Lifeline Digital

User Guide

Table of Contents

Safety instructions

Warning

Before operating Lifeline Digital, read this user manual carefully. If you have difficulty reading or carrying out the activities, ask for help. Pay particular attention to the following safety instructions:

- Lifeline Digital must be configured for you before use, otherwise you will not be able to make an alarm call.

- Ensure that Lifeline Digital is always connected to the mains socket.

- Ensure that the socket is always accessible to disconnect Lifeline Digital from the mains.

- Only use the enclosed plug-in power supply (or genuine spare part).

- Do not allow Lifeline Digital to come into contact with water or other liquids.

- Do not open the casing of Lifeline Digital. The casing must only be opened by qualified personnel.

- Do not expose Lifeline Digital to heat or cold, chemicals, excessive dust or violent shocks.

- The distance between Lifeline Digital and an implanted medical device such as a pacemaker or implanted cardioverter/defibrillator must always be greater than 15 cm, otherwise Lifeline Digital may interfere with the device. This minimum distance is recommended by medical device manufacturers. If you suspect that interference has occurred, notify your supplier or Tunstall.

- Lifeline Digital must not be operated in areas where the use of mobile phones is prohibited.

- Ensure operation over the mobile phone network and, if connected, the home network (LAN, Ethernet connection for Internet access).

- Lifeline Digital may interfere with the operation of inadequately shielded medical equipment. Consult a physician or the manufacturer of the medical device to determine if the device is adequately shielded from electromagnetic interference (EMI).

- If you feel that something is wrong with Lifeline Digital, notify Tunstall.

- The pendant is a device suitable for everyday use. However, it can be damaged by extreme external influences (e.g. washing in a washing machine, chemicals, falling down). The damage is not necessarily visible. If the pendant has been exposed to extreme external influences, check the function of the pendant, see Testing the installation.

- The pendant sends radio signals to Lifeline Digital. The radio range of the pendant may vary due to structural conditions. Therefore, test the radio range in your living environment.

Introduction

Lifeline Digital is an easy-to-use Personal Emergency Response System (PERS) with advanced telecare features that provides 24/7 access to assistance and remote monitoring. The Lifeline Digital connects via the 4G cellular network, Ethernet or WiFi, enabling you to generate an immediate call for help when and if you need it.

This will connect you to the Customer Care Centre, via the Lifeline Digital's powerful loudspeaker and microphone, where trained care consultants will provide you with the assistance you require. In the background the Lifeline Digital regularly sends its status via heart beats to the Device Management Platform (DMP). The DMP will allow trained care consultants to remotely configure the Lifeline Digital based on your individual needs.

