

GRECELL UB-200

GRECELL 200W Portable Solar Panel (Model UB-200) Instruction Manual

Your guide to setting up, operating, and maintaining your GRECELL 200W Portable Solar Panel.

Introduction	Safety Instructions	Package Contents	Product Features	Setup	Operation
	Maintenance	Troubleshooting	Specifications	Warranty & Support	

1. INTRODUCTION

Thank you for choosing the GRECELL 200W Portable Solar Panel. This manual provides essential information for the safe and efficient use of your solar panel. Please read it thoroughly before operation and retain it for future reference.

The GRECELL 200W Portable Solar Panel is designed to provide reliable power for various outdoor and off-grid applications, including charging power stations, 12V/24V batteries, and other compatible devices. Its high efficiency, portability, and durable design make it an ideal solution for camping, RVs, boats, and emergency power backup.

2. SAFETY INSTRUCTIONS

Observe the following safety precautions to prevent injury and damage to the product:

- Do not attempt to disassemble, repair, or modify the solar panel.
- Avoid exposing the solar panel to open flames or extreme heat.
- Do not submerge the solar panel in water. While it is IP65 water-resistant against splashing, it is not designed for immersion.
- Handle the solar panel with care. Do not drop it or subject it to strong impacts.

- Ensure all connections are secure before operating.
- Keep the power station or battery being charged in a shaded, well-ventilated area to prevent overheating.
- Do not bend the panels more than 30 degrees to avoid damage.
- Keep out of reach of children.

3. PACKAGE CONTENTS

Verify that all items are included in your package:

- 1 x GRECELL 200W Portable Solar Panel
- 1 x 4-in-1 Charge Cable (XT60/30A Anderson/ DC 79*09mm/M16 Aviation Connector)
- 1 x User Manual

