



# battery information

Part number: D3607154F

**Tunstall**

## Introduction

This 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

- Page 1 Automatic Low Battery (ALB) reporting
- Page 1 Recommended battery test procedures
- Pages 1-2 Battery Disposal
- Page 3 Replacement Periods of Rechargeable batteries
- Page 3 Glossary of Terms
- Pages 4-5 Frequently asked questions
- Pages 4-5 Detailed Battery Information – Table A

## Automatic Low Battery (ALB) Reporting

Telecare sensors operating on the 869MHz European Social Alarm frequency incorporate an ALB feature that automatically reports Low Battery status to the monitoring centre (Lifeline home units) or the system log printer (Telecare Overlay) or the Scheme Manager's handset (Communicall Connect) ALB signals are transmitted if an auto battery test fails.

ALB tests are performed every 7 days if the sensor has not been activated in the period since the last test. The latest products test their battery every 4 hours and send an ALB message at the 7 day period if the battery has regularly been low in the previous period. The regularity of this test means that spurious low battery alerts caused, for example, by low temperatures will be minimised.

A full list of batteries protected by ALB functionality is detailed in Table 1.

## Recommended Test Procedures

### ALB Monitoring available

Where a battery is monitored by Automatic Low Battery reporting no extra manual testing of the battery is required (except personal radio trigger).

#### NOTE:

#### Lifeline Connect and Connect+ Units.

From January 2011 the main battery in the units will be provided with battery monitoring ON. This removes the need to carry out mains power switch off tests.

Although the current Tunstall triggers have ALB functionality, it is recommended that all personal triggers are tested at least monthly.

## No ALB Monitoring

### Lifeline Home Units

Lifeline Home Units without ALB monitoring or where this functionality is turned off require a battery test at least every 6 months to ensure they can still operate in a mains power failure situation.

#### The procedure to be followed is as follows:

Switch off mains power to home unit then activate an alarm call. Ensure that the monitoring centre answers the call and you can communicate with them. Once the monitoring centre has cleared the call, switch the mains power supply to the home unit back on.

### Smoke Detectors and Heat Detectors

Where Table 1 indicates that the ALB functionality only monitors the radio transmitter battery, Smoke and Heat Detectors should be tested as a minimum monthly by pressing the test button until the audible warning sounds. This will also raise an alarm call.

### Medication Dispenser (67005/81 only)

The dispenser mechanism is not protected by ALB, therefore the batteries powering the mechanism need to be tested as a minimum monthly.

#### The procedure to be followed is:

Remove the lid, press and hold the middle button for 2 seconds until a beep is heard and the current time appears in the display again. Then press the left button for 'missed dose' trigger. The battery icon on the display clearly indicates the battery status. This will also raise a call to the monitoring centre.

### Products with rechargeable batteries

Where products have rechargeable batteries as detailed in Table 1 they should be kept in the charger supplied when not in use or connected to the mains power via the supplied power adaptor.. The predicted operating capacity (back up time) when the battery is fully charged is also listed in Table 1.

### Control centre UPS Systems

A quarterly test of UPS batteries will be carried out under any Tunstall maintenance agreement.

**NOTE:** The capacity of the batteries installed should meet the requirements required by TSA Standards Module, Planning and Development of a Telecare Service Centre.

### Personal Radio Trigger

Although the current Tunstall triggers have ALB functionality, it is recommended that all personal triggers are tested at least monthly. This is due to the critical nature of the device which requires the whole Alarm system to be tested. This not only tests the battery but also the whole radio receiving system and the contact through to the monitoring centre. This is in line with TSA Process Module, Installation, Planned maintenance and Service, para 14.1.

## Battery Disposal

All batteries should be disposed of in accordance with current legislation.

As a responsible company, Tunstall disposes of all returned batteries in accordance with The Waste Batteries and Accumulators Regulations.

## Recommended Replacement Periods of Rechargeable Batteries

The type of rechargeable battery fitted into specific products is detailed in Table 1. The recommended replacement period of rechargeable batteries is dependent on type and is detailed below:

**Lead Acid Battery** – At a battery test failure or 4 Years maximum.

**Nickel Cadmium Battery** – At a battery test failure or 2 Years maximum

**Metal Hydride** – At a battery test failure or 5 years maximum.

## Glossary of terms

### Battery Use

Provides information on how a 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 in Table 1 is blank, one battery is used for complete operation.

### Battery Type

Provides information on the battery used within the product using the key below. Where the battery type is provided in full (e.g. 3V Lithium), the battery is not 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 |
| G   | S1004040    | ½ AA (ER14250) | 3.6v  | Lithium  |

## Auto Low Battery

Indicates whether the battery is covered by Auto Low Battery monitoring.

