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› POWOXI 7.5W Solar Battery Trickle Charger/Maintainer User Manual

## POWOXI ABS Solar 7.5W

# POWOXI 7.5W Solar Battery Trickle Charger/Maintainer User Manual

Model: ABS Solar 7.5W | Brand: POWOXI

## 1. INTRODUCTION

This manual provides essential information for the safe and effective use of your POWOXI 7.5W Solar Battery Trickle Charger/Maintainer. Designed to keep 12V batteries charged and maintained, this portable and waterproof solar panel is ideal for a wide range of vehicles including cars, motorcycles, boats, RVs, trailers, and snowmobiles. Its intelligent charge controller and robust design ensure reliable performance and battery protection.



Figure 1.1: POWOXI 7.5W Solar Battery Trickle Charger/Maintainer, showing the solar panel, alligator clips, cigarette lighter adapter, and suction cups.

## 2. WHAT'S IN THE BOX

Please verify that all components are present in your package:

- 1 x POWOXI 7.5W Solar Panel
- 1 x Cigarette Lighter Adapter Cable
- 1 x Alligator Clip Cable
- 4 x Round Suction Cups
- 1 x User Manual (this document)

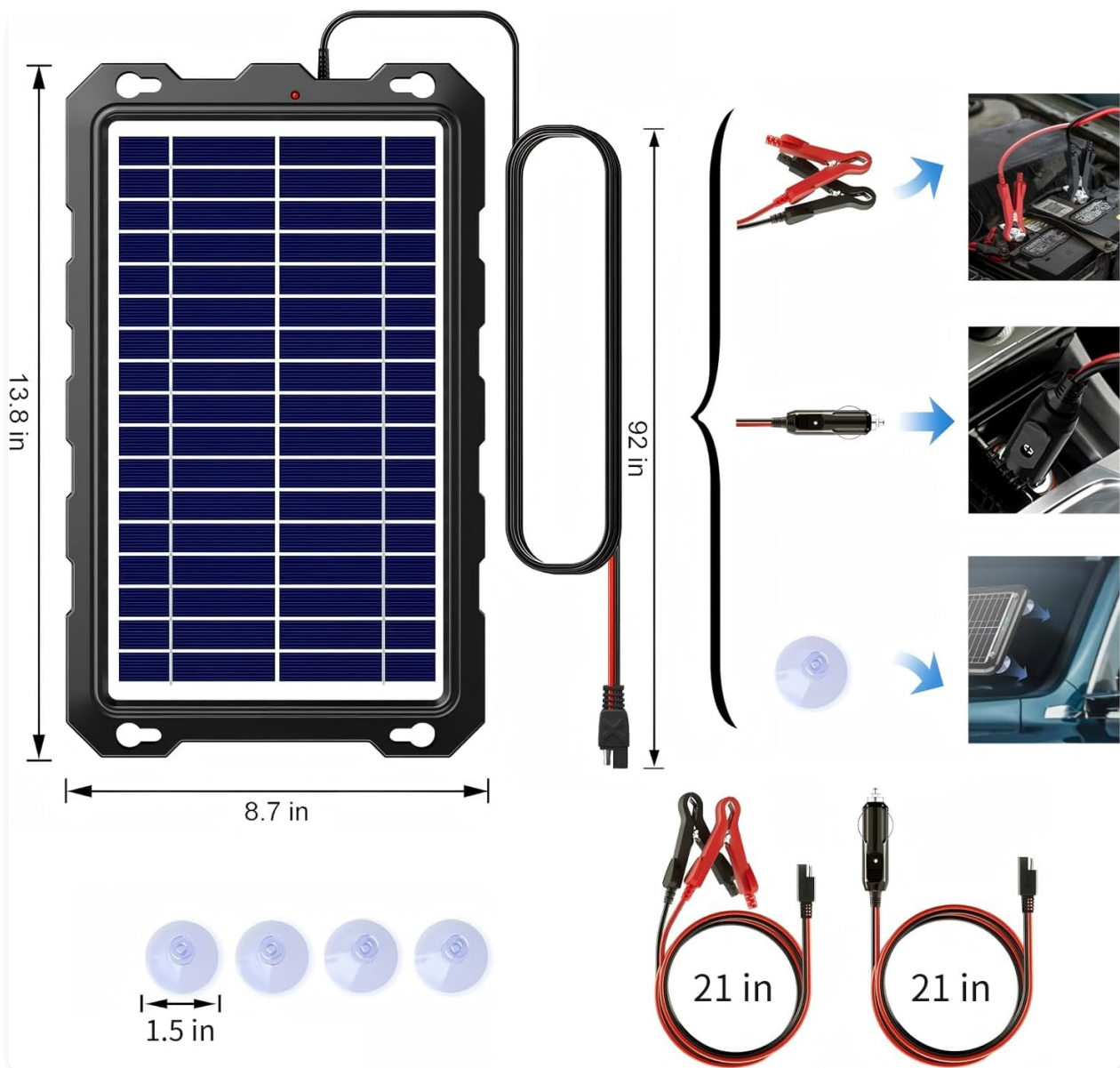


Figure 2.1: Package contents and dimensions of the solar panel.

### 3. KEY FEATURES

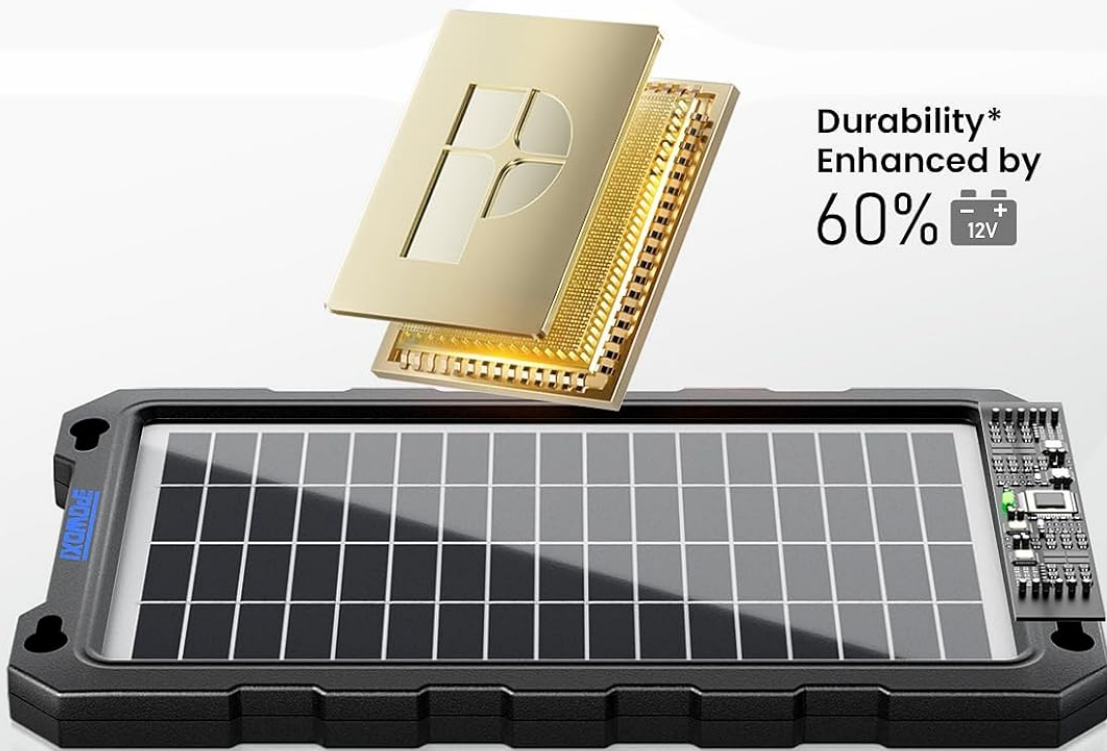
- **Upgraded Intelligent Charge Controller:** Features a built-in internal protection system and smart fast charging capabilities. High-quality solar silicon material ensures high conversion efficiency of 25-30% and stable output.
- **Smart Internal Protection System:** POWOXI technology prevents battery damage and overcharging. The integrated smart protection system and blocking diode structure ensure no overvoltage or short circuits, enhancing charging safety.
- **Stronger & More Long-lasting Design:** The 7.5W solar charger utilizes high-transparency, low-iron tempered glass for high strength, impact resistance, and protection against wind and snow. This waterproof design requires no additional maintenance.
- **Scratch Protection Design:** The ABS+PC frame is more robust than flexible solar panels, eliminating concerns about bending. Unlike aluminum alloy, the ABS+PC frame prevents potential damage to vehicle paint, ensuring durability.
- **LED Charging Indicator:** A two-color visual indicator light (red and green) provides clear status

updates. Red indicates sunlight reception, while green signifies active charging to the battery. The mirror PV glass process design significantly improves light transmittance.

