

## ALLPOWERS AP-B18V28W-M

# ALLPOWERS 28W Foldable Solar Panel Charger

Model: AP-B18V28W-M

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## 1. INTRODUCTION

Thank you for choosing the ALLPOWERS 28W Foldable Solar Panel Charger. This device is designed to provide portable power for your electronic devices, including laptops, tablets, and smartphones, by converting sunlight into electricity. Its foldable design makes it ideal for outdoor activities and travel. Please read this manual carefully before use to ensure proper operation and maximize the product's lifespan.

## 2. SAFETY INFORMATION

- Do not attempt to disassemble, repair, or modify the solar panel. This may cause damage, electric shock, or fire.
- Avoid exposing the solar panel to fire, water, or corrosive liquids.
- Do not drop, puncture, or apply excessive force to the solar panel.
- Keep the solar panel away from children.
- Ensure proper ventilation when charging devices. Do not cover the solar panel or connected devices during operation.
- While the panel is designed for outdoor use, avoid prolonged exposure to extreme weather conditions such as heavy rain or snow.

## 3. PACKAGE CONTENTS

Please check the package contents upon receipt. If any items are missing or damaged, contact customer support.

- ALLPOWERS 28W Foldable Solar Panel Charger
- DC-to-DC cable
- Laptop connector adapters (various sizes)

- USB charging cable
- User Manual

## 4. PRODUCT OVERVIEW

The ALLPOWERS 28W Foldable Solar Panel Charger features multiple solar panels that fold compactly for portability. It includes a control box with output ports for charging various devices.



Image: The ALLPOWERS 28W Foldable Solar Panel Charger shown unfolded with its dimensions (895mm/35.2inch unfolded length, 460mm/18.1inch height) and folded (232mm/9.1inch length, 170mm/6.7inch height, 30mm/1.2inch thickness).



Image: Close-up views of the solar panel's features, including the 'Solar Charger' label, a velcro strap for securing, the control box with USB and DC output ports, and an internal pocket for accessories.

## Key Components:

- **Solar Panels:** Convert sunlight into electrical energy.
- **Control Box:** Houses the USB and DC output ports.
- **USB Output Port (5V):** For charging smartphones, tablets, and other 5V USB-powered devices. Features iSolar Technology for optimized charging.
- **DC Output Port (18V):** For charging laptops and other devices requiring 18V DC input.
- **Attachment Loops:** For securing the panel to backpacks or other surfaces.

## 5. SETUP

To begin using your solar panel charger, follow these steps:

1. **Unfold the Solar Panel:** Carefully unfold the solar panel completely to expose all solar cells.
2. **Position for Sunlight:** Place the unfolded solar panel in direct sunlight. For optimal charging efficiency, ensure the panels are facing the sun directly and are not obstructed by shadows from trees, buildings, or other objects.



### 3. Connect Your Device:

- **For USB Devices (5V):** Connect your smartphone, tablet, or other USB-powered device to the USB output port using your device's charging cable.
- **For Laptops (18V):** Connect the provided DC-to-DC cable to the 18V DC output port. Select the appropriate laptop connector adapter from the included set and attach it to the DC-to-DC cable. Then, connect the adapter to your laptop's charging port.

4. **Verify Charging:** Once connected and exposed to sufficient sunlight, your device should indicate that it is charging. The blue LED indicator on the control box will illuminate when enough sunlight is detected for charging.



Image: The ALLPOWERS 28W Foldable Solar Panel Charger unfolded and placed on a surface, actively charging a laptop and a smartphone simultaneously via its output ports.

## 6. OPERATING INSTRUCTIONS

### Optimal Sunlight Exposure:

The performance of the solar panel is directly dependent on the intensity and angle of sunlight. For best results:

- Place the panel in direct, unobstructed sunlight.

- Adjust the angle of the panel periodically to follow the sun's movement throughout the day.
- Cloudy conditions or indirect sunlight will significantly reduce charging efficiency.

### iSolar Technology (for USB Output):

The USB output port features iSolar Technology, which automatically detects the input current of your connected device to provide the fastest possible charging speed. This technology ensures compatibility and efficient charging for a wide range of USB devices.

### Laptop Charging (18V DC Output):

The 18V DC output is specifically designed for laptops that require a DC input below 18V/2A. Use the provided DC-to-DC cable and select the correct adapter tip for your laptop model.

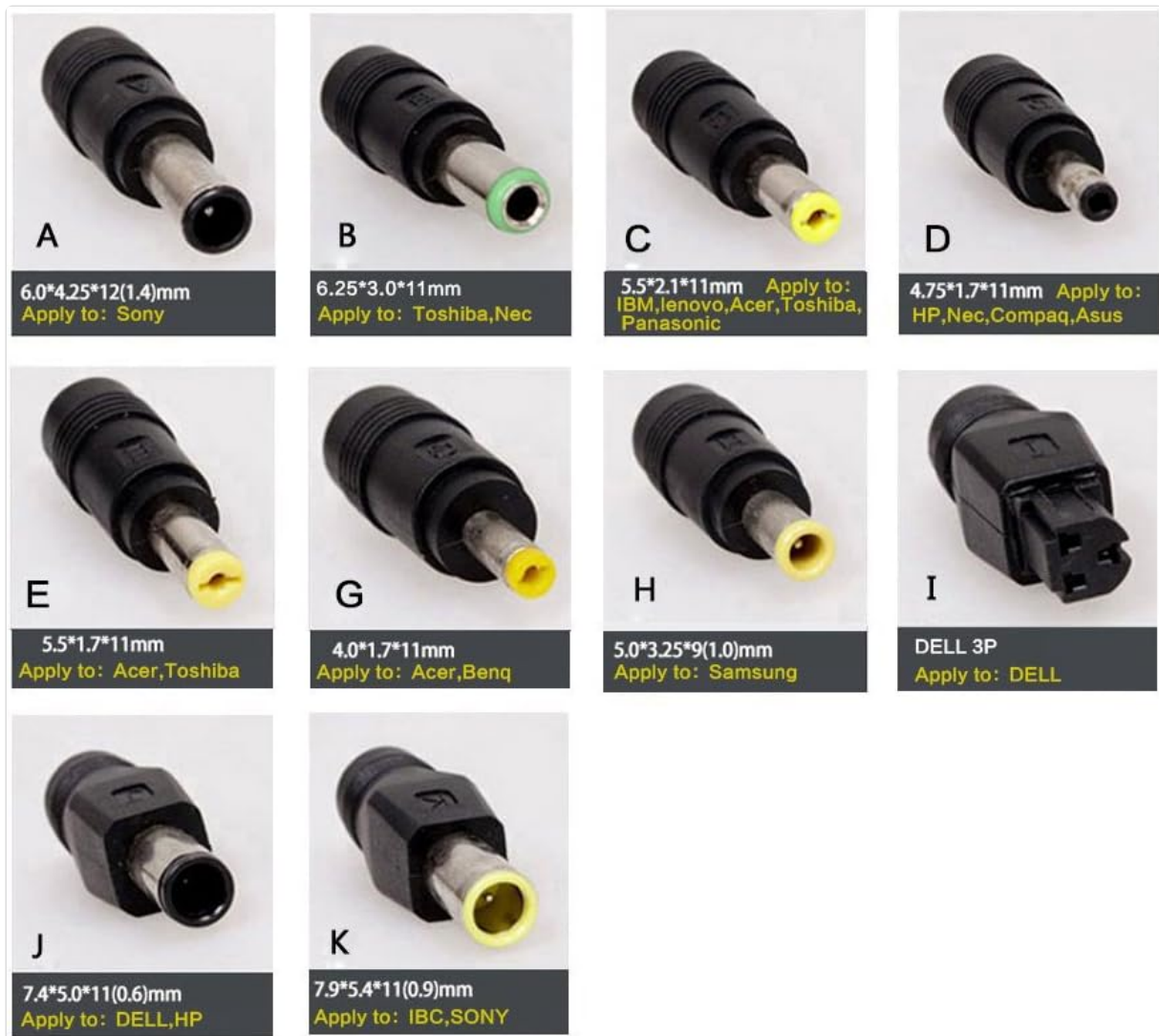


Image: A selection of eleven different laptop connector adapters (labeled A through K) with their dimensions and compatible brands (e.g., Sony, Toshiba, HP, Dell, Samsung, IBM, Lenovo, Acer, BenQ).

Refer to your laptop's specifications to ensure compatibility with the 18V output and to select the correct adapter tip.

### Outdoor Use Scenarios:



## Outdoor Use scenario



Long-distance travel



Camping/outing



Mountaineering



Field adventure/study



Image: Illustrations depicting various outdoor scenarios where the ALLPOWERS 28W Foldable Solar Panel Charger can be used, including long-distance travel, camping/outing, mountaineering, and field adventure/study.

The panel is suitable for various outdoor activities. Use the attachment loops to secure it to a backpack, tent, or other stable surface to maintain optimal sun exposure.

## 7. MAINTENANCE

- **Cleaning:** Gently wipe the solar panels with a soft, damp cloth to remove dust or dirt. Avoid using harsh chemicals or abrasive materials that could scratch the surface.
- **Storage:** When not in use, fold the solar panel and store it in a cool, dry place away from direct sunlight and extreme temperatures.
- **Inspection:** Periodically inspect the cables and connectors for any signs of wear or damage. Replace any damaged components immediately.

## 8. TROUBLESHOOTING

### Device Not Charging:

- **Check Sunlight:** Ensure the solar panel is in direct, strong sunlight. Partial shade or cloudy conditions will prevent or significantly reduce charging.

- **Panel Orientation:** Adjust the panel's angle to face the sun directly.
- **Cable Connection:** Verify that all cables are securely connected to both the solar panel and your device.
- **Device Compatibility:** Ensure your device's power requirements (voltage and current) are compatible with the solar panel's output (5V USB or 18V DC).
- **Damaged Cables/Ports:** Inspect cables and ports for any visible damage. Try using a different cable if available.

Slow Charging:

- **Sunlight Intensity:** Charging speed is directly proportional to sunlight intensity. Charging will be slower on overcast days or during early morning/late afternoon.
- **Panel Cleanliness:** Dust or dirt on the solar panels can reduce efficiency. Clean the panels as described in the Maintenance section.
- **Device Power Consumption:** Some devices, especially larger tablets or laptops, require more power and may charge slower than smaller devices.
- **Cable Quality:** Low-quality or excessively long USB cables can reduce charging efficiency. Use the original or high-quality cables.

9. SPECIFICATIONS

Model	AP-B18V28W-M
Wattage	28 Watts
USB Output	5V (with iSolar Technology)
DC Output	18V
Product Dimensions (Folded)	10.8 x 7.6 x 2.8 inches (27.4 x 19.3 x 7.1 cm)
Product Dimensions (Unfolded)	Approx. 35.2 x 18.1 inches (89.5 x 46 cm)
Item Weight	3.25 pounds (1.47 kg)
Power Source	Solar Powered
Compatible Devices	Laptops (below 18V/2A), MP3 Players, Tablets, Smartphones

10. WARRANTY & SUPPORT

ALLPOWERS products are designed and manufactured to the highest quality standards. For warranty information, technical support, or customer service inquiries, please refer to the contact information provided with your purchase or visit the official ALLPOWERS website.

