

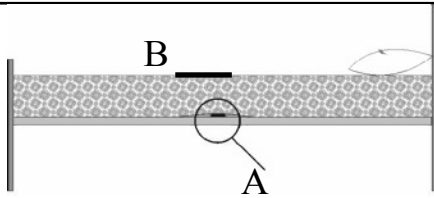
Quick-start guide for P154BA Wire linked Bedside Monitor systems with Sound (S1027, S1028)

The P154A is a flexible monitor capable of using a range of sensing components and passing an alarm to a portable Nurse Call Pager. We have provided your system with a selection of our sensors to best suit your needs and set any operating conditions as best we can within our experience and information you provided. This leaflet is a quick-start guide to installing, testing and using your system. After installation we are pleased to offer you a full system check via our telephone helpline, and would urge you to use this service. Should you wish to change any of the operating parameters or modify your system in any way, then detailed handbooks are available on request or on-line at www.alert-it.co.uk/handbooks/

Install the sensing components

Install the **Bed Movement** Sensor (A)

underneath the mattress on a compliant bed base or the foam pad supplied., in a position below the rib cage. Its task is to monitor the smallest bed movements transmitted through the mattress.



For S1028 install the **Bed Occupancy Mat (B)** on top of the mattress under a suitable cover sheet, in a position that ensures the maximum body weight is lying on the mat, typically below the upper torso. Under the shoulder area is a good place if an alarm is required before the users feet touch the floor.

The optional **microphone (C)** is plugged into the rear socket and positioned near and convenient to the user. It can be made very sensitive to short sound bursts (eg grunts, clicks and shouts) while being insensitive to general background noise (eg TV and conversations)

An optional **Bed/Wall bracket** is available which can be adjusted to suit different bedhead thicknesses by loosening the two screws. For very thick beds the bracket can be reversed to give greater adjustment.
For wall mounting the bracket is screwed to the wall, through the slots, and the P154 then added

Connect to Alarm System and test

The system components and connection details are shown overleaf. The actual range of sensors provided will depend on your order requirements

The P154 Alarm signal is available on the rear **OUTPUT** socket as a changeover switch. If a P145 Nurse Call cable has been provided then this should be connected to the Nurse Call room box (in place of any Call Button unless a special equipment socket is provided).
If the P119F Remote Indicator is supplied then this is connected via the 5m lead supplied. Additional extension leads are available.

These tests must be repeated regularly to check the sensors

For 30 seconds after turn-on or pressing **RESET** the unit is in a test mode which allows you to confirm the various sensors are working, without sending an alarm. This period is indicated by the green power light flashing. Follow the test sequence as appropriate:

Bed Movement. Tap the mattress and Input A light should flicker with each tap. The amount of force needed to make the light flicker can be adjusted

Bed Occupancy: If the system has such a provision then Input B light will be on if no-one is sitting/lying on the mat. Press the mat and ensure the light goes out.

Microphone. You will first need to sit on any Bed Occupancy mat if fitted, to make Input B light extinguish. The light should now flicker whenever a sharp sound or click is made. The loudness of the sound to make the light flicker can be adjusted (see setup sheet)

Normal Operation

Once the test period has ended (indicated by the green power light being mainly on), the P154 will now detect alarms. Remember that most sensors operate with a time delay to reduce false alarms. When a sensor is stimulated the corresponding light will illuminate and the time delay starts. If the sensor activity stops then the light goes out and the time delay is reset without sending an alarm. If the sensor remains activated, the light will stay on and the alarm will be transmitted after the delay, and the **ALARM** light will illuminate.

The exact form of the alarm annunciation will depend on the ancillary equipment supplied. The P145 Nurse Call lead will pass the alarm to the resident Nurse Call System. The P117A Autodialler will pass the alarm details by telephone or the P119 Remote Buzzer will alert staff locally.

The alarm can only be cleared by pressing the button

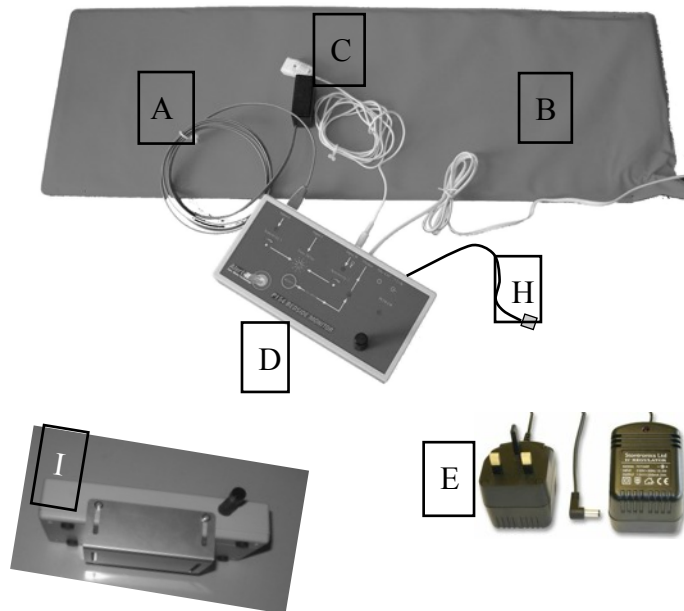
Bed Occupancy reset has a special feature to prevent false alarms during the day. If the **RESET** button is pressed at any time with the occupant out of bed, then the alarm detection is inhibited until the mat is next operated, indicating that the client has got into bed, and is therefore now to be monitored.

