

[Manuals.plus](#) /

› [SOLPERK](#) /

› SOLPERK 100W Solar Panel Charger Kit with MPPT Controller - User Manual

SOLPERK 100W Solar Panel

SOLPERK 100W Solar Panel Charger Kit with MPPT Controller - User Manual

INTRODUCTION

The SOLPERK 100W solar battery charger kit is designed to provide efficient and reliable charging and maintenance for your 12V batteries. It features an advanced 10A MPPT charge controller, offering superior power conversion and comprehensive protection for your battery system. This manual provides essential information for the proper setup, operation, and maintenance of your solar panel charger kit.

The kit is suitable for various applications, including RVs, garden sheds, caravans, motorhomes, boats, and trailers, ensuring your batteries remain charged and healthy.

PACKAGE CONTENTS

Please verify that all components listed below are included in your package:

- 1 x 100W Monocrystalline Solar Panel
- 1 x 10A MPPT Solar Charge Controller
- 1 x 50cm Alligator Clip Cable
- 1 set of Z-Mounting Brackets
- 1 x O-ring Terminal Cable
- 1 set of Mounting Hardware

SETUP AND INSTALLATION

Follow these steps to correctly set up your SOLPERK solar panel charger kit:

1. **Step 1: Connect the Controller and Solar Panel.** Connect the solar panel to the MPPT charge controller. Ensure the connections are secure. When the solar panel receives direct sunlight, a blue indicator light on the controller will illuminate.
2. **Step 2: Connect the Battery.** Connect the 12V battery to the MPPT charge controller. Once connected, a red indicator light on the controller will illuminate, indicating that the battery is charging. When the battery is fully charged,

the red light will turn off, and a green indicator light will illuminate.

EASY TO INSTALL

Step 1

Connect the controller and solar panel, the blue light comes on under direct sunlight.

Step 2

Connect the battery, the controller will light up red light Charging, if the battery is full, it will light up green light Charged.

