PGST PA92-1

Wireless Infrared Motion Sensor User Manual

Model: PA92-1 | Brand: PGST

1. Introduction

The PGST Wireless Infrared Motion Sensor is an advanced security device designed to detect human movement and provide real-time alerts when paired with a compatible PGST home alarm system. It features intelligent logic analysis to minimize false alarms, low power consumption for extended battery life, and anti-white light/anti-radiation interference capabilities for reliable detection. This manual provides comprehensive instructions for installation, operation, and maintenance of your motion sensor.

2. Product Features

- **Intelligent Logic Analysis:** Advanced signal analysis and processing technology to prevent false alarms.
- **Low Power Consumption:** Utilizes CMOS low-power microprocessor for longer battery life.
- **Low Voltage Alert Function:** Notifies user when battery power is low.
- **Anti-Interference:** Designed with anti-white light and anti-radiation interference functions for reliable detection.
- **Easy Installation:** Can be mounted on room corners or flat walls with a bracket.
- **Wide Application:** Suitable for homes, office buildings, factories, banks, and other security-sensitive environments.
- **Compatibility:** Works seamlessly with 433MHz PGST home alarm systems (e.g., PG103, PG105, PG106, PG107, PG108, PG109, PG500). *Note: This sensor cannot be used standalone.*

3. Product Specifications

Specification	Detail
Working Voltage	3V (2x AAA alkaline battery)
Working Current	≤25mA
Emission Frequency	315MHz/433MHz (ASK) / 868MHz (FSK)
Emission Power	≤10dB
Emission Distance	≥80m (open space)
Detecting Distance	8m-12m (at 25°C)
Installation Height	1.8-2.2M
Detecting Angle	110°

Dimensions (L x W x H)	4.13 x 1.57 x 1.02 inches
Weight	0.08 Kilograms (approx. 2.89 ounces)
Model Number	PA92-1

Note: Specifications are subject to change without prior notice.

4. Setup and Installation

Proper installation is crucial for optimal performance of your PGST Wireless Infrared Motion Sensor. Follow these steps carefully.

