

Wandering Client Sensor

installation manual

Part Number: D4107046A

All the reassurance you need

Tunstall

Installation Manual Telecare Wander Sensor

D4107046 Issue –A



This manual provides installation and setup information for Telecare Wandering Sensor Equipment; part 41005/14

Wander Detector Manual

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SETTINGS RECORD

1. INTRODUCTION/ OUTLINE DESCRIPTION

The Tunstall Wander Detector is an advanced Telecare sensor for use with those who may be at risk of wandering. The Wander Detector protects an exit point within a property e.g. front or back door and is capable of detecting whether the client has wandered and optionally if the door has been left open for greater than a preset time.

A sensor control unit is connected to PIR and Door sensors, which determines the state of room. This control unit is radio linked using the dedicated social alarm frequency (869.2125MHz) to compatible monitoring equipment. Should an alarm condition be present, an alarm is raised at the monitoring centre.

A keyswitch is used to give carers a simple method of arming and disarming the Wandering Client Detector.

Optional X10 (master) equipment can be connected to the control unit to remotely control mains powered equipment (eg light, via a slave) and thereby automatically turn on a light when a door is opened.

A Palm PDA device is used to programme the control unit- e.g. setting times during which the resident would be monitored.

Before attempting to use a Wander Detector System, it is recommended that this manual be read in its entirety.

This manual is relevant for sensor hardware [41005/14 issue A](#) and Palm software [SA1239 issue A \(159V0R1.30\)](#)

2. EQUIPMENT LIST

Client Wandered Alarm

Sensor control unit- 41005/14

Packed sensor control unit with batteries and all sensors 41005/15

The contents include

PIR 41005/07

Door contacts GS467

Keyswitch 41005/08

PIR and contact cables D4105003A

Keyswitch cable D4105004B

Wall mounting brackets

Within the boxed 41005/15 are user instructions [D4107005A](#) which should be marked up with the personal times set for the resident.

3. PROGRAMMING

PALM

A packed personal organiser (Palm PDA) containing this manual, a Palm and appropriate interconnecting leads is available under part number 41005/10. This also contains the Tunstall configuration software SA1239 on CD or SD ROM

41005/22 TIM Service Kit for PC

A kit containing a bundled PALM emulator with TIM set-up software is available with a connecting cable that installs a working PALM emulator for a PC which is installed using SETUP.EXE

4. COMPATIBLE ALARM RECEIVING EQUIPMENT

Lifeline 400

Lifeline 4000+

Telecare Overlay

(i.e. all 869MHz compatible)

PNC control centres will use TT92 protocol and default location meanings to convey the correct alarm conditions

5. REQUIREMENTS OF COMPATIBLE PERSONAL COMPUTER

(Necessary for loading the configuration software onto the palm)

CD rom drive

USB port (for connection of palm docking station)

6. WANDER DETECTOR FUNCTIONALITY

The Wander Detector is capable of generating the following alarm conditions: -

Client Wandered Alarm

This alarm will be triggered if the client opens the monitored door and subsequently moves out of range of the movement detector for a configurable amount of time, irrespective of whether the door has been left open or not (providing the keyswitch is in the enable position).

The following additional features are connected with this alarm: -

- **Monitoring period** – the client wandering alarm is active between these times. The external keyswitch will disarm and re-arm the device during the monitoring period. If the monitoring period is set as “always active” then the keyswitch will permanently disable the alarm.
- **Use of Keyswitch** - When the wandering alarm is “armed” by the keyswitch (i.e. in the “on” position) it will emit a series of beeps for the duration of a configurable exit time after which it will begin monitoring (like a burglar alarm). The exit time may be set to 1, 2, or 5 minutes. When the device is disarmed by the keyswitch it will emit a short tone to confirm to the user that the wandering alarm has been disarmed. This tone is only given during the active period. Set the unit to “Always Active” to check the switch.

Door Left Open Alarm

This optional alarm will occur if the protected door has been left open for a configurable duration, irrespective of whether movement has been detected by the PIR.

The Door Left Open Alarm is reset when the door is closed

Automatic Battery Low Alarm

The device will raise an automatic alarm if a low battery condition is detected

Connections

Up to 5 connections may be necessary. They are labelled IP1, IP2, IP3, IP4/Prog and X10 as shown in the following photograph.

IP1 is for the keyswitch

IP2 for PIR

IP3 for door contacts

IP4 for programming via the PDA

Any connections not used should be blanked off prior to power up. These blanking plugs are in place at time of shipment.