- **Wide Range of Applications:** This charger/maintainer is perfect for various 12V batteries, including LiFePO<sub>4</sub>, Lithium Ion, and those found in cars, motorcycles, boats, tractors, ATVs, RVs, and farm equipment. It helps prevent battery drain.

# UPGRADED

Built-in **P-series** algorithms charge controller  
Intelligent voltage regulation



Durability\*  
Enhanced by  
60% 

 Over Temperature  
Protection

 Reverse Current  
Protection

 over charge  
Protection

Figure 3.1: Advanced internal protection features of the solar charger.

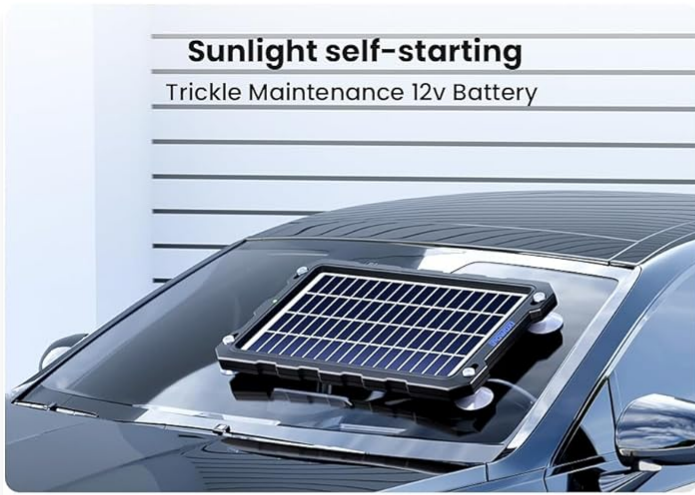


Figure 3.2: Overview of the charger's protective features and battery compatibility.

