Indoor Motion Sensor User Guide

- Built-in 90-decibel adjustable siren
- Area awareness with Chime functionality
- Up to 1km wireless range line of sight
- Built-in repeater functionality for extended wireless range
- Two-way wireless communication – 868 MHz frequency
- Fully adjustable sensitivity settings
- Temperature compensation
- False alarm prevention with software algorithm
- Pet immunity up to 20 kg (50cm height)
- 12m detection range, 90 degrees wide
- 3 Year battery life
- Sabotage protection

Index

1 Overview of the Kwêbeam indoor sensor

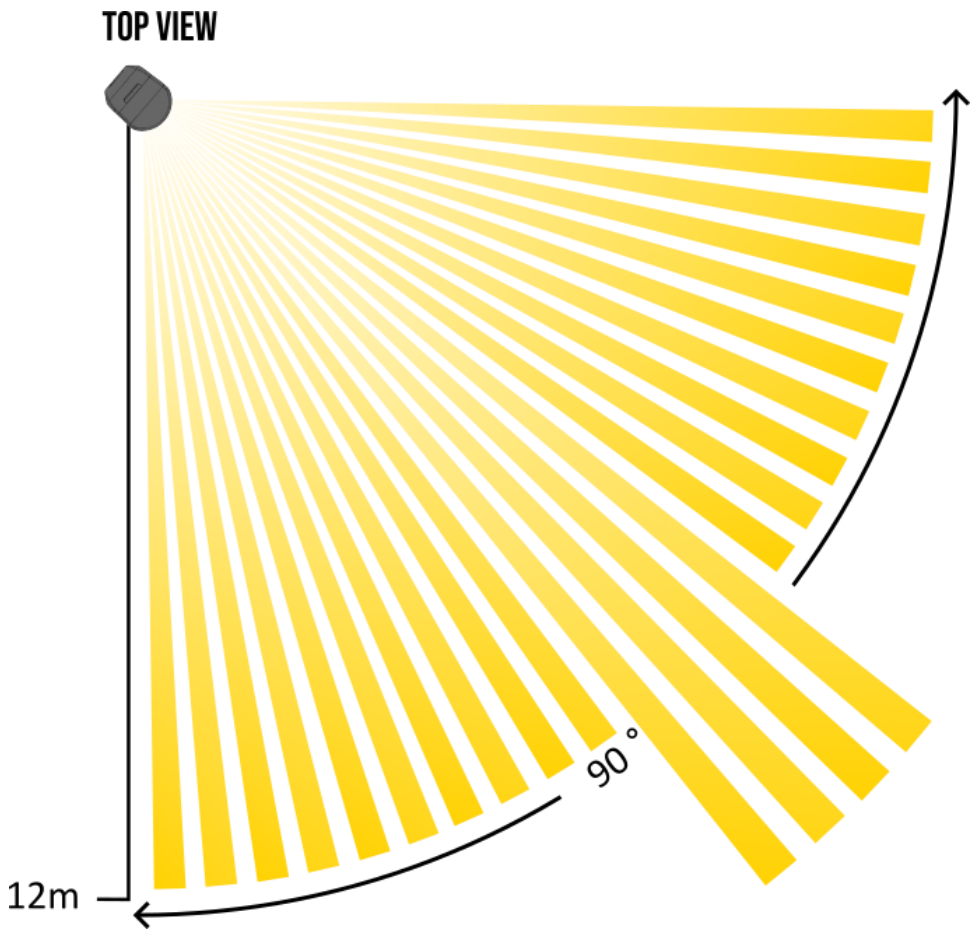
The wireless indoor sensor features a built-in siren that provides an unexpected element of surprise next to an intruder. The built-in siren can be muted or sound for a delay defined by the user.

The sensor is designed to ignore small pets & detect humans. False alarms are reduced with software algorithms to differentiate true detection from environmental noise.

The system is completely wireless and powered by one CR123A cell. All wireless sensors can transmit & receive signals for reliable 2-way communication. Built-in repeater functionality strengthens wireless performance and overcomes wireless range issues.

Temperature compensation is a software mechanism that increase the detection sensitivity if the ambient temperature is close to the temperature of the human body.

