XTAR SP150

XTAR SP150 150W Portable Solar Panel User Manual

Model: SP150

1. INTRODUCTION

This manual provides detailed instructions for the safe and efficient use of your XTAR SP150 150W Portable Solar Panel. The SP150 is a foldable solar charger designed for use with power stations in various outdoor and off-grid environments, including camping, RVs, and remote systems. It features an ETFE coating for durability, high-efficiency monocrystalline solar cells, and an adjustable kickstand for optimal sun exposure.

2. IMPORTANT SAFETY INSTRUCTIONS

Please read and understand all safety instructions before operating the solar panel. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Do not attempt to disassemble, repair, or modify the solar panel.
- Avoid exposing the solar panel to fire or extreme heat.
- Do not immerse the solar panel in water or other liquids. The panel is waterproof, but connectors should be kept dry.
- Handle the solar panel with care. Avoid dropping or subjecting it to strong impacts.
- Ensure all connections are secure and correct before use.
- Keep children and pets away from the solar panel during operation.
- Do not touch the electrical contacts with bare hands or conductive materials.
- In case of damage, discontinue use immediately and contact customer support.

3. PACKAGE CONTENTS

Verify that all items are present in your package:

- XTAR 150W Solar Panel ×1

- Kickstand Case ×1
- User Manual ×1
- MC4 to DC7909 (8mm) Connector ×1 (compatible with Goalzero solar generators)
- DC7909 to DC5525 Connector ×1

4. SETUP INSTRUCTIONS

Follow these steps to set up your XTAR SP150 Portable Solar Panel:

1. **Unfold the Solar Panel:** Carefully unfold the XTAR SP150 solar panel completely. Ensure all panels are flat and facing upwards.

2. **Position the Kickstand:** The carry case doubles as an adjustable kickstand. Extend the kickstand to support the panel at an optimal angle towards the sun. The panel can be adjusted to angles such as 25, 35, or 45 degrees to maximize solar coverage. Secure the panel using the fixed buckles if necessary.

Image: The XTAR SP150 solar panel showing its adjustable kickstand for optimal sun angle and the fixed buckle for stability. The panel is designed for easy carrying when folded.

3. **Connect to a Power Station:** Locate the output cable from the solar panel. Use the provided MC4 to DC7909 (8mm) connector or DC7909 to DC5525 connector to connect the solar panel to your compatible power station. Ensure a secure connection.

Image: The XTAR SP150 solar panel deployed outdoors, connected to a portable power station, ready for charging.

5. OPERATING INSTRUCTIONS

To ensure maximum power generation from your XTAR SP150 solar panel:

- **Optimal Placement:** Place the solar panel in direct sunlight, free from shadows. Adjust the kickstand throughout the day to follow the sun's path for continuous optimal exposure.
- **High Conversion Efficiency:** The SP150 utilizes high-performance monocrystalline cells, offering a conversion efficiency of up to 22%.
- **Dual Protection and Parallel Connection:** Built-in bypass diodes minimize hot-spot risks. The four PV modules are connected in parallel, ensuring output independence. If one module is partially shaded, the other modules will continue to generate power, providing up to 75% output.

Image: The XTAR SP150 150W Portable Solar Panel fully unfolded, showcasing its multiple solar cell segments.

Image: A close-up view of the XTAR SP150 solar panel actively charging a portable power station, demonstrating its functionality.

6. MAINTENANCE

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

- **Cleaning:** Regularly clean the surface of the solar panel with a soft, damp cloth to remove dust, dirt, or debris. Avoid abrasive cleaners or harsh chemicals that could damage the ETFE coating.

- **Inspection:** Periodically inspect the panel for any physical damage, such as cracks, frayed cables, or loose connections.

- **Storage:** When not in use, fold the solar panel and store it in its kickstand case in a cool, dry place, away from direct sunlight and extreme temperatures.

- **ETFE Coating:** The ETFE-laminated technology provides a waterproof and durable structure, contributing to a prolonged lifespan.

7. TROUBLESHOOTING

If you encounter issues with your XTAR SP150 solar panel, refer to the following common problems and solutions:

- **Low Power Output:**

    - Ensure the panel is in direct sunlight and not shaded by trees, buildings, or other objects.
    - Adjust the panel's angle to face the sun directly.
    - Clean the panel surface to remove any dirt or dust accumulation.
    - Check the weather conditions; cloudy or overcast days will naturally reduce output.

- **No Power Output:**

    - Verify all cables are securely connected between the solar panel and the power station.
    - Ensure the power station is correctly configured to accept solar input.
    - Inspect cables and connectors for any visible damage.
    - Confirm the panel is receiving adequate sunlight.

- **Connector Compatibility:**

    - The package includes MC4 to DC7909 (8mm) and DC7909 to DC5525 connectors. If your power station requires a different connector type, you may need to acquire a compatible adapter separately.

If the problem persists after following these steps, please contact XTAR customer support.

