

[Manuals.plus](#) /

› [Sunway Solar](#) /

› Sunway Solar 4W Car Battery Trickle Charger & Maintainer User Manual

Sunway Solar 4W solar trickle charger for battery

Sunway Solar 4W Car Battery Trickle Charger & Maintainer User Manual

Model: 4W Solar Trickle Charger for Battery

1. PRODUCT OVERVIEW

The Sunway Solar 4W Car Battery Trickle Charger & Maintainer is designed to keep your 12-volt batteries topped off, preventing discharge and extending battery life. It is ideal for maintaining batteries in vehicles that are not used frequently, such as cars, trucks, RVs, motorcycles, boats, and other equipment. This solar panel provides a continuous trickle charge to compensate for natural battery drain and parasitic loads from vehicle electronics.

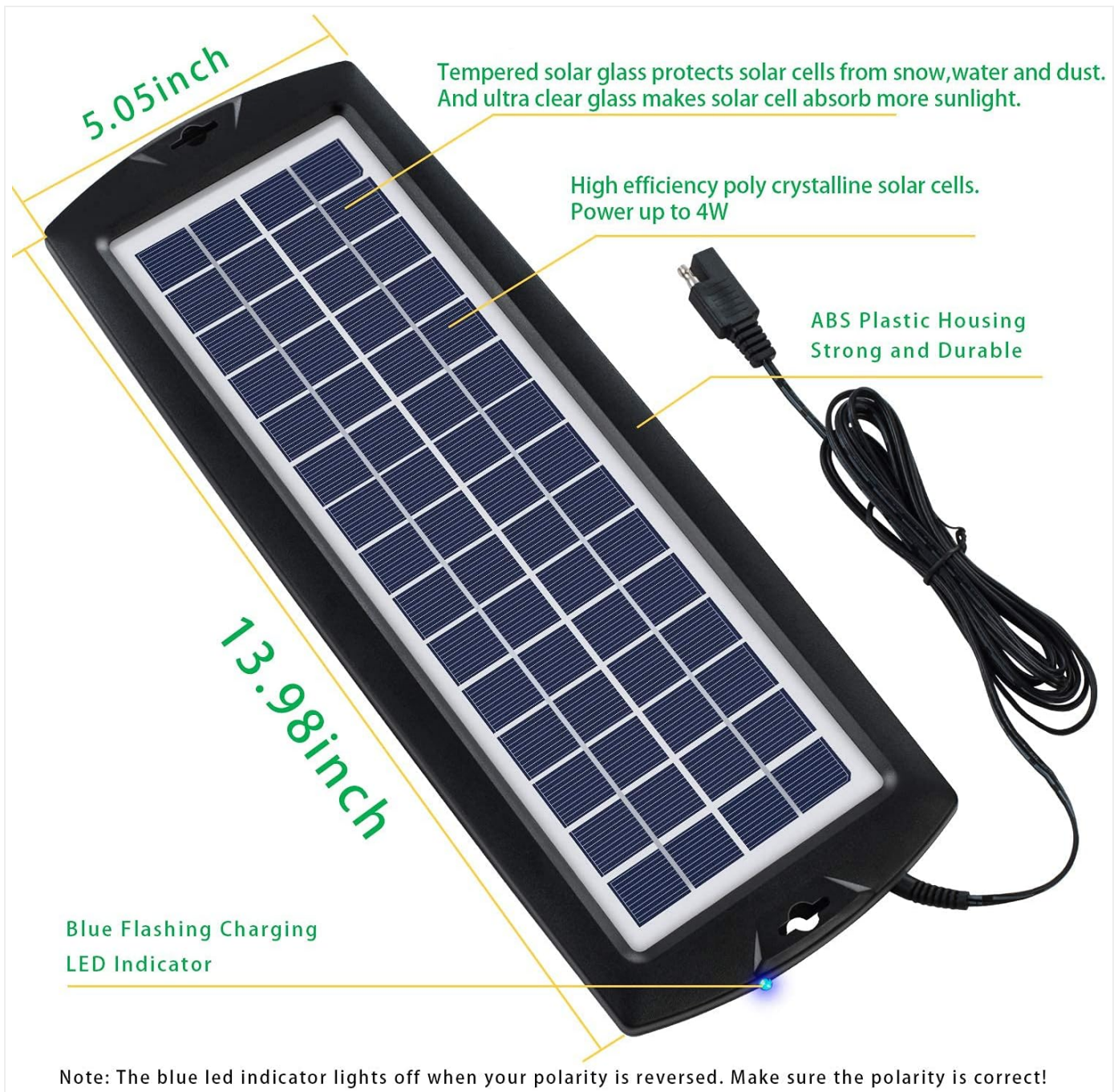


Image 1.1: Overview of the Sunway Solar 4W panel, highlighting its dimensions (13.98 inches long, 5.05 inches wide), tempered solar glass, high-efficiency polycrystalline solar cells, durable ABS plastic housing, and a blue flashing charging LED indicator.