Overview

What's in the box
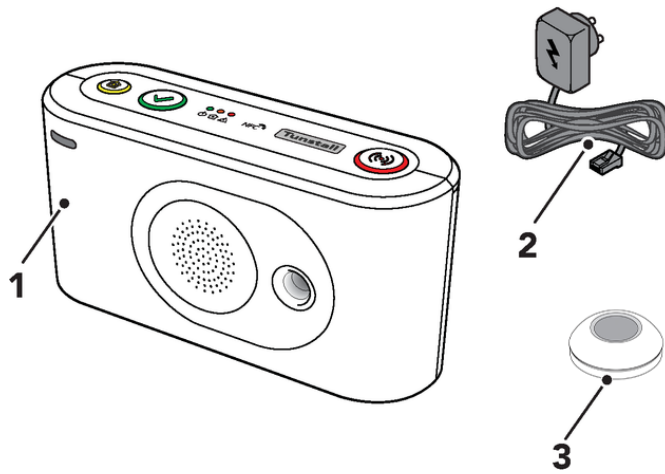
1. Lifeline Digital

2. Mains power adapter

3. TX4 alarm button/pendant

Also included in the box:
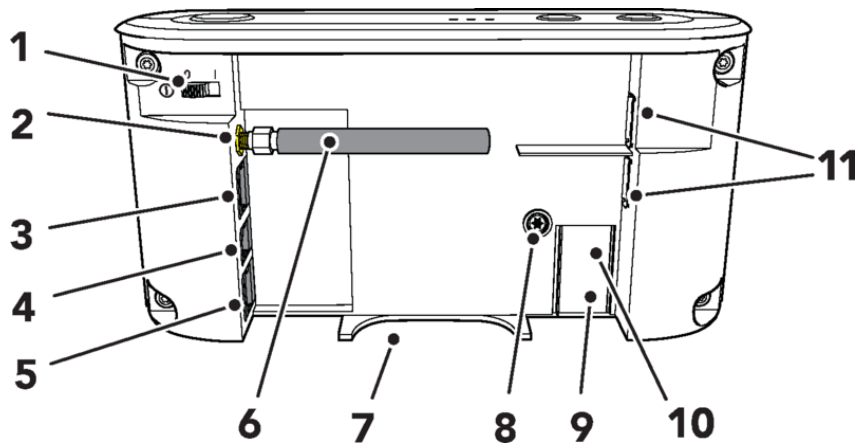
- Wrist strap and holder for TX4 alarm button/pendant
- Neck cord and holder for TX4 alarm button/pendant
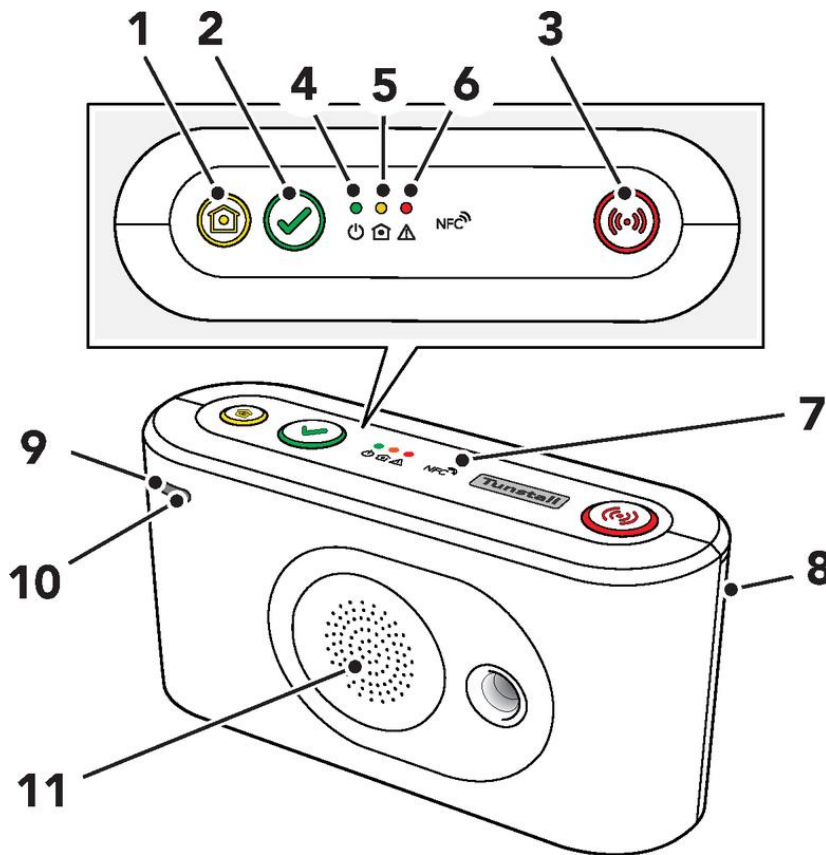
1. Yellow **Extra** button

2. Green **Cancel** button

3. Red **Alarm** button

4. Green LED indicator

5. Yellow LED indicator

6. Red LED indicator

7. NFC [For Tunstall Use Only]

8. Back cover

9. Microphone

10. IR receiver [For Tunstall Use Only]

11. Speaker

Rear-view

1. On/Off (I/0) switch

2. Antenna connector

3. Ethernet/network connector (RJ45 port)

4. Power connector 12V (RJ11 port)

5. I/O port (Extended variant only)

6. Stub antenna

7. Cable slot

8. Security screw (T10) for battery slot

9. Battery slot

10. SIM card holder inside battery slot

11. 2x USB 2.0 ports [For Tunstall Use Only]

Installation and testing

This section describes how to install and test Lifeline Digital.

Installing Lifeline Digital

Remove and replace the back cover

> **Note**
>
> Only remove the back cover for installation. The back cover protects the device from tampering.