To plug a connector into these sockets, simply push the connector in until it clicks, or in the case of IP1, just push it in until it won't go any further. Gently pull on the lead to make sure that it doesn't come loose.

To remove the connectors from all sockets other than IP1, push down on the plastic tab on the top of the connector (shown in the picture below) and gently pull the connector out of the socket. If it doesn't pull out, you're not pushing the tab down hard enough.



7. CONNECTIONS

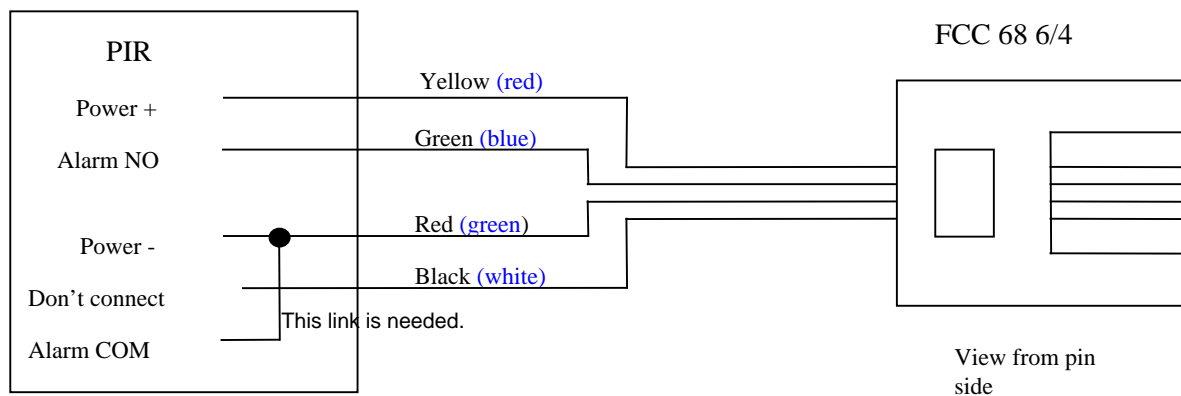
Positioning of the sensor module may require some thought and the following guidelines are appropriate: -

- The sensor module must be screwed to the wall out of reach of the client, but bear in mind the necessity to be able to plug the lead from the Palm into IP4 of the sensor module for configuration purposes. To screw to the wall, fit the supplied feet one by one, using the enclosure fixing screws through the slotted hole. Ensure radio propagation is taken into consideration- do not mount onto a metal surface or close to metallic items.
- The sensor module should be mounted such that cables to the PIR, Door Contacts, Keyswitch and X10 Controller are appropriately routed- cables should not be extended.
- If an X10 Controller is fitted, then the sensor module must be within range of a suitable mains extension

PIR Module

A PIR is used to detect client movement.

The PIR should be sited above the door that is being monitored in accordance with the instructions supplied with the PIR. The Pulse Count jumper should be set to 2 and the Walk Test jumper **MUST** be fitted. Note that the walk test LED will not illuminate. The back box supplied with the PIR is not needed in this application and can be removed if required.



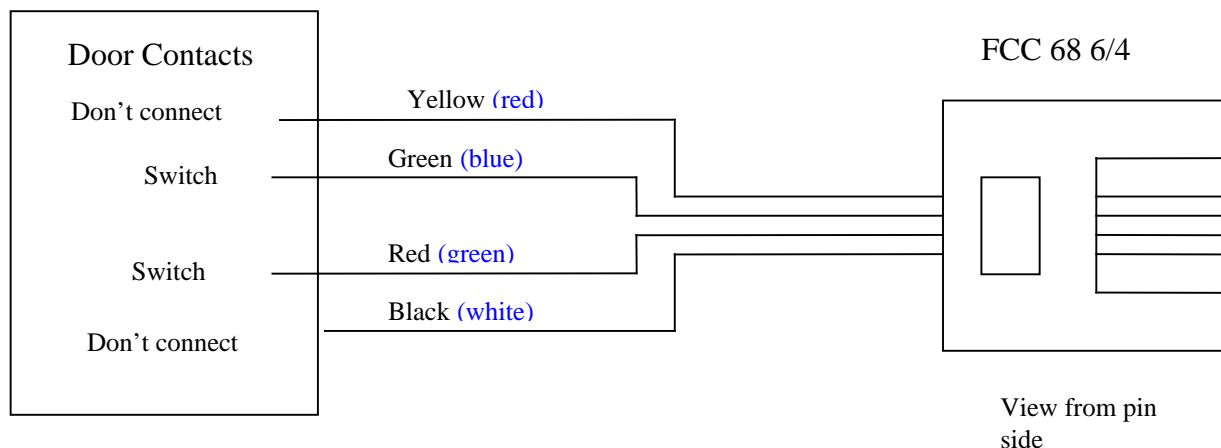
The PIR should be connected to IP2 on the sensor module using the supplied lead. The required wiring connections are shown below: -Alternate colours in brackets- (**check if you have a white or yellow wire**)