4.1. Components Overview

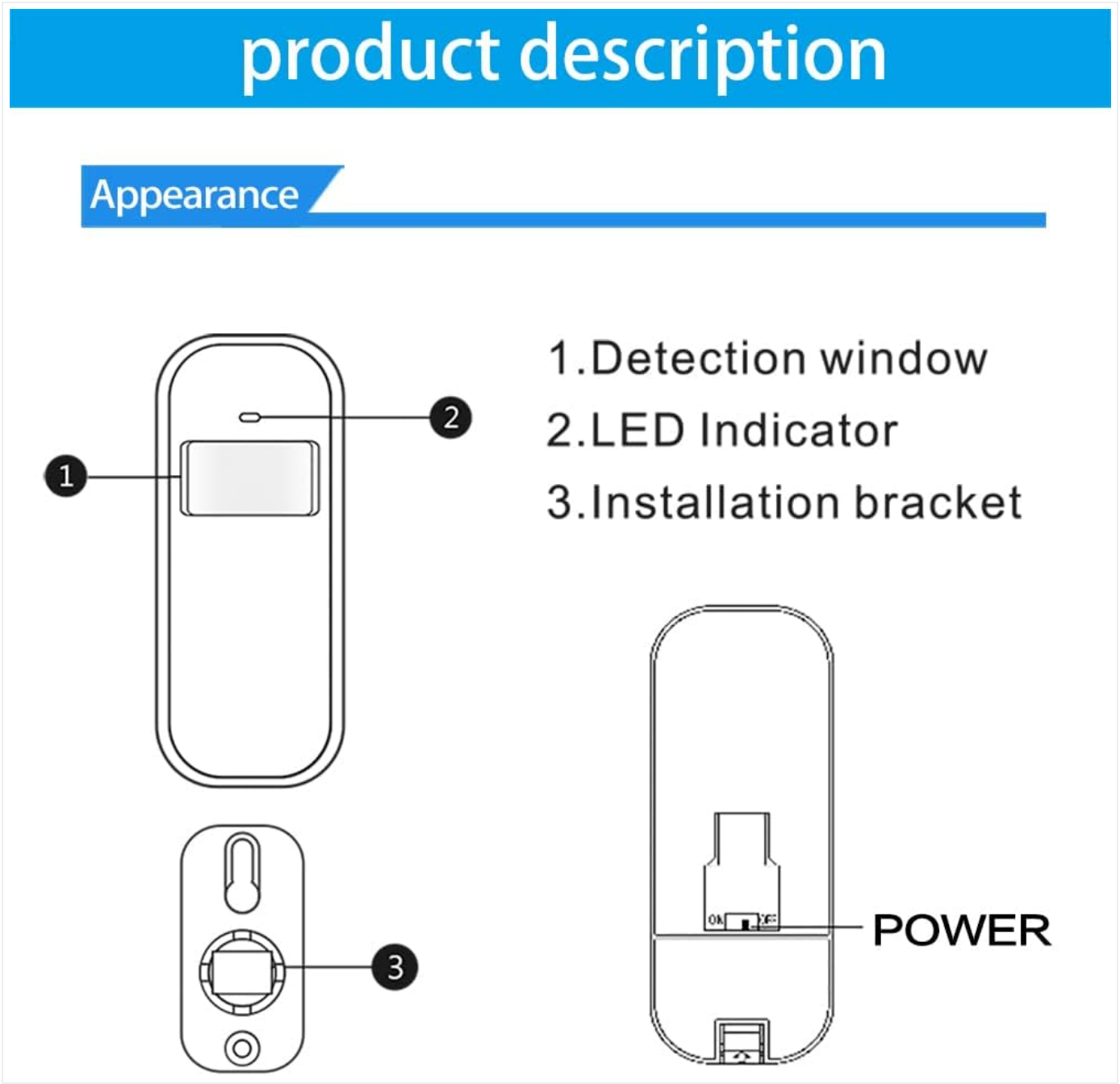

Figure 4.1: Product Appearance and Components

1. Detection Window, 2. LED Indicator, 3. Installation Bracket.

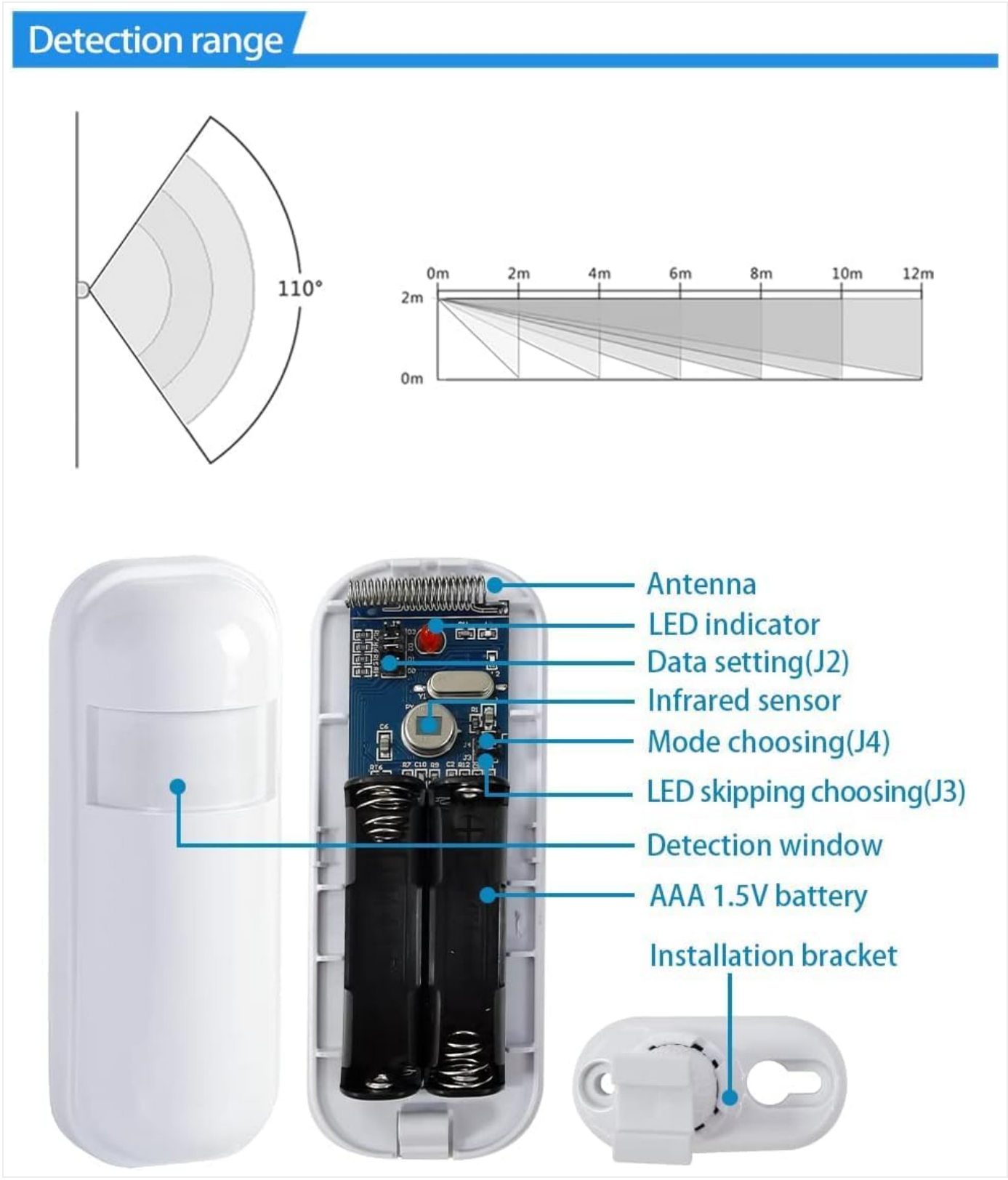

Figure 4.2: Internal Components and Detection Range Diagram

This image illustrates the internal layout of the sensor, including battery placement, and a diagram showing the 110-degree detection angle and range up to 12 meters.