To remove and replace the back cover:

1. Push and slide out the back cover to remove it (1).

2. Run all cables through the cable slot (2).

3. Replace the back cover when installation is completed (3).
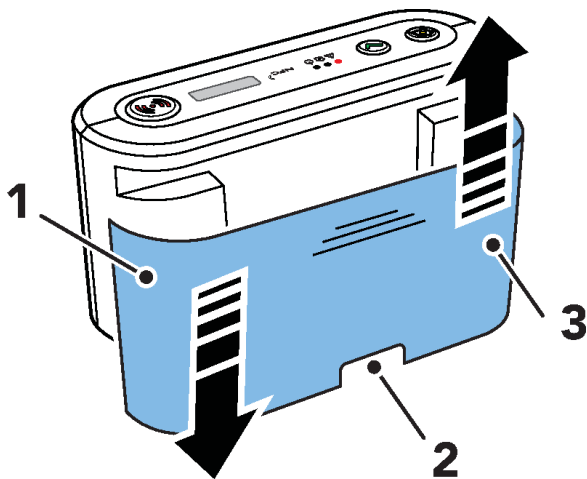
Connect to mains power

> **Caution**
>
> Only use power adapters supplied by Tunstall.

1. Insert the power adaptor cable into the 12V connector on the device (1).

2. Connect the mains power adaptor into a wall socket (2).

To switch on Lifeline Digital:

1. Set the On/OFF switch to 1 (ON) to power up the device (1).
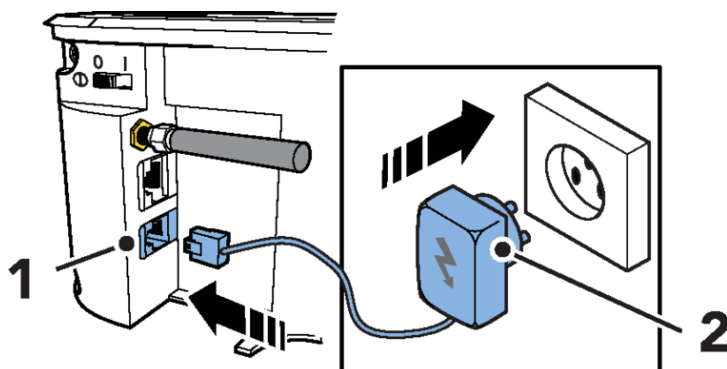
   The green and yellow LED indicators starts to flash rapidly to indicate startup progress.

   The device is ready when the green LED remains solid and the yellow LED turns off.
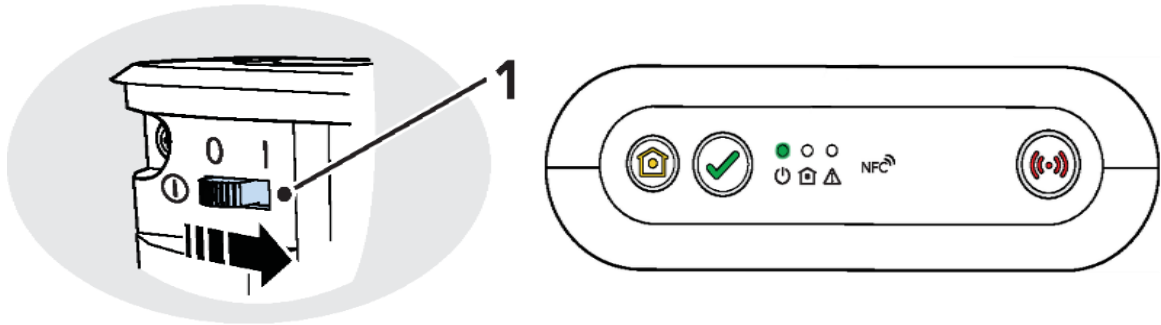
Checking cellular signal strength

This section describes how to check cellular signal strength. This step is only required if you have concerns that cellular signal strength is poor.

Check cellular signal strength

To check cellular signal strength:

1. Press and hold the green **Cancel** button (1), then press and hold the red **Alarm** button (2) and the yellow **Extra** button (3).
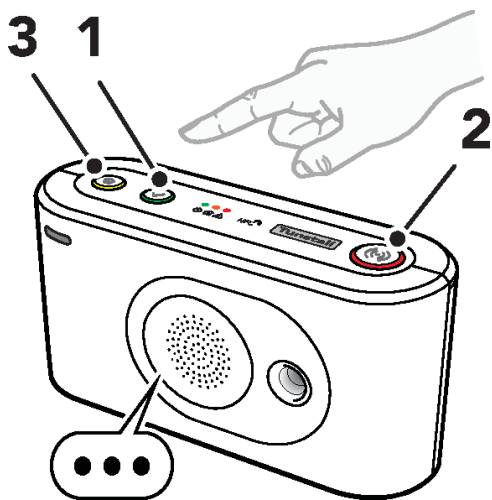
2. Release all buttons when the device emits a rising sound signal and announces "Programming mode".

The LED indicators start chaser sequence and the button LEDs flash in unison to indicate that the programming mode is enabled.

