



Wireless Early Warning System



Features:

- Easy to install & use
- Programmable built in sirens
- Active Infrared Anti-Masking
- Orientation detection
- Dual passive infrared sensors for minimal false detection
- Secure 2-Way communication with repeater functionality
- Powered from standard AA alkaline cells
- Multiple keypads supported on the same system
- Up to 3 years battery life

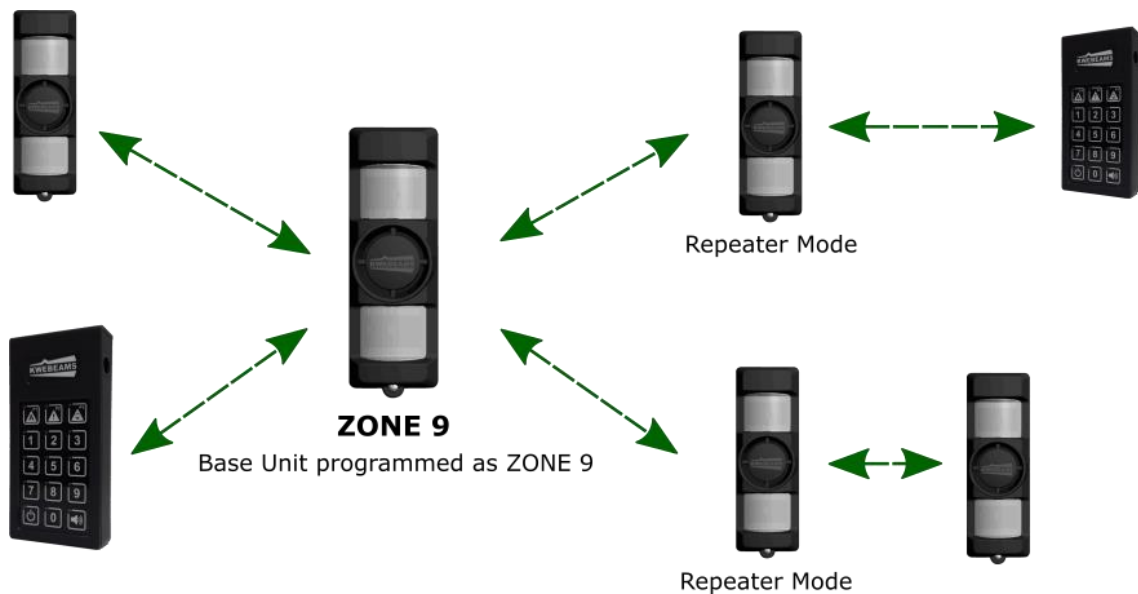
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1 Overview of the Kwêbeam system

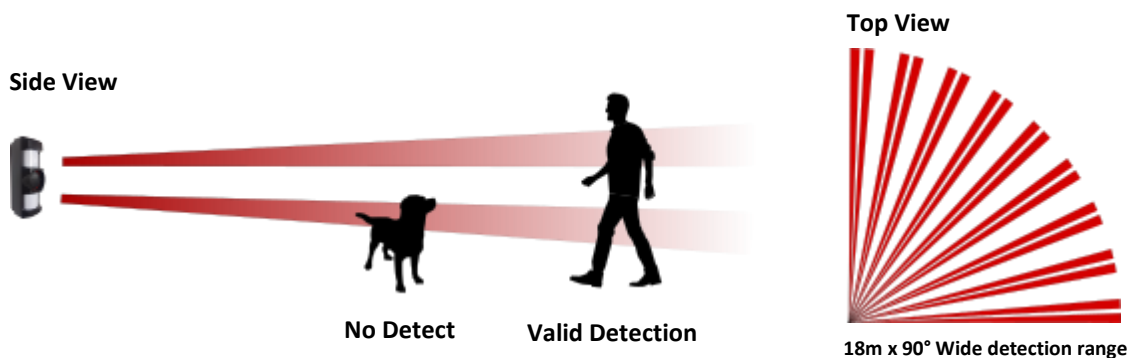
1.1 Base Unit - Zone 9

- Each KwêBeam system must have one (only one) ZONE 9, this is the Heart (Base or Main Unit) of the system. It is recommended to install ZONE 9 at the most central position of all beams.
- All sensors in range of Zone 9 will have a relay (repeater) function to support devices NOT in range of ZONE 9.