Door Contacts

The door contact pair (magnet and switch) should be mounted on the door that is being monitored. The only limitation for mounting the magnet and switch is that they are not near other magnetic sources, and that they don't physically touch when the door is opening or closing, as this can cause the door to not open or shut properly. If the door or frames are metallic, the pair should be mounted as close as possible to each other.

The door sensor should be connected to IP3 on the sensor module using the supplied lead. The required wiring connections are shown below: -

Alternate colours in brackets



Keyswitch

The keyswitch is used to enable or disable the system when a carer attends the client.

The keyswitch will normally be sited near the door that is being monitored. This positioning is not vitally important, but should be convenient for the carer.

The keyswitch should be connected to IP1 on the sensor module, which is a 3.5mm jack plug using the provided lead. Connect to closed connections when the switch is off. These are the **L1 and L3** terminations. The polarity is not important

It is important to check that the cable clamp holds the thin cable correctly. This may be achieved by folding the cable back on itself such that it is sufficiently thick to be clamped.

8. BATTERY INSERTION

Four AA batteries as supplied should be inserted within the battery compartment. The necessary polarity markings are moulded into the plastic. Only High Power alkaline should be fitted e.g. Duracell or Duracell Ultra. The Sensor will beep briefly upon power up. If it beeps continuously one battery is the wrong way round or flat batteries have been fitted.

9. SETTING UP THE PALM™ OR PALM™ EMULATOR

NOTE Only Press keys ONCE (despite the delay); repeat presses can cause problems.

The sensor is configured using a Palm™ handheld computer or an Emulator on a PC. A mixture of emulator and processed Palm Images has been used.

10. INSTALLATION OF SOFTWARE INTO PALM USING SD ROM

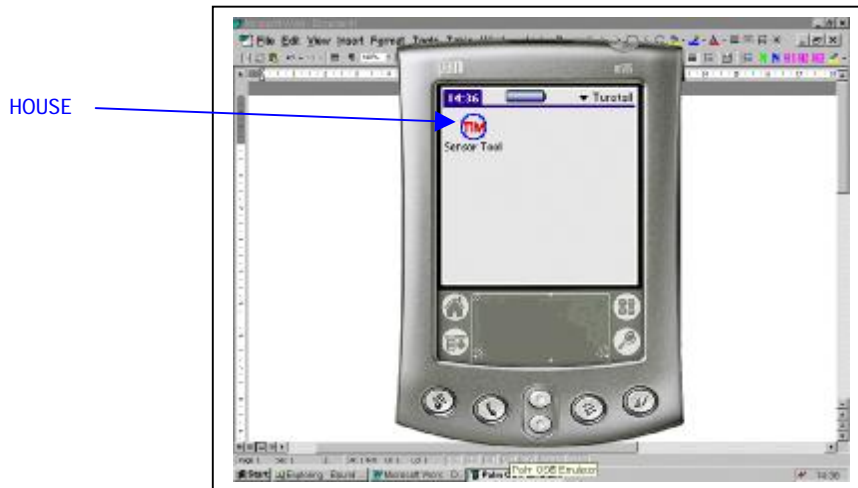
The Palm should be switched off. The SD card should be inserted into the Palm following the Palm instructions.

Installation via PC

The Palm™ will first require the configuration software to be loaded- this is done via a personal computer. Also any notes that the Palm™ makes will be saved to the PC.

The Emulator comes bundled with Tunstall Software.