Alarm Indications

| P154 Indication | Nurse-Call | Meaning |
|---|------------|--|
| None | no | Radio signal lost from the node |
| Red light A on steady | yes | Client is in distress (Bed Movement Alarm) |
| Red light B on steady | yes | Client is in distress (Sound Alarm) |
| Red light B flashing | yes | Client is in distress (Bed Vacation Alarm) |
| Red light A flashing | yes | Client is in distress (Additional sensor eg Floor Mat) |
| On power-up or RE-SET all LED's will flash as warning | no | Battery is client's system needs charging |

System components and connection *(actual components supplied may vary to order)*

| Part Description | Part No |
|--|---------|
| A Bed Movement Sensor | P114A |
| B Bed Occupancy Mat | P143C |
| C Microphone | P158A |
| D Bedside Monitor | P154* |
| E Power Supply for A | P171* |
| H Nurse Call/Annunciator Lead (optional) | P145* |
| I Mounting bracket | P159A |



Full adjustment details are found in handbooks available on:
www.alert-it.co.uk/handbooks/
Or by phoning Alert-iT

P154 Sensor Adjustment

Any adjustment to Bed Movement or Sound detection is made during the 30 second test period after switch on or RESET, when the effect can be observed on the red indicators

Sensitivity Adjustment

The two *sensitivity* controls the level at which the stimulus is detected. A good starting place is the slot vertical (half-way) For maximum bed movement sensitivity turn the control clockwise, with the small screw-driver supplied, but not so far that the red indicator is permanently on or flashing. Turn anti-clockwise to reduce over-sensitivity while ensuring the red indicator flashes each time a stimulus at the anticipated level is made.

Time Delay Adjustment

The delay is a time for which the distress condition (sound or movement) must occur before the alarm is sent and is set by altering the position of small rotary switch according the table. The period should be set to minimize false alarms during normal movement.

| | Time (sec) | Rate (sec) |
|---|------------|------------|
| 0 | 2.5 | 1.5 |
| 1 | 5.5 | 1.5 |
| 2 | 10 | 2 |
| 3 | 15 | 2 |
| 4 | 20 | 3 |
| 5 | 25 | 3 |
| 6 | 30 | 3 |
| 7 | 40 | 3 |
| 8 | 50 | 3 |
| 9 | 60 | 3 |

As delivered the sensitivity should be suitable for detecting spasms in a domestic bed and the time delay of 15 seconds (position 3) will normally be a good compromise between speed of detection and avoiding false alarms during nocturnal restlessness or short, self-healing spasms. Please refer to the TESTING procedure for confirming acceptable operation.

Bed Vacation Time Setting (S1028)

The default setting is 6 minutes, which is used to detect potential collapse out of bed, while allowing the user freedom for visiting the bathroom for instance. This can be changed in the range 5 seconds to 21 minutes, but requires removal of the P154 base and a reset procedure using the links exposed. For this please refer to the UH1102B P154 Installers Handbook

A small screwdriver to fit the controls is to be found in the battery compartment on the underside



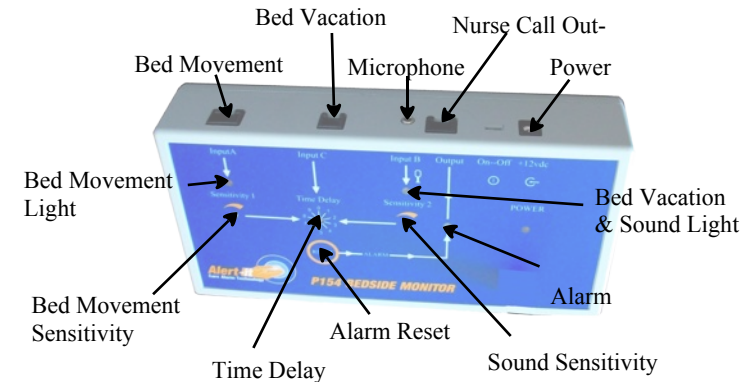


This symbol indicates there are warnings and precautions associated with the use of this equipment. This instruction manual should be carefully read and understood before using the equipment.

1. Ensure that the sensor cable is routed and secured to avoid the risk of entanglement or strangulation.
2. Ensure the power cable is routed to avoid a trip hazard
3. Regularly check the power supplies for damage and potential shock risks
4. Ensure, by testing, that the alarm is annunciated at the carer's location(s)
5. Clean and disinfect each item regularly in accordance with information on page 7
6. Regularly test as defined herein
7. Use only the power supply and batteries recommended
8. Operate power supply and charge pager away from direct heat and uncovered.
9. As with all medical electronic equipment there is potential for the equipment to interfere with or be effected by interference from other electrical or electronic devices. For this reason avoid placing the monitor, sensor or connecting cable in close proximity to sensitive electronic devices or devices which produce strong electromagnetic fields such as radio transmitters, mobile phones or power cables.
10. Only use the monitor with accessories approved for use with this product and only in accordance with instructions.
11. If the equipment is modified in any way, appropriate inspection and testing must be conducted to ensure continued safe use of the equipment.
12. The carer must conduct a risk assessment to determine if the level of reliability offered by the monitor is sufficient or if additional monitoring is needed. Contact the manufacturer for assistance with Risk Evaluation Tools.
13. Additional levels of mechanical protection may be needed for some patient disorders. Contact the manufacturers for advice

The system complies with 93/42/EEC as a Class 1 Medical Device
The system complies with EN60601 for Class 2 Electrical Safety and does not need a protective earth.

Controls and Indicators



Support

For technical support please fax or EMail:
HELP: 0845 2179951
FAX : 0845 2179953
Support@itsdesigns.co.uk

Designed by:
ITs Designs Ltd
Leicester
LE9 9FE UK

...using technology to care for carers