4.2. General Installation Guidelines

- The motion sensor is designed for indoor use only. Do not install outdoors.
- Avoid installing the sensor near heat sources (e.g., radiators, air conditioners, windows with direct sunlight) or in areas with strong air currents, as these can cause false alarms.
- Ensure the detection area is clear of obstructions.
- The recommended installation height for the motion sensor is 1.8 to 2.2 meters (approximately 5.9 to 7.2 feet) from the floor.

- For wide-angle infrared detection, the sensor has a 110° detection angle and a range of 12 meters. It is typically installed in living rooms or areas requiring broad coverage.
- For vertical curtain infrared detection, the detection angle is about 15° with a detection distance of 8 meters. This is generally installed above doors and windows.

Figure 4.3: Motion Sensor Installation Diagram

This diagram illustrates the optimal installation height (1.8-2.2m) and the 110-degree detection angle for wide-angle coverage, and 15-degree for vertical curtain detection, typically above doors/windows.

Figure 4.4: Motion Sensor Detection Example

An illustration of the motion sensor's detection capabilities, showing how it covers a wide area and identifies movement.

4.3. Video Guide: Installation of Host and Accessories

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Video 4.1: How to Install the Alarm Host and Accessories

This video provides a visual guide on installing the main alarm host, motion detectors, magnetic door sensors, SOS buttons, and smoke detectors. It demonstrates the physical mounting process for each component.

4.4. Pairing with Alarm Host

The motion sensor must be paired with a compatible PGST alarm host to function. Refer to your specific PGST alarm host's user manual for detailed pairing instructions. Generally, this involves putting the alarm host into pairing mode and then triggering the motion sensor to register it with the system.

Figure 4.5: Wireless Signal Transmission

This image depicts how the motion sensor wirelessly communicates with the alarm host, which then sends notifications to your mobile phone.

5. Operating Instructions

Once installed and paired, the motion sensor operates automatically. When an intruder passes through its detection area, the sensor will automatically detect human activities and transmit wireless signals to the alarm host.

- **Arming/Disarming:** The motion sensor's detection status is controlled by the arming/disarming state of your PGST alarm host. Refer to your alarm host's manual for instructions on how to arm and disarm the system.
- **Alarm Notification:** Upon detection of movement while the system is armed, the alarm host will trigger an alarm (siren, phone call, SMS, or app notification) based on your system's configuration.
- **LED Indicator:** The LED indicator on the sensor will briefly light up upon detection.

Figure 5.1: Wireless Infrared Detector Features in Action

This image highlights the key features of the detector, including its ability to detect human infrared and its intelligent analysis to prevent false positives.

Figure 5.2: Advanced Detection Technology

The sensor uses advanced signal processing to accurately detect human activity and transmit alerts.

6. Maintenance

- **Battery Replacement:** The sensor is powered by 2x AAA alkaline batteries. When the low voltage alert function is triggered, replace the batteries promptly to ensure continuous operation.

Figure 6.1: Battery Compartment

The sensor uses two AAA batteries for power, designed for ultra-low power consumption.

- **Cleaning:** Gently wipe the sensor's detection window and body with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Regular Testing:** It is recommended to test the motion sensor periodically (e.g., monthly) to ensure it is functioning correctly and communicating with the alarm host.

7. Troubleshooting

Problem	Possible Cause	Solution
Sensor not detecting movement	◦ Low or dead batteries. ◦ Incorrect installation height or angle. ◦ Obstruction in detection area. ◦ Sensor not properly paired with alarm host.	◦ Replace batteries. ◦ Adjust installation according to Section 4. ◦ Clear any objects blocking the sensor's view. ◦ Re-pair the sensor with the alarm host.
False alarms	◦ Sensor installed near heat sources or strong air currents. ◦ Pets or small animals triggering the sensor. ◦ Direct sunlight or strong light interference.	◦ Relocate the sensor away from heat sources, vents, or direct sunlight. ◦ Adjust sensor sensitivity if available on your alarm host, or consider pet-immune sensors if pets are the cause.
No communication with alarm host	◦ Sensor out of range of alarm host. ◦ Interference from other wireless devices. ◦ Alarm host not powered on or malfunctioning.	◦ Move sensor closer to the alarm host. ◦ Check for other wireless devices causing interference. ◦ Ensure alarm host is powered and functioning correctly.

8. Warranty and Support

PGST is committed to providing high-quality security solutions. Our products are rigorously certified for quality and designed for reliable performance.

- **Lifetime Technical Support:** PGST offers lifetime technical support for its products.
- **Quick Response:** Expect quick responses to your inquiries within 365 days.
- For any technical assistance or warranty claims, please contact PGST customer support through the official channels provided with your product or visit the PGST Store on Amazon.

Figure 8.1: PGST Support Commitment

PGST provides professional team support, lifetime technical assistance, and quick responses.