

XUK PE-523D

XUK Solar Motion Sensor Alarm PE-523D User Manual

Model: PE-523D

1. INTRODUCTION

The XUK Solar Motion Sensor Alarm PE-523D is an outdoor security device designed to detect motion and deter potential intruders using a high-decibel siren and flashing lights. This device is solar-powered and features a durable, waterproof design, making it suitable for various outdoor environments. This manual provides instructions for proper installation, operation, and maintenance of your alarm system.

Size and specs

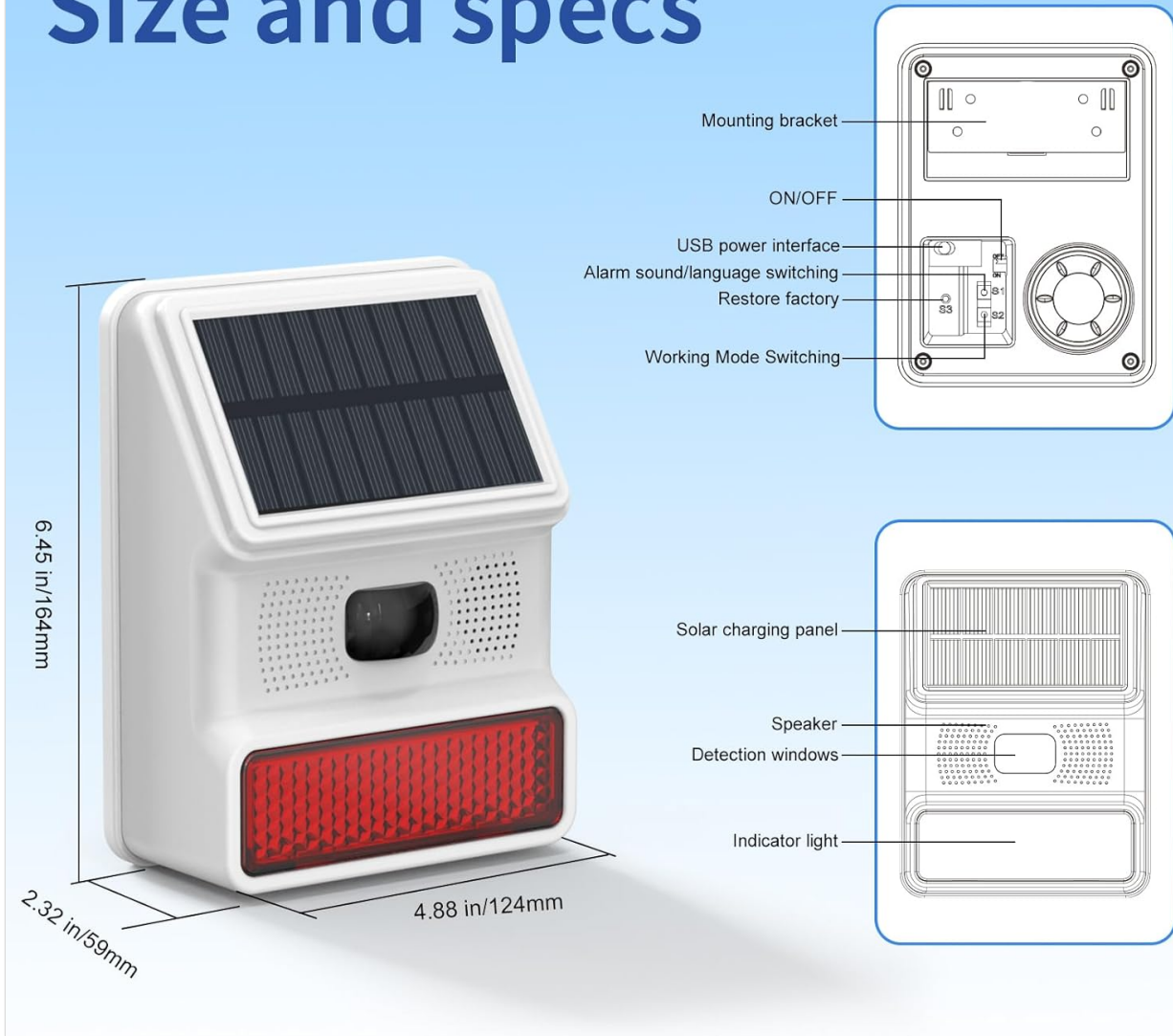


Figure 1: Front view of the XUK Solar Motion Sensor Alarm PE-523D.

2. PRODUCT FEATURES

The XUK Solar Motion Sensor Alarm PE-523D incorporates several features for effective security and ease of use:

- **Audible and Visual Deterrent:** Emits a 100-decibel siren and flashing lights upon motion detection.
- **Wide-Angle Infrared Sensor:** Detects movement within a 110-degree angle and a range of 8-12 meters.
- **IP65 Waterproof and Dustproof:** Designed to withstand various weather conditions, including rain and sandstorms.
- **Solar Powered:** Equipped with a high-efficiency solar panel for continuous operation without external power.
- **Multiple Operating Modes:** Offers four distinct modes for different monitoring requirements.
- **Easy Installation:** Simple setup suitable for various outdoor locations.

Solar Powered Acoustic And Optical Siren



100dB Alarm Sound



Solar Powered



IP65 Waterproof And dustproof



ABS Materials



Language Switching



Global Adaptation



Multi-site use



TYPE-C

Figure 2: Overview of key product features including 100dB alarm, solar power, IP65 rating, and ABS materials.

3. PRODUCT COMPONENTS AND DIAGRAM

Familiarize yourself with the different parts of your XUK Solar Motion Sensor Alarm:

