Fall Detector Technical Guide

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Introduction

IMPORTANT: When the falls detector arrives it will be in sleep mode. To activate it please press and hold the white button down for 10 seconds until it vibrates and starts flashing, it will then be turned on and ready for use.

Accidental falls and the increasing frequency of falls are some of the most common causes of hospital visits for older people. In addition to the pain and suffering caused by a fall, the time before help arrives is a crucial factor in the individual's rehabilitation.

The Vibby OAK fall detector is the first automatic wrist & neck-worn fall sensor on the market. The use of the fall sensor will facilitate independence and security at home, and the user will feel independent and confident to be more active.

The fall detector automatically detects a heavy fall and places an alert with Careium's contact centre. This can considerably reduce the response time of getting help to the user; one hour without help and assistance may cause medical complications.

The fall detector is easy to install and compatible with Careium's alarm units: CareIP®Mobile, CareMobile, Eliza & Eliza S.

A heavy fall is characterised by 4 steps:

1. A body in a standing position or in activity (walking) followed by:
2. a quick and sudden loss of altitude (more than 60 cm drop between the fall sensor and the ground so that the accelerometer can detect such an event) followed by:
3. a strong and significant body impact on the ground followed by:
4. a lying position on the ground with or without activity, the user being unconscious and not able to press the button manually or to stand up after the fall (no altitude recovery over 60 cm and 6 seconds).

Description of functions

The Vibby OAK fall detector can be worn on the wrist like a watch or as a pendant around the neck. It's recommended the user wears it 24 hours a day, even during the shower or at night during sleep, which are the times when the highest level of falls occur.

Almost half of all falls occur in the bathroom, and a significant portion occur at night. However, it may not detect all falls from a lying position in bed or from sitting on chair to the floor.

This picture shows what the rear of the falls detector looks like, it does not have a missing cover and is safe and ready to use.

Manual alarm

At any time, a manual alarm can be triggered by a simple press of the push-button. The alarm is confirmed by a vibration and LED light.

Automatic fall detection

After a heavy fall, when the user is lying on the ground with or without activity and unable to press the push-button manually, the fall detector will vibrate with a blinking LED for 20 seconds before sending an alarm.

Alarm cancellation with sensor

During the warning period (vibration), the user can cancel the alarm by simply covering the fall sensor completely with the palm of the hand for 2 seconds, then remove the hand once the fall sensor has stopped vibrating.

Auto alarm cancellation

After a fall, if the user stands up and remains standing for more than 6 seconds, the alarm will automatically be cancelled.

Low battery/replacement

You will be notified of a low battery by Careium (battery life is approximately 2 years, and we advise replacement at 18 months). We will arrange a replacement of the battery or device and inform you if this is inside or outside of its warranty.

Radio test transmissions

Radio test transmissions are key to ensuring end-to-end connectivity of radio devices. They can safeguard against battery failure/malfunction or lost transmitters, as you can be alerted by email or via the alarm receiving centre that the event has occurred. Test transmissions are periodically sent to the radio device to ensure they are still active, in range, and functional.

Careium recommends activating this function for each personal wearable radio device, but it can be activated for all devices supporting 2-way radio within our portfolio. These test transmissions should be enabled as default, but for complete clarity, please refer to the full technical guide for your alarm or your supplier to ensure these test transmissions are active.

General information

It is advised that the fall detector is worn permanently as a wristband or pendant. Any other use may cause false alarms, such as non-detections.

Careium configures the Vibby Oak fall detector in watch or pendant mode. You must not change the wearing mode without informing Careium beforehand.

Technical data

VIBBY OAK FALL DETECTOR	
Frequency	869.2 MHz Bi-directional transmitter/receiver Test transmissions available via device management portal
Water resistance	Waterproof complies with IP67
Battery	Panasonic Lithium CR2477 (replaceable)
Battery life	Up to 2 years (advise replacement at 18 months)
Dimensions	37 x 33 x 12.7 mm
Weight	35g
Watchband	Hypoallergenic rubber Stainless steel chromed hypoallergenic (FDA)
Article number	300 187

Declaration of conformity

Hereby Careium Sweden AB declares that this radio equipment is in compliance with the RE Directive 2014/53/EU as well as other applicable EU and UK regulations. The full text of the declarations of conformity is available at: www.careium.com/dofc

Approval

CE UKCA -marked. Complies with relevant standards.

DISLAIMER: Some falls (soft falls, controlled descent against a wall or chair) could not be detected by the Vibby OAK. Based on fall detection technologies, the solution does not allow analysis and interpretation of all fall situations. By pressing the push button, the wearer can manually raise an alarm at any time he feels the need. For more information about automatic fall detection or operating the product, please consult: www.vitalbase.care or www.careium.com

Notes

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