1.2 Detection Pattern

- The KwêBeam sensors have Dual Passive Infrared motion detectors – both the top & bottom infrared beams must detect a moving heat source for a valid alarm signal.
- Top and bottom infrared beams are in parallel with the ground level, therefore the best MOUNTING HEIGHT is 0.8m – 1.2m from the ground.



- Detection area: Up to 18 meters by 90° wide on level ground surface

1.3 Important notes

Wireless range

In a perfect environment (Line of Sight between devices) distances up to 350m is possible without repeater mode. The range is highly depended on the environment & will reduce dramatically with walls & structures in close vicinity.

For this reason, all system devices (except Keypads) feature Built-In repeater functionality to overcome range issues in highly dense building environments.

All devices within range of the selected Base Unit (ZONE 9) will automatically function as a **1 Hop** repeater station to support out of range devices. The installed position of the base unit (Zone 9) is therefore critical for optimal wireless range performance.

False alarm triggers

The beam detects moving heat sources; therefore, it is recommended NOT to face the sensor to warm objects in close vicinity, e.g. warm walls with moving plants between the sensor & wall, reverse side of air conditioners, moving vehicles, sunlight reflections.

All sensors have 8 sensitivity settings where the pre-programmed sensitivity (setting 4) is recommended for most environments. See section Changing the Sensitivity of the sensor.

Double-detect mode can be activated in unstable environments to further minimize false alarm triggers. See Changing Siren & beam settings of the sensor. Double-detect also minimize false detections caused by jumping cats & large birds.

Insects

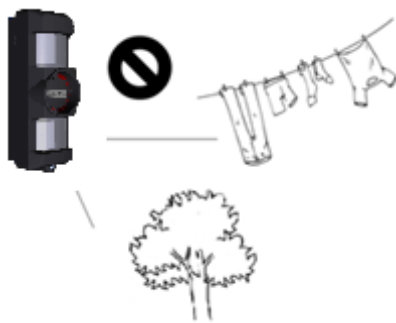
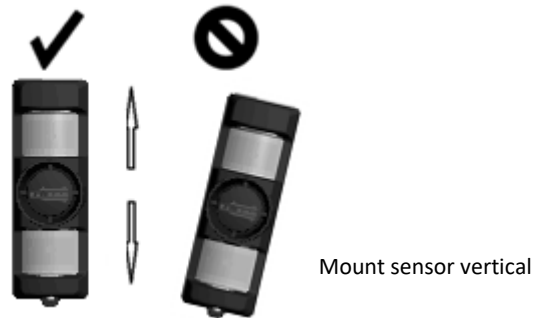
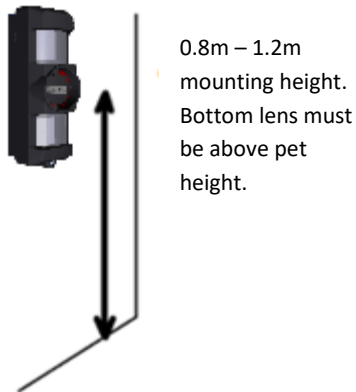
Regularly open the face cover of the sensor to inspect any signs of small ants. Remove the inner box & place a mothball inside the back part of the enclosure to keep insects out.

Battery replacement

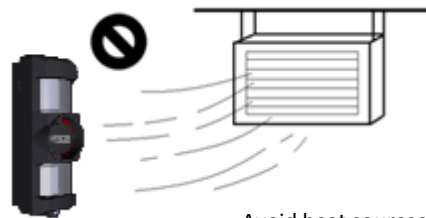
Always use **3 NEW** alkaline batteries of the same kind when replacing the batteries. Standard Duracell or Energize alkaline batteries are recommended.

