

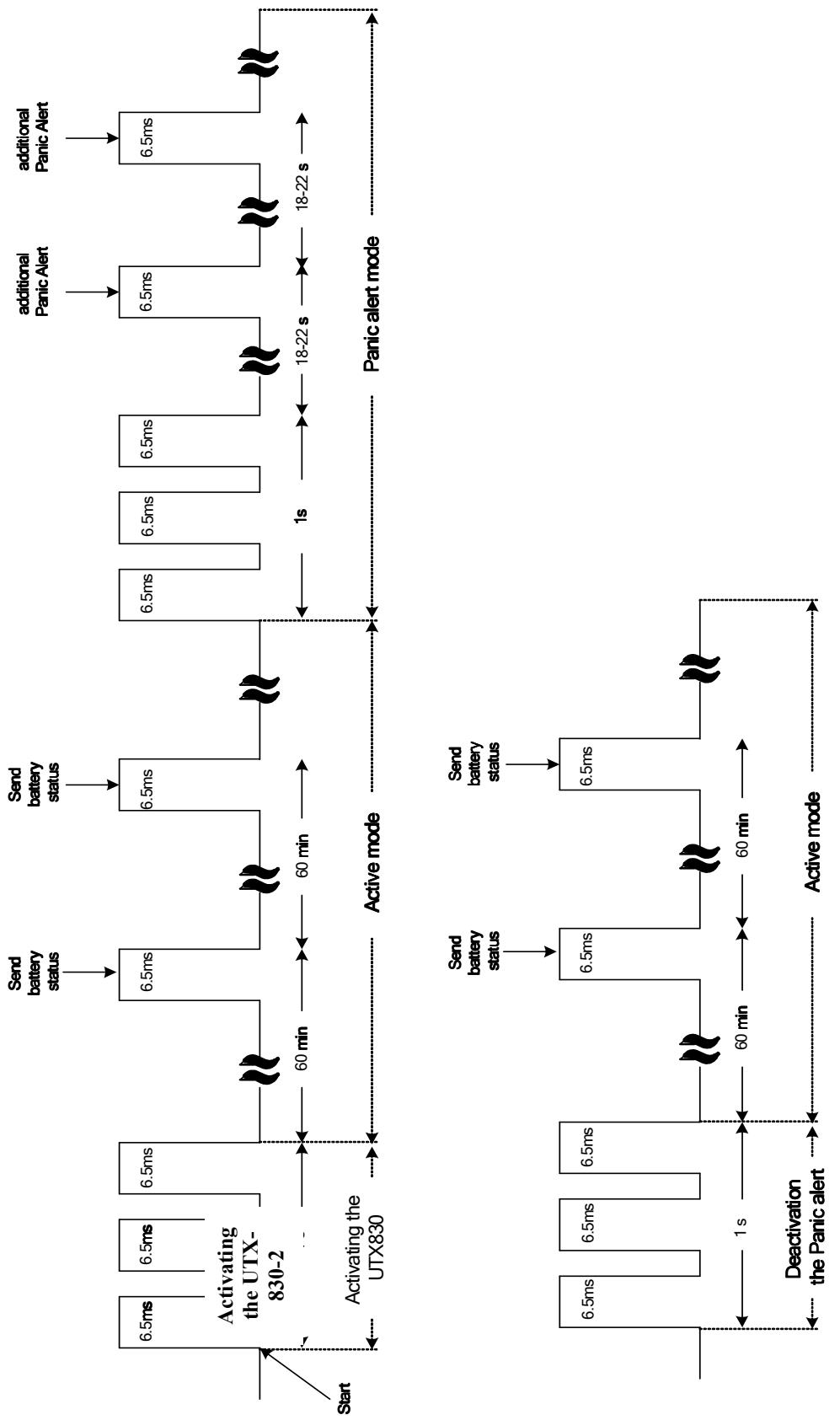
Universal Transmitter UTX-830-2 **Operational description**

1. General Description

- 1.1. The UTX-830-2 is a small frame-head device, to be installed at internal or external doors of nursing homes and assisted leaving homes. The device is combined with a magnet on the door to detect door open / close status. When the door is open, the device shall transmit panic messages once every 18-22 seconds (random interval within this range), until closed door is detected. It will be possible to turn the UTX-830-2 on and off by pulling out the battery (for saving battery life and for aviation safety while shipped). While UTX-830-2 is ON, it shall transmit a status message, once every hour, to indicate that it is still functioning and to report its battery level.
- 1.2. The UTX-830-2 is a stand-alone unit. It can be battery operated or externally powered by a dedicated AC adaptor; it has RF transmitter module, a microcontroller, which controls the UTX-830-2 operation, one PCB, and a door magnet.
- 1.3. The UTX-830-2 has one RF channel. It is 433 MHz carrier with FSK modulated data.

2. Functional Description

- 2.1. The UTX-830-2 has four modes of operation.
 - a) ACTIVATING THE UTX-830-2:
Three 6.5ms transmissions within 1s.
 - b) ACTIVE (door closed):
The UTX-830-2 sends a status message to the monitoring station (one 6.5ms transmission per hour) to indicate the current battery status.
 - c) ACTIVE to PANIC transition:
The UTX-830-2 sends a panic transition alert message to the monitoring station in the following way. A burst of three 6.5ms transmissions within 1s.
 - d) PANIC ALERT (door open):
The UTX-830-2 sends a 6.5ms alert message transmission every randomly chosen interval of 18-22 s. This panic alert message is re-sent until the "door close" is detected.
 - e) PANIC to ACTIVE transition:
The UTX-830-2 sends an active transition alert message to the monitoring station in the following way. A burst of three 6.5ms transmissions within 1s.



UTX-830-2 time diagram