# Upgraded Anti-Shatter

No Cracks, No Deformed

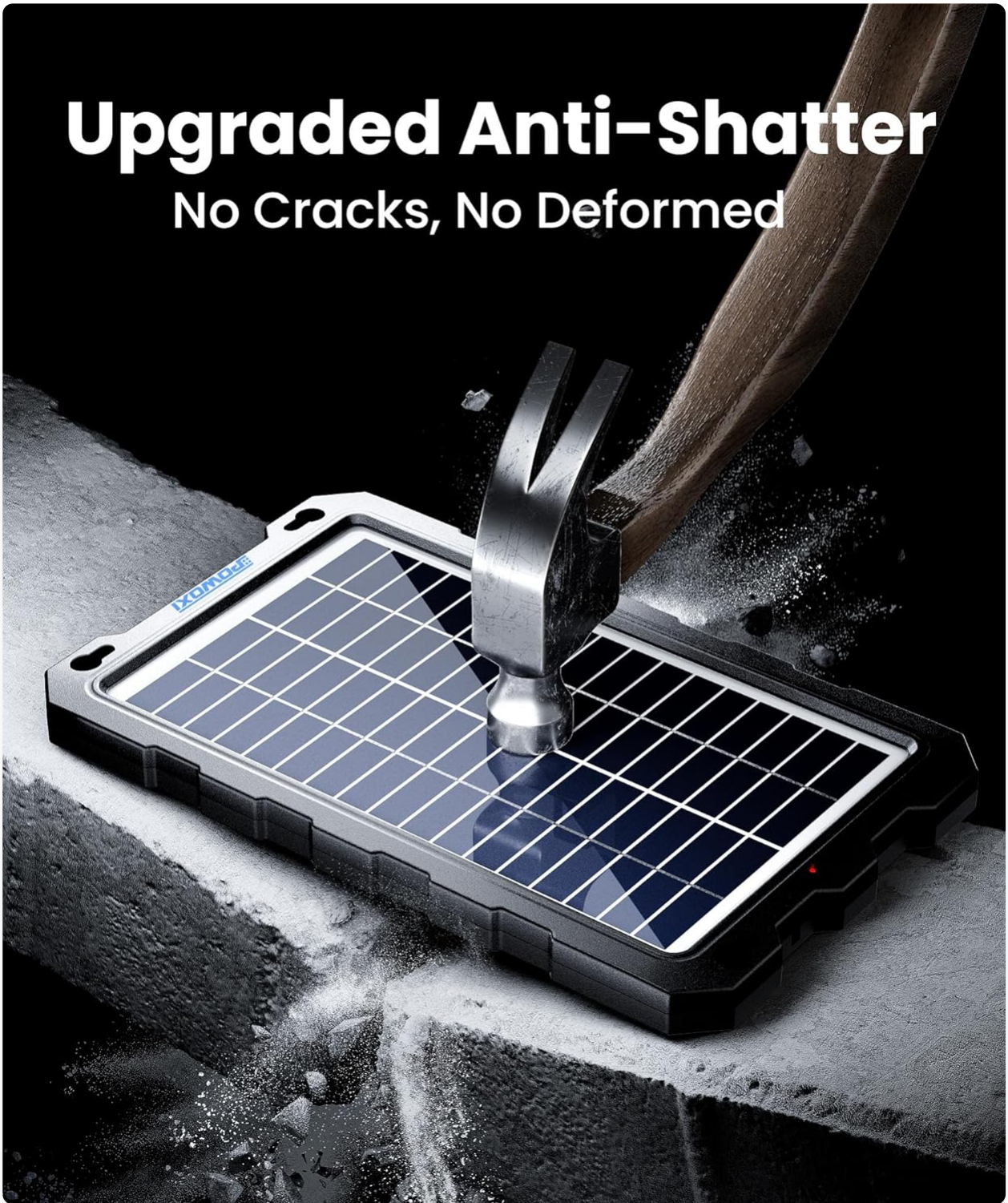


Figure 3.3: The anti-shatter and durable construction of the solar panel.



**Get immense power  
in the palm of your hand**

Figure 3.4: The solar panel's ability to operate in various weather conditions, including high winds and heavy snow.



**Real-Time Protection With  
POWOXI Chip 2.0**

MONITORS TEMPERATURE CONTROL

**Built-in Intelligent Charge Controller**  
Real time monitoring

Figure 3.5: The versatility of the POWOXI solar charger for various 12V battery applications.

## 4. SAFETY INFORMATION

Please read and understand all safety instructions before using the POWOXI Solar Battery Trickle Charger/Maintainer. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- **Proper Connection:** Always ensure correct polarity when connecting the charger to the battery. Connect the positive (+) terminal of the charger to the positive (+) terminal of the battery, and the negative (-) terminal of the charger to the negative (-) terminal of the battery.
- **Avoid Short Circuits:** Do not allow the positive and negative connectors to touch each other or any conductive material.
- **Ventilation:** Ensure adequate ventilation around the battery during charging.
- **Water Exposure:** While the panel is waterproof, ensure connections are secure and protected from excessive moisture.
- **Temperature:** Do not expose the solar panel to extreme temperatures beyond its operating range.
- **Placement:** Do not place the solar panel inside a vehicle on the windshield, as this can lead to overheating and damage to the panel or vehicle interior. Always place it outside or in a well-ventilated area with direct sunlight.

- **Children and Pets:** Keep the device and its components out of reach of children and pets.
- **Do Not Disassemble:** Do not attempt to disassemble, modify, or repair the charger. Refer all servicing to qualified personnel.

## 5. SETUP AND INSTALLATION

The POWOXI solar charger offers flexible installation options for maintaining your 12V battery.

### 5.1. Connection Methods

#### 1. Using the Cigarette Lighter Adapter:

- Connect the solar panel's output cable to the cigarette lighter adapter.
- Insert the cigarette lighter adapter into your vehicle's 12V power outlet (cigarette lighter socket). Ensure the socket is active when the vehicle is off, as some vehicles disable power to this outlet when the ignition is off.

#### 2. Using the Alligator Clips:

- Connect the solar panel's output cable to the alligator clip cable.
- Carefully connect the RED (+) alligator clip to the positive (+) terminal of your 12V battery.
- Connect the BLACK (-) alligator clip to the negative (-) terminal of your 12V battery.
- Ensure connections are firm and secure.

