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› POWOXI Magnetic 20W 12V Solar Panel Battery Charger User Manual

POWOXI Magnetic-20W

POWOXI Magnetic 20W 12V Solar Panel Battery Charger

Model: Magnetic-20W

1. INTRODUCTION

Thank you for choosing the POWOXI Magnetic 20W 12V Solar Panel Battery Charger. This device is designed to maintain and trickle charge 12V batteries, preventing discharge and extending battery life. Its magnetic mounting and integrated smart controller make it a convenient and efficient solution for various applications, including cars, RVs, motorcycles, and marine vehicles.

2. SAFETY INSTRUCTIONS

- Read all instructions before use.
- Ensure the solar panel is connected to a 12V battery only. Connecting to other voltage systems may cause damage.
- Do not attempt to open or modify the solar panel or controller.
- Keep the solar panel away from open flames or excessive heat.
- Avoid direct contact with the solar panel's electrical components.
- Ensure proper ventilation around the battery during charging.
- Always disconnect the solar panel from the battery before performing any maintenance or cleaning.

3. PACKAGE CONTENTS

- POWOXI Magnetic 20W Solar Panel
- Integrated Smart Charge Controller
- 8ft Connection Cable
- 3ft Battery Clamp Cable
- 12V Cigarette Lighter Plug Cable



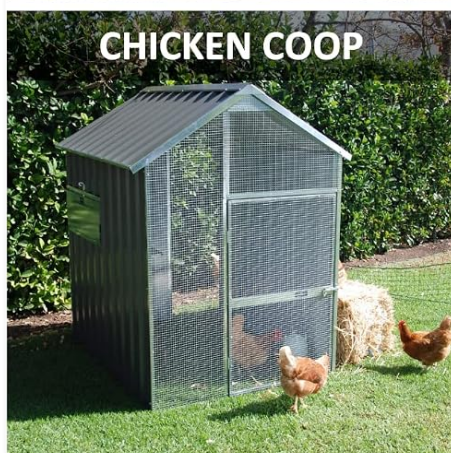
RV



GARAGE & WORKSHOP



ROOF



CHICKEN COOP



YACHTS

Image: The POWOXI 20W solar panel shown with its integrated controller, 8ft connection cable, and 3ft battery clamp cable. The panel dimensions are 16.7 x 14.9 inches, and it weighs 63.8 oz.

4. PRODUCT FEATURES

- **Upgraded MPPT Smart Controller:** Features intelligent control and comprehensive protection, increasing charging efficiency by 30%. The controller does not consume battery power.
- **Intelligent Indicator Light:** A 3-color LED indicator provides clear status updates:
 - **Blue:** Indicates the panel is receiving sufficient sunlight.
 - **Red:** Indicates the battery is currently charging.
 - **Green:** Indicates the battery is fully charged.
- **Durable and Waterproof Design:** IP65 rated for extra-long service life. The solar panel is constructed with high-strength, impact-resistant, wind-snow-resistant low-iron tempered glass.
- **Superior Quality Material:** Made with high-strength transparent tempered glass and black monocrystalline silicon

for optimal performance.

- **Strong Magnetic Force:** Equipped with 6 powerful magnets for quick and firm installation on various metal surfaces, suitable for different scenes and environments.

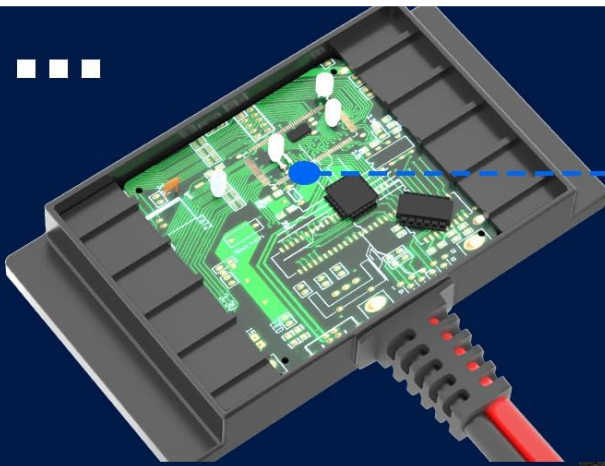
Extra long service life and durable 

IP65



The solar panel 
which is high-strength, impact-resistant,
wind-snow-resistant low-iron tempered

Image: The integrated smart controller, highlighting its efficiency and protection features. The indicator lights are visible.