2. SAFETY INFORMATION

- Always ensure proper polarity when connecting the charger to the battery. Incorrect polarity can damage the battery and the charger. The blue LED indicator will stop blinking if polarity is reversed.
- Do not attempt to charge a frozen or damaged battery.
- Keep the solar panel and connections dry. Avoid exposure to excessive moisture.
- Do not leave the panel plugged in when starting or driving the vehicle, as voltage spikes may cause damage.
- Ensure the solar panel is placed in a stable location where it will not fall or become dislodged during use.
- Keep out of reach of children.

3. PACKAGE CONTENTS

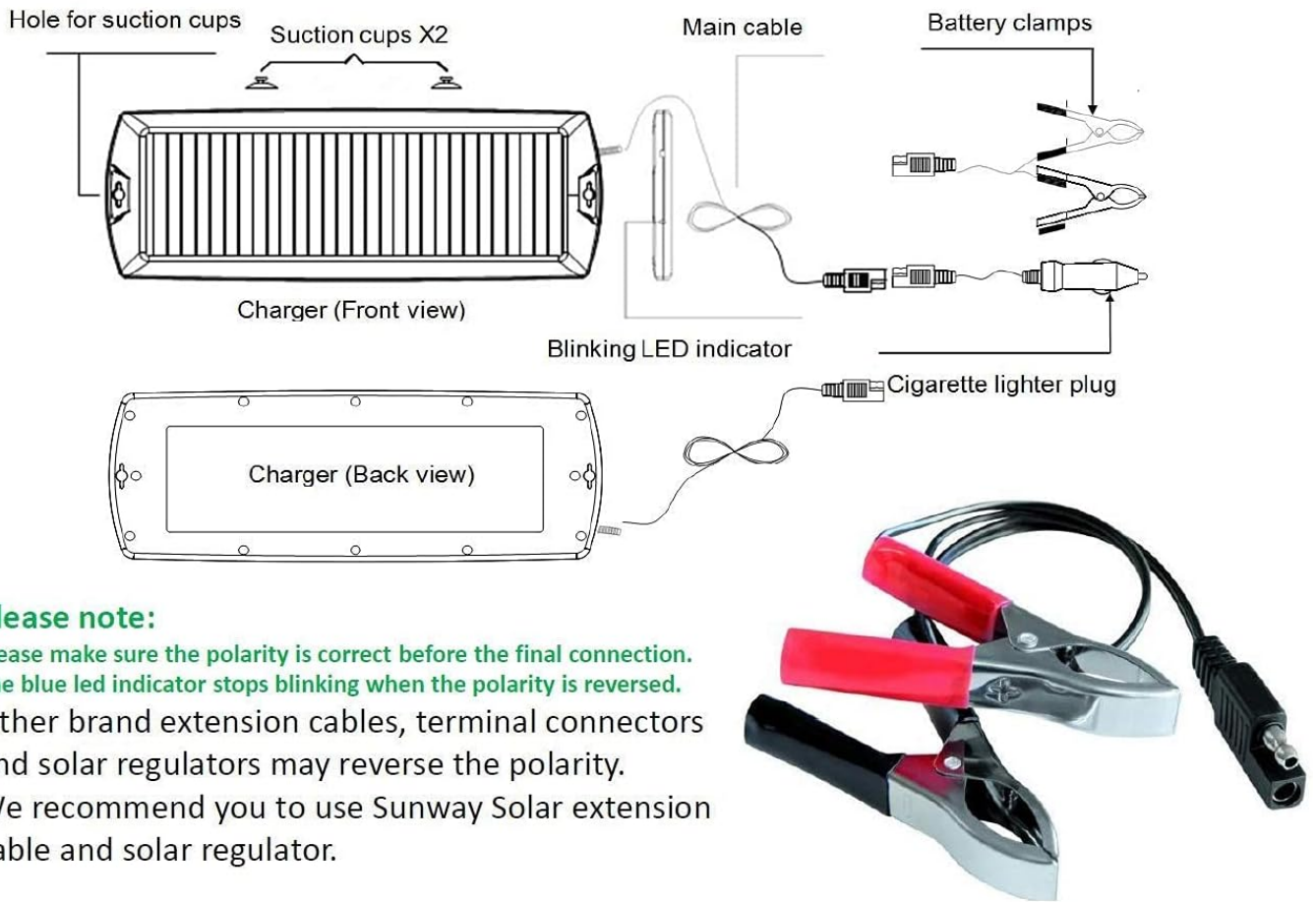
Verify that all components are present in your package:

- Sunway Solar 4W Solar Panel
- Cigarette Lighter Adapter (12V)
- Alligator Battery Terminal Clamps
- Suction Cups (for mounting)
- Main Power Cable (2.5 meters / 8.2 feet)



Image 3.1: The Sunway Solar 4W panel shown with its complete set of accessories, including the cigarette lighter adapter, alligator battery clamps, and suction cups for mounting.