3. Press and hold the yellow **Extra** button (1).

4. When the device announces "Four", release the button.

    The device announces the current signal strength:

    – "Cellular signal strength is One" for poor cellular signal strength.

    – "Cellular signal strength is Two".

    – "Cellular signal strength is Three".
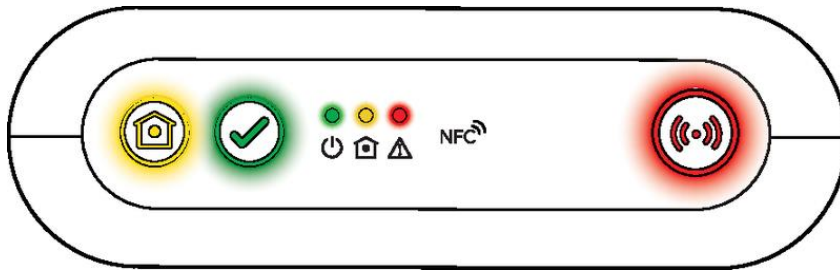
    – "Cellular signal strength is Four".

    – "Cellular signal strength is Five" for excellent cellular signal strength.

5. If necessary, adjust the position of the device to optimize cellular signal strength. If no suitable location can be found contact Tunstall for assistance.

6. Press the green **Cancel** button (3) to end the test and exit. The test automatically ends after 2 minutes.
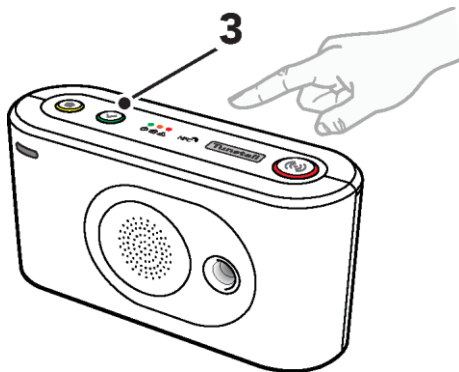
Testing the installation

This section describes how to test the installation before the device can be considered ready for use.

Test alarm calls

To test alarm calls:

1. Press the pendant for 1-2 seconds to make an alarm call and the Care Consultant will confirm your details.

2. Activate any other connected alarm peripherals one by one and the Care Consultant will confirm the correct alarm information has been received.

Ready to use

Before the device can be considered ready for use:

- Make sure that all relevant tests of the device and associated equipment are completed

- Replace the back cover, see Remove and replace the back cover

- Make sure that the user and emergency contacts understand how to use Lifeline Digital and any associated equipment

Lifeline Digital is now ready to use.

Using Lifeline Digital

Some features may be configured differently than described in this document. Contact your supplier or Tunstall if you have any questions.

Alarm calls and alarm handling

The main functionality of Lifeline Digital is to distribute alarms and events to Tunstall's Customer Care Centre. Alarms and events can be actively triggered by a user or passively by the system. Lifeline Digital distributes alarms and events according to pre-configured sequences to the Customer Care Centre. The type of alarm or event determines which sequence to use for distribution.

When an alarm call is initiated, the user can use Lifeline Digital as a speakerphone to communicate with the Customer Care Centre.

Make an alarm call

To make an alarm call:

1. Press the red **Alarm** button (1) on the keypad.

    Lifeline Digital announces "Alarm registered - Press the Cancel button to cancel the alarm - Do not worry, contacting assistance". The red **Alarm** button and the green LED indicator flash in unison when the device is calling the alarm receiver.
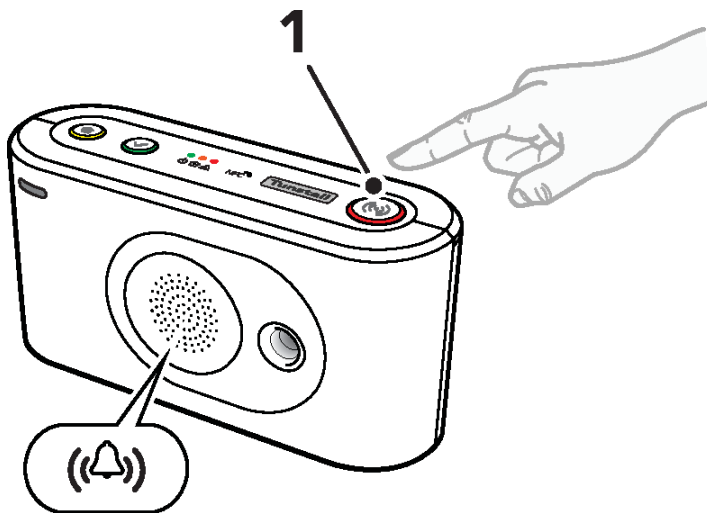
To make an alarm call using the TX4 button/pendant:

1. Press the push-button (2).

    The red LED flashes to indicate that the alarm is transmitted to Lifeline Digital. The green LED flashes when the alarm is acknowledged by Lifeline Digital. Lifeline Digital announces "Alarm registered - Press the Cancel button to cancel the alarm - Do not worry, contacting assistance".