2 Installation Guide

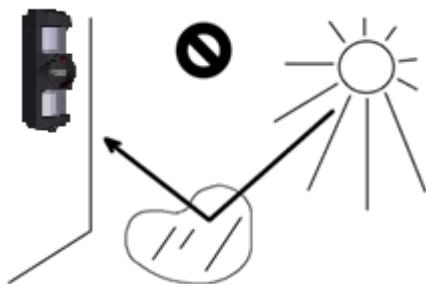
2.1 Identify best installation position for sensors



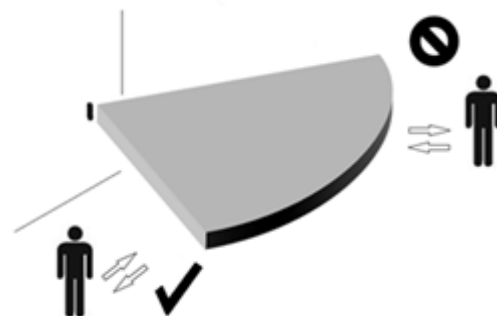
Avoid obstruction and large moving objects in front of a heat source



Avoid heat sources close to the sensor (warm walls and air- conditioners)

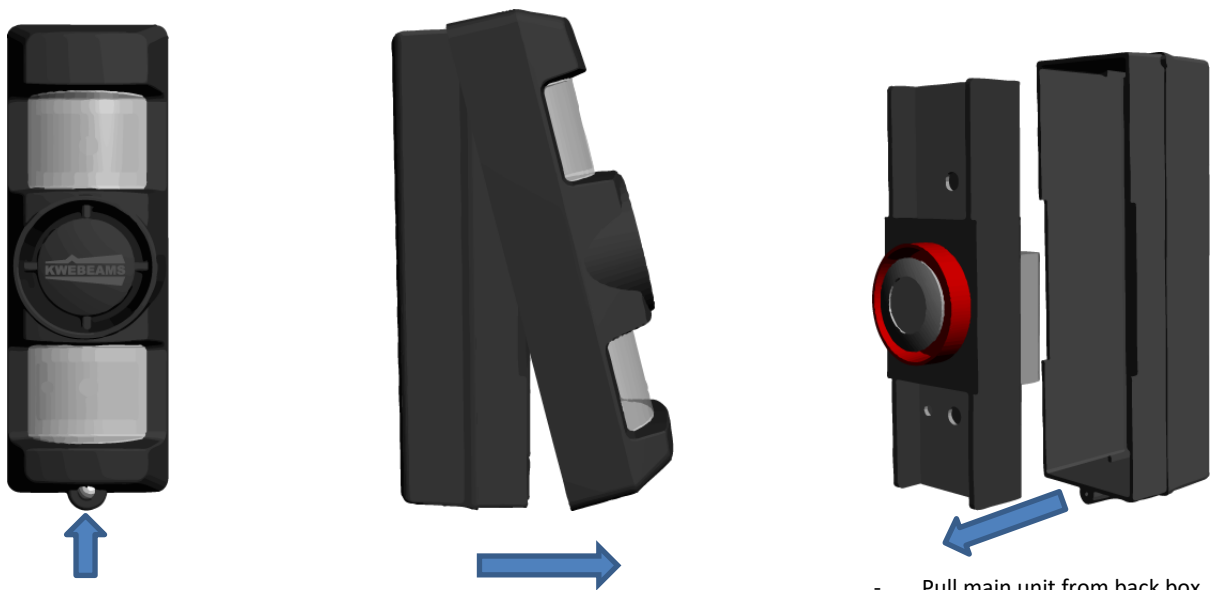


Face the sensor away from strong light & reflections.
Note: Windows facing a road can reflect moving vehicles.



Sensor is less sensitive when moving towards it and most sensitive when crossing the detection area.