8. SPECIFICATIONS

Technical details for the XTAR SP150 150W Portable Solar Panel:

Parameters

Model	SP150
Peak Power	150W
Cell Efficiency	22%
Charging Interface	MC4 (14AWG, 1m)
Working Voltage	19.8 V
Working Current	7.58A
Open Circuit Voltage	23.8V
Short Circuit Current	10.6A
Operating Temp. Range	-20~60°C
Unfolded Size	2395*535*36 mm
Folded Size	643*535*60 mm
Weight	7.9 kg
Package	Solar panel, manual
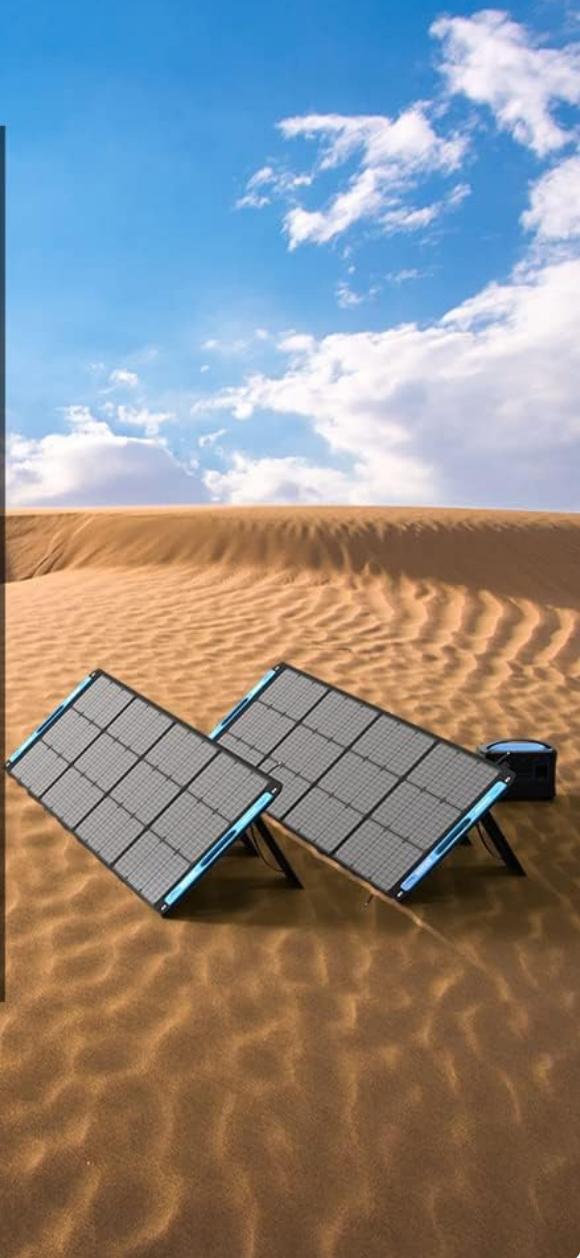
Image: A table detailing the technical parameters of the XTAR SP150 solar panel, including peak power, cell efficiency, and operating conditions.

Feature	Detail
Model	SP150
Peak Power	150W
Cell Efficiency	22%
Charging Interface	MC4 (14AWG, 1m)
Working Voltage	19.8V
Working Current	7.58A
Open Circuit Voltage	23.8V

| Feature	Detail
Short Circuit Current	10.6A
Operating Temp. Range	-20~60°C
Unfolded Size	2395 × 535 × 36 mm (94.3 x 21 x 1.4 inches)
Folded Size	643 × 535 × 60 mm
Weight	7.9 kg (17.38 pounds)
Material	ETFE
Special Feature	Waterproof