Alarm calls to the Customer Care Centre

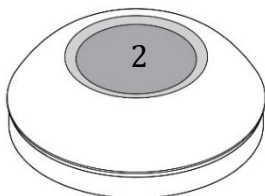When you have triggered an alarm call by pressing the button on Lifeline Digital or on the pendant, a voice connection to the Customer Care Centre is automatically established. A Care Consultant will answer your alarm call and speak to you via Lifeline Digital's speakerphone system.

- Tell the Care Consultant why you have generated the alarm call, and they will immediately arrange for assistance.

If you are unable to speak or hear, the Care Consultant will still arrange for assistance because the Customer Care Centre automatically knows that the alarm call is from you. The Customer Care Centre has all the information, such as your name and address, that is needed to help you quickly.

As soon as the Customer Care Centre ends the alarm call, Lifeline Digital is ready to make further alarm calls.

Cancel an alarm call

To prevent false alarms it is possible to cancel an alarm call before it is connected to the Customer Care Centre.

To cancel an alarm call:

1. When Lifeline Digital announces "Press the Cancel button to cancel the alarm", press the green **Cancel** button (1).

   The device announces "The alarm has been cancelled".

If you do not cancel the alarm call in time, do not worry, our Customer Care Centre are always happy to hear from you.
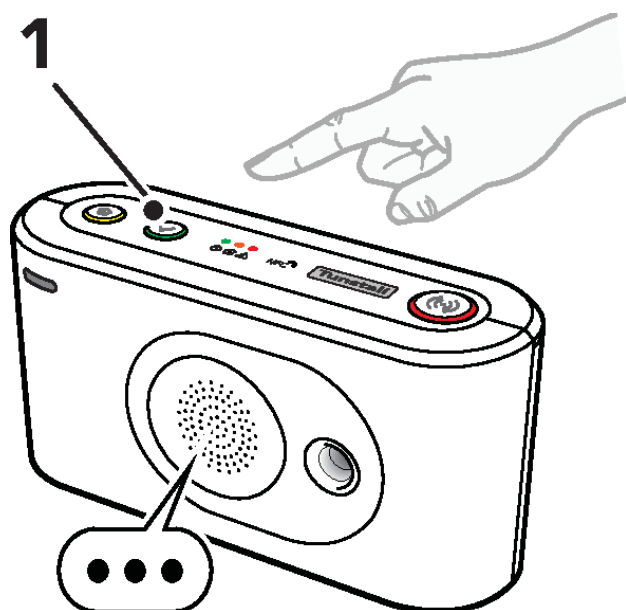
System warnings

System warnings are visual (LED) and audio indications that notifies the care recipient or caregiver of power and connectivity errors.

System warning LED indications
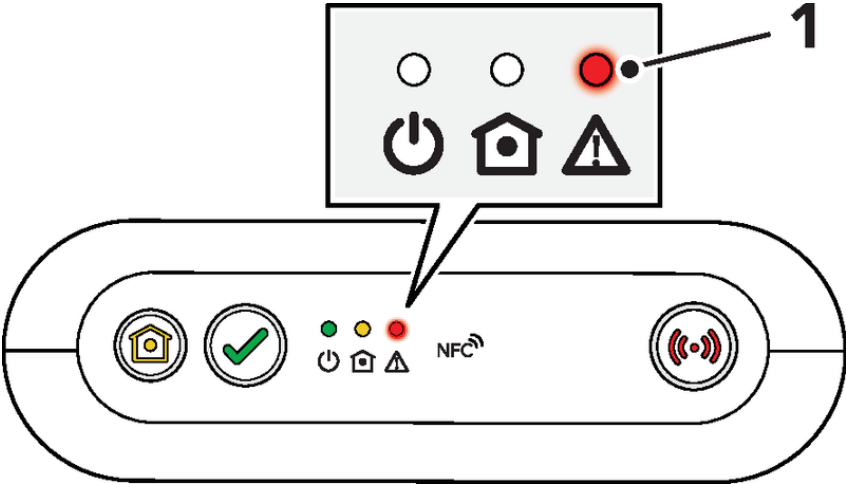
1. Red LED indicator

System warning indications [1]/[2]	Status
Red LED flashing x1	Ethernet failure
Red LED flashing x2	Mains power failure
Red LED flashing x3	Backup battery low
Red LED flashing x4	Cellular modem failure
Red LED flashing x5	Radio failure/interference

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[1] Feature must be enabled.

