

# solution sheet



## falls management solution

### Why is a falls management solution important?

Slips, trips and falls can happen to anyone and can become a common problem for older people. The likelihood to fall can be attributed to a number of factors such as lifestyle, health, medication and vision. While proper management and prevention are the best solutions, early detection will potentially save a faller's life.<sup>1</sup>

### What is a falls management solution?

A falls management solution includes a range of non-intrusive telecare sensors that help to manage a person's risk from falling 24 hours a day, 365 days a year. This allows many vulnerable people to remain living independently and reduce the level of injury sustained.

A falls management solution can contain any or all of the following telecare sensors:

- Fall detector
- Bed/chair occupancy sensor
- PIR (movement detector)
- Pull cord
- Epilepsy sensor

### How does it work?

A falls management solution revolves around the Tunstall home alarm, which monitors the telecare sensors installed. When a sensor detects a possible problem, it automatically activates the alarm unit to dial Tunstall's 24-hour response centre. A telecare consultant will speak to the client and identify and organise the appropriate assistance.

Additionally, a client can manually activate a call for assistance any time of the day or night, providing peace of mind to the client's family, friends and carers. It also offers reassurance that help is available if and when the client needs it.



All the reassurance you need

**Tunstall**

<sup>1</sup> Don't Fall for it. Falls Can Be Prevented  
State Government of South Australia

# “It is estimated that one in three older Australians will fall each year.<sup>2</sup>”

## Who is it for?

Falls management is ideal for :

- Older people and people who are becoming progressively less stable.
- People living with illnesses such as diabetes or epilepsy which may increase their likelihood of falling.
- People living with a disability.
- People who have been discharged from hospital and require additional support.
- People working alone.

## What is a fall detector?

The fall detector offers reliability and peace of mind for people concerned about being able to get help after a fall.

Worn in a pouch around the waist or clipped to a belt, the fall detector uses a two stage detection process to identify a fall. The detector senses both impact and angle and will emit a buzzing noise to alert the user that it is about to raise an alarm call if it is not adjusted to a vertical position. The wearer is able to cancel the alarm if it is a false activation. However, if they fail to do so the fall detector will raise an alert notifying the response centre that they need assistance.

The fall detector can also be manually activated by the wearer at anytime.

## What is a bed/chair occupancy sensor?

The bed occupancy sensor is generally used to manage falls risk at night. An unobtrusive pad is placed under the mattress or sheet to detect when the user has left their bed. It can also be set up to activate a bedside lamp, minimising the risk of falls from poor visibility.

The bed occupancy sensor can be programmed with a timer which will activate an alarm if the client does not return to bed within a preset time. This prevents the possibility of a client spending a long time on the floor without anyone being notified of their fall.

A similar device can also be used on chairs and wheelchairs. Again this will detect if the client has fallen from their chair.

## What is a passive infra red sensor?

The passive infrared (PIR) sensor is installed in the home and programmed to detect activity or inactivity depending on the needs or condition of the user. When included as part of a falls management solution, the PIR can be set to activate an alarm if it fails to sense movement for a prolonged period of time. When the programmed activity is not carried out it activates an alarm call to Tunstall's 24 hour response centre, carer or onsite manager, so that the user can be attended to.

## What is a pull cord?

The pull cord can be strategically placed in the home to provide a quick and easy way to trigger an alarm call at times when the client may not wear their pendant or fall detector, such as when in bed, bathing or going to the toilet during the night.

## So why choose a falls solution?

The fear of falling is a significant contributing factor in the loss of independence and quality of life. In many cases, the reassurance brought by wearing a personal trigger can be enough to raise the confidence of the wearer to a level which can break the cycle of dependency that often follows a fall.

In situations where there is a greater risk of falls or mobility is severely compromised, a more advanced falls solution may be developed. This can assist to maintain independence by generating an automatic alert when a possible fall is detected.



fall detector



bed / chair occupancy sensor



pull cord



PIR

<sup>2</sup> Falls Prevention in Older People,

## Features & benefits

- **Transmission to class one radio receiver** – provides ultimate reliability to ensure that signals from the sensors are received. This is essential where life critical solutions are used.
- **Plug & play registration** – allows additional radio sensors to be easily assigned to the Tunstall home alarm unit. This lets service providers accommodate a client's changing needs.
- **Flexibility** – the solution can be tailored and adjusted to meet the needs of individual client circumstances, providing practicality and protection against a fall being undetected.
- **Automatic low battery warnings** – ensures optimum operation at all times.
- **Comprehensive falls management solutions** – provides support 24 hours, 365 days a year for ultimate falls management in the home.

Tunstall offers a range of other telecare sensors and devices for use around the home



bogus caller alarm



pendant



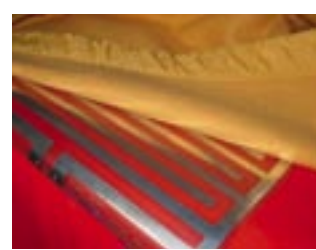
smoke detector



base alarm



pressure mat



enuresis sensor



epilepsy sensor



keysafe



flood detector

## Standards

EMC: EN55022: 1998, ETSI EN301-489-1:(2000-08) Class 1  
Safety: EN60950:2000  
CE: Compliant  
Social alarm: EN50130-4:1995 + A1:1998  
Design, Manufacture,  
Installation and Service: ISO9001: 2000

## Fall Detector

Weight: 75g  
Dimensions: 75 x 53 x 28mm (WxHxD)  
Radio Frequency: 312MHz  
Radio Range: Up to 50 metres (typical)  
Power: Lithium 6V cell (2 batteries supplied)  
Battery Life: 6 months  
Operating Temp Range: 0-45°C  
Part numbers: P66014/01-AO  
The fall detector is supplied complete with a wearing pouch.

## Bed / Chair Occupancy Sensor

Weight: 800g  
Control Unit: 95 x 160 x 35mm (WxHxD)  
Bed Sensor Mat: 100 x 600 x 7mm (WxLxD)  
Chair Sensor Mat: 300 x 300 x 7mm (WxLxD)  
Radio Frequency: 312MHz  
Radio Range: Up to 50 metres (typical)  
Power: 4xAA Batteries  
Battery Life: 2 years  
Operating Temp Range: -10°C to +55°C  
Battery Disposal: In accordance with current legislation  
The bed / chair sensor consists of a control unit and either a bed pad or chair pad depending on whether bed or chair occupancy is to be monitored.

Part numbers: Bed Sensor Mat (under mattress): 41004/13 ST-U  
Bed Sensor Mat (under sheet): 41004/13 ST-1  
Chair Sensor Mat: 41004/13 S2010005  
The bed / chair sensor should be programmed using a PDA programming kit - Part number: 41005/27

## PIR (passive infra red)

Weight: 109g  
Dimensions: 60mm x 90mm x 45mm (WxHxD)  
Radio Frequency: 312MHz UHF integral transmitter  
Radio Range: Up to 50 metres (typical)  
Battery Life: 1½ years  
Battery Type: 3V Lithium  
Operating Temp Range: -10°C to +50°C  
Environmental Humidity: 95% maximum  
Battery Disposal: In accordance with current legislation  
Part numbers: 64604/03

Your local Tunstall agent

The logo for Tunstall, featuring the word "Tunstall" in white, bold, sans-serif font on a red rectangular background.

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