

# Lifeline Connect and Connect+ unit battery monitoring

## PRODUCT BULLETIN

TSA guidance on battery testing is for Telecare Service providers to follow the manufacturer's recommendations. Until now Tunstall's guidance, in addition to monthly pendant tests, was to perform a home unit battery test every 6 months by unplugging the home unit from the mains power and then generating an alarm call.

Tunstall has reviewed its battery information and has enhanced its Lifeline Connect and Connect+ units with a unit battery monitoring feature. All home units manufactured from 31st Jan 2011 will now include the feature. This will support battery management procedures and in particular avoid the need to carry out the 6 monthly unit battery tests as previously recommended and will also raise alerts to any battery failures at the earliest opportunity.

In addition the following documentation is being reviewed and new updated versions will be available shortly.

- Battery Information Document – including battery test requirements and technical details on battery performance
- Alarm test guidance plan – an essential guide for testing Tunstall equipment

As Tunstall's policy is to update service returns with a genuine fault to the latest firmware, returned units (Lifeline Connect and Connect+) will also be upgraded and have this feature turned on.

### How it works

The unit battery low feature is operated using parameter 174 and if enabled provides the following alerts:

1. Under mains failure condition – home unit alerts monitoring centre when the home unit battery reaches 1/3 of its capacity and therefore has approximately 8 hours remaining back up time. This alert is in addition to the existing alerts provided during a mains failure situation.
2. Battery terminal voltage too high or too low – this alert is provided at any time when the battery voltage goes above or below set limits indicating a unit battery fault or failure.

The above alerts are sent to the monitoring centre in the below format:

1. TT21 – Call code JB displayed to the operator as 'System Battery Low'. This is a foreground call and requires operator intervention.
2. TT92 – Call code B displayed to the operator as 'Battery or Unit Failure'. This is a foreground call and requires operator intervention.

If mains failure alerts are received close to the 'System Battery Low' and 'Battery or Unit Failure' messages then it can be assumed that the message relates to the battery backup time remaining during a power failure. Therefore this alerts the monitoring centre that there is only 8 hours battery time remaining until the unit will shut down unless the mains power is restored.

Alerts received when no mains failure alerts have been received relate to a battery fault or failure. Such alerts should be dealt with promptly by replacing the unit's back up battery. These can be ordered from Tunstall using part number D3706005A.

### Monitoring centre compatibility

Monitoring centres capable of receiving TT21 and TT92 protocols are fully compatible with the unit battery monitoring feature.

### Programming of existing Lifeline Connect and Connect+ units

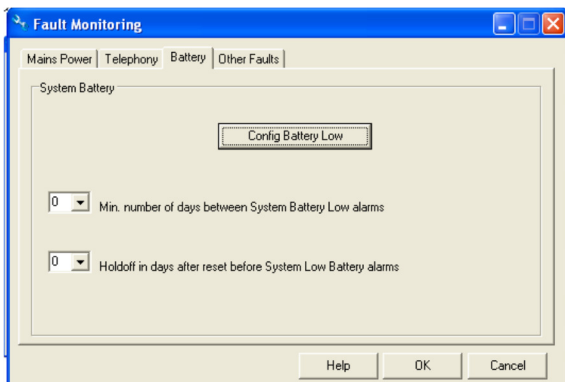
All existing Lifeline Connect and Connect+ can also support the feature and can be turned on using either PC Connect (Fault monitoring section) or remotely using PNC (parameter 174). See page 3 for more details.

For more information please contact the Telehealthcare Helpline on 01977 660204.

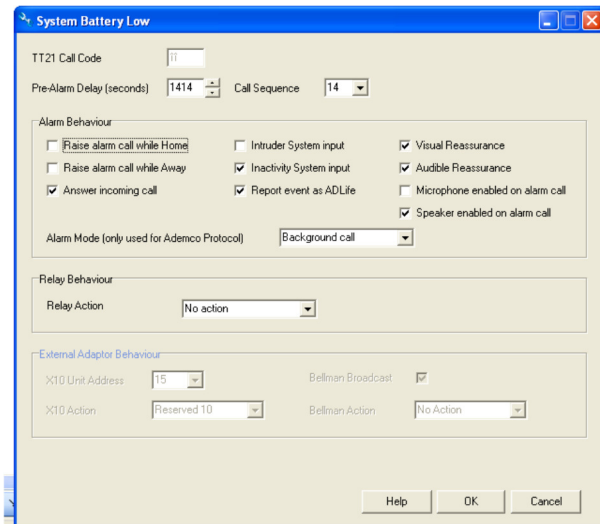
### PC Connect programming

All Lifeline Connect and Connect+ home units can support unit battery monitoring and can be configured using PC Connect. Please download the latest version of PC Connect at [uk.tunstall.com/lifeline-vi](http://uk.tunstall.com/lifeline-vi)

- Open PC Connect then click on the 'Fault monitoring' icon
- Open the Battery tab then click on 'Config Battery Low'



- Then tick both 'Raise alarm call while Home' and 'Raise alarm call while Away'. Click OK then write the changes to the home unit



### PNC programming

Can only be done via manual parameter changes to parameter 174 (see below):

Parameter 174 unit battery low turned on = 4A42 041C 4200 0000  
 unit battery low turned off = 4A42 0410 4000 0000