[2] Note that if several error conditions are present they are presented sequentially with a 2 second pause between indications. For example, two consecutive flashes followed by a pause and three consecutive flashes indicates that there is a mains failure and that the battery is low

System warning announcements
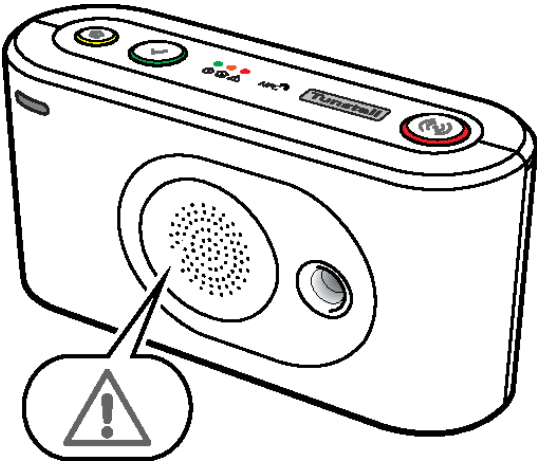
Announcement	Description
"Warning"	Warning announcement that is followed by a warning message
"There is no mains power"	AC power to the device is lost
"Mains power is restored"	AC power to the device is restored
"Battery low"	The backup battery is low
"Reduction in radio range detected"	Radio interference is detected
"Radio system restored"	No radio interference is detected, and the radio system is restored
"Ethernet connection failure"	The Ethernet cable is disconnected
"Ethernet connection restored"	The Ethernet cable is reconnected
"Cellular data connection failure"	The cellular data connection is failing
"Cellular data connection restored"	The cellular data connection is restored

Maintenance and cleaning

Power down Lifeline Digital

1. Remove the back cover, see Remove and replace the back cover.

2. Set the ON/OFF switch to 0 (OFF) to power down the device.

3. Disconnect all cables from the connection sockets.

4. Replace the back cover, see Remove and replace the back cover.

Cleaning and disinfecting Lifeline Digital

Do not use a wet cloth to clean Lifeline Digital. Do not use harsh, aggressive or corrosive cleaning agents to clean Lifeline Digital or the pendant. Take care not to allow moisture to get into Lifeline Digital's case or speaker openings when cleaning. Do not spray cleaning agents or disinfectants directly onto Lifeline Digital.

Disposal and recycling

When you no longer need the device, please contact Tunstall for instruction.

Disposal of batteries

This device contains rechargeable Lithium-ion batteries. Batteries must be disposed of in accordance with current local regulations. To avoid the risk of short circuiting, pack batteries separately or cover them with plastic tape before discarding or returning them.

Warning

Keep batteries out of reach of children. Swallowing a battery can be life-threatening. Seek immediate medical attention if this happens.

Warning

Risk of explosion if battery is replaced by an incorrect type. Only use batteries from Tunstall. Dispose of used batteries according to current local regulations.

Battery information

All batteries should be disposed of in accordance with the latest legislation.

CAUTION: Do not ingest battery, chemical burn hazard.

The pendant with this product contains a coin/button cell battery. If the coin/button cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death. Keep new and used batteries away from children.

If the battery compartment is not closed securely, stop using the product and notify your supplier. If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

⚠ **WARNING**

THIS PRODUCT CONTAINS A BUTTON BATTERY

If swallowed, a lithium button battery can cause severe or fatal injuries within 2 hours.

Keep batteries out of reach of children.

If you think batteries may have been swallowed or placed inside any part of the body, seek immediate medical attention.