CONTENT:



Please note:

Please make sure the polarity is correct before the final connection. The blue led indicator stops blinking when the polarity is reversed.

Other brand extension cables, terminal connectors and solar regulators may reverse the polarity. We recommend you to use Sunway Solar extension cable and solar regulator.

Image 3.2: A diagram illustrating the charger's components, including the front and back views of the charger, main cable, battery clamps, blinking LED indicator, and cigarette lighter plug. It also provides a note on ensuring correct polarity.

4. SETUP INSTRUCTIONS

Choose a location for the solar panel that receives maximum direct sunlight. The panel can be mounted on the windshield or dashboard using the provided suction cups.

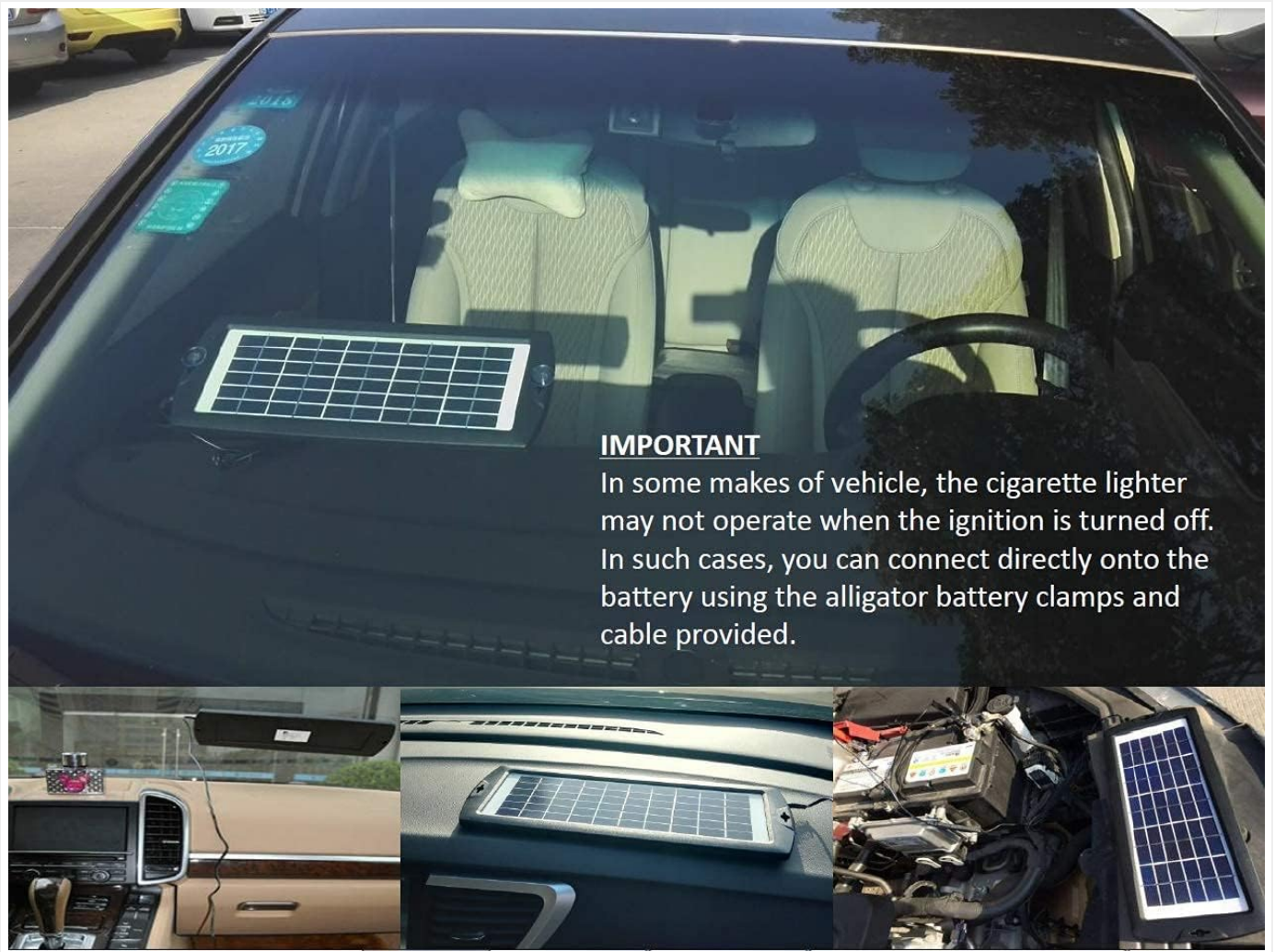
4.1. Connecting via Cigarette Lighter Adapter

1. Ensure the vehicle's ignition is turned off.
2. Plug the main power cable from the solar panel into the cigarette lighter adapter.
3. Insert the cigarette lighter adapter into your vehicle's 12V cigarette lighter socket.
4. The blue LED indicator on the solar panel will light up and blink when it is receiving sufficient sunlight and charging.
5. **Important Note:** In some vehicles, the cigarette lighter socket may not operate when the ignition is turned off. If this is the case, use the alligator battery clamps for direct connection.

