ecoCalm KP-SEF23124

ecoCalm 8-inch Solar Fan with Battery Instruction Manual

Model: KP-SEF23124

Product Overview

The ecoCalm Solar Fan with Battery is an innovative ventilation solution designed for various outdoor structures such as greenhouses, sheds, chicken coops, and garages. It features a 25W bifacial solar panel for efficient daytime operation and a 3000mAh rechargeable battery for continuous ventilation during the night or on cloudy days. The intelligent system automatically switches power supply modes based on sunlight conditions.

Key Features

- **Solar & Battery Powered:** Equipped with a bifacial solar panel and a 3000mAh rechargeable battery, providing up to 8 hours of operation after a full charge.
- **Bifacial Solar Panel:** 25W panel (up to 41W from both sides) increases power generation efficiency by up to 130%.
- **Waterproof Design:** IP44 waterproof fan blades and 14.8ft long cable with waterproof plug for outdoor use.
- **High Airflow:** 8-inch fan provides 220CFM airflow, suitable for spaces up to 2190 ft^3.
- **Versatile Application:** Ideal for greenhouses, chicken coops, sheds, garages, animal houses, and more.

Package Contents

- 1 x 8-inch Solar Exhaust Fan
- 1 x 25W Bifacial Solar Panel

- 1 x Battery Control Box (with 3000mAh rechargeable battery)
- 1 x 14.8ft (450cm) Waterproof Cable
- Mounting Hardware (screws, wall anchors, adhesive pads)
- Instruction Manual

Image: All components included in the ecoCalm Solar Fan package.

Setup and Installation

1. **Choose Location:** Select a suitable location for the fan (window or wall) and the solar panel (area with maximum direct sunlight). Ensure the fan's exhaust direction is appropriate for your ventilation needs.
2. **Prepare Opening:** For wall installation, create an opening large enough for the fan's circular duct (approximately 7 inches / 17.6 cm diameter). For window installation, ensure the window can securely hold the fan.
3. **Mount Fan:** Secure the fan using the provided screws. The fan features an anti-backflow valve that opens when the fan is active and closes when it's off to prevent air re-entry.

Image: Example of fan installation in a greenhouse window.

4. **Mount Solar Panel:** Attach the mounting bracket to the solar panel using the provided hardware. Position the solar panel in a location that receives direct sunlight for most of the day. The bifacial design allows for power generation from both sides.

Image: Solar panel and control box connected and ready for installation.

5. **Connect Components:** Connect the solar panel cable to the "Solar" input on the control box. Connect the fan cable to the fan output on the control box. The cables are designed to prevent incorrect connections.

Image: Visual guide for connecting the solar panel and fan to the control box.

6. **Secure Control Box:** Mount the control box in a convenient location using screws or the provided adhesive pads.

Installation Video (Seller)

Your browser does not support the video tag.

Video: Official ecoCalm Solar Fans installation and overview. This video demonstrates the components and basic setup of the solar fan system.

Operating Instructions

The ecoCalm Solar Fan operates automatically based on sunlight and battery charge.

- **Power On/Off:** Press and hold the ON/OFF button on the control box for 3 seconds to power the unit on or off.
- **Daytime Operation (Solar):** When sufficient sunlight is available, the fan will run directly from the solar panel, and the battery will charge simultaneously. The "Solar" indicator light will be on.
- **Nighttime/Cloudy Day Operation (Battery):** When sunlight is insufficient, the intelligent system will automatically switch to battery power. The "Battery" indicator light will be on. The 3000mAh battery provides up to 8 hours of ventilation on a full charge.
- **Battery Level Indicators:** The control box features LED indicators (20%, 40%, 60%, 80%, 100%) to show the current battery charge level.

Operation Visuals

Image: Illustration of the fan operating during the day (solar) and night (battery).

Product Demo Video (Influencer - useful preview)

Your browser does not support the video tag.

Video: A user demonstrates the solar fan's functionality, highlighting its day and night operation capabilities.

Maintenance

- **Clean Fan Blades:** Periodically inspect and clean the fan blades to ensure optimal airflow. Use a soft cloth to wipe away dust and debris.
- **Clean Solar Panel:** Keep the solar panel surface clean from dirt, dust, and snow to maximize sunlight absorption and charging efficiency.
- **Check Connections:** Regularly inspect all cable connections for tightness and ensure the waterproof plugs are securely sealed.
- **Winter Care:** While the fan is designed for all-weather use, consider removing the solar panel and storing it indoors during prolonged periods of extreme cold or heavy snowfall to prolong its lifespan.

Troubleshooting

Problem	Possible Cause	Solution
Fan not running during the day.	Insufficient sunlight; dirty solar panel; loose connection.	Ensure direct sunlight exposure; clean solar panel; check all cable connections.
Fan not running at night.	Battery not fully charged; battery issue.	Ensure solar panel receives adequate sunlight during the day for full charge (8 hours); contact support if battery issue persists.
Reduced airflow.	Dirty fan blades; obstruction in fan or duct.	Clean fan blades; remove any obstructions.
Fan makes unusual noise.	Obstruction; loose components.	Check for and remove obstructions; ensure all parts are securely fastened.

Specifications

Feature	Detail
Brand	ecoCalm
Model Number	KP-SEF23124
Fan Size	8 Inch
Airflow	220 CFM
Solar Panel Power	25 Watts (Bifacial, up to 41W)
Battery Capacity	3000mAh
Battery Life (full charge)	Up to 8 hours
Waterproof Rating	IP44
Cable Length	14.8 ft (450 cm)
Product Dimensions	8"L x 3.7"W x 9"H
Material	Monocrystalline Silicon
Item Weight	5.44 pounds

Warranty and Support

For warranty information or technical support, please refer to the contact details provided on the product packaging or visit the official ecoCalm website.