2.2 Mounting the sensor



- Remove lock screw at the bottom of sensor

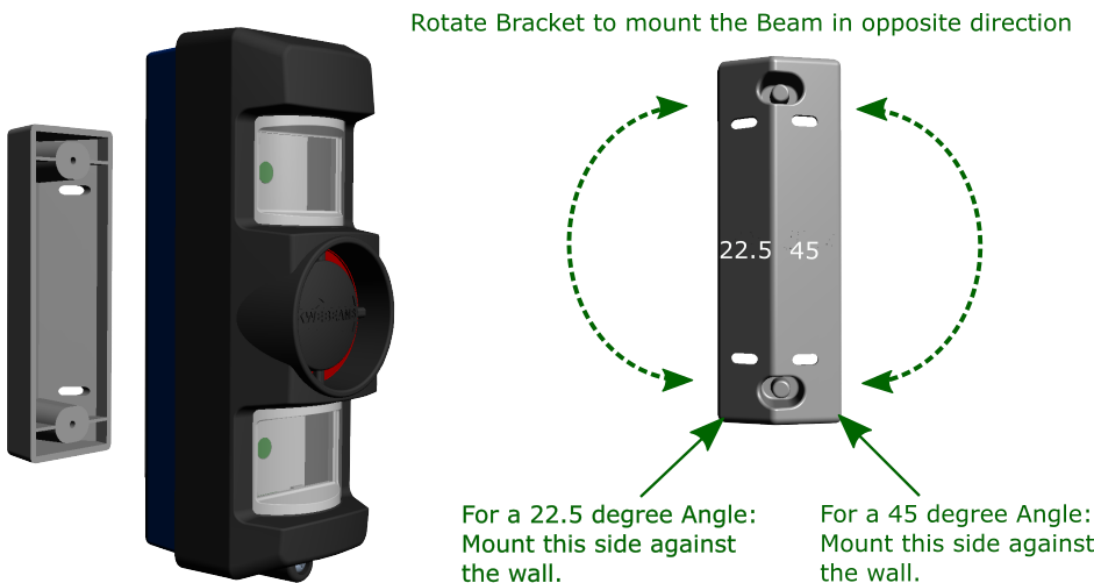
- Pull the bottom of the face cover to open

- Pull main unit from back box
- Mark mounting holes, drill 6mm holes & secure with provided screws

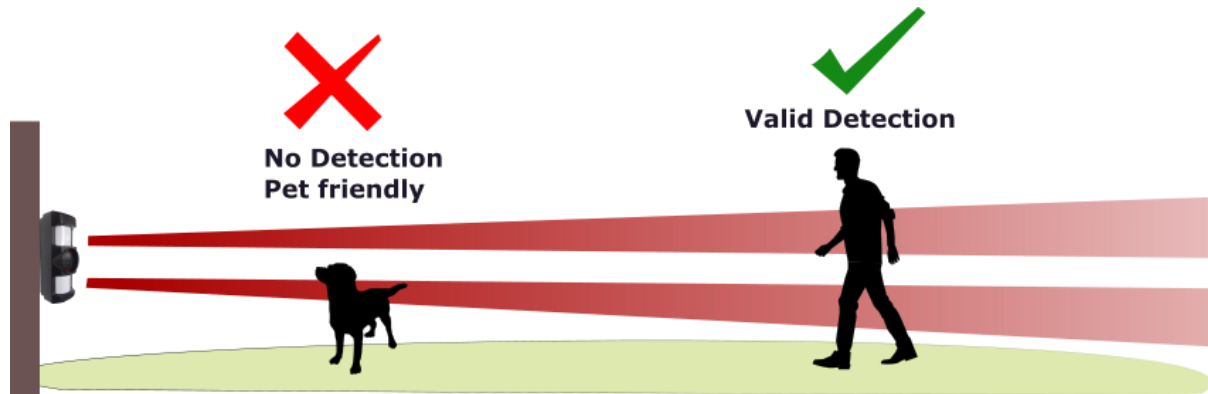
Using the Angle bracket to mount the Beam

KwêBeam sensors can be mounted to face different directions:

- 45° facing left or right using bracket
- 22.5° facing left or right using bracket
- 0° facing straight, no bracket



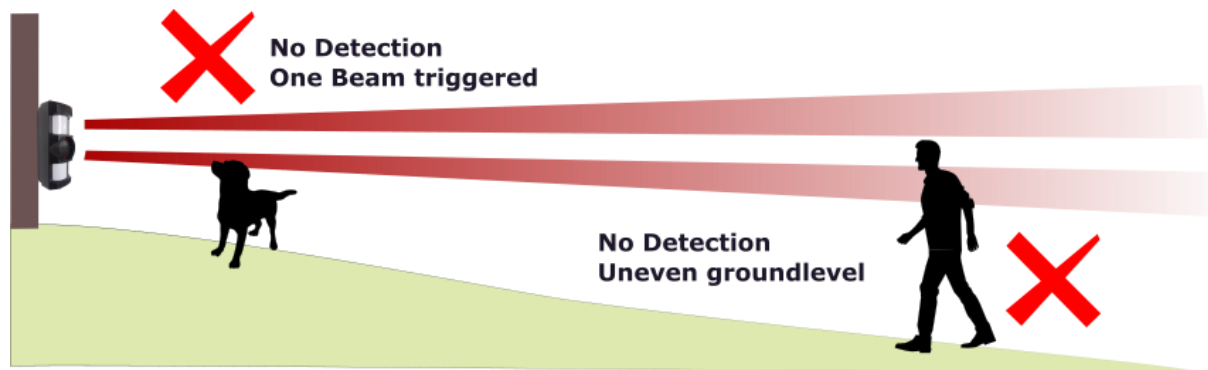
2.2.1 Ground levels



Best detection range when ground is level.
Mount the beam 0.8m - 1.2m above ground level.



