## $\mathbb{N}$

## **WIRELESS