# **NOC-watch USER MANUAL**

The NOC-Watch system consists of two components: a transmitter and receiver.

# TRANSMITTER (TX)

The TX is designed to detect its own orientation in space. It has two main components: a printed circuit board (PCB) and a battery.

A FLAT position is defined as the "0-degree" angle position. This is when the battery and PCB are equal distance from the earth's surface; i.e., when the TX is lying on a table.

An ALARM position is defined as any angle below "45-degrees" from the FLAT position, i.e., when the PCB is closer to the earth's surface than the battery.

During an ALARM condition, the TX sends a 433 MHz pulse width modulated signal.

# **RECEIVER (RX)**

The RX is primarily used to indicate when a TX is in the ALARM position (>45 degrees).

The RX consists of 3 lamps, 1 audible speaker, 1 snooze push-button, 1 power connector and 1 quarter-inch mono-jack.

- 1) POWER GREEN: It flashes at 1-second intervals when it is ready to be trained to a TX (see below). It is on constantly (solid illumination) once it has been trained to a single TX.
- 2) LOW BATTERY YELLOW: When flashing, the RX is temporarily disabled from receiving a TX signals. When on constantly (solid illumination) the TX battery is low and needs to be replaced.
- 3) ALARM RED: This lamp illuminates for the duration of an alarm condition.
- 4) SPEAKER: Will emit sound for the duration of an alarm condition.
- 5) SNOOZE BUTTON: Has two functions. (1) When pressed once, it temporarily (ca. 30 min.) disables the RX from acknowledging any TX transmissions. When pressed a second time, it re-enables the RX to the normal state. (2) Once an alarm has occurred, it can be pressed to release the latched relay associated with the quarter-inch mono-jack.
- 6) POWER CONNECTOR: Incoming DC power
- 7) MONO-JACK: Interface to a Nurse-Call system. It is a dry-contact interface, no current is supplied.

#### **OPERATION**

## Preparing a system for use:

- 1) Attach power cord to receiver.
- 2) Plug in power cord to any available 110V/60Hz Ac wall socket.
- 3) Observe the flashing POWER LED. This indicates that the RX is ready to be trained to a TX this is the READY MODE for the receiver.

## **TX-RX Training**

- 1) With the RX in the Ready mode, tilt the TX to a complete vertical position, board-side towards the floor and with the battery up.
- 2) Press the TX power button and hold for a period of approximately 5 seconds.
- 3) At this time the Receiver should present an audible alarm and a visual alarm (ALARM LED). The power LED will stop flashing and remain on constantly.
- 4) Return the transmitter to a flat position. The audible alarm will stop and the ALARM LED will extinguish.

#### **GENERAL INFORMATION**

- 1) Once the TX has been trained to a RX, that RX will not respond to any other TX.
- 2) Any time the TX is turned (battery side up) to an approximate angle of 45 degrees or greater, the RX will alarm.
- 3) The snooze button temporarily disables the receiver from acknowledging any transmissions. Therefore, no alarms can occur.

## STATEMENT OF FCC COMPLIANCE

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: 1) this device may not cause harmful interference and 2) this device must accept any interference that may be received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### MADE IN USA