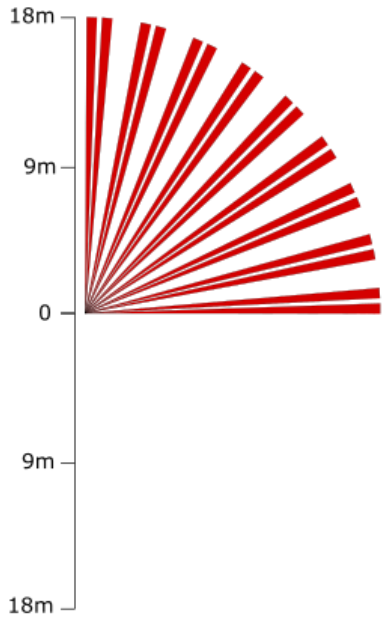
Short detection range & possible false alarms when ground level slopes upward.
Note: Mount the beam higher (1.2m - 1.4m) to assist with upward slope.



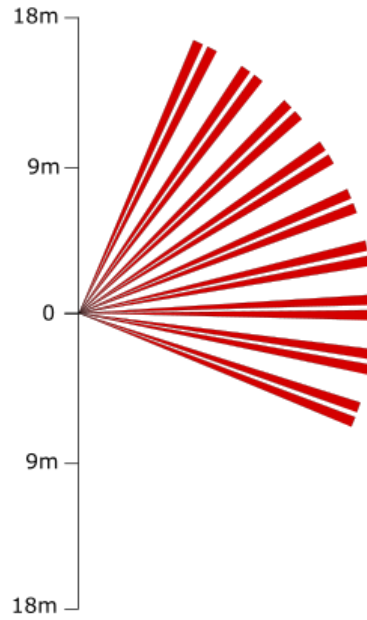
Short detection range when ground slopes downward.
Note: Mount the beam lower (0.6m - 0.8m) to assist with downward slope.

2.2.2 Detection area

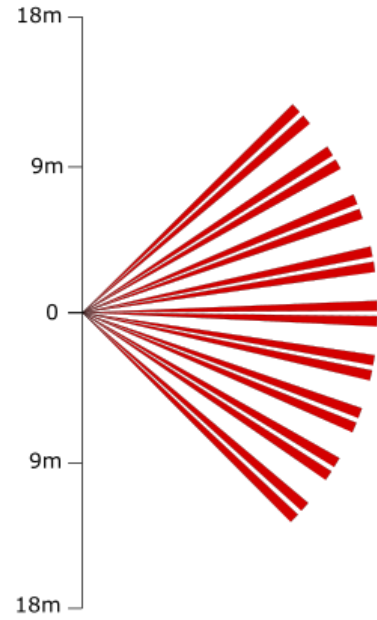
45° Bracket Mount



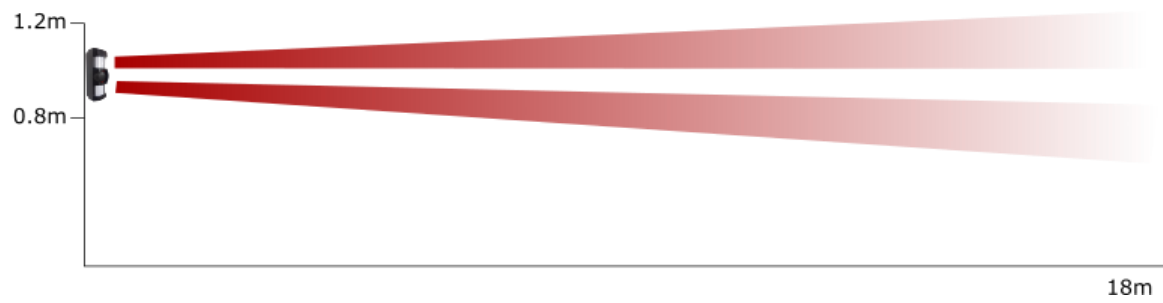
22° Bracket Mount



0° Mount (No Bracket)

