battery information

Part Number: D3607154C

All the reassurance you need

Tunstall

Introduction

The document provides detailed information on the batteries used within Tunstall products to support the process of battery management. Battery management should be looked at within an overall risk management regime whereby the age of the battery, recommended replacement period, location and likelihood of power failure, duration of power failure and the assessed risk to the individual are all factors taken into consideration.

Contents

Automatic Low Battery (ALB) Reporting

Telecare sensors operating on the 869MHz European Social Alarm frequency incorporate an ALB feature that communicates low battery status to the monitoring centre (dispersed alarms) or log printer (Telecare Overlay) **if the sensor has not been activated**. In the instance of an ALB report being received a manual test of the trigger/sensor should be carried out using the below procedures to confirm the status of the battery. For a full breakdown of which batteries provide ALB functionality please see table 1.

Telecare Office Manager

This battery information sheet is designed to help you manage your telecare service however you may feel that keeping records of your equipment is becoming a difficult and time consuming task. If this is the case then TOM can help. TOM is a software package that is revolutionising the management of telecare by ensuring providers have all the information they need on clients, the equipment they need and the stock available for use.
In particular it supports the management of telecare assets with full information on battery types and life expectancy, maintenance and warranty held in one accessible database.

If you would like further information please visit
www.tunstall.co.uk/tom

Recommended Battery Test Procedures

The following details exactly how to make a test call using a telecare radio trigger or sensor. If you have any difficulties please refer to the problems and answers section in the Lifeline home unit user guide. Please note: All sensors should be tested once per month.

Amie+ and Gem+ Personal Radio Triggers

Activate the trigger and check that the LED lights up constantly for approximately 3 seconds and an alarm is raised via the home unit. We recommend that all personal radio triggers are tested at least once per month.

Its ALB feature will ensure that an alarm call is raised to either the monitoring centre or scheme manager's handset (when used on Telecare Overlay) if the trigger has not been used for 7 days and the battery level has gone low.

Arm/Disarm Trigger and Zoning Button

Press the trigger and ensure correct operation. These triggers do not need to be manually tested for battery performance.

Bogus Caller / Panic Button

Please see personal radio triggers.

Bed/Chair Occupancy and Property Exit Sensors

Activate the sensor and ensure that an alarm call is raised via the home unit.

CO Detector (wireless)

Press the test button on the front of the detector. Please note the detectors should be replaced after 4 to 5 years (see product label for exact date).

Enuresis Sensor

'Short' the two metal studs on the sensing mat with a metallic object (e.g. a key) until a beep is heard. This signifies the radio transmission has occurred.

Epilepsy Sensor

The main unit is mains powered and the radio transmission battery has ALB functionality.

Fall Detector

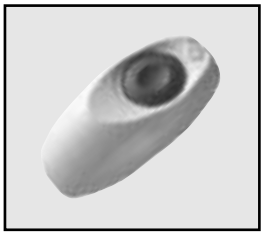
Although the detector has ALB functionality, the personal trigger button on the detector should be tested once per month.

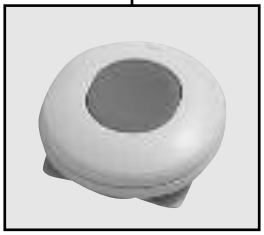
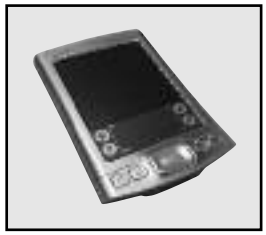
Flood Detector

Apply moisture to the 2 probes that are situated nearest to each other. Please note: do not immerse the unit in water. The ALB functionality only monitors the radio transmitter battery and not the detector battery. A local audible alert is generated when the detector battery is running low.

Natural / LP Gas Detectors

Press the test button on the front on the detector. Please note the detectors should be replaced after 5 years.




Medication Dispenser

Remove the lid, press and hold the middle button for 2 seconds, until you hear a beep and current time appears in the display again. Then press the left button for "missed dose" trigger.
The red LED on the Medication Dispenser will flash as the radio transmission is made. The battery icon on the LCD display clearly indicates the battery life status.

Passive Infra Red Detector

Put the home unit into intruder mode and leave the room/dwelling for 3 minutes, then enter the room and ensure that an alarm call is generated.

