A, 9V/2A, 12V/1.5A) x 2
Input (PB100)	Up to 100W via USB-C
Solar Panel Power (SP001)	21W
Solar Conversion Efficiency (SP001)	22-25%
Solar Panel Output (SP001)	1x USB-A (5V/2A to 12V/1.5A), 1x USB-C (PD18W)
Water Resistance (SP001)	IP67
Product Dimensions	8.19 x 1 x 8.66 inches
Manufacturer	ALLPOWERS Industrial International Limited

Exceptional Solar Conversion Efficiency

22-25% Conversion Efficiency To Harness More Solar Energy

22-25%

High Efficiency

ETFE Coating

Built to Last

Monocrystalline

Silicon

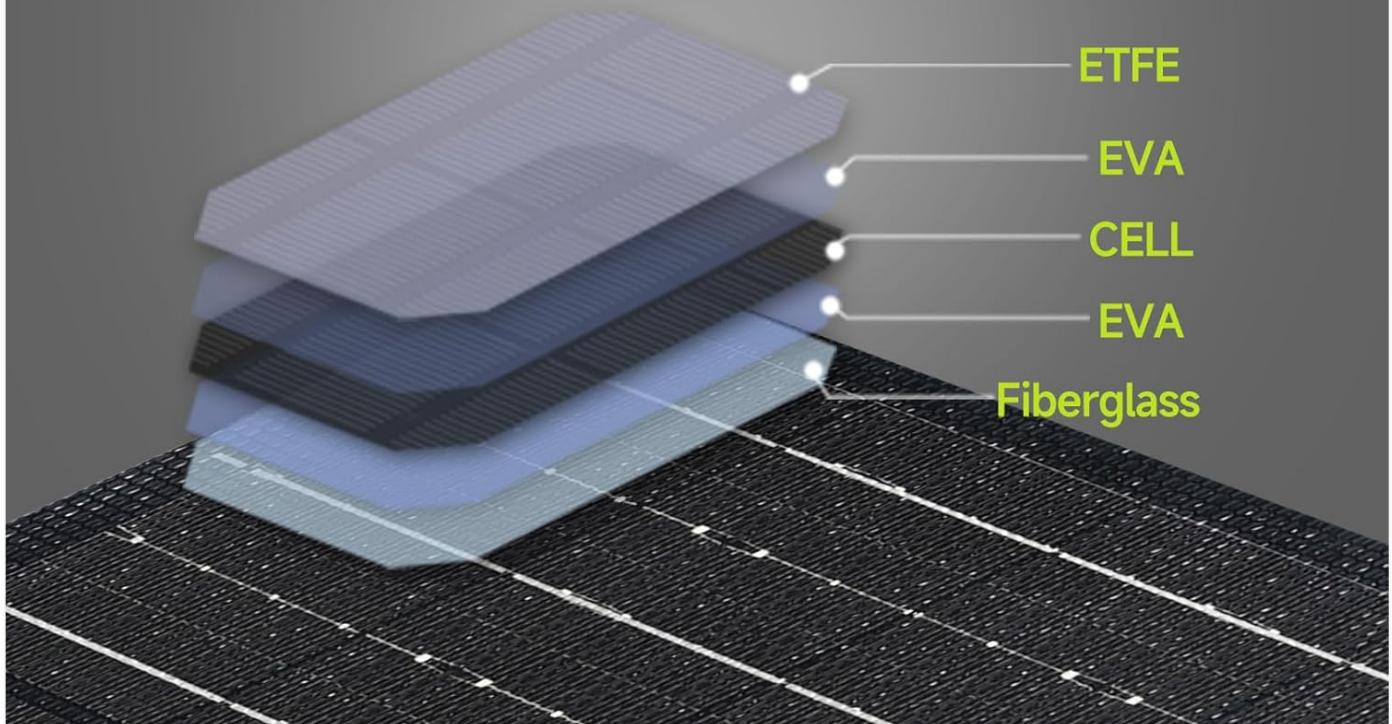
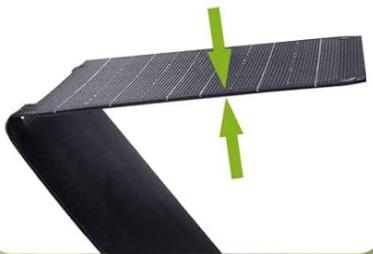


Image: Illustrates the layered construction of the solar panel, highlighting its high conversion efficiency.

Ultra-Slim & Lightweight

5 mm



2.2 lbs

SP001 OTHERS



Image: The SP001 Solar Charger's ultra-slim and lightweight profile, making it easy to carry for outdoor adventures.

9. WARRANTY AND SUPPORT

For warranty information and customer support, please refer to the specific warranty card included with your product or visit the official ALLPOWERS website. You may also contact ALLPOWERS customer service directly for assistance with product inquiries, technical support, or warranty claims.

Manufacturer: ALLPOWERS Industrial International Limited

For the most up-to-date support contact information, please visit: www.allpowers.com