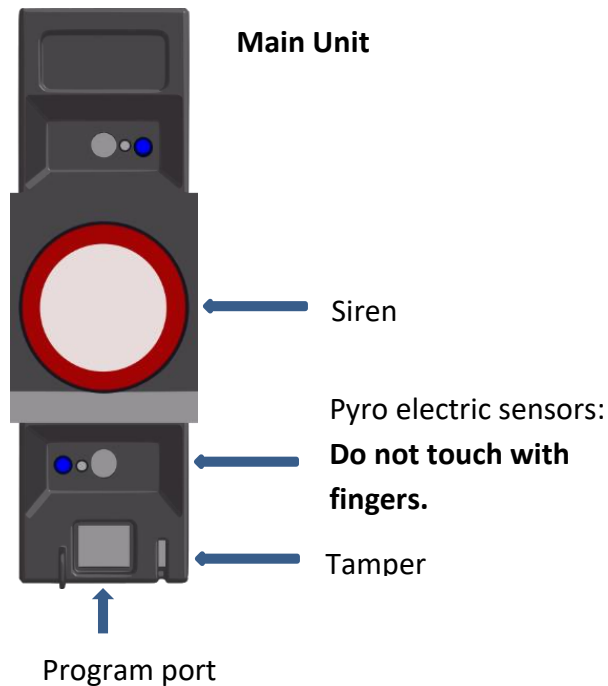


Side View

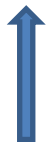


2.3 Insert 3 AA batteries


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.



Remove
Lock-
screw and
Slide to
open



Insert Keypad Batteries:





LED  on the Keypad will illuminate for 6 seconds to indicate a warm-up period
The keypad must be left untouched during this period.
When the LED switches off the keypad will be in functional mode.

The text describes the LED indicator on the keypad. The LED icon is a square with a circle inside containing the number '0' and the word 'KEYPAD' below it.



2.4 Do Walk Test

- Open the face cover of the sensor
- Close the face cover & fasten the lock screw
- A 1-minute test period will start, this test period will reset with every valid detection
- Walk across the detection area of the sensor
- A short “beep” sound indicates a successful detection
- Stand still for 1 second between valid detections
- After no detection during the test period, the sensor will continue with normal functionality



2.5 Program Zone 9 (Base station)

- Choose the most central sensor to be ZONE 9 (This will be the Base/Main unit)
- Make sure Led  is off. If not, press & hold  to switch off.
- Link the Keypad to the selected sensor with the supplied cable.
- Select "9" on the Keypad
- Press & Hold  to save ZONE 9.
- LED  will illuminate to indicate successful pairing.
- Remove cable

2.6 Program additional Keypads to the same system

- Link the Keypad to the ZONE 9 (Base station) sensor with the supplied cable
- Press & Hold  to pair the additional Keypad
- LED  will illuminate to indicate successful pairing.
- Remove cable


2.7 Program additional sensors to the same system

- Link the Keypad to any additional sensor with the supplied cable
- Select the sensor zone (1 – 8)
- Press & Hold  to save the zone.
- LED  will illuminate to indicate successful pairing.
- Remove cable

Note: If any other sensor is selected as ZONE 9, the pairing process (step 5 & 6) must be restarted.

Note: ZONE 0 is pre-assigned to Keypads & cannot be assigned to a sensor.

2.8 Synchronize the system

After all the beams are installed, press & hold  to synchronize the system. Allow 1 minute for the synchronization cycle to complete.

Note: Synchronization is not mandatory but recommended after first installation for optimal system performance.

2.9 Signal Test





The siren will indicate the signal state when opening the front cover of the sensor. This feature is useful to verify proper communication after all devices are installed.

- 2 Beeps: Good Signal & the sensor is in repeater mode (In range of Zone 9)
- 1 Beep: Good signal, the sensor is not in repeater mode & supported by another device in range.
- No Sound: Poor or No signal.

Note: Zone 9 will not indicate signal strength as this is the Base Unit.

3 How to use your KwêBeam system




3.1 Arming & disarming the system

- Press & hold  to arm the system. Wait for LED  to indicate armed state. The keypad will momentarily illuminate the Zone LED's of all active (working) sensors in the last 24 hours. If a sensor remains inactive (no communication) for 24 hours the corresponding Zone LED will NOT illuminate when armed.
- Press & hold  to disarm the system. Wait for LED  to switch off.