## Maximum Recommended Replacement Period

Due to variations in battery usage specific individual performance cannot be guaranteed. Therefore all batteries should be tested in accordance with the guidelines above and changed if any test fails.

However a maximum recommended replacement period is detailed based upon the battery manufacturer's technical literature.

## Operating Capacity

The term refers to rechargeable batteries and is the minimum expected standby duration of battery power for a fully charged battery at the date of purchase.

## Frequently Asked Questions

*Q1: What is the cost of new batteries?*

A: Please contact Tunstall's Customer Satisfaction centre for the 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 part of the Service Agreement, because the life of any battery varies considerably according to usage. The cost for battery replacement is a standard service visit rate plus the cost of any batteries changed. To arrange battery replacement for your Tunstall product please contact Tunstall 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 when supplied new and the specifications of these batteries form the basis for statements made with regard to recommended replacement periods and operating capacity. Batteries supplied by other manufacturers may not provide the same level of performance.

**Details of Batteries Supplied with Tunstall Products - Table 1**

| EQUIPMENT   | PART NUMBER           | BATTERY USE Δ  | BATTERY TYPE Δ    | USER CHANGEABLE Δ | RECHARGEABLE Δ | AUTO LOW BATTERY Δ | RECOMMENDED REPLACEMENT PERIOD Δ | OPERATING CAPACITY Δ   |
|---|-----------------------|----------------|-------------------|-------------------|----------------|--------------------|----------------------------------|------------------------|
| <b>TELECARE RADIO TRIGGERS AND SENSORS (869MHz)</b> |                       |                |                   |                   |                |                    |                                  |                        |
| MyAmie (inc arm/disarm/zone and access)             | 68005/01, 08, 10      |                | 1 x 3V lithium    | ✗                 | ✗              | ✓                  | 7 years                          | 20,000 operations      |
| Amie+ (inc arm/disarm)                              | 67005/02, 47          |                | 1 x 3V lithium    | ✗                 | ✗              | ✓                  | 5 years                          | 20,000 operations      |
| Gem+ (inc zoning, keyless access and bogus caller)  | 67005/05              |                | 1 x 3V lithium    | ✗                 | ✗              | ✓                  | 5 years                          | 20,000 operations      |
| Bed/Chair Occupancy and Property Exit Sensor        | 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                          |                        |
| VitalBase <sup>FALL</sup> Detector                  | 67605/16              |                | 1 x CR2477        | ✗                 | ✗              | ✓                  | 2 years                          |                        |
| Fall Detector (white)                               | P67005/49             |                | 1 x C             | ✓                 | ✗              | ✓                  | 0.5 years                        |                        |
| Fall Detector (black)                               | P68005/49             |                | 1 x G             | ✓                 | ✗              | ✓                  | 1 year                           |                        |
| Flood Detector                                      | 69000/01 or 67005/37  | Detector       | 1 x A             | ✓                 | ✗              | ✓                  | 1 year                           |                        |
|   |                       | Radio          | 1 x 3V lithium    | ✗                 | ✗              | ✓                  | 5 years                          | 10,000 operations      |
| Heat Detector                                       | 9000/81A              | Detector       | 1 x B             | ✓                 | ✗              | ✗                  | 5 years                          | Detector life 10 years |
|   | 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 | ✓                 | ✓              | ✗                  |                                  | 1 week                 |
| DDA Wrist Pager                                     | 9000/100              |                | 1 x 1.2V VARTA    | ✗                 | ✓              | ✗                  |                                  | 30 hrs                 |
| User/Home Alert Pager                               | 9000/69A              |                | 1 x F             | ✓                 | ✗              | ✓                  | 45 days                          |                        |
| PIR   | 67005/34              |                | 1 x A             | ✓                 | ✗              | ✓                  | 1 year                           |                        |
| PIR   | 67005/45              |                | 1 x D             | ✓                 | ✗              | ✓                  | 2 years                          |                        |
| Fast PIR  | 67005/89              |                | 1 x B             | ✓                 | ✗              | ✓                  | 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 PSA6740         | Detector       | 1 x A             | ✓                 | ✗              | ✗                  | 1 year                           | Detector life 10 years |
|   |                       | Pattress       | 1 x 3V lithium    | ✗                 | ✗              | ✓                  | 5 years                          |                        |
| Radio Smoke Detector                                | 67005/58              | Detector       | 1 x B             | ✓                 | ✗              | ✗                  | 5 years                          |                        |
|   |                       | Radio pattress | 1 x 3V lithium    | ✗                 | ✗              | ✓                  | 5 years                          |                        |
| Radio Smoke Detector                                | 67005/74, 94 68005/94 |                | 1 x B             | ✓                 | ✗              | ✓                  | 5 years                          |                        |
| Temperature Extremes                                | 69005/03, 04, 05, 06  |                | 3 x F             | ✓                 | ✗              | ✓                  | 2 years                          |                        |
| Universal Sensor                                    | 41005/25, 30          |                | 1 x 3V lithium    | ✗                 | ✗              | ✓                  | 5 years                          |                        |