Button functions
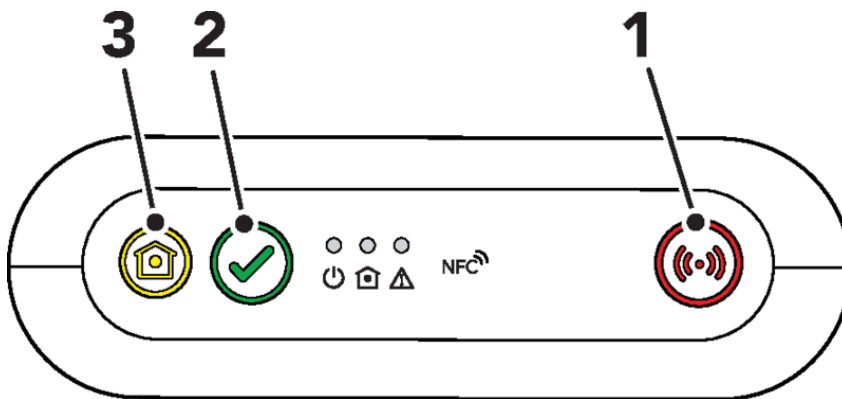
1. Red **Alarm** button

2. Green **Cancel** button

3. Yellow **Extra** button

Mode	Button	Function
Standby	Press the red **Alarm** button	Activate alarm/make alarm call
	Press the green **Cancel** button	Cancel alarm Cancel system warning announcement
	Press and hold the green **Cancel** button for 3 seconds	Trigger Online update (including configuration and firmware update)
	Press and hold the green **Cancel** button for 10 seconds	Cancel all alarms and events in the distribution queue
	Press the yellow **Extra** button.	Defers inactivity alarm and resets the basic inactivity timer (BIA)

Button LEDs
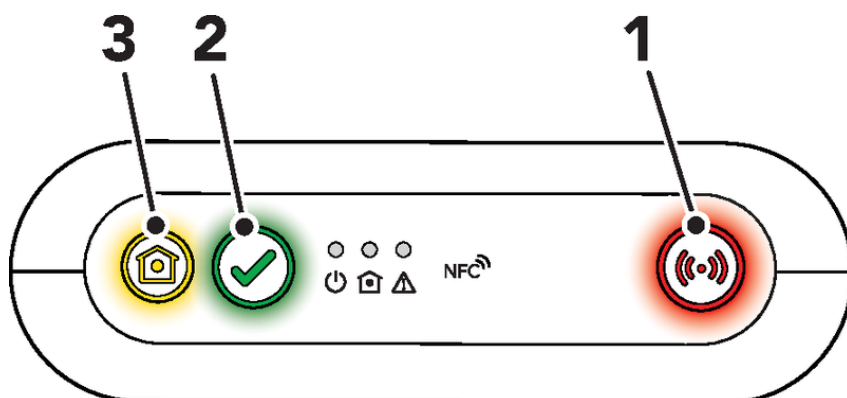
1. Red **Alarm** button

2. Green **Cancel** button

3. Yellow **Extra** button

Indication	Status
Red LED on	Standby mode
Red LED flashing (0.5s on/4.5s off)	Standby mode on backup battery
Red LED flashing (0.5s on/0.5s off)	Connection attempt
Red LED flashing (1s on/1s off)	Pausing between connection attempts
Red LED flashing (0.5s on/4.5s off)	No remaining connection attempts
Yellow LED on	Away mode
Yellow LED flashing, (0.5 s on/ 4.5 s off)	Away mode on backup battery
Yellow LED flashing (0.5 s on/14.5 s off)	Idle, waiting to restart Basic inactivity monitoring
Yellow LED flashing (0.5 s on/9.5 s off)	Basic inactivity monitoring active
Yellow LED flashing (0.5 s on/ 0.5 s off)	Sending basic inactivity alarm

LED indicator status
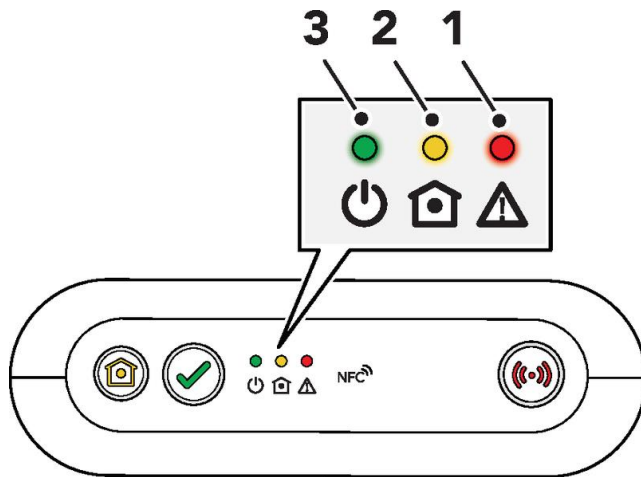
1. Red LED indicator