See the Palm instructions for installation and ensure that it is possible to Hotsync (synchronise) the Palm. Also ensure that the Palm time is correct- it is used to set up the sensor times and is critical to the correct system operation



Installation of Palm configuration software

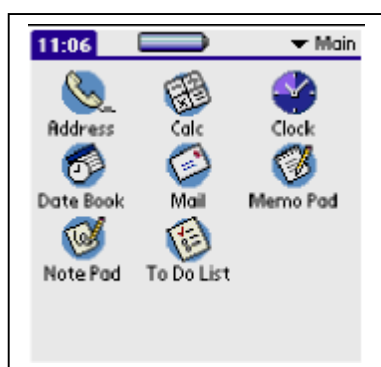
The software supplied on CD should be transferred to the Palm using the Palm Hotsync feature

Running configuration software

Press the 'SENSOR MODULE sensor tool' icon on the Palm desktop. **Ensure that the Palm time is correct-** it is used to set up the sensor times and is critical to the correct system operation

Running Emulator configuration software

When the emulator software is installed, it should come up with Tunstall Icon. If any of the following screens comes up press HOUSE until the Tunstall icon appears.



Right Press the mouse on the screen area and the following diagram should appear.

It is important that the correct port is configured for 9600 baud.

Press Properties

The correct port should be set up.

A hard cold reset should now set up the software.



11. CONFIGURING THE WANDERING SENSOR.

Note that some familiarity is assumed with standard Palm™ operation.

Ensure the Palm™ or the PC has the correct time set - this is very important as the time information is transferred from the Palm™ to the sensor module during programming. Consult the Palm user manual for details on how to confirm this.

Load up the software without the sensor connected.



Connect the serial lead to the Palm™ or PC FIRST.

It is recommended that the Palm is placed on a flat surface to ease programming and facilitate optimum connections.

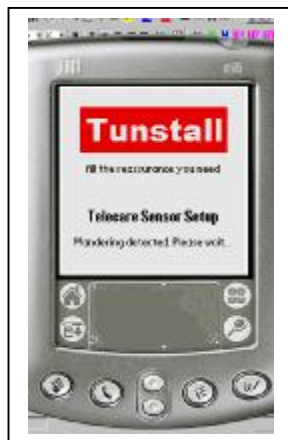
Connect the serial lead to the IP4/Prog socket on the Wandering Sensor.

At this point the Sensor must emit a beep and the Palm™ will load up the configuration screen and the current settings as shown in the following screenshots.

EXPECT SEVERAL SECONDS DELAY FOR THE PALM TO RESPOND. Observe the “please wait” notification.

If this screen is not observed then check cables, connectors, configuration, ports etc

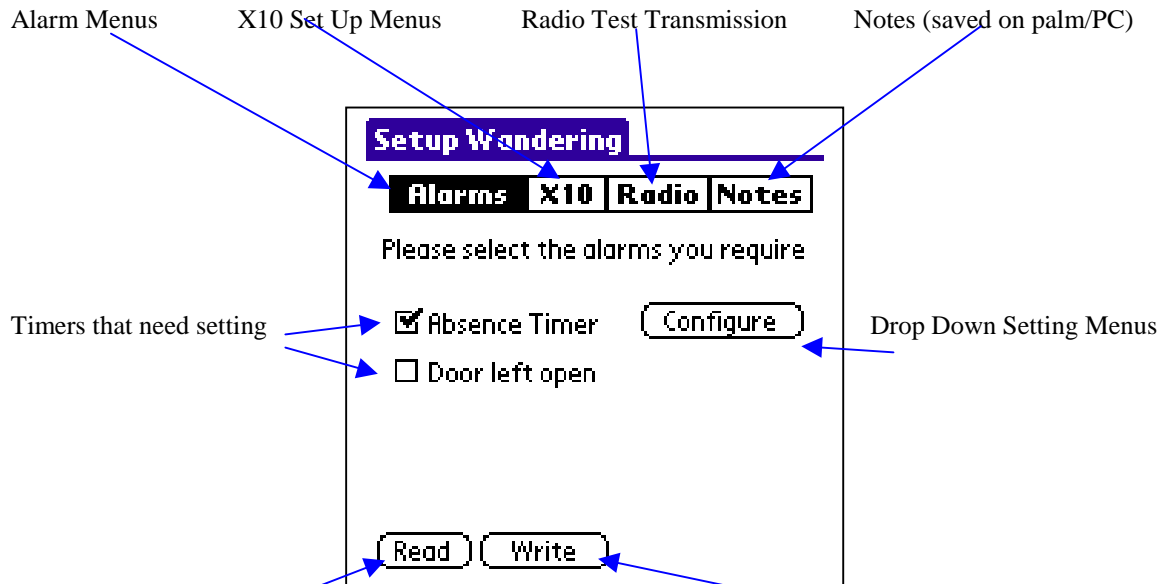
12.