**Details of Batteries Supplied with Tunstall Products - Table 1**

| EQUIPMENT                                      | PART NUMBER                  | BATTERY USE Δ | BATTERY TYPE Δ           | USER CHANGEABLE Δ | RECHARGEABLE Δ | AUTO LOW BATTERY Δ | RECOMMENDED REPLACEMENT PERIOD Δ | OPERATING CAPACITY Δ               |
|--|------------------------------|---------------|--------------------------|-------------------|----------------|--------------------|----------------------------------|------------------------------------|
| <b>MONITORING CENTRE</b>                       |                              |               |                          |                   |                |                    |                                  |                                    |
| PNC4/5/6/ 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                    |
| <b>HOME UNITS</b>                              |                              |               |                          |                   |                |                    |                                  |                                    |
| Lifeline Connect and Connect+                  | <i>all variants</i>          | Back-up       | 1 x Nickel Metal Hydride | ✓                 | ✓              | ✓                  | 5 years *A                       | 30 hours                           |
| Lifeline GSM                                   | <i>all variants</i>          | Back-up       | 1 x Nickel Metal Hydride | ✓                 | ✓              | ✓                  | 5 years *A                       | 58 hours                           |
| Lifeline 4000+                                 | <i>all variants</i>          | Back-up       | 1 x Nickel Metal Hydride | ✓                 | ✓              | ✗                  | 5 years *A                       | 20 hours                           |
| Lifeline 4000                                  | <i>all variants</i>          | Back-up       | 1 x Nickel Metal Hydride | ✓                 | ✓              | ✗                  | 5 years *A                       | 24 hours                           |
| Lifeline 400                                   | <i>all variants</i>          | Back-up       | 1 x Nickel Metal Hydride | ✓                 | ✓              | ✗                  | 5 years *A                       | 30 hours                           |
| Lifeline Lite                                  | <i>all variants</i>          | Back-up       | 1 x Nickel Metal Hydride | ✓                 | ✓              | ✗                  | 5 years *A                       | 20 hours                           |
| Ruggedised Alarm                               | <i>all variants</i>          | Back-up       | 1 x Nickel Metal Hydride | ✓                 | ✓              | ✗                  | 5 years *A                       | 20 hours                           |
| Lifeline 1000                                  | <i>all variants</i>          | Back-up       | 1 x Nickel Metal Hydride | ✗                 | ✓              | ✗                  | 5 years *A                       | 20 hours                           |
| Lifeline 2000                                  | <i>all variants</i>          | Back-up       | 1 x Nickel Metal Hydride | ✗                 | ✓              | ✗                  | 5 years *A                       | 20 hours                           |
| Lifeline 3000                                  | <i>all variants</i>          | Back-up       | 1 x Nickel Metal Hydride | ✗                 | ✓              | ✗                  | 5 years *A                       | 20 hours                           |
| Piper Premier                                  | <i>all variants</i>          | Back-up       | 1 x 12V Lead Acid        | ✗                 | ✓              | ✗                  | 4 years *A                       | 20 hours                           |
| Piper Premier S                                | <i>all variants</i>          | Back-up       | 1 x 12V Lead Acid        | ✗                 | ✓              | ✗                  | 4 years *A                       | 15 hours                           |
| Piper Portal                                   | <i>all variants</i>          | Back-up       | 1 x Nickel Metal Hydride | ✗                 | ✓              | ✗                  | 5 years *A                       | 20 hours                           |
| Lifeline                                       | <i>all variants</i>          | Back-up       | 1 x Nickel Metal Hydride | ✗                 | ✓              | ✗                  | 5 years *A                       | 4 hours                            |
| Lifeline II                                    | <i>all variants</i>          | Back-up       | 1 x Nickel Metal Hydride | ✗                 | ✓              | ✗                  | 5 years *A                       | 20 hours                           |
| Lifeline II plus                               | <i>all variants</i>          | Back-up       | 1 x Nickel Metal Hydride | ✗                 | ✓              | ✗                  | 5 years *A                       | 20 hours                           |
| <b>GROUPED SCHEMES ALL COMMUNICALL SYSTEMS</b> |                              |               |                          |                   |                |                    |                                  |                                    |
| Communicall Connect                            | <i>XD9526001</i>             | Control Unit  | 2 x 12V Lead Acid        | ✗                 | ✓              | ✗                  | 2 years *A                       | 8 hours                            |
| Communicall Control Units                      | <i>93200/00<br/>92200/00</i> |               | 5 x 12V Lead Acid        | ✗                 | ✓              | ✗                  | 4 years *A                       | 8 hours typical                    |
| Communicall CT2                                | <i>92200/41</i>              | Master Unit   | 3 x Panasonic Ni Cad     | ✗                 | ✓              | ✗                  | 2 years                          | 20 hrs standby:<br>3 hrs talk time |
| Communicall EL Paging                          | <i>92100/12</i>              | Master Unit   | 1 x Nickel Metal Hydride | ✗                 | ✓              | ✗                  | 2-3 years                        | 7 hours                            |
| Communicall Vision Programming Terminal        | <i>92100/11</i>              |               | 1 x Nickel Metal Hydride | ✗                 | ✓              | ✗                  | 5 years *A                       | 8 hours                            |
| Piper Haven Control Unit                       | <i>9020/01</i>               |               | 5 x 12V Lead Acid        | ✗                 | ✓              | ✗                  | 4 years *A                       | 8 hours                            |
| Haven Master Unit with Paging                  | <i>9010/02</i>               |               | 1 x Nickel Metal Hydride | ✗                 | ✓              | ✗                  | 2-3 years                        | 7 hrs                              |
| DECT Master Unit                               | <i>92199/61</i>              |               | 1 x Nickel Metal Hydride | ✓                 | ✓              | ✗                  | 2 years                          | 150 hrs standby:<br>16 hrs talk    |