The detector has ALB functionality therefore it does not need to be tested manually for battery performance.

Radio Pull Cord

Pull the cord and check that the call has been generated.

Radio Output Module/Universal Sensor

This unit features ALB functionality therefore it does not need testing manually for battery performance.

Smoke Detectors

Smoke detectors should be tested monthly by pressing the test button until a siren sounds. If the alarm siren makes a continuous loud sound, the detector battery is working correctly. Radio detectors will raise a call at a monitoring centre when this process is followed.

Detectors will send an ALB report to the monitoring centre without the need for manual generation however the test procedure should still be followed in order to ensure operational effectiveness. With the exception of part number 67005/74 (which uses one battery), the ALB functionality on smoke detectors only monitors the radio transmitter battery and not the detector battery. A local audible alert is generated when the detector battery is running low. Please note: Smoke detectors should be replaced after 10 years.

Temperature Extremes Sensor

Depress the test switch pin hole above the larger black sensor dome using a blunt pointed instrument. The 869 MHz version has auto battery low so does not require testing manually for battery performance.

PDA Programming Unit

Battery life between charges is typically 3 weeks and an onscreen battery indicator provides battery level information.

GSM Module

This has a capacity of 20 hours (standby) between charges and the module features a battery level indicator.

Remote Door Controller (RDC)

Generate door entry calls and use each of the three buttons to ensure they function correctly. A low battery is indicated by the red light flashing when any of the buttons are pressed.

Grouped Systems

Piper Group, Haven and Communicall EL, Dect, CTL and Vision:
Switch off mains and place an alarm call on the system.
Ensure that the alarm call can be selected by the Master Unit or monitoring centre. Switch mains back on. Suggested frequency is one test per annum.

Lifeline Home Units

Switch off mains to unit and activate an alarm call. Ensure that the monitoring centre has answered the call and you can communicate with them. Once the monitoring centre has cleared the call, switch the mains supply to the unit back on. It is good practice to test units every six months to ensure that they can still operate in a mains failure situation.

Control Centre UPS Systems

Under a maintenance agreement a service engineer will perform a quarterly test of UPS batteries by switching off the mains supply and running the system on standby power. Tests to establish the capacity can be conducted by the customer to prove the battery's capability to sustain the system/unit for a period of time.
The customer should simply perform the above tests on rechargeable batteries to the capacity specified for that product.

Battery Disposal

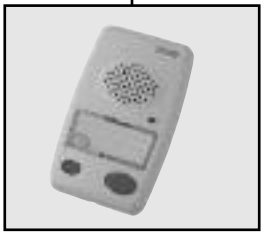
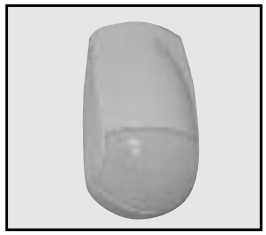
Batteries contain toxic heavy metals which, when disposed of untreated in landfill sites, may have an adverse impact on both human health and the environment, therefore it is essential to dispose of batteries in a responsible manner.

Most types of batteries are classified as Hazardous Waste in accordance with the Hazardous Waste Regulations 2005.
There are a number of companies throughout the UK offering battery collection and recycling services, for more information visit:

www.rebat.com/collectionpage.htm
www.wasteline.org.uk/resources/informationSheets/Batteries.htm

This information provides simplified guidance based on complex and changing legislation and does not constitute legal advice.
If you have concerns regarding compliance with current legislation contact your Regulator (Environment Agency 08708 506 506) or Local Authority.




Recommended Replacement Periods of Rechargeable batteries within Tunstall Products

*A The recommended replacement period of rechargeable batteries of this type is as follows:

Lead Acid Batteries	4 Years Max
Nickel Cadmium Batteries	2 Years MaxNickel
Metal Hydride	1-5 Years Max

*B The expected life of rechargeable batteries supplied as an uninterruptible power supply (UPS) for control centres will depend upon system configuration and battery capacity required, however, the recommended replacement period is:

Lead Acid Batteries	4 Years Max

At the end of these recommended replacement periods these batteries will give approximately 85% of the battery capacity at date of purchase.