SETTING UP THE WANDERING SENSOR

Setting up Screen

The following screenshot shows the default screen after a sensor has been connected. Different parts of the configuration can be viewed by using the stylus to tap on the appropriate part of the screen.



Current settings can be read from the unit into the Palm (shows Palm time)

They can then be sent to the Sensor using write, there may be some delay!

Press on the Configure Button (One Press is enough!)

This will load the configuration into the PALM, note the blue top rectangle will say READING. After a short time the confirmation window will appear

Times are set up using the selection menus shown. When the right value is selected Press OK.

On completion the right hand menu will be shown.

Absence time: time before unit is triggered after door has been opened (and closed) when no activity is sensed.

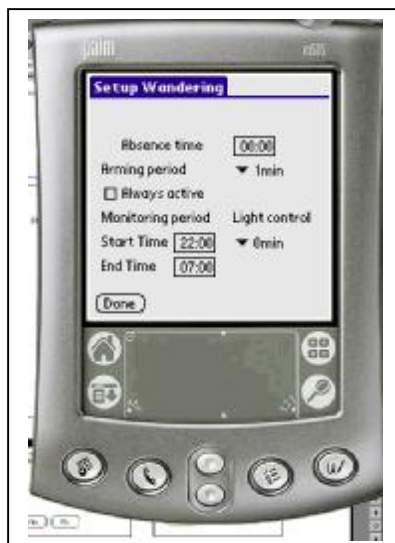
Arming Period: time after disable switch is switched to for monitoring to start.

Always Active: Continuous monitoring unless disabled.

Monitoring Period: The time that the unit is active.

Light Control: The time taken for the X10 to light.

Done: Closes the window but does **NOT write the settings to the unit.**

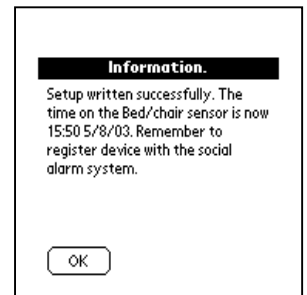
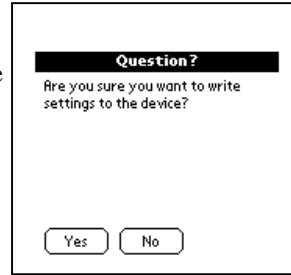




Press Write Configuration
The question window will appear. Press Yes

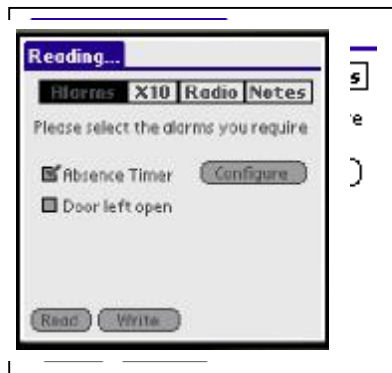
This will load the configuration into the Module , note the blue top rectangle will say WRITING . After a short time the confirmation window will appear.

NOTE
The unit time will be updated by the PALM to its time.



13. READING THE UNIT'S TIME

On most of the screens the time indicated is Palm time. If problems are experienced then Press the blue top area. Then Press Help. Press About. The screen will show Reading.



tin



14. SELECTING THE ALARMS

Selecting the alarms

The alarms required are set up using the screen shown.

Write Alarms

After the confirmation screen write the alarms in .

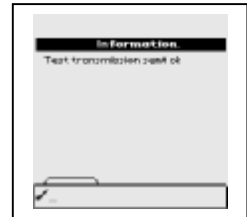
Home

Pressing the Home key will exit the application.



15. SENDING A TEST MESSAGE

Press the Radio Key. The resulting menus allow a radio test transmission. Use to configure /test the Lifeline.



16. SETTING UP X10

X10 equipment is not used on the Wander Sensor

17. CONFIGURING THE SWITCHES

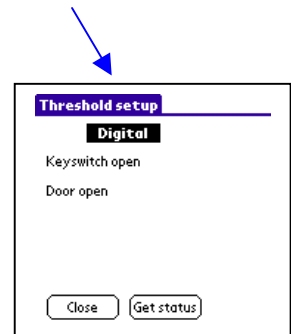
The switches used for the door or on/off keyswitch need checking. It is important that the keyswitch is correctly used.