**Details of Batteries Supplied with Tunstall Products - Table 1**

| EQUIPMENT                             | PART NUMBER | BATTERY USE Δ           | BATTERY TYPE Δ           | USER CHANGEABLE Δ | RECHARGEABLE Δ | AUTO LOW BATTERY Δ | RECOMMENDED REPLACEMENT PERIOD Δ | OPERATING CAPACITY Δ   |
|---------------------------------------|-------------|-------------------------|--------------------------|-------------------|----------------|--------------------|----------------------------------|------------------------|
| CHECK IT Unit                         | 36200/408   |                         | 1 x Nickel Metal Hydride | ✓                 | ✓              | ✗                  | 5 years *A                       | 20 hours               |
| DECT UPS                              | 92200/54    |                         | 2 x Lead Acid            | ✗                 | ✓              | ✗                  | 4 years                          | 8 hours                |
| 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 hours               |
| <b>PERIPHERAL PRODUCTS</b>            |             |                         |                          |                   |                |                    |                                  |                        |
| Line powered smoke detector (Schemes) | 9000/30A    | Back-up                 | 1 x B                    | ✓                 | ✗              | ✗                  | 10 years                         | Detector life 10 years |
| Mains Smoke Detector                  | 67005/38    | Backup battery          | 1 x B                    | ✓                 | ✗              | ✗                  | 10 years                         |                        |
|                                       |             | Optional radio pattress | 1 x 3V lithium           | ✗                 | ✗              | ✓                  | 12 months                        |                        |
| Line powered smoke detector (Scheme)  | 9000/77A    | Back-up                 | 1 x B                    | ✓                 | ✗              | ✗                  | 10 years max                     |                        |
| Line powered heat detector (Scheme)   | 9000/80A    | Back-up                 | 1 x B                    | ✓                 | ✗              | ✗                  | 10 years max                     |                        |
| Optical Smoke Detector                | 64000/15    |                         | 1 x A                    | ✓                 | ✗              | ✗                  | 12 months                        |                        |
| Remote Door Controller                | 92000/20    |                         | 1 x A                    | ✓                 | ✗              | ✗                  | 12 months                        |                        |

Δ Refer to glossary of terms on page 3

- Feature included on units manufactured 31/01/11 (week/year 0511) onwards.

\*A & B See reference on page 3

**Telephone (Customer Satisfaction Centre)  
9am – 5pm, Mon – Fri: 0844 415 1214**

01/12



[www.tunstallhealth.com](http://www.tunstallhealth.com)

Tunstall is a founder member of the Continua Health Alliance

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