The above statements are dependent upon:

1. Mains disconnection occurring no more than six times per year over the product's life. (Under the recommended tests procedures in this document some of these disconnections will inherently result in a full discharge of the battery's capacity. Additional incidences of mains failure up to the maximum of 6 should not affect the battery capacity over the product's life).
2. The operating environment remaining at normal room temperature (20-22°C).

Glossary of Terms

Battery Use

Provides information on how the battery is used e.g. some telecare sensors have more than one battery - one for the sensor and one for the radio transmitter. If the field is blank the sensor uses one battery for complete operation including radio transmission.

Battery Type

Provides information on the battery used within the product using the below key. Where the battery type is provided in full (e.g. 3v Lithium), the battery is not user changeable (see user changeable).

Key	Part Number	Battery Code	Power	Type
A	S1004014	PP3	9v	Alkaline
B	S1004035	PP3	9v	Lithium
C	S1004012	PX28L	6v	Lithium
D	S1004033	CR123A	3v	Lithium
E	B109	AA	1.5v	Alkaline
F	S1004007	AAA	1.5v	Alkaline

User Changeable

Indicates which batteries can be changed by a competent individual. Crosses indicate that the battery should only be changed by a Tunstall service engineer or the sensor should be returned to Tunstall for a battery change such batteries are therefore not available to purchase.

Auto Low Battery

Indicates whether the battery within the sensor provides an ALB report to the home unit.

Recommended Replacement Period

Recommended replacement period is based upon the battery manufacturer's technical literature. Due to variations in battery manufacturing and product usage, specific individual performance cannot be guaranteed.

Operating Capacity

The term refers to:

1. **Rechargeable batteries -** the minimum expected standby duration of battery power of the system/unit upon mains failure, at date of purchase.
2. **Communicall Master Unit batteries -** the minimum expected standby duration of battery power once fully charged from the mains, at date of purchase.

Frequently Asked Questions

Q1: What is the cost of new batteries?

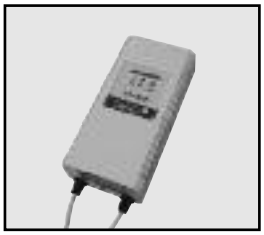
A: Please contact Tunstall's Customer Satisfaction Centre for costs of replacement batteries for specific products.

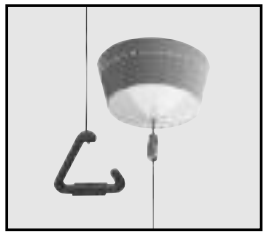
Q2: What is the cost of having batteries changed by Tunstall?

A: Replacement of batteries in Tunstall products is not a part of the service agreement, because the life of any battery varies considerably according to its usage. The cost for battery replacement is a standard service visit rate plus the cost of replacement of any batteries changed. To arrange battery replacement of your Tunstall product, please kindly contact Tunstall's Customer Satisfaction Centre. They will be able to advise you of the cost and arrange a date to visit at your convenience.

Q3: Are there any specific brands of battery we should/should not use?

A: Tunstall uses specific types of batteries within its products (see table 1). The specifications of these batteries form the basis for statements made with regard to recommended replacement period and operating capacity.