### 5.2. Panel Placement

For optimal performance, place the solar panel in a location that receives maximum direct sunlight throughout the day. The included suction cups can be used for mounting:

- **Exterior Mounting:** Attach the suction cups to the back of the solar panel and secure it to a clean, smooth surface like a vehicle windshield or window from the outside.
- **Other Surfaces:** The panel can also be placed flat on a dashboard (if outside the vehicle), roof, or any other area with direct sun exposure.

# SET UP IN A SNAP

Any car, LiFePO<sub>4</sub>, Lithium Ion, 12V batteries, The perfect charger/maintainer.



Figure 5.1: Connecting the solar panel to a vehicle battery.

# STRONGER AND SAFE WHEREVER YOU GO

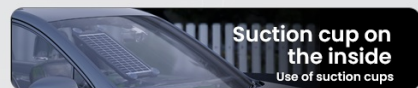
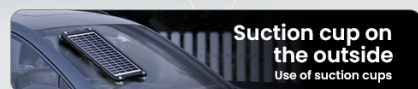
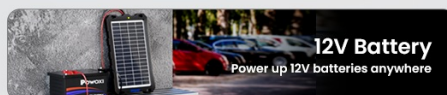
IP65 waterproof, heat-resistant, and perfect for  
maintaining your car battery



Figure 5.2: Visual representation of the solar panel connected to a car battery.

## Ready to Tackle Whatever Comes Your Way

Convenient operation and easy to use



## 6. OPERATING INSTRUCTIONS

Once properly connected and exposed to sunlight, the POWOXI solar charger will automatically begin maintaining your 12V battery.

- **Automatic Operation:** The charger automatically detects sunlight and begins charging. It provides a trickle charge to maintain the battery's optimal voltage level, preventing discharge over time.
- **LED Indicator:** Observe the LED indicator on the panel:
  - **Red Light:** Indicates that the solar panel is receiving sunlight.
  - **Green Light:** Indicates that the solar panel is connected to the battery and actively charging/maintaining it.
- **Nighttime Shutdown:** The charger features an automatic nighttime shutdown function. When sunlight is no longer sufficient, the charger will stop drawing power from the battery, ensuring no battery consumption during the night.
- **Battery Compatibility:** This charger is designed for 12V batteries, including LiFePO<sub>4</sub>, AGM, EFB, GEL, SLA, and Lithium Ion types.

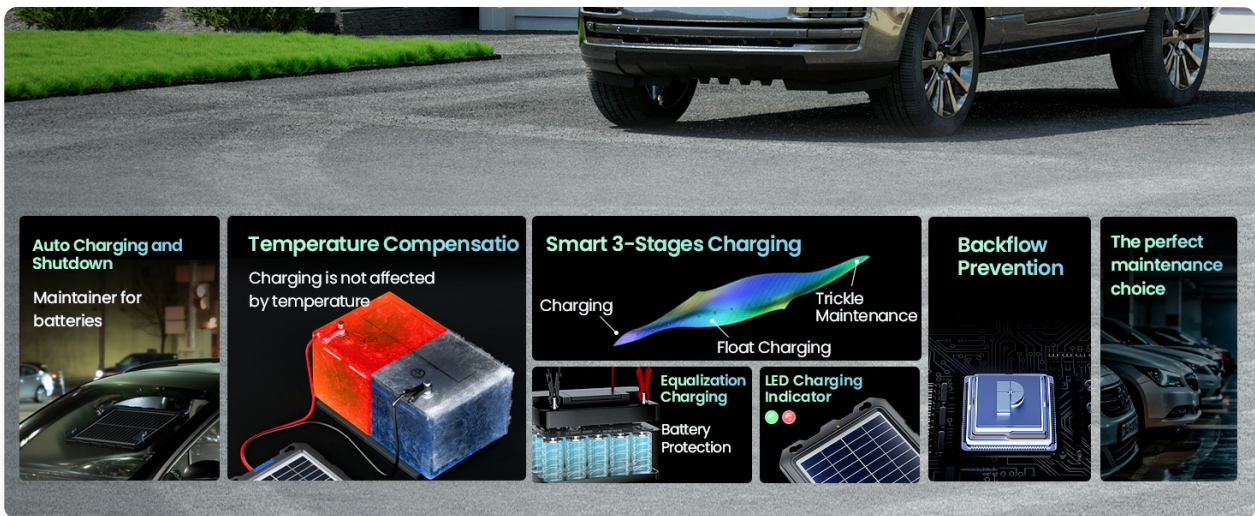


Figure 6.1: Smart charging features and indicator lights.



