Motion Sensor 869 (61005/35)

Installation Guide

Contents

1. Features and Introduction

The Motion Sensor 869 is a passive infrared (PIR) based sensor which is designed to detect movement in a room and transmit a radio signal to a Lifeline home unit or other Tunstall Telecare enabled systems.

It has been specifically designed for care applications where it is important to avoid detecting a user who may be on the floor following a fall ('fall zone' feature). This means that, in the event of a fall, any small movements from the person who has fallen on the floor are not picked up by the sensor, ensuring that an inactivity alarm can be generated by the Lifeline home unit or other Tunstall Telecare enabled system.

The device's features include:

- 'Walk test' mode
- 'Auto low battery' mode
- 'Auto presence' mode
- Low current consumption
- 'Fall zone' feature as standard
- 5.0m range
- Easily changeable battery
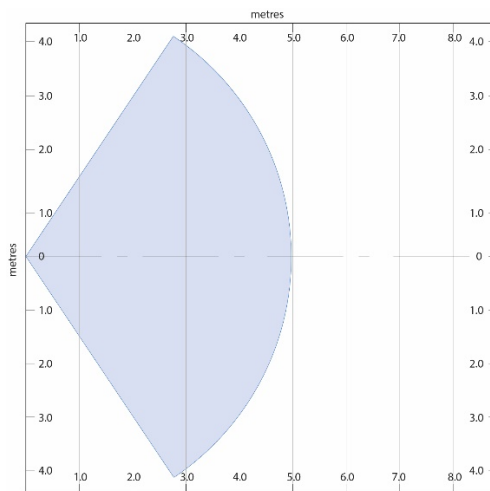
Beam Pattern (Top View)

Your Motion Sensor 869

The Motion Sensor 869 can be used to alert a 24 hour monitoring centre if it detects activity when no activity is expected, or if no activity is detected for a period of time, when used in conjunction with a Lifeline home unit or other Tunstall Telecare enabled systems.

Motion Sensor 869 Illustration
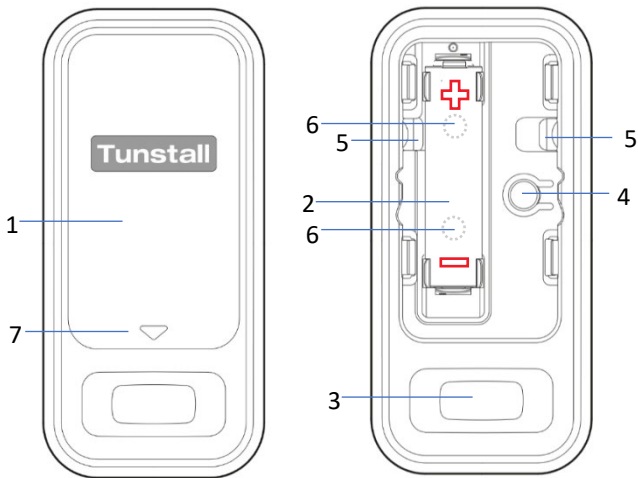
	Motion Sensor
1	Front Cover
2	Battery (Note: positive terminal up and negative terminal down)
3	IR Lens
4	Function Button
5	Screw Locations for Corner Mounting
6	Screw Locations for Wall Mounting
7	Front Cover Removal Arrow

2. Getting Started

What's in the Box?

1 x   Motion Sensor 869

1 x   User Guide

1 x   3.6V AA Lithium Battery

2 x   Hook and Loop Pads

How to Install

The Motion Sensor 869 can be fixed to one flat wall or into the corner of two adjoining walls at a mounting height of 1.0m to 1.5m (dependent on the height of the user). The sensor should be positioned so that the beam is pointing at the user's chest as shown in Fig.1. The fixing height is important for the 'fall zone' functionality described on page 3, and this should be tested using the 'walk test' function detailed on page 8 to ensure that the user's movement is detected.

The sensor should be positioned to ensure that the beam is not impeded by any furniture in the room as shown in Fig.2. Depending upon the construction of the wall, the sensor can be fitted using either hook and loop pads or screws and wall plugs. For the latter method, take into consideration any pipes that may be installed within the walls (screws and wall plugs are not supplied).

1. Remove the front cover from the Motion Sensor 869.
2. Choose the most appropriate method of installation for the proposed location of the sensor. If mounting in a corner position, screws and wall plugs should be used.
3. Fix the sensor to the wall. If using screws, ensure that the appropriate holes are used.
4. Fit the battery into the sensor, carefully observing the correct polarity.
5. Carry out a walk test (see page 8) to ensure that the sensor has been installed in the optimum position to detect the desired movement whilst minimising false activations.
6. Replace the front cover.