Details of Batteries Supplied with Tunstall Products - Table 1

EQUIPMENT	PART NUMBER	BATTERY USE ◇	BATTERY TYPE ◇	USER CHANGEABLE ◇	RECHARGEABLE ◇	AUTO LOW BATTERY ◇	RECOMMENDED REPLACEMENT PERIOD ◇	OPERATING CAPACITY ◇
TELECARE RADIO TRIGGERS AND SENSORS (869MHz)								
Amie+ (to include arm/disarm triggers)	*67005/02, 47*		1 x 3V lithium	✗	✗	✓	5 years	20,000 operations
Gem+ (to include zoning button, keyless access trigger andbogus caller button)	*67005/05*		1 x 3V lithium	✗	✗	✓	5 years	20,000 operations
Bed/ Chair Occupancy and Property Exit Sensors	*41005/13, 15*	Control Unit	4 x E	✓	✗	✓	2 years	
Carbon Monoxide Detector	*67005/51*		3 x F	✓	✗	✓	2 years	Detector life 4-5 yrs
Enuresis Sensor	*41005/21*		4 x E	✓	✗	✓	2 years	
Epilepsy Sensor	*67005/59*	Radio	1 x 3V lithium	✗	✗	✓	5 years	
Fall Detector	*67005/49*		1 x C	✓	✗	✓	6 months	
Flood Detector	*69000/01*	Detector	1 x A	✓	✗	✓	1 year	
	or 67005/37	Radio	1 x 3V lithium	✗	✗	✓	5 years	10,000 operations
Heat Detector	*9000/81A*	Detector	1 x B	✓	✗	✗	5 years	Detector life 10 yrs
	67005/78	Radio	1 x 3V lithium	✗	✗	✓	5 years	
Medication Dispenser - Addoz	*67005/60*		2 x E	✓	✗	✓	1 year	
Medication Dispenser - Pivotell	*67005/81*	Dispenser	4 x E	✓	✗	✗	1 year	
		Radio	1 x 3V lithium	✗	✗	✓	5 years	
Minuet Watch	*67605/06*	Watch	1 x V364	✓	✗	✗	5 years	
		Radio	1 x CR2032	✓	✗	✓	3 years	
DDA Standard Pager	*D6866003A*		1 x 1.2V AAA NiMh rechargeable	✓	✓	✗		1 week on one charge
DDA Wrist Pager	*9000/100*		1 x 1.2V VARTA rechargeable	✗	✓	✗		30 hrs on one charge
User/Home Alert Pager	*9000/69A*		1 x F	✓	✗	✓	45 days	
Pillow Alert Solution	*9000/67*	Back-up	1 x 12V Lead Acid	✗	✓	✗	5 years	1 week
PIR	*67005/34*		1 x A	✓	✗	✓	1 year	
PIR	*67005/45*		1 x D	✓	✗	✓	1½ year	
Fast PIR	*67005/89*		1 x D	✓	✗	✓	1 year	
Radio Output Module	*69005/05 or 67005/35*		1 x 3V lithium	✗	✗	✓	5 years	10,000 operations
Radio Pullcord	*64000/10 or 67005/36*		1 x 3V lithium	✗	✗	✓	5 years	10,000 operations
Radio Smoke Detector	*EF155*	Detector	1 x A	✓	✗	✗	1 year	
	PSA6740	Pattress	1 x 3V lithium	✗	✗	✓	5 years	10,000 activations
Radio Smoke Detector	*67005/58*	Detector	1 x B	✓	✗	✗	5 year	
		Radio pattress	1 x 3V lithium	✗	✗	✓	5 years	10,000 activations
Radio Smoke Detector	*67005/74*		1 x B	✓	✗	✓	5 years	
Line powered smoke detector (Schemes)	*9000/30A*	Back-up	1 x B	✓	✗	✗		Detector life 10 years
Mains Smoke Detector	*67005/38*	Backup battery	1 x B	✓	✗	✗	10 years max	
	69005/03,	Optional radio pattress	1 x 3V lithium	✗	✗	✓	5 years	10,000 operations
Temperature Extremes	*04, 05, 06*		3 x F	✓	✗	✓	2 years	
Universal Sensor	*41005/25, 30*		1 x 3V lithium	✗	✗	✓	5 years	

◇ Refer to glossary of terms on page 3.