Note: There is a short delay before LED  indicates the ON/OFF status due to network synchronization. The keypad automatically resynchronizes to the network every hour.

Note: After a valid detection the sensor enters a 30 second no detect period. Detections during this period will be ignored. When this period has elapsed, the sensor will send an alarm signal on the next valid detection.




3.2 Alarm zone indicator

- LED  indicates a valid detection on one of the sensor zones.
- Press  to show triggered zones. The Last reported alarm zone number will flash.
- Press & Hold  to clear triggered zones.



3.3 Trouble zone indicator

- LED  indicates a trouble signal.
- Press  to show the troubled zones. Zone 1 – 9 indicates a tamper signal on the corresponding sensor. **Zone 0 indicates a communication problem between the Keypad & the system.**
- Press & Hold  to clear troubled zones.

3.4 Low battery zone indicator


- LED  indicates a low battery signal.
- Press  to show the low battery zones. Zone 1 – 9 indicates a low battery signal on the corresponding sensor. Zone 0 indicates a low battery signal on the Keypad.
- Press & Hold  to clear low battery zones.

3.5 Siren control

- Press  to stop all sensor sirens & keypad buzzer.
- Press & hold  to activate all sensor sirens for 20 seconds.



3.6 Temporally Deactivate a ZONE


Use the following steps to temporally deactivate a ZONE:

- Press & hold  to arm the system. This activates all ZONES.
- Press & Hold the key of the ZONE to be deactivated during the armed session.
- The LED will illuminate for a short while to indicate successful deactivation.

Note: Zones can only be deactivated while the system is armed. All zones will be reactivated (normal state) on the next armed session.


4 Changing sensor settings

Make sure Led  is off. If not, press & hold  to switch off.
Link the Keypad & sensor with the supplied cable.


Led  will indicate successful pairing.

4.1 Changing the Zone of the sensor

- Connect the sensor and keypad with cable provided

○ Press  to show the zone of the sensor.

- Press key 1 – 9 to select the new zone.

○ Press & Hold  to save the new selected zone.


- A second long “beep” will indicate a successful save.

Note: **If a sensor is saved as ZONE 9, the pairing process must be restarted (Steps 4&5).**


Note: ZONE 0 is pre-assigned to the Keypads & cannot be assigned to a sensor.

4.2 Changing the Sensitivity of the sensor

- Connect the sensor and keypad with cable provided

○ Press  to show the sensitivity of the sensor.

- Press key 1 – 8 to select the new sensitivity level, where 8 is least sensitive. Double-detect mode is recommended for high sensitivity settings (1 – 3) to minimize false triggers. This can be selected with key 4 under the P3 programming option. See “**Changing Siren & beam settings of the sensor**” below.



○ Press & Hold  to save the new sensitivity levels.

- A second long “beep” will indicate a successful save.


4.3 Changing Siren & beam settings of the sensor

- Connect the sensor and keypad with cable provided



- Press  to show current selection.
- Press key 1 – 3 to select a new siren option.
 - Key 1 – No Siren with detection
 - Key 2 – Short warning siren with detection
 - Key 3 – Long alarming siren with detection
- Press key 4 to enable **Double-Detection** mode to minimize false triggers in unstable environments.
- Press key 5 to enable the sensor to signal the system status when armed / disarmed from the GSM unit or external remote. 1 siren beep = ON, 2 siren beeps = OFF.
- Key 6 ON: Above Siren setting (1, 2 or 3) is valid when **ANY** sensor in the system detects motion.
Key 6 OFF: Siren setting (1, 2 or 3) is valid only when **THIS** sensor detects motion.
- Key 7 ON: Disable the siren when armed from the keypad. Siren setting (1, 2 or 3) is only valid during **Away** mode (e.g. when armed from a GSM unit or an external remote).
Key 7 OFF: Siren setting (1, 2 or 3) is valid when armed from any device.
- **KB-AM version only:** Press key 8 to enable the Anti-Masking. A Trouble signal will be reported when the sensor is masked.
- Press & Hold  to save the new settings.
- A second long “beep” will indicate a successful save.



Note: All sensor sirens will always sound for 20 seconds when  is pressed & hold, regardless of the settings above & whether the system is armed or not.