4.2. Connecting via Alligator Battery Clamps

1. Ensure the vehicle's ignition is turned off.
2. Plug the main power cable from the solar panel into the alligator battery terminal clamps.
3. Connect the **RED** clamp to the **POSITIVE (+)** terminal of your 12V battery.
4. Connect the **BLACK** clamp to the **NEGATIVE (-)** terminal of your 12V battery.
5. The blue LED indicator on the solar panel will light up and blink when it is receiving sufficient sunlight and charging.

6. The charger features a built-in diode to prevent reverse charging from the battery, ensuring safety even if sunlight is not present.



IMPORTANT

In some makes of vehicle, the cigarette lighter may not operate when the ignition is turned off. In such cases, you can connect directly onto the battery using the alligator battery clamps and cable provided.

Image 4.1: Examples of installation, including the solar panel placed on a car's windshield, on the dashboard, and connected directly to the vehicle's battery terminals.

5. OPERATING INSTRUCTIONS

The Sunway Solar 4W charger is a trickle charger and maintainer. Its primary function is to prevent battery discharge and maintain the existing charge level, especially for vehicles stored for extended periods. It is not designed to fully recharge a deeply discharged or dead battery.

- Once connected and exposed to sunlight, the panel will automatically begin charging. The blue LED indicator will blink to confirm charging activity.
- The charger is designed to prevent overcharging, making it safe for continuous connection to your 12V battery, provided the battery capacity is 20Ah or greater.
- For optimal performance, ensure the panel receives direct sunlight for as much of the day as possible.

6. MAINTENANCE

- **Cleaning:** Periodically wipe the solar panel's surface with a soft, damp cloth to remove dust, dirt, or debris. A clean surface ensures maximum sunlight absorption and charging efficiency.
- **Connections:** Regularly inspect all connections (cigarette lighter plug or alligator clamps) to ensure they are secure and free from corrosion.

- **Storage:** If storing the panel for an extended period, disconnect it from the battery and store it in a cool, dry place.
- The durable ABS plastic housing and ultra-clear PV glass are designed for low maintenance and long-term use.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Blue LED indicator is not blinking.	<p>Insufficient sunlight.</p> <p>Incorrect polarity (if using alligator clips).</p> <p>Cigarette lighter socket is not powered when ignition is off.</p> <p>Loose connection.</p>	<p>Move the panel to a location with direct sunlight.</p> <p>Check and correct the positive (+) and negative (-) connections.</p> <p>Use the alligator clamps for direct battery connection if the cigarette lighter socket is unpowered.</p> <p>Ensure all connections are secure.</p>
Battery is not maintaining charge.	<p>High parasitic drain from vehicle electronics.</p> <p>Battery is old or failing.</p> <p>Insufficient sunlight exposure over time.</p> <p>Charger is a maintainer, not a full charger.</p>	<p>Measure vehicle's parasitic drain; if high, a larger wattage panel may be needed.</p> <p>Have the battery tested by a professional. This charger cannot revive a dead battery.</p> <p>Ensure consistent direct sunlight exposure.</p> <p>Understand that this device maintains, it does not rapidly charge.</p>
Panel housing appears to be warping.	<p>Extreme internal cabin temperatures.</p>	<p>The ABS plastic housing is designed to withstand typical vehicle interior temperatures. While minor deformation might occur under extreme heat, it generally does not affect functionality. Ensure proper ventilation if possible.</p>

8. SPECIFICATIONS

Product Dimensions	13.9 x 5 x 0.5 inches
Item Weight	1.44 pounds
Manufacturer	Sunway Solar
Item Model Number	4W solar trickle charger for battery
Brand	Sunway Solar
Connectivity Technology	Cigarette Lighter Plug
Connector Type	Cigarette Lighter Plug, Battery Clamps
Included Components	Power Cable
Color	Black

Input Voltage	12 Volts
Wattage	4 watts
Output Voltage	12 Volts
Power Source	Solar Powered

9. WARRANTY AND SUPPORT

Sunway Solar offers a **12-month warranty** for this product. For any questions, technical assistance, or warranty claims, please contact Sunway Solar customer service through the retailer's platform or the official Sunway Solar website. Please retain your proof of purchase for warranty purposes.