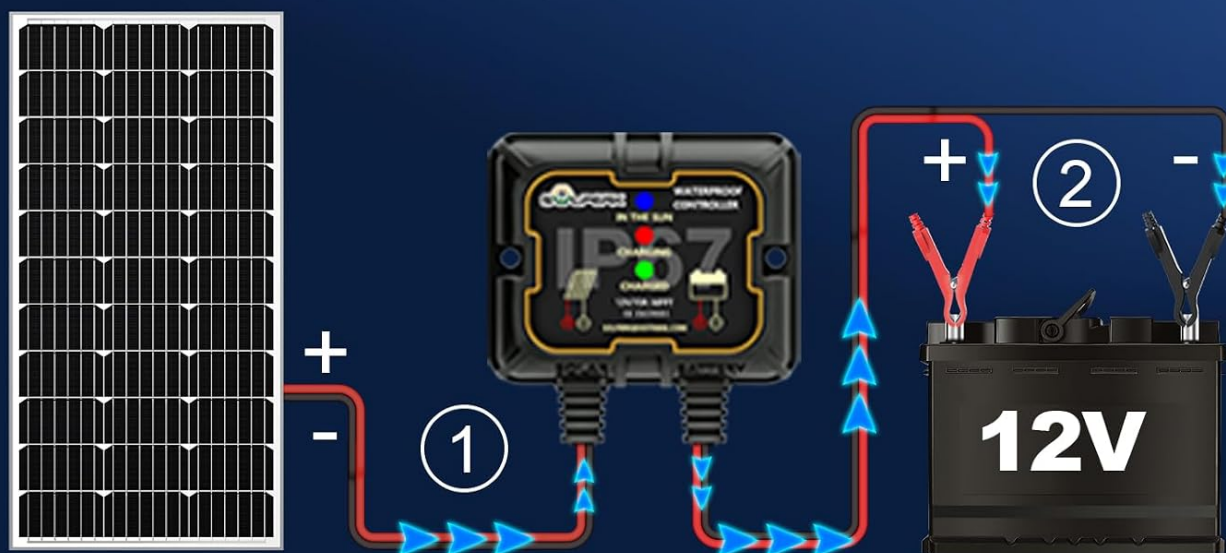


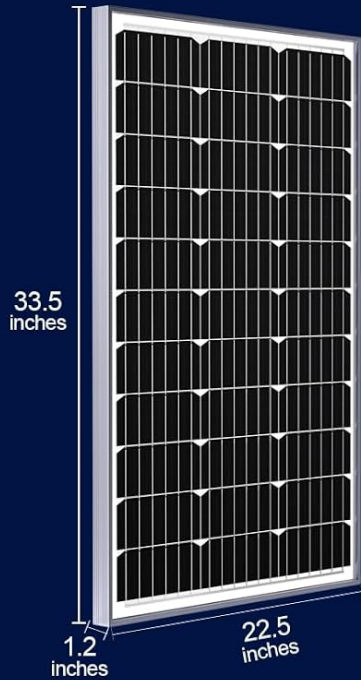
Image: Easy Installation Steps. This diagram illustrates the simple two-step process for connecting the solar panel to the controller and then the controller to the 12V battery. It shows the positive and negative terminals for each connection.

The kit includes a 360° adjustable mounting bracket, allowing you to position the panel at the optimal angle for maximum sun exposure. It can be mounted on the ground, wall, or roof.

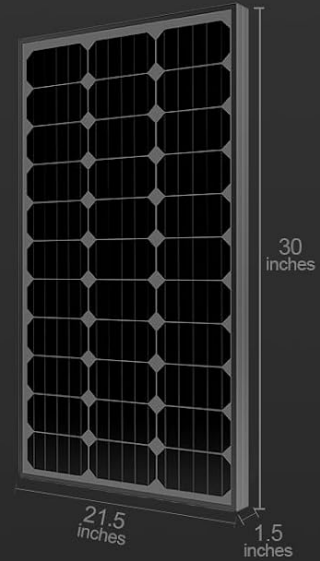
OPERATING INSTRUCTIONS

The MPPT charge controller features three LED indicator lights to provide real-time status of the charging process:

- **Blue Light:** Indicates that the solar panels are connected and receiving sunlight.
- **Red Light:** Indicates that the battery is currently charging.
- **Green Light:** Indicates that the battery charging process is completed.



VS



SOLPERK Solar Panel

High efficiency (30%) 1

Durable(Solid) 2

Waterproof (IP67) 3

Long life (25 years+) 4

Other

1 **low efficiency (18%)**

2 **Fragile (Inconvenient)**

3 **Waterproof (IP65)**

4 **Short life (10 years)**

Image: 3 LED Waterproof Indicator Lights. This image highlights the three distinct LED indicators on the SOLPERK waterproof controller, explaining what each color signifies during operation: blue for solar input, red for active charging, and green for a fully charged battery.

The advanced MPPT controller ensures efficient power conversion, providing over 30% more power compared to standard solar charge controllers. It is fully waterproof and designed for durability.

APPLICATIONS AND COMPATIBILITY

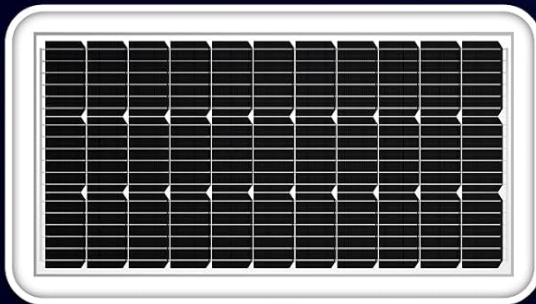
The SOLPERK 100W solar panel charger kit is versatile and suitable for a wide range of 12V battery charging and maintenance applications. It is compatible with various battery types:

- LiFePO4 Batteries
- Sealed Lead-acid Batteries (SLA)
- GEL Batteries
- Flooded Batteries (FLD)
- **AGM Batteries**

Common applications include:

- RVs and Motorhomes
- Boats and Marine Vehicles
- Cars and Motorcycles
- Trucks and Tractors
- Trailers
- Off-grid power systems (e.g., garden sheds, power stations)
- Water Pumps

Intelligent Charge & Maintain



Roof



Power station



Car



Boat



Rv



Truck



Tractor



Trailer



Atv



Water Pump



LifePO4 Battery



Sealed Lead -acid
Battery



GEL Battery



Flooded Battery



AGM Battery

Image: Intelligent Charge & Maintain. This graphic demonstrates the wide range of vehicles and systems where the SOLPERK solar panel can be used, from recreational vehicles to agricultural equipment, and lists the different 12V battery chemistries it supports for charging and maintenance.

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

- **Panel Cleaning:** Regularly clean the surface of the solar panel with a soft, damp cloth to remove dust, dirt, and debris. A clean panel ensures maximum sunlight absorption and efficiency.
- **Obstruction-Free:** Ensure the solar panel receives direct sunlight without any obstructions (e.g., tree branches, shadows from buildings).
- **Connection Checks:** Periodically inspect all electrical connections for tightness and corrosion. Loose or corroded connections can reduce efficiency and pose safety risks.
- **Weather Exposure:** While the controller is waterproof, avoid prolonged exposure of the entire unit to extreme weather conditions when possible, as this may reduce its overall lifespan.
- **Battery Condition:** This charger is designed for charging and maintaining batteries. It is not intended for charging completely depleted or severely damaged batteries.

TROUBLESHOOTING

If you encounter issues with your SOLPERK solar panel charger kit, refer to the following common troubleshooting steps:

- **No Blue Light on Controller:**
 - Ensure the solar panel is connected correctly to the controller.
 - Verify the solar panel is exposed to direct sunlight.
 - Check for any damage to the solar panel or wiring.
- **No Red Light (Battery Not Charging):**
 - Confirm the battery is properly connected to the controller.
 - Check the battery voltage; if it's extremely low, the controller might not initiate charging.
 - Ensure the blue light is on, indicating solar input.
- **Green Light Not Illuminating (Battery Not Fully Charged):**
 - Allow sufficient time for charging, especially for larger batteries or on cloudy days.
 - Ensure the solar panel is receiving optimal sunlight.
 - Check the battery's health; an old or damaged battery may not reach full charge.
- **Reduced Charging Efficiency:**
 - Clean the solar panel surface.
 - Adjust the panel angle to face the sun directly.
 - Check for partial shading on the panel.

If problems persist, please contact SOLPERK customer support for assistance.

SPECIFICATIONS

Feature	Specification
Product Dimensions (L x W x H)	30.48 x 20.32 x 2.54 cm (12 x 8 x 1 inches)
Weight	8.6 kilograms (18.96 lbs)
Brand	SOLPERK
Model Number	100W Solar Panel
Material	Monocrystalline Silicon, Tempered Glass, Aluminum, Polymer Backsheet
Efficiency	30%
Maximum Power	100 Watt
Included Components	Charger
Waterproof Rating	IP67 (Controller)
Hail Impact Resistance	1 inch in diameter
Snow Load Capacity	102.4 lb/ft²
Wind Load	2400pa (Hurricane Strength)

WARRANTY AND SUPPORT

SOLPERK stands behind the quality of its products:

- **Warranty:** We provide one year of after-sales service for this product.
- **Technical Support:** Lifetime technical support is available to assist you with any questions or issues you may encounter.
- **Customer Service:** Our 7x24 hour after-sales service team is dedicated to ensuring your questions are answered within one day.

For support, please refer to the contact information provided with your product packaging or visit the official SOLPERK website.

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.

Name

Anonymous

Email

you@example.com

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.

Submit question

Open the live page

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