## 7. MAINTENANCE

The POWOXI 7.5W Solar Battery Trickle Charger/Maintainer is designed for minimal maintenance due to its durable and waterproof construction.

- **Cleaning:** Periodically wipe the surface of the solar panel with a soft, damp cloth to remove dust, dirt, or debris. A clean panel ensures maximum sunlight absorption and charging efficiency.
- **Connection Check:** Regularly inspect the cables and connections for any signs of wear, damage, or corrosion. Ensure they remain securely attached to the battery terminals or cigarette lighter socket.
- **Storage:** If storing the charger for an extended period, ensure it is clean and dry. Store it in a cool, dry place away from direct sunlight and extreme temperatures. The included cover sleeve can protect it when not in use.

## 8. TROUBLESHOOTING

If you encounter issues with your POWOXI Solar Battery Trickle Charger/Maintainer, please refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No LED light (red or green)	Insufficient sunlight; Loose connection; Damaged panel/cable.	Ensure panel is in direct sunlight. Check all cable connections for tightness. Inspect cables and panel for visible damage.
Green LED light not on (but red is)	Not connected to battery; Incorrect polarity; Battery is fully charged; Battery is severely discharged/damaged.	Connect the charger to the battery. Verify correct positive/negative connections. The charger may not activate if the battery is already full. For severely discharged batteries, a traditional charger may be needed first.
Battery not maintaining charge	Insufficient sunlight exposure; Parasitic drain on vehicle battery; Battery health issue.	Relocate panel to an area with more consistent direct sunlight. Check vehicle for any components drawing power when off. Have battery tested by a professional.

## 9. SPECIFICATIONS

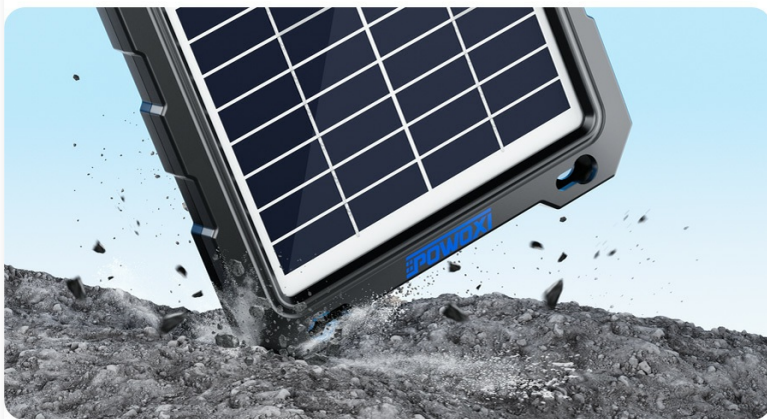
Attribute	Detail
Product Dimensions	14.76 x 1.89 x 9.06 inches (14.76"D x 1.89"W x 9.06"H)

Attribute	Detail
Item Weight	2.2 pounds
Item Model Number	ABS Solar 7.5W
Output Voltage	12 Volts
Manufacturer	POWOXI
Country of Origin	China
Date First Available	September 16, 2018

## 10. WARRANTY AND SUPPORT

POWOXI is committed to providing high-quality products and excellent customer service.

- **Warranty:** Your POWOXI solar battery charger is backed by a 12-month after-sales service warranty. It is also CE/ROHS certified, ensuring product quality and safety.
- **Technical Support:** We offer free lifetime technical support. If you have any questions, concerns, or require assistance with your product, please do not hesitate to contact us. Your feedback helps us continuously improve our products and services.
- **Contact Information:** For support, please refer to the contact details provided on the product packaging or the official POWOXI website. We aim to provide real-time professional sales and technical support, with answers typically available within 24 hours.



### Stronger and More Long-lasting P-series

The ABS+PC frame is stronger than flexible solar panels, so there's no need to worry about the solar panels bending



**Impact-Resistant  
Design**

Figure 10.1: Enjoy solar-powered freedom with your POWOXI charger.