2. Yellow LED indicator

3. Green LED indicator

Indication	Status
Green LED on	Standby mode
Green LED flashing, (0.5 s on/ 4.5 s off)	Standby mode on backup battery
Green LED flashing (0.5 s on/ 0.5 s off)	Connection attempt
Green LED flashing (1 s on/1 s off)	Pausing between connection attempts
Green LED flashing (0.5 s on/ 4.5 s off)	No remaining connection attempts
Green LED rapid flashing	Cellular modem initialization
Yellow LED on	Presence mode
Yellow LED flashing (0.5 s on/ 2 s off)	Presence mode on backup battery
Yellow LED flashing (2 s on/ 2s off)	Cancel At Source mode
Yellow LED flashing (0.5 s on/ 4.5 s off)	Cancel At Source mode on backup battery.
Yellow LED flashing (0.5 s on/ 0.5 s off)	Connection attempt to DMP
Yellow LED flashing (1 s on/ 1 s off)	Pausing between connection attempts to DMP
Yellow LED rapid flashing	Media processor starting up

System warning indications [3]/[4]	Status
Red LED flashing x1	Ethernet failure
Red LED flashing x2	Mains power failure
Red LED flashing x3	Backup battery low
Red LED flashing x4	Cellular modem failure
Red LED flashing x5	Radio failure/interference

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[3] Feature must be enabled.

[4] Note that if several error conditions are present they are presented sequentially with a 2 second pause between indications. For example, two consecutive flashes followed by a pause and three consecutive flashes indicates that there is a mains failure and that the battery is low

Technical data

Technical details Lifeline Digital

Weight	491g net weight
Dimensions	180 x 58 x 98 mm (L x W x H)
Mains power	100-240v
Backup battery	Rechargeable Lithium-ion battery, 18Wh, 2500mAh capacity (continually internally charged)
Backup time	Up to 72 hours of stand-by operation with one 5-minute IPACS heartbeat and normal use (expected at date of purchase and when fully charged[5])
Radio frequencies	AS/NZS: 917.6 MHz / 924 MHz
Cellular	4G - GSM/GPRS/LTE and VoLTE
External connectivity	SMA antenna connector, 2x USB 2.0 ports, Ethernet port (RJ45), 12V power inlet (RJ11)
Integral connectivity	NFC, Wi-Fi, 4G/LTE, Bluetooth Low Energy (BLE), Infrared receiver (IR) 2x SRD radio
Environmental	
Operation temperature	0°C to 55°C
Storage temperature	-20°C to +45°C max. 3 months storage
Operation humidity	0 to 90% RH, non-condensing
Storage humidity	0 to 95% RH, non-condensing
Standard	
Safety	AS/NZS 62368.1:2018
Radio	AS/NZS 4268-2017
PERS	AS4607:1999
EMC	EN 301 489-1 V2.2.3 + Draft EN 301 489-17 V3.2.2 + Draft EN 301 489-3 V2.1.1 + Draft EN 301 489-52 V1.1.0 + EN 301 489-33/5. EN 55032:2015 + AC:2016 + EN 55035:2017 + EN 61000-3-2:2014 +

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[5] Time may be reduced by factors including temperature extremes, weak or intermittent cellular connectivity, high levels of sensor radio frequency activity and battery ageing.

	EN 61000-3-3:2013. EN 50130-4:2011 + A1:2014 + EN 61000-6-3:2007 + A1:2011 + AC:2012. CISPR32:2015 + AC:2016
Design & manufacture	ISO9001:2015
ROHS compliant	2011/65/EU + 2015/863/EU

Technical details TX4

Weight	16g net weight (without attachments)
Dimensions	H 13mm, Ø 35 mm (without attachments)
Battery	3V Lithium CR2450 (replaceable)
Battery lifetime	Approx. 5 years
Radio frequencies	AS/NZS: 917.6 MHz
Connection	Bi-directional
Range	Minimum 25 meters indoors. Up to 250 meters outdoors.
Water resistant	Water resistant IP67 (water resistant to a depth of 1 meter for 30 minutes)
Environmental	
Temperature	+5°C to +40°C (Recommended)
Standards	
Safety	IEC 60950-1:2005, IEC 60950-1:2006+A11:2009+A1:2010+A12:2011
Radio	AS/NZS 4268-2017
PERS	AS4607:1999
EMC	EN 55022:2010, EN 61000-3-2:2006, EN 61000-3-3:2008, EN61000-4-2,3,4,6,8,11, EN 301489-1, EN50130-4:2011
Design, manufacture, installation & service	ISO9001:2015
Ingress protection (IP)	IP67

Contact Details

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