XUK solar motion sensor alarm outdoor

Our products effectively repel intruders and protect your property and personnel.



100dB Alarm Sound



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TYPE-C

Figure 3: Detailed diagram showing the solar charging panel, speaker, detection windows, indicator light, mounting bracket, ON/OFF switch, USB power interface, alarm sound/language switching, restore factory button, and working mode switching button.

- **Solar Charging Panel:** Converts sunlight into electrical energy to charge the internal battery.
- **Speaker:** Emits the 100dB alarm sound.
- **Detection Windows:** Houses the infrared motion sensor.
- **Indicator Light:** Provides visual feedback on device status.
- **Mounting Bracket:** For securing the device to a surface.
- **ON/OFF Switch:** Powers the device on or off.
- **USB Power Interface:** For alternative charging or initial setup.
- **Alarm Sound/Language Switching Button:** To change alarm tones or voice prompts.
- **Restore Factory Button:** Resets the device to default settings.
- **Working Mode Switching Button:** Cycles through the four operating modes.

4. INSTALLATION

Proper installation ensures optimal performance and detection. Choose a location that receives ample sunlight for the solar panel and provides a clear line of sight for the motion sensor.

4.1 Mounting Guidelines

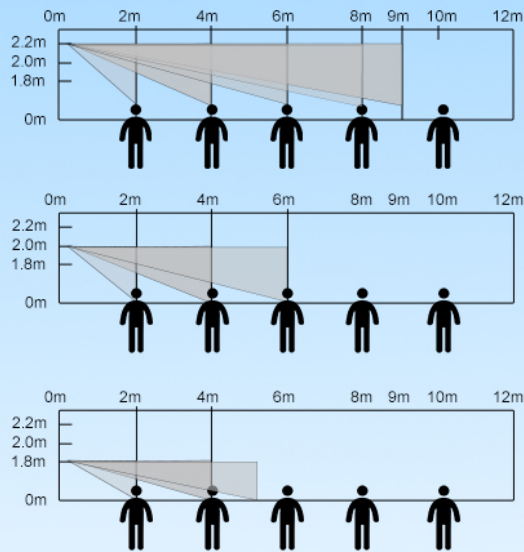
- Mount the alarm in a position where the solar panel is exposed to direct sunlight for most of the day.
- Ensure the detection area is clear of obstructions that might block the sensor or cause false alarms (e.g., swaying branches).
- Use the provided mounting bracket and hardware to securely attach the device to a wall, fence post, or other stable surface.