1.1 Detection Pattern



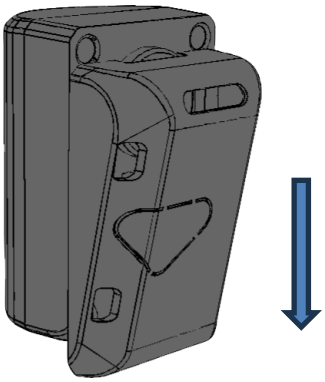
Detection area: 12 meters by 90° wide

Mounting Height 2.4m from the ground

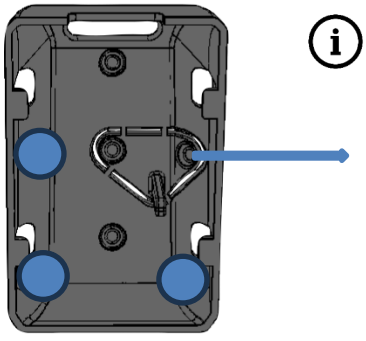
2 Installing the sensor

2.1 Mounting the sensor

Unclip the bracket from the sensor by pulling the bracket down.

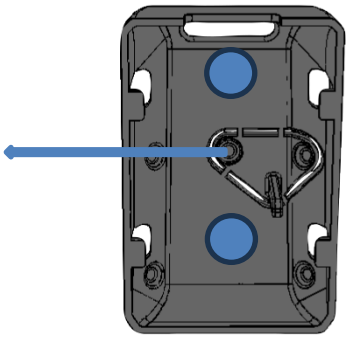


Mount the bracket 2.4 meters from the ground level, using the supplied fasteners and bracket. The bracket can be mounted in the corner of two walls or flat against the wall. Drill holes are illustrated below for the two mounting options.



Drill holes to mount in a wall corner

ⓘ Optional sabotage protection. Drill this hole and insert fastener to receive a trouble notification if the sensor is removed with force.

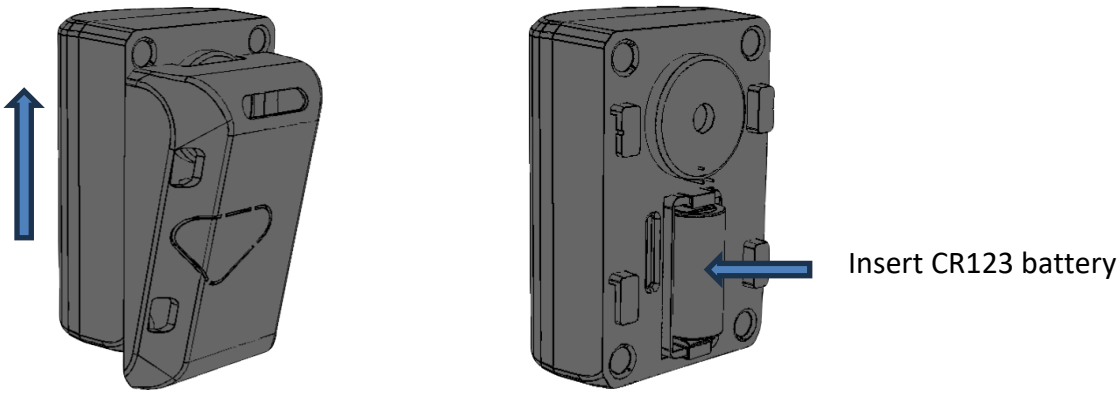


Drill holes to mount on a flat wall

2.2 Testing the sensor

2.2.1 Insert the CR123A battery

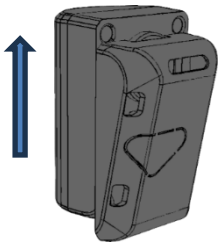
Unclip the bracket from the sensor, insert the battery and wait for the warmup sound to stop.



After inserting the battery, the siren will sound softly for approximately 2 minutes to indicate warm-up period.
The sensor will be in functional mode when the siren is silent.

2.2.2 Add the sensor to the System

1) Make sure the KwêHub is added to the App. If not, follow the KwêHub manual for details.
2) Remove the Motion sensor from the back bracket.

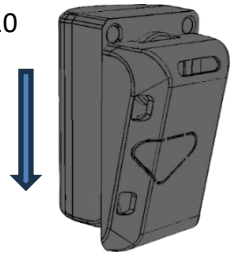


3) Navigate to “Devices” and press the “+” button. Enter a name and zone number for the sensor.

