

Bed Occupancy Sensor

Call 01837 810 590 for technical support

The Airlert™ Bed Occupancy Sensor continuously signals whether a bed is occupied. The full-length mat is positioned under the mattress to detect presence on any part of the bed.

What's inside

Your bed pressure mat is supplied to plug into your existing call system. It consists of a rolled up full-length foam mat and a battery powered control box. These plug together using the black airtube. There is also a matched lead to connect into your call system.



How it works

The air-filled pressure mat is placed under the mattress and is connected to a control box. The system will detect presence on any part of the bed by detecting vibrations through the mattress. The system detects from breathing or heart pulses the occupancy of light or heavy occupants through all types of mattresses including those on profiling beds and underneath airflow pressure relieving mattresses.

Setting up

- Unroll the mat.** When newly opened allow the mat to inflate for at least 20 minutes before connecting air tube.
- Check the batteries.** Check the batteries are in place in the compartment in on the back of the control box.
- Plug in and set the control box.** Connect the air pipe to the control box and switch to test.
- The blue "out of bed confirmation timer" LED will activate for 2 seconds.** This indicates that the out of bed confirmation timer is working, and the batteries are healthy.
- The red "out of bed confirmation" LED will indicate that the bed is unoccupied.** (technical note – at this point, the control box is signalling that the bed is unoccupied. The green LED indicates that vibrations have been detected through the mattress (i.e. the system is deciding whether a person is in bed). To increase reliability, the system will need to prime for 30 seconds (i.e. for the green light to remain continuously on for 30 seconds) before the system decides that the bed is occupied).
- When no LED's are indicating in test mode, this indicates that the bed is occupied.** (technical note – at this point, the system is primed and signalling that the bed is occupied).

LED indicators (active in test mode only)

Status		Default Settings
In bed confirmation (priming) timer active	●	30 seconds
In bed (primed)	⊗	All LED's off - signalling changed to in bed
Out of bed confirmation timer active	●	2 seconds
Out of bed	●	Red LED - signalling changed to out of bed



Use "Test Mode" only during setup. LED's do not activate in "ON" mode to extend battery life up to 20 times longer.

7. Check that the control box is triggering your call system as required.

When used with a remote monitoring solution, such as Tunstall dialler, a typical setup would be to connect the control box to a Tunstall Universal Sensor. This will indicate to the dialler whether the bed is occupied. The Tunstall dialler will then call for assistance if the bed is unoccupied after a preset delay on the Tunstall dialler.

Technical note: to work properly, the Tunstall Universal sensor must be paired with the Tunstall dialler and configured correctly to indicate 'in bed' or 'out of bed'. A technician familiar with Tunstall equipment will be able to do this.



Problem Solving

Connections It sounds simple, but it is important to check all the plugs and tubes are plugged correctly. The jack plugs need to be plugged all the way in.

Mat inflation When mats are new they can take a while to inflate fully. If your mat is not working correctly try letting it inflate whilst not under a mattress for one hour. Used mats not functioning correctly can also benefit from this treatment. It can also help to do the following:

1. Allow the mat to inflate unplugged whilst not under the mattress.
2. Plug the airtube into the control box.
3. Finally place it under the mattress (ensuring it remains plugged in to keep the air in).

Mat position The mat is placed underneath the full length of a single mattress. It is possible to extend the area covered by sensor by connecting two mats together using a T-piece. For example, two bed mats can be connected to cover the area of a double bed, or a chair mat can be connected to the bed mat to also cover a bedside chair.

Battery The battery compartment is accessed by sliding off the rear panel on the back of the control box. Check that the battery in the control box is not flat. If you have a problem, try replacing the batteries with 2 x new AA Alkaline batteries. We recommend Duracell Alkaline batteries. Typically, the batteries in your sensor will last for roughly two years. Check that the switch on the control box is set to “on” mode during everyday use.

Other information

Cleaning The mat contains no batteries or electronics since it is air operated. It can therefore be cleaned with detergent or mild chlorine solution as required. We suggest wiping with a disposable cloth using alcohol solvent, disinfectant or with warm soapy water. The black air tube can be removed at both ends and wiped as above or as a low-cost item these may be replaced easily. The control box incorporates electronic components and should not be submerged but may be wiped with an alcohol solvent, detergent or mild chlorine solution as required.

Safety Remember, regular system tests should be carried out to ensure correct function of the unit. Usage should be incorporated within safety manuals and procedures. If the unit has been dropped or is worn by a person involved in an accident the unit should be tested again before re-use. For pager-linked sensors, range tests should be carried out at least once a week, more often if critical criteria apply. This should involve testing the unit past its required range.

Specifications

Control box

Power supply: 2 x AA Alkaline Battery (Removable, not rechargeable)

Dimensions: 117mm x 78mm x 24mm

Weight with battery: 140g

Bed Mat

Dimensions: 1900mm(L)x670mm(W)x28mm(thickness)

Weight: 1kg

Compliance: Hereby, Frequency Precision declares that the RE type SRD is in compliance with RED2014/53EU. The full text of the EU DoC is available at the following internet address: <https://www.frequencyprecision.com/pages/doc-documentation>

Liability Frequency Precision does not accept any liability for any damage or injury, howsoever caused as a result of misuse of this equipment. It is the responsibility of the user to ensure that the equipment is operated in the manner for which it was intended and that it is the correct item of equipment for the required task. All systems can fail, and it is the responsibility of the user to carry out regular tests to determine the suitability of this equipment for any application.

Repair and replacement Frequency Precision will refund payment for any unit returned within 30 days of purchase as unsuitable for the intended purpose. Undamaged units will be repaired free of charge within the first 12 months.

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Disposal At the end of the working life of the product it must not be disposed of within household waste but returned to Frequency Precision Ltd or disposed of at a collection point for the re-cycling of electrical and electronic equipment.