7. After three minutes have passed, the sensor will exit 'walk test' mode. Once the sensor has returned to normal operation, the red LED will no longer illuminate upon detection of movement.

Tunstall recommend that the Motion Sensor 869 is installed in a position which is away from:

- Direct sunlight
- Fans or air conditioning units
- Vapour or high humidity which may cause condensation
- Curtains, blinds or screens
- Fluorescent lights
- Unstable locations prone to vibrations or shocks
- Heat sources such as radiators
- Any furniture which may block the sensor detection beam.

The sensor should be installed in an indoor location and should not be aimed towards equipment or outside areas where frequent movement could be detected.
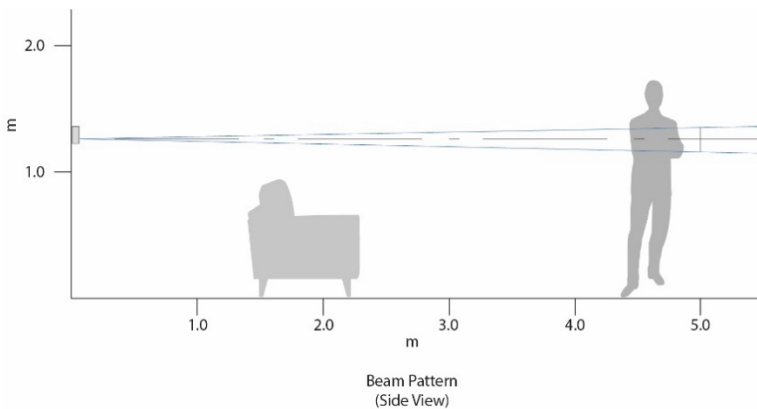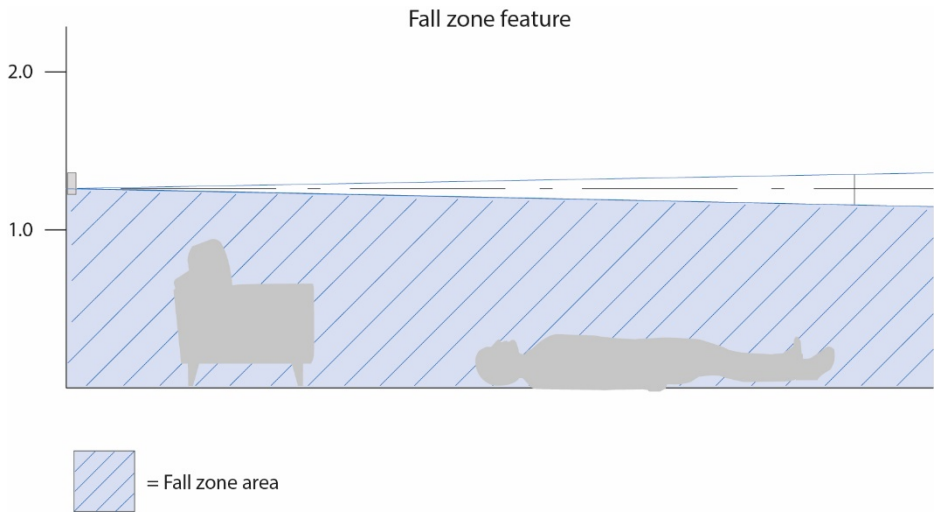
Fig.1 (Positioning Height)

Beam Pattern
(Side View)

Fig.2 (Fall Zone Positioning)

Fall zone feature

= Fall zone area

3. Connecting the Motion Sensor 869 to the Tunstall Home Unit

The Motion Sensor 869 can be assigned using 'plug and play' programming. This is achieved by placing the Tunstall home unit in 'radio trigger assign' mode and then generating a radio transmission from the Motion Sensor.

1. Press and hold the 'cancel' button on the Tunstall home unit until it beeps (some units will announce 'programming mode'), then release the 'cancel' button.

2. Press and hold the 'cancel' button again until the Tunstall home unit beeps, then release the 'cancel' button.

3. Remove the front cover and press and hold the 'function' button on the Motion Sensor until a solid red LED is displayed. Continue to press the 'function' button for approximately three seconds until the red LED turns off, and then release the button.

4. Activate the Motion Sensor by moving in front of the lens. When in 'walk test' mode, the red LED on the sensor will flash to confirm that movement has been detected and a radio transmission has been sent to the Tunstall home unit.