Details of Batteries Supplied with Tunstall Products - Table 1

EQUIPMENT	PART NUMBER	BATTERY USE ◇	BATTERY TYPE ◇	USER CHANGEABLE ◇	RECHARGEABLE ◇	AUTO LOW BATTERY ◇	RECOMMENDED REPLACEMENT PERIOD ◇	OPERATING CAPACITY ◇
PERIPHERAL PRODUCTS								
Optical Smoke Detector	*64000/15*		1 x A	✓	✗	✗	12 months	
Remote Door Controller	*92000/20*		1 x A	✓	✗	✗		12 months
MONITORING CENTRE								
PNC4 / UPS	*N/A*	UPS	12V Lead Acid	✗	✓	✗	4 years *B	7 hours minimum
PNC3	*N/A*		12V Lead Acid	✗	✓	✗	4 years *B	7 hours minimum
HOME UNITS								
Lifeline Connect and Connect+	*all variants*	Back-up	1 x Nickel Metal Hydride	✓	✓	✓•	5 years *A	30 hours
Lifeline 4000+	*all variants*	Back-up	1 x Nickel Metal Hydride	✓	✓	✓•	5 years *A	20 hours
Lifeline 4000	*all variants*	Back-up	1 x Nickel Metal Hydride	✓	✓	✓•	5 years *A	24 hours
Lifeline 400	*all variants*	Back-up	1 x Nickel Metal Hydride	✓	✓	✓•	5 years *A	30 hours
Lifeline Lite	*all variants*	Back-up	1 x Nickel Metal Hydride	✓	✓	✗	5 years *A	20 hours
Ruggedised Alarm	*all variants*	Back-up	1 x Nickel Metal Hydride	✓	✓	✗	5 years *A	20 hours
Lifeline 1000	*all variants*	Back-up	1 x Nickel Metal Hydride	✗	✓	✗	5 years *A	20 hours
Lifeline 2000	*all variants*	Back-up	1 x Nickel Metal Hydride	✗	✓	✗	5 years*A	20 hours
Lifeline 3000	*all variants*	Back-up	1 x Nickel Metal Hydride	✗	✓	✗	5 years*A	20 hours
Piper Premier	*all variants*	Back-up	1 x 12V Lead Acid	✗	✓	✗	4 years *A	20 hours
Piper Premier S	*all variants*	Back-up	1 x 12V Lead Acid	✗	✓	✗	4 years *A	15 hours
Piper Portal	*all variants*	Back-up	1 x Nickel Metal Hydride	✗	✓	✗	5 years*A	20 hours
Lifeline	*all variants*	Back-up	1 x Nickel Metal Hydride	✗	✓	✗	5 years *A	4 hours
Lifeline II	*all variants*	Back-up	1 x Nickel Metal Hydride	✗	✓	✗	5 years*A	20 hours
Lifeline II plus	*all variants*	Back-up	1 x Nickel Metal Hydride	✗	✓	✗	5 years*A	20 hours

◇ Refer to glossary of terms on page 3.

● Feature turned off by default.

Details of Batteries Supplied with Tunstall Products - Table 1 continued

EQUIPMENT	PART NUMBER	BATTERY USE ◇	BATTERY TYPE	USER CHANGEABLE ◇	RECHARGEABLE ◇	AUTO LOW BATTERY ◇	RECOMMENDED REPLACEMENT PERIOD ◇	OPERATING CAPACITY ◇
GROUPED SCHEMES ALL COMMUNICALL SYSTEMS								
Communicall Connect	*XD952600 1*	Control Unit	2 x 12V Lead Acid	✗	✓	✗	4 years *A	8 hrs
Communicall Control Units	*93200/00* *92200/00*		5 x 12V Lead Acid	✗	✓	✗	4 Years*A	8 hrs typical
Communicall CT2	*92200/41*	Master Unit	3 x Panasonic Ni Cad	✗	✓	✗	2 years	20 hrs standby: 3 hrs talk time
Communicall EL Paging	*92100/12*	Master Unit	1 x Nickel Metal Hydride	✗	✓	✗	2-3 years	7 hrs
Communicall Vision Programming Terminal	*92100/11*		1 x Nickel Metal Hydride	✗	✓	✗	5 years *A	8 hrs
Piper Haven Control Unit	*9020/01*		5 x 12V Lead Acid	✗	✓	✗	4 years *A	8 hrs
Haven Master Unit with Paging	*9010/02*		1 x Nickel Metal Hydride	✗	✓	✗	2-3 years	7 hrs
DECT Master Unit	*92199/61*		1 x Nickel Metal Hydride	✓	✓	✗	2 years	150 hrs standby: 16 hrs talk
CHECK IT Unit	*36200/408*		1 x Nickel Metal Hydride	✓	✓	✗	5 years *A	20 hrs
DECT UPS	*92200/54*		2 x Lead Acid	✗	✓	✗	4 years	8 hrs
DECT Multitone Handset	*192199/13*		2 x Nickel Metal Hydride	✓	✓	✗	2 years	12 hrs talktime
Telecare Manager Unit	*136100/407*		1 x Nickel Metal Hydride	✓	✓	✗	5 years *A	20 hrs

*A & B See reference on page 3. ◇ Refer to glossary of terms on page 3.

Telephone (Customer Satisfaction Centre)
9am - 5pm, Mon - Fri: 08705 661234

Tunstall

www.tunstallhealth.com

Tunstall is a founder member of the Continua Health Alliance

Continua

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