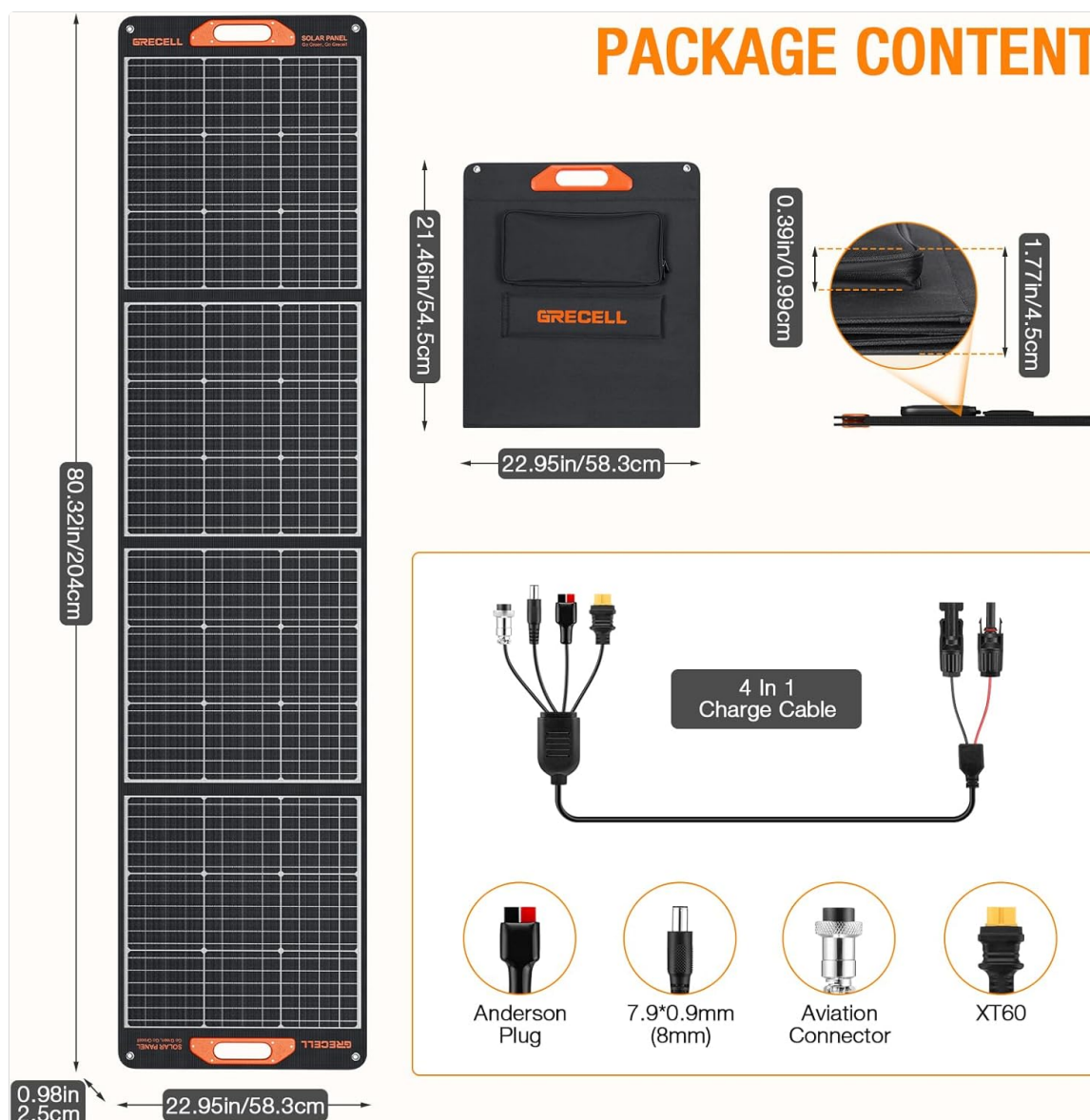


Image: The GRECELL 200W Portable Solar Panel, folded, with its dimensions and the included 4-in-1 charge cable and connectors.

4. PRODUCT FEATURES

- **High-Efficiency Monocrystalline Solar Cells:** The UB200 features monocrystalline solar cells

with a conversion efficiency of up to 23.5%. This high efficiency ensures more solar power is converted into usable electrical energy, reducing charging times.

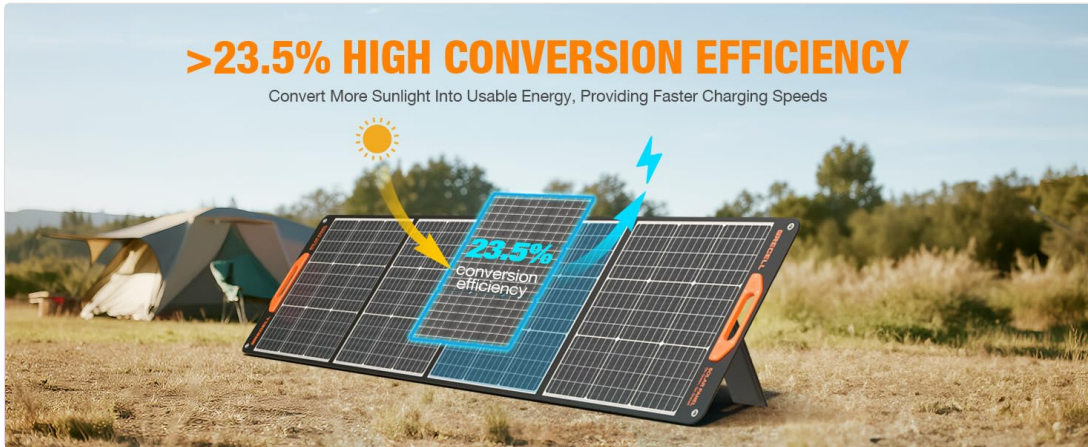


Image: A visual representation highlighting the 23.5% high conversion efficiency of the solar panel under sunlight.

- **Portable & Super Slim Design:** With a folded size of 21.46 x 22.95 x 1.77 inches and a weight of only 10.14 lbs, the UB200 is significantly lighter and more portable than many other 200W solar panels. Its slim profile (0.98 inches unfolded) allows for easy storage and transport.



Image: The GRECELL 200W solar panel, folded, emphasizing its lightweight design (10.14 lbs) with feathers around it.

- **Flexible & Durable Construction:** Constructed with advanced laminated technology and ultra-light ETFE material, the panel can be bent at a certain angle without damage. This makes it

more flexible, durable, weather-resistant, and scratch-resistant than ordinary PET films, extending its lifespan. It is IP65 water-resistant, protecting against water splashing.