5. The Tunstall home unit should beep to confirm that the Motion Sensor has been programmed to the unit (some units will announce 'PIR' verbally to confirm the programming was successful).

The Motion Sensor will remain in 'walk test' mode for three minutes after powering up. To restart 'walk test' mode, follow the instructions detailed on page 8.

4. Modes of Use

Walk Test Mode

In order to ensure that the Motion Sensor 869 has been mounted in the optimum position to detect movement whilst minimising false activations, it is recommended that a walk test is undertaken. This is achieved by placing the sensor in 'walk test' mode and then asking the end user to move in front of the lens, to ensure that they are detected. The red LED will illuminate upon detection of movement.

To activate 'walk test' mode:

1. Press and hold the 'function' button until a solid red LED is displayed.
2. Continue to press the 'function' button for approximately three seconds until the red LED turns off.
3. Release the 'function' button. The Motion Sensor 869 is now in 'walk test' mode, which will be active for three minutes. The timer will <u>not</u> be reset if the sensor detects movement during this time.
4. Ask the user to walk in front of the sensor. The detection beam should be pointing at the chest area for optimal detection.
5. Once the user's movement has been detected, they should move away from the sensor for three minutes so that the sensor will revert to its normal operation mode.

Fall Zone

The 'fall zone' feature is designed to ignore activity if the user has fallen on the floor and is moving around, therefore disregarding any activity that might suggest that all is well in the user's home and ensuring that alarm calls are raised.

To achieve this, the sensor must be positioned at a minimum of 1.0m high from the floor.

The 'fall zone' feature also reduces the likelihood of pets generating false alarms when being used in wellbeing scenarios for activity monitoring.

Auto Low Battery (ALB) and Auto Presence (AP) Mode Overview

Auto Low Battery Mode

When the battery is low, the monitoring centre will be automatically notified of this by the Motion Sensor 869. The battery should be replaced within two weeks of receiving an 'ALB' warning. The warning will be issued every seven days until the battery has run out.

Auto Presence Mode (Heartbeat)

On supporting Tunstall systems, this mode carries out additional checks to provide reassurance that the Motion Sensor 869 is functioning correctly. When 'AP' mode is active, the Motion Sensor sends a signal to the Tunstall unit every four hours, effectively acting as a heartbeat. An 'AP failure' message will be raised to the monitoring centre if the Tunstall unit has not seen eighteen consecutive 'AP' messages. 'AP failure' alarms will be continually generated if sensors are removed from the property when in 'AP' mode and are not deleted.

Note: The default setting for the Motion Sensor 869 is 'ALB' mode.

Auto Low Battery (ALB) and Auto Presence (AP) Configuration Mode

1. Ensure that the Motion Sensor 869 is not in 'walk test' mode.
2. Press and hold the 'function' button until a solid red LED is displayed.
3. Continue to press the 'function' button until the LED flashes to indicate the current 'AP'/'ALB' state. A fast red LED flash rate indicates 'AP' mode, and a slow red LED flash rate indicates 'ALB' mode.
4. Briefly press the 'function' button whilst the red LED is flashing to toggle the 'AP'/'ALB' state.
5. To save the new 'AP'/'ALB' state, do not press the 'function' button for ten seconds.

5. Notes and Warnings

Service Information

The Motion Sensor 869 contains no user serviceable parts. It contains an EVE ER14505V 3.6V battery with up to 2 years' life (typical usage). This battery is user replaceable and when it has expired it should be disposed of according to current local regulations.

Changing the Battery

To change the battery of the Motion Sensor 869:

1. Remove the front cover.
2. Remove the current battery and dispose of according to local regulations.
3. Wait for twenty seconds before inserting a new 3.6V AA Lithium battery, checking that the polarity is correct.
4. Tunstall recommends using the EVE ER14505V. The replacement battery part number is S1004055.
5. Replace the front cover, ensuring that it is securely fitted.
6. When the Motion Sensor powers on, repeat the walk test (see page 8) if required.

Note: Following a battery change, remember to check the position of the Motion Sensor is still relevant to the user.

Warning: During battery replacement, the Motion Sensor will not be able to generate a help call.

6. Compliance and Standards

Radio Frequency:	869.2125MHz
Radiated Power:	Less than 1 milliwatt
Area of Use:	Europe
Environmental Group:	Group 2 – Indoor in general
EMC:	EN 55032
	EN 301 489-1
	EN 301 489-3
Radio:	EN300 220-3-1
Safety:	EN60950-1
Design, Manufacture Installation and Service:	ISO 9001:2015

Declaration of Conformity

Tunstall declare that the radio equipment is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following address: **uk.tunstall.com/approvals**