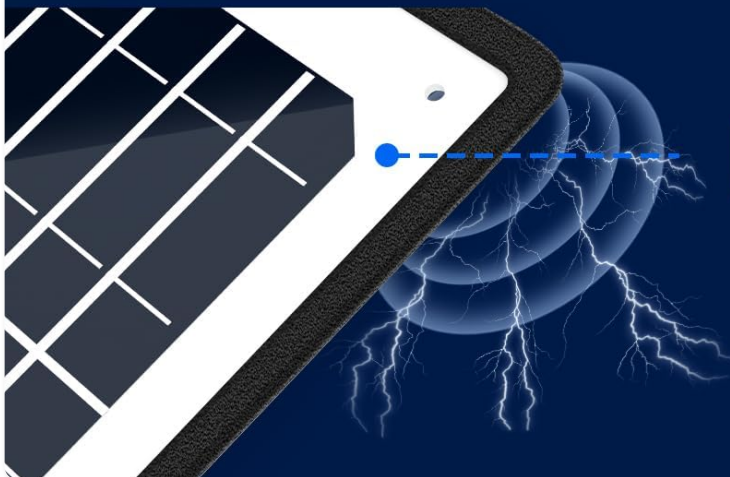
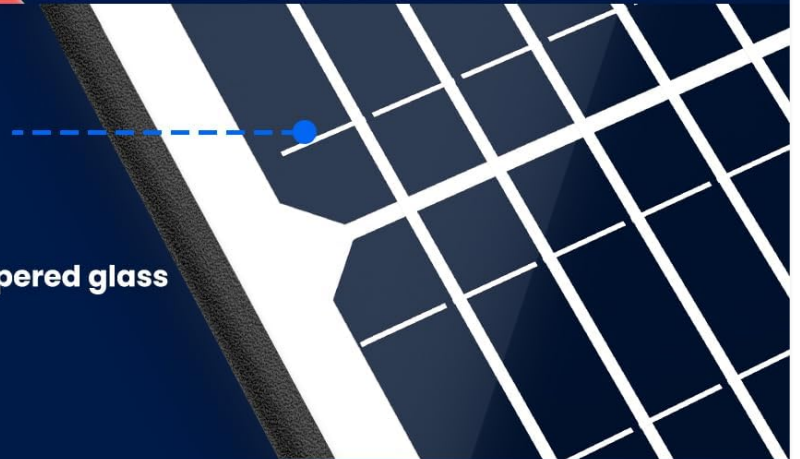


Intelligent A+ Controller

Solar panel Increase Power conversion efficiency by 30%,
The new upgraded controller does not consume battery power!

Superior Quality Material

High-strength transparent tempered glass
+black monocrystalline silicon



Strong Magnetic Force

Super strong magnetism,
to meet your needs in different scenes
and different environments.

Image: The solar panel undergoing a water spray test, illustrating its IP65 waterproof and durable construction.



Unique Super Magnetic

6 magnets of the solar panel, quickly and firmly install the solar panel to the position you need.

Image: A visual representation of the intelligent A+ controller, superior quality materials (tempered glass, monocrystalline silicon), and the strong magnetic force for secure attachment.

5. SETUP

5.1 Mounting the Solar Panel

The POWOXI solar panel features strong magnets for easy and secure attachment to metal surfaces. Choose a location that receives maximum direct sunlight throughout the day.