1 x SP150

BLUETTI EB55

4 100% Hours

2 x SP150

Jackery 1000pro /
GoalZero Yeti 1000X

3.5 100% Hours

4 x SP150

BLUETTI AC200MAX

3.5 100% Hours
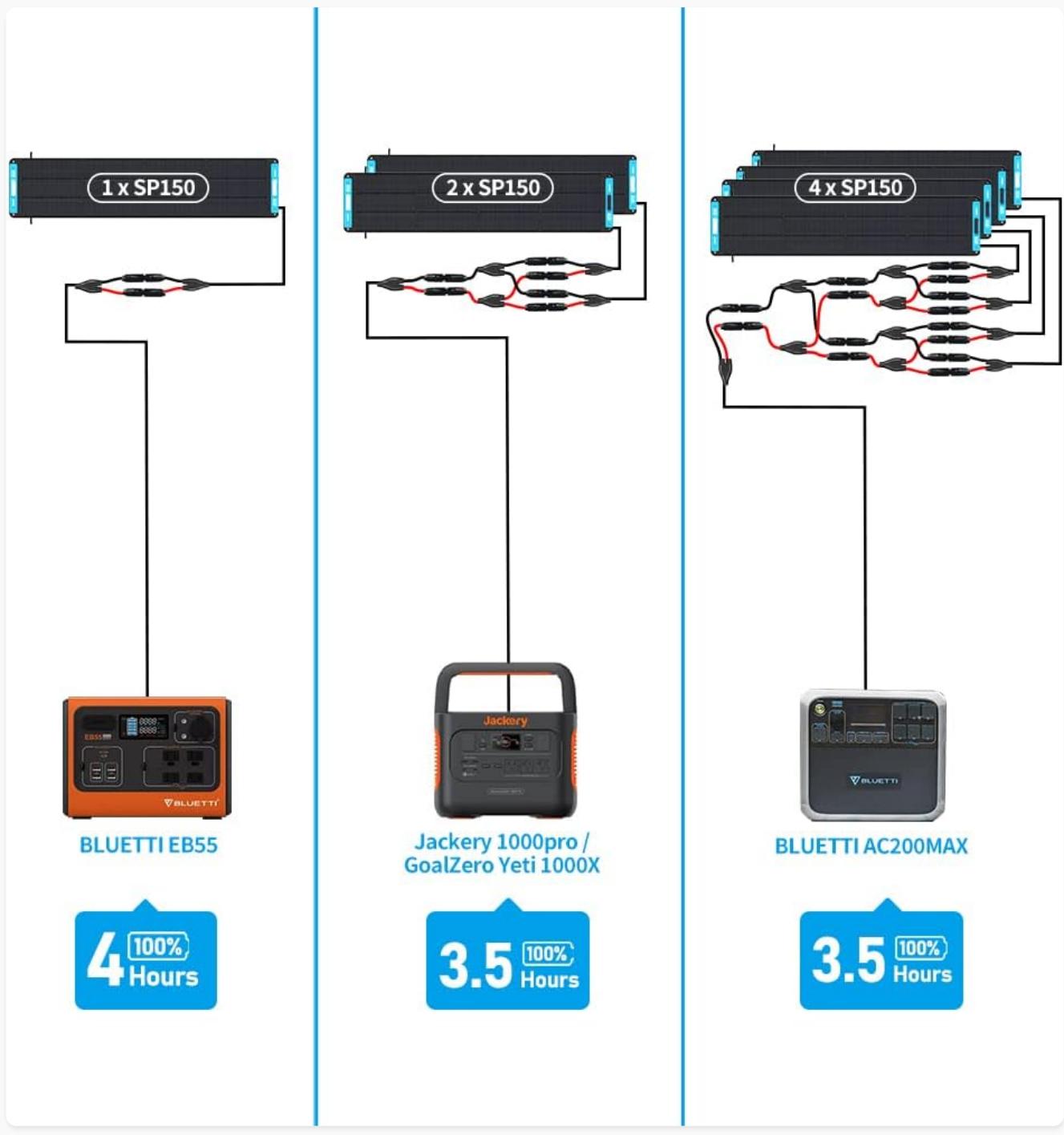
Image: A diagram illustrating the folded and unfolded dimensions of the XTAR SP150 solar panel, along with cable length.

9. WARRANTY AND SUPPORT
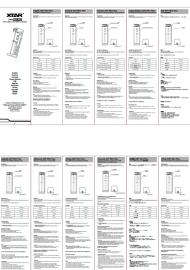
For warranty information, please refer to the documentation provided with your purchase or contact the seller directly. XTAR is committed to providing quality products and customer satisfaction.
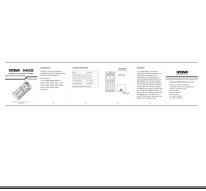
If you require technical assistance, have questions about your product, or need to report an issue, please contact XTAR customer support through their official channels or the retailer where the product was purchased.

For more information about XTAR products, you may visit the XTAR Store on Amazon.

Related Documents - SP150

	[Xtar VC2 USB Battery Charger Review: Features, Performance, and Specifications](#) A comprehensive review of the Xtar VC2 dual-channel USB battery charger, detailing its features, supported battery types, charging performance, and technical specifications.
	[XTAR PB2S Portable Power Bank Charger - User Manual](#) Comprehensive user manual for the XTAR PB2S Portable Power Bank Charger, detailing its features, specifications, operation, warranty, and safety guidelines. Supports QC3.0 and PD3.0 charging.
	[XTAR ANT MC1 Plus USB Battery Charger User Manual](#) Comprehensive user guide for the XTAR ANT MC1 Plus, a simple and smart USB battery charger. Learn about its features, specifications, operation, and safety guidelines for various lithium-ion and LiFePO4 batteries.
	[XTAR MC2 Portable Li-ion Battery Charger - User Manual & Specifications](#) Comprehensive guide to the XTAR MC2 portable Li-ion battery charger, covering features, technical specifications, operation, supported batteries, LED indicators, customer service, and safety notices.

	[XTAR MC2 Portable Li-ion Battery Charger User Manual](#) Comprehensive user manual for the XTAR MC2 portable two-slot Li-ion battery charger. Includes specifications, operation instructions, charging tips, customer service information, warranty details, and safety notices.
	[XTAR C4-EVO Battery Charger User Guide](#) Comprehensive user guide for the XTAR C4-EVO battery charger, detailing its features, operation, and specifications for various battery types.