4.2 Recommended Installation Height and Detection Range

The effective detection range varies with installation height and environmental conditions. Refer to the diagrams below for guidance:

Installation

Instructions before installation. About installation height(for reference only)



a. Installation height: 2.2m
Vertical distance in daytime: $\leq 8\text{m}$
(maximum: $\leq 10\text{m}$)
Detection distance at night: 9-12m

b. Installation height: 2.0m
Vertical distance in daytime: $\leq 6\text{m}$
(maximum: $\leq 9\text{m}$)
Detection distance at night: 9-12m

c. Installation height: 1.8m
Vertical distance in daytime: $\leq 5\text{m}$
(maximum: $\leq 10\text{m}$)
Detection distance at night: 9-12m

Figure 4: Installation height recommendations and corresponding detection distances for the alarm.

- **Installation Height 2.2m:** Vertical detection distance up to 8m (daytime), up to 10m (maximum).
Detection distance at night: 9-12m.
- **Installation Height 2.0m:** Vertical detection distance up to 6m (daytime), up to 9m (maximum).
Detection distance at night: 9-12m.
- **Installation Height 1.8m:** Vertical detection distance up to 5m (daytime), up to 10m (maximum).
Detection distance at night: 9-12m.

Solar power storage works year-round without power cords

45° tilt angle solar panels, efficient absorption of solar energy, ultra-low power standby with long battery life lithium batteries all year without worrying about power



Figure 5: The alarm mounted on an exterior wall, utilizing its solar panel for power.

5. CHARGING

The XUK Solar Motion Sensor Alarm is primarily powered by its integrated solar panel. For initial setup or in prolonged periods of low sunlight, the device can be charged via its USB power interface.

5.1 Solar Charging

Ensure the solar panel is clean and unobstructed to maximize charging efficiency. A 45° tilt angle for the solar panel is recommended for optimal sunlight absorption.

5.2 USB Charging

Connect a standard USB charger (not included) to the USB power interface on the device. The indicator light will show charging status. The internal battery provides up to 100 hours of standby time on a full charge.

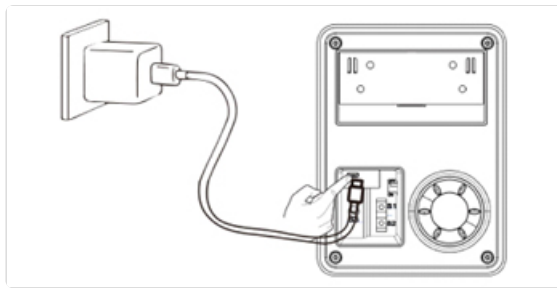


Figure 6: Location of the USB power interface for charging.

6. OPERATING MODES

The alarm offers four distinct operating modes, selectable via the 'Working Mode Switching' button:

- **Mode A: 24-Hour Sound and Light Monitoring.** The alarm will activate with both sound and flashing lights upon detecting motion, day or night.
- **Mode B: Night Sound and Light Monitoring.** The alarm will activate with both sound and flashing lights upon detecting motion only during nighttime hours.
- **Mode C: Night Flash Only Monitoring.** The alarm will activate with flashing lights only upon detecting motion during nighttime hours. No sound is emitted in this mode.
- **Mode D: Monitoring Disabled.** The alarm is inactive and will not detect motion or trigger alerts.