- **Magnetic Mounting:** Simply place the solar panel onto a clean, flat metal surface. The 6 integrated magnets will hold it firmly in place. Ensure the surface is free of dirt or debris for optimal magnetic adhesion.
- **Alternative Mounting:** If magnetic mounting is not suitable, the panel can be secured using the integrated eyelets (if present) with appropriate fasteners (not included).



Image: The solar panel shown magnetically installed on the side of an RV, demonstrating its unique super magnetic feature for easy placement.

5.2 Connecting to the Battery

The solar panel comes with two connection options for your 12V battery:

- **Battery Clamps:** Connect the red clamp to the positive (+) terminal of your 12V battery and the black clamp to the negative (-) terminal.
- **12V Cigarette Lighter Plug:** Insert the plug into your vehicle's 12V accessory socket. This method is suitable for maintaining batteries that are connected to the vehicle's electrical system.

Ensure all connections are secure before leaving the panel to charge.

6. OPERATING INSTRUCTIONS

Once the solar panel is mounted and connected to your 12V battery, it will automatically begin charging when exposed to

sufficient sunlight. The integrated smart controller manages the charging process to prevent overcharging and optimize battery health.

6.1 Understanding the Indicator Lights

Observe the LED indicator on the controller to monitor the charging status:

- **Blue Light:** Indicates that the solar panel is receiving sunlight and generating power.
- **Red Light:** Indicates that the battery is actively being charged.
- **Green Light:** Indicates that the battery is fully charged and the panel is in maintenance mode (trickle charging).

6.2 Optimal Placement

For best performance, position the solar panel where it can receive direct, unobstructed sunlight for the longest duration possible. Avoid shaded areas from trees, buildings, or other obstructions.

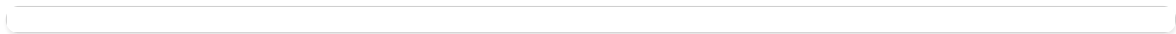


Image: Examples of where the solar panel can be used, such as on an RV, in a garage, on a roof, for a chicken coop, or on yachts.

7. MAINTENANCE

- **Cleaning:** Regularly clean 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. Do not use abrasive cleaners or harsh chemicals.
- **Inspection:** Periodically check the cables and connections for any signs of wear, damage, or corrosion. Ensure all connections remain secure.
- **Storage:** If storing the solar panel for an extended period, disconnect it from the battery and store it in a cool, dry place away from direct sunlight.

8. TROUBLESHOOTING

- **Panel not charging (no red or green light):**
 - Ensure the panel is in direct sunlight.
 - Check all connections to the battery for security and proper polarity.
 - Clean the solar panel surface if it is dirty.
 - Verify the battery is a 12V battery.
- **Indicator light not working:**
 - Ensure the panel is connected to a battery and exposed to sunlight.
 - Check for any visible damage to the controller or wiring.
- **Battery not holding charge:**
 - The solar panel is designed for maintenance and trickle charging. If the battery is deeply discharged or faulty, it may require a dedicated battery charger or replacement.
 - Ensure the panel is receiving adequate sunlight.

9. SPECIFICATIONS

Brand	POWOXI
Model Number	Magnetic-20W
Maximum Power	20 Watt
Maximum Voltage	12 Volts
Amperage / Output Current	1.31 A
Product Dimensions (L x W x H)	42.93 x 38 x 3.99 cm (16.9 x 14.9 x 1.57 inches)
Item Weight	432 Grams (15.24 oz)
Efficiency	High Efficiency
Waterproof Rating	IP65
Included Components	Solar Panel, Integrated Smart Controller, Connection Cables (Battery Clamps, 12V Plug)

10. WARRANTY AND SUPPORT

POWOXI products are designed for reliability and performance. For warranty information or technical support, please refer to the contact details provided with your purchase or visit the official POWOXI website. Please have your model number (Magnetic-20W) and purchase date available when contacting support.

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Details

Model number, symptoms, what you tried, or the section of the manual you are using.

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