5 Orientation Detection

A tilt sensor detects orientation changes in any direction. When the beam is tilted a Trouble signal will be reported & the siren will sound for two seconds.

Note: The Orientation sensor is disabled when the front cover of the sensor is open. After closing the front cover orientation detection will be active.

6 Anti-Masking (KB-AM version)

Active Infrared detects damaged lenses or unwanted objects in front of the lens causing improper sensor functionality.

The sensor will enter an Anti-Masking learning period for approx. 2 minutes after the front cover is closed (walk test mode will continue uninterrupted). Make sure no obstructions are within 30 cm from the front of the sensor during the learning period.

After the learning period, the Anti-Masking feature will function as follow:

- **When the System is Armed:** The Beam reports a trouble signal within 1 minute when masked.
- **When the System is Dis-Armed:** The Beam reports a trouble signal within 5 minutes when masked.

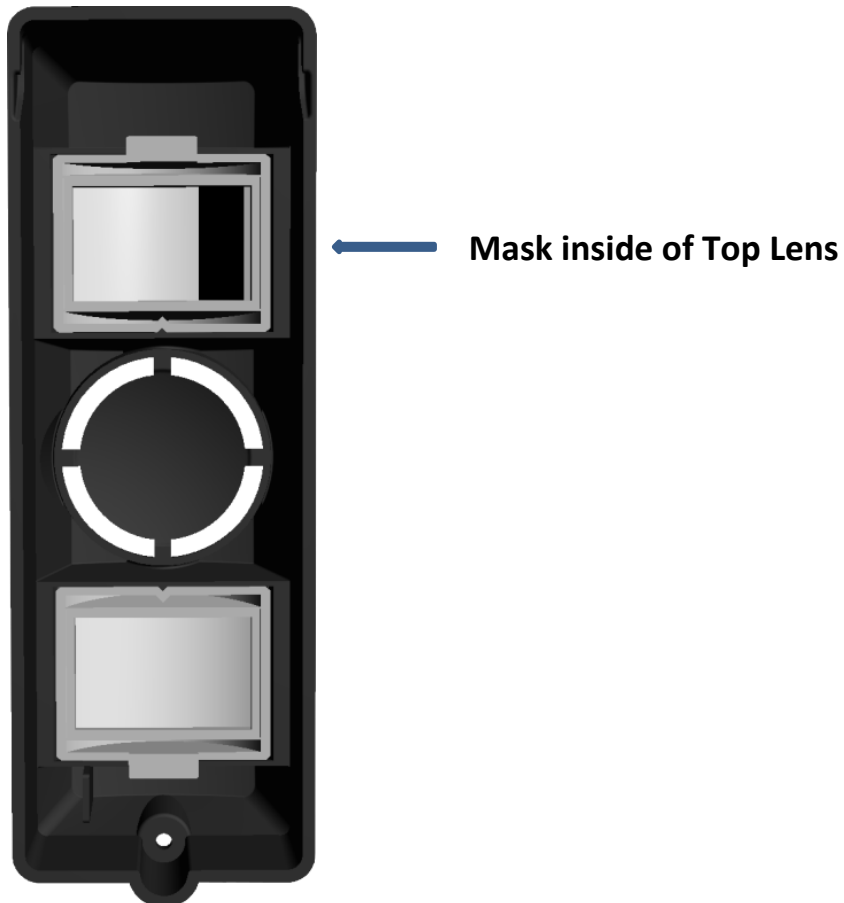
See [Changing Siren & beam settings of the sensor](#) to enable or disable the Anti-Masking feature.

7 Maintenance

- Always use **3 NEW** alkaline batteries of the same kind when replacing the batteries. Standard Duracell or Energize alkaline batteries are recommended.
- Test your Kwêbeam system on a regular basis to ensure proper functionality.
- Regularly open the face cover & remove any signs of insects. Place a mothball behind the main/inner unit to keep insects out.

8 Obstructions causing false alarms

- Beams can be masked when false alarms are caused by unavoidable obstructions.
- Use tape (e.g. isolation tape) to mask the area on the inner top lens.
- Mask the circles that points in the direction of the obstruction area.



Note: The Kwêbeam system has been designed to detect movement of an intruder and notifying the occupants. Being only part of a complete security system, we cannot accept any responsibility for any damage or other consequences resulting from an intrusion.