The Digital Settings Menu

Firstly access is needed to the settings menu. This is obtained by Pressing the blue area on any menu. Press on "Tools". Select he "Input Settings" Box. The digital sensor box will appear.

The levels associated with the two sensors will appear. Allow significant time for the unit to read the values. The screen will show "reading values" message. Values can be must be reread by Pressing "Get status"

There is no level adjustment screen.



The PIR Menu

Firstly access is needed to the settings menu. This is obtained by Pressing the blue area on any menu. Press on "Tools". Select he "PIR Test" Box. The state of the PIR can be checked. The unit beeps when the PIR sees movement.

CHECK THAT A TEST CALL CAN BE RECEIVED.

Use the RADIO button to transmit.

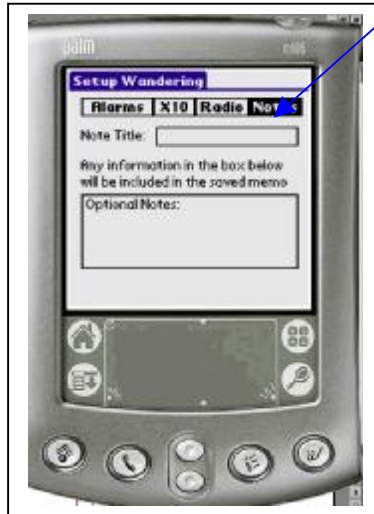
If it was a radio problem check the distances involved and the receiver unit settings.

18. MEMO EXAMPLE

After the Palm™ has programmed the configuration it will make a note of the settings in the Palm™ memo pad. If you wish to add any information, for example the reason for the change this can be done, before programming, by changing the text in the box on the "Notes" page. These memos can then be uploaded to a PC to provide a permanent record of the Wandering Sensor configuration by placing the Palm™ in the cradle and Pressing the Hotsync™ key.

Consult the Palm manual for further details of this process.

Press here for Notes



19. EXITING THE EMULATOR

Normally Mouse Right Press on the picture and EXIT should close the window.

It may be necessary to close the window using CTL ALT DEL and end the process in extreme cases.

20. NOTE THE SETTINGS

After the Palm™ has programmed the configuration it will make a note of the settings in the Palm™ memo pad. They should be noted on the User Manual also.

APPENDIX |A: QUICK REFERENCE MANUAL

BEFORE YOU START

If you have X10 fitted ensure you know the house and unit number
Ensure you know the time period each day you want the unit to work
Ensure you know what alarms you want.
Ensure you know the delays you want
Ensure the receiving unit is on and ready to receive test alarms.



Battery Insertion

Insert the four batteries in the correct places, the unit should beep once.

Setting up the Palm™ or Palm™ Emulator

Assemble the PALM kit and cables or the PC and emulator. Switch on.

DO NOT CONNECT TO THE SENSOR

Ensure the PALM/PC clock is set correctly.



Plug In The Sensor

The unit should Beep and the PALM register with the unit.
After a delay the first configuration menu should appear

Check ALARMS is in reverse text; if not select it.

Select the alarm you wish to generate by ticking the check box.

Configure the alarm by selecting the time box and then the value in hours and minutes required.

When satisfied Press OK.

Set up ALL the Alarms you require

Press **WRITE** to configure the sensor

Press OK after the delay

It is advisable to record the values set on a settings sheet (check by Pressing READ).

IF X10 is fitted

Press X10 block.

Confirm House address and unit address.

Use dimmer if required

Select on or off

Radio Test

Press RADIO block.

The sensor should beep and the CORRECT radio alarm received by the Lifeline.

This feature can be used to configure the Lifeline unit or system.

APPENDIX B TUNSTALL SENSOR CHECK SHEET

Address	
Room	

BED / CHAIR

Absence time (mins)	
Extension time (mins)	
Always active (Y/N)	
Monitoring Period Start Time (hr/mins)	
Monitoring Period End Time (hr/mins)	
Light control start (-hr)	
Light control stop (+hr)	
Still in bed by (hr/mins)	
Not in bed by (hr/mins)	
X10 House	
X10 Unit	
Dimmer (Y/N)	
Use (Y/N)	
Transmission Check	

WANDERING

Absence time (mins)	
Door Left open (Mins)	
X10 House	
X10 Unit	
Dimmer (Y/N)	
Use (Y/N)	
Transmission Check	



All the reassurance you need

Tunstall

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