Zone numbers can be the same for different sensors (more than one sensor can have the same zone number). When an alarm is triggered, the buzzer in the KwêHub will sound a unique sequence for each zone.

4) Once the “Confirm” button is pressed, the motion sensor will start a 10 second beeping sequence. Before the beeping sequence stops, clip the sensor into the bracket.

5) The sensor will now appear as a new device in the App.



2.2.3 Quick signal test

When the sensor is unclipped from the bracket, the siren will indicate the signal strength as follows:

- 2 Beeps: Good Signal. The sensor can communicate directly the KwêHub.
- 1 Beep: Good signal. The sensor communicates to another device/sensor to get access to the KwêHub.
- No Sound: Poor or No signal.

2.2.4 Do Walk Test

The sensor will enter Walk-test-mode when clipped into the bracket or when Walk Test mode is activated from the APP. The sensor will beep each time motion is detected. Walk test mode will end when there is no movement in front of the sensor for 90 seconds, or the system is armed.

2.2.5 Adjust the sensitivity

To change the default detection settings from the APP, press the right arrow next to the system name. Navigate to “devices”, then press the gear icon next to the sensor name.

We recommend keeping the default sensitivity settings unless you find that the sensor is either not detecting accurately or is too sensitive.

Detection sensitivity can be adjusted using the following settings:

1) Sensitivity: Default is 4. Setting 1 is the most sensitive, and 8 is the least sensitive.
2) Detection Count: Default is 2: The number of valid detections in quick succession before an alarm signal is sent.

3 Motion Detection

3.1 Arm modes

3.1.1 Arm in Home and Away mode

The system can be armed in two modes, Home OR Away mode. These two modes allow each sensor to behave differently for each mode.
E.g. While at home, it might be desired that only the front yard sensors are active with the built-in sirens set to sound for 10 seconds when triggered. The built-in sirens for the sensors in the back yard can be muted, or the sensors can be entirely by-passed. When not at home, all Built-in Sirens can be active except for the driveway siren.

3.1.2 Partitions

The system supports two partitions that allow you to Arm only part (selected sensors) of the system in either Home or Away mode. Press and hold the “Arm Home” or “Arm Away” button on the App to open the partial Arm window. Tap on the gear icon to select the sensors that must be part of this partition and give the partition a name.
E.g. You can name a partition “Sleep” and deselect the sensors in the bedroom and passage. When this partition is Armed, only the selected sensors in the partition will be active.

3.2 Detection sequence when armed

When a sensor detects motion, the user will be alerted, then the sensor will enter a 10 second ‘no-detect’ delay. Detections during this period will be ignored. After this 10 second delay, the sensor is ready for the next detection. After 3 valid detections within 10 seconds apart, the sensor will enter a 30 second ‘no-detect’ delay. The sensor will remain in this ‘no-detect’ mode until there is NO movement in front of the sensor for 30 seconds. Any movement within this period will reset the 30 second delay. After the 30 second delay, the detection sequence restarts.

3.3 Built-in Siren

The Kwêbeams mobile app offers an extensive range of customization features for the built-in siren in each of the two Arm modes (Home and Away). Open the App and navigate to the sensor settings to mute, set the duration and adjust the volume of the siren for a quieter environment.
The built-in siren features a “Chime” function that informs you audibly where an alarm event occurred while you are at home. When the “Chime” option is selected, the siren will sound a unique tone for individual zone numbers when an alarm event occurred. A zone or area number can be configured for each sensor (Total of 8 zones or areas).

E.g. Set the “Home mode siren” setting to “Chime” for the sensor in the bedroom. All the sensors in the living room can be configured on Zone/Area number 3 (Sensors can have the same zone number). When the system is Armed in Home mode and an alarm event occurs in the living area, the sensor in the bedroom will sound 3 beeps, indicating an alarm event in the living room.

3.4 Avoiding False alarm triggers

The beam detects moving heat sources; therefore, it is recommended NOT to face the sensor to open windows where hot or cold wind can cause a sudden temperature change.

4 Wireless range

In a perfect environment (Line of Sight between devices) distances up to 1km is possible. The wireless range is highly depended on the environment & will reduce dramatically with walls & structures in close vicinity. For this reason, the sensor has a Built-In repeater functionality to overcome range issues in highly dense building environments.
All devices within range of the Base-unit, will automatically function as a repeater station to support devices not in range of the Base Unit.