Three modes to choose from for a variety of scenarios

Mode A: 24 hours Sound and light mode

Mode B: Night sound and light mode

Mode C: Night flash mode



Mode A: 24 hours a day monitoring, buzzer and alarm light operation in the event of an abnormal condition



Mode B: Automatic monitoring at night, buzzer and alarm light will work in case of abnormality



Mode C: Automatic night monitoring, only the alarm light works in case of abnormality

Figure 7: Visual representation of Mode A (24-hour sound and light), Mode B (night sound and light), and Mode C (night flash only) in different scenarios.

7. MOTION DETECTION

The integrated infrared sensor detects movement within a specified range and angle. When motion is detected, the alarm triggers its deterrent functions.

- **Detection Angle:** 110 degrees horizontally.
- **Detection Distance:** 8-12 meters (approximately 30-40 feet).

Protect your property and safety by stopping intruders



Figure 8: The alarm's detection capabilities, illustrating its 110° detection angle and 30-40 ft detection distance.

8. WEATHER RESISTANCE

The XUK Solar Motion Sensor Alarm is designed for outdoor use with an IP65 rating, indicating protection against dust ingress and low-pressure water jets from any direction. This ensures reliable operation in various environmental conditions.

Works Well In The Harshest Environments

The IP65-rated outdoor waterproof and dustproof design gives you more peace of mind, and it can perform reliably in heavy rain, snow, sandstorms and other extreme weather conditions.



Figure 9: The alarm's IP65 waterproof and dustproof design allows it to function reliably in harsh weather.

9. SPECIFICATIONS

Specification	Value
Model Number	PE-523D
Power Source	Solar Powered
Battery Type	Lithium-Ion (1 Nonstandard Battery included)
Voltage	5 Volts (DC)
Wattage	5 watts
Noise Level	100 Decibels
Maximum Range	12 Meters
Sensor Technology	Infrared

Specification	Value
Control Method	Push Button
Mounting Type	Tabletop Mount (can be wall-mounted)
IP Rating	IP65 (Waterproof and Dustproof)
Product Dimensions	6.49 x 4.92 x 2.32 inches
Item Weight	10.1 ounces
Included Components	1*Solar Motion Sensor Alarm

10. MAINTENANCE

To ensure the longevity and optimal performance of your XUK Solar Motion Sensor Alarm, follow these maintenance guidelines:

- **Clean Solar Panel:** Regularly wipe the solar panel with a soft, damp cloth to remove dust, dirt, or debris that may reduce charging efficiency.
- **Clear Sensor Area:** Periodically check that the motion sensor's detection windows are clear of spiderwebs, leaves, or other obstructions.
- **Battery Care:** While the device is solar-powered, ensure it receives adequate sunlight. If stored for extended periods, fully charge the device via USB before storage and recharge every few months to maintain battery health.
- **Inspect Mounting:** Periodically check the mounting bracket and screws to ensure the device remains securely attached.

11. TROUBLESHOOTING

If you encounter issues with your XUK Solar Motion Sensor Alarm, refer to the following common problems and solutions:

- **Alarm Not Activating:**
 - Ensure the device is switched ON (not in Mode D).
 - Check battery charge; if low, charge via USB or place in direct sunlight.
 - Verify the motion sensor is not obstructed.
 - Confirm the detection range and angle are appropriate for the area.
- **False Alarms:**
 - Reposition the alarm to avoid detecting moving objects like tree branches, small animals, or passing vehicles.
 - Ensure the sensor is not directly facing heat sources or reflective surfaces.
- **Solar Charging Not Effective:**
 - Clean the solar panel surface.
 - Relocate the device to an area with more direct and prolonged sunlight exposure.
- **Alarm Sound/Lights Malfunctioning:**

- Ensure the device is fully charged.
- Try resetting the device using the 'Restore Factory' button.

12. WARRANTY AND SUPPORT

XUK products are manufactured to high-quality standards. For warranty information, technical support, or service inquiries, please refer to the contact details provided with your purchase or visit the official XUK website. Please retain your proof of purchase for warranty claims.