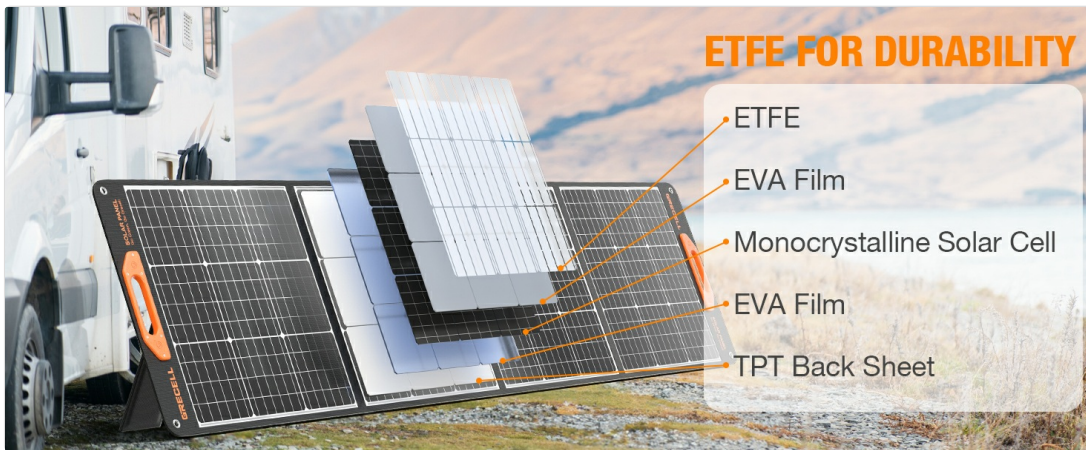


Image: An exploded view showing the layers of the solar panel, highlighting the ETFE material for durability.

- **Wide Compatibility:** The solar panel includes a 4-in-1 charge cable with DC7909/8, XT60, Aviation Connector, and Anderson plugs, making it compatible with most solar generators on the market. With an external controller (not included) and alligator clips (not included), it can also charge 12V batteries (RV/car/boat, LiFePO4, lithium, AGM, lead-acid, GEL).

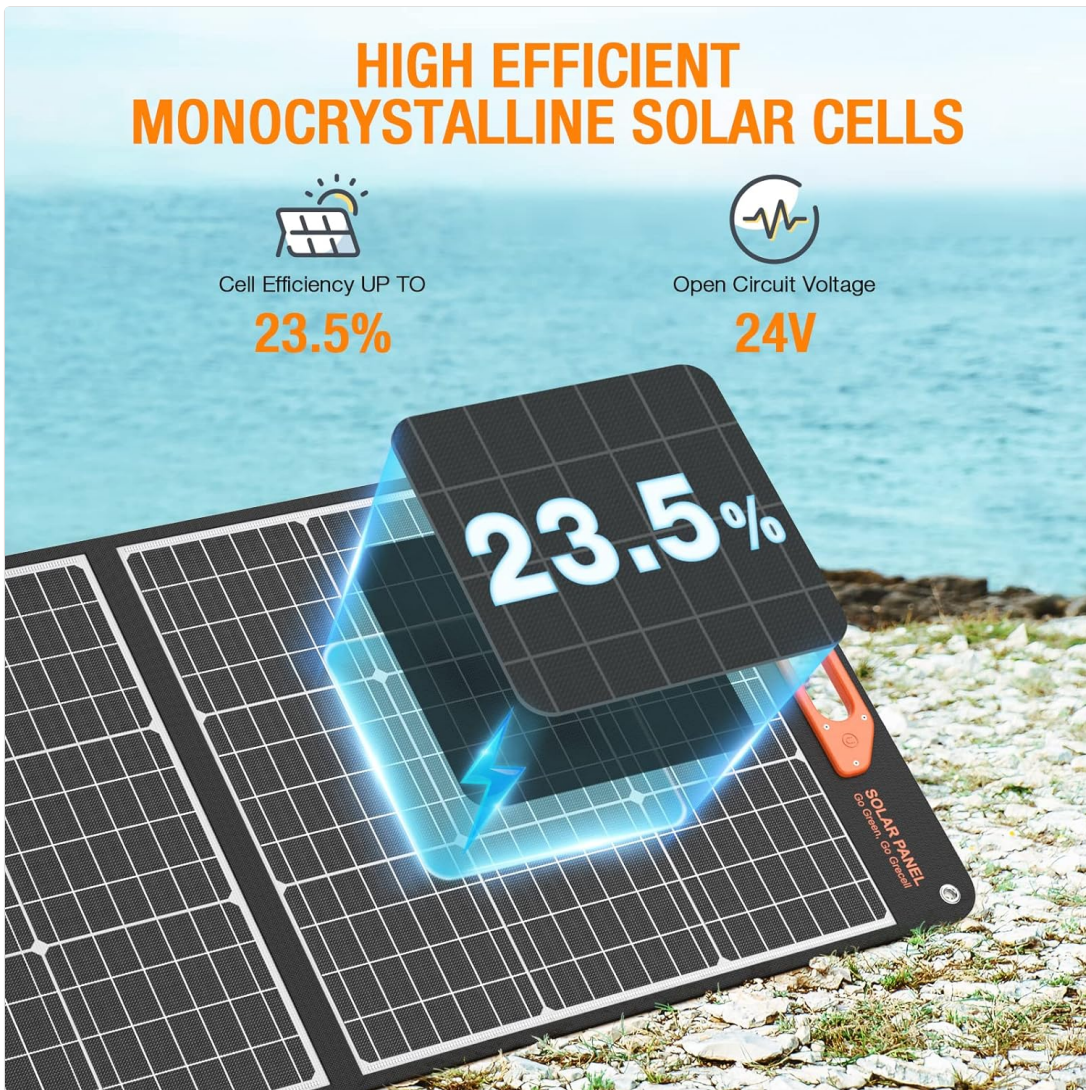


Image: A diagram illustrating the wide compatibility of the solar panel with different connectors (Anderson, 7.9*0.9mm, XT60, Aviation Connector) and various power stations, including a 12V battery option.

- **Hassle-Free Reconnection:** Features an auto-optimization function for immediate reconnection if sunlight is interrupted. The integrated MPPT controller allows for larger currents and

overcharging cut-off technology ensures reliable performance.

5. SETUP

Follow these steps to set up your GRECELL 200W Portable Solar Panel:

1. **Unfold the Solar Panel:** Carefully unfold the solar panel completely. The panel is designed to be flexible, but avoid excessive bending.



Image: The GRECELL 200W portable solar panel fully unfolded and set up outdoors, ready for use.

2. **Position the Panel:** Place the solar panel in direct sunlight. For optimal performance, adjust the integrated kickstands to angle the panel towards the sun. The 4 metal reinforced mounting holes can also be used to secure the panel to a car, RV, or other structures.



Image: Close-up views of the solar panel's features, including adjustable kickstands, magnetic handle, built-in cable bag, and stainless eyelets for mounting.

3. **Connect to a Power Station:** Open the built-in cable bag on the back of the panel. Select the appropriate connector from the 4-in-1 charge cable (XT60, Anderson, DC 79*09mm, or M16 Aviation Connector) that matches your power station's input port. Connect the cable from the solar panel to your power station.

Video: Demonstrates understanding and using the various connection types on the GRECELL 200W Solar Panel.

4. **Connect to a 12V Battery (Controller Not Included):** If charging a 12V battery directly, you will need an external charge controller and alligator clips (not included). Connect the solar panel to the charge controller, and then connect the charge controller to your 12V battery using alligator clips. Ensure correct polarity.

WHY CHOOSE GRECELL?

Small-Size, Ultra-Slim, Lightweight, Portable, Foldable, Bendable



-  ETFE Film High: Transmittance & Durable
-  Lightweight Design: 30%-40% Lighter Than Other
-  Polymer Aerospace Material: Shock & Drop-Resistance

lbs 10.14lbs Weighs only

lbs 21.15lbs Others

Image: A detailed diagram showing how to connect the solar panel to a portable solar generator or a 12V battery (requiring a separate charge controller and alligator clips).

6. OPERATION

Once set up, the solar panel will begin converting sunlight into electricity. Follow these guidelines for optimal operation:

- **Maximize Sunlight Exposure:** For the best charging performance, ensure the solar panel is positioned directly facing the sun and is not obstructed by shade from trees, buildings, or other objects. Adjust the angle periodically as the sun moves across the sky.
- **Monitor Charging:** Most power stations will display the incoming wattage. Monitor this to ensure the panel is generating power effectively. Output will vary based on sunlight intensity, weather conditions, and panel angle.

Video: A power test demonstrating the output of the 200W solar panel under various conditions.

- **Auto-Optimization:** The panel features an auto-optimization function that allows it to automatically reconnect and resume charging if sunlight is temporarily interrupted (e.g., by passing clouds).
- **Series/Parallel Connections:** For increased power output, multiple GRECELL 200W solar panels can be connected in series or parallel. Refer to your power station's manual for specific instructions on connecting multiple panels.

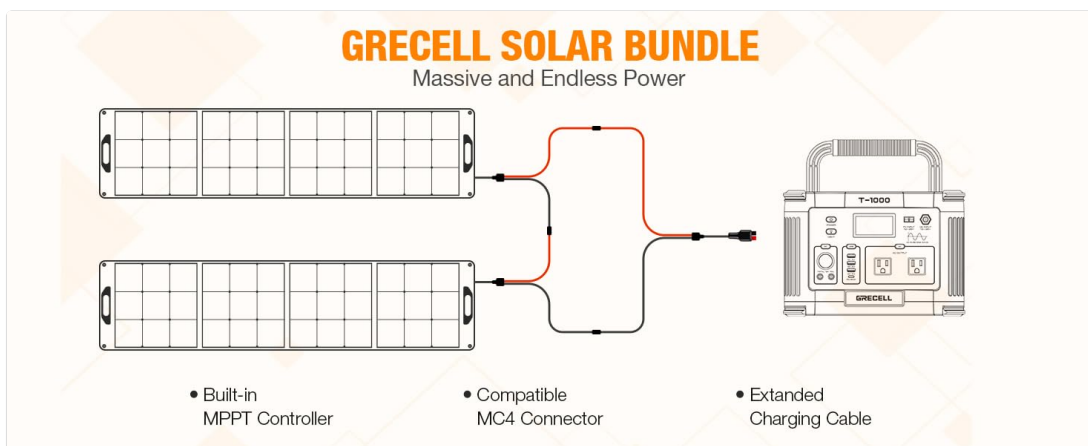


Image: A diagram illustrating how two 200W solar panels can be connected in series or parallel to a GRECELL power station for increased power.

7. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your solar panel:

- **Cleaning:** Regularly clean the surface of the solar panel to remove dust, dirt, leaves, or other debris that may reduce efficiency. Use a soft brush to remove loose particles, then wipe the surface with a damp (not wet) cloth. Avoid abrasive cleaners or harsh chemicals.
- **Storage:** When not in use, fold the solar panel and store it in a dry, cool place away from direct sunlight and extreme temperatures. Ensure the panel is clean before storage.
- **Inspection:** Periodically inspect the panel and cables for any signs of damage, wear, or loose connections. Address any issues promptly.

8. TROUBLESHOOTING

If you encounter issues with your solar panel, consider the following common solutions:

- **Low Power Output:**
 - Ensure the panel is in direct sunlight and not shaded.
 - Adjust the panel angle to face the sun directly.
 - Clean the panel surface if it is dirty.
 - Cloudy weather or low sun angle (early morning/late afternoon) will naturally result in lower output.
- **No Power Output:**
 - Check all cable connections to ensure they are secure and correctly inserted.
 - Verify that the correct adapter is being used for your power station or battery.
 - Ensure the power station or battery is not already fully charged, as some devices reduce or stop input when full.
 - If charging a 12V battery, confirm the external charge controller is functioning correctly.
- **Panel Overheating:**
 - While solar panels are designed to operate in heat, ensure adequate airflow around the panel.
 - Ensure the power station or battery is kept in the shade to prevent it from overheating, which can affect charging efficiency.

9. SPECIFICATIONS

Feature	Detail
Brand	GRECELL
Model Number	UB-200
Maximum Power	200 Watts
Maximum Voltage	12 Volts
Amperage Capacity	10 Amps
Efficiency	Up to 23.5% (Monocrystalline)

Product Dimensions (Unfolded)	80.32"L x 22.95"W x 0.98"H (204cm x 58.3cm x 2.5cm)
Folded Size	21.46"L x 22.95"W x 1.77"H (54.5cm x 58.3cm x 4.5cm)
Item Weight	10.14 Pounds (4.6 kg)
Connector Type	Solar Connector (MC4 compatible)
Included Connectors	XT60, 30A Anderson, DC 79*09mm, M16 Aviation Connector
Water Resistance	IP65 (Splash-proof)
Material	ETFE Laminate Surface

10. WARRANTY & SUPPORT

For warranty information, technical support, or any questions regarding your GRECELL 200W Portable Solar Panel, please contact GRECELL customer service directly. Refer to the contact details provided on the product packaging or the official GRECELL website.