



## FDU-830 (Fall Detection Transmitter Unit) Operational Description

The FDU-830 is a battery-powered device that is designed for use in areas covered by the HomeFree AMS system. This device is designed to provide two major functions:

- Notification to the system that the monitored person has got out of their bed or chair. This is achieved using a pressure pad that is connected to the FDU. When the pressure exerted by the weight of the person's body is no longer detected, the device shall generate an alarm
- Notification to the system that the monitored person has wet the bed. This is achieved using an "incontinence" pad that is connected to the FDU. When moisture is detected on the pad, the device shall generate an alarm.

The FDU-830 comprises a printed circuit board (PCB) which includes an RF transmitter module with an integral antenna and a microcontroller that controls its operation. The FDU-830 is powered by a replaceable 9V battery.

During regular operation, the FDU-830 sends a supervision signal once every approximately 20 seconds (a random interval of 18-22 seconds).

In the event of an alarm, the FDU-830 transmits a sequence of "Strong" and "Weak" signals shown in the diagram below until manual reset is performed. Each sequence of signals is separated by a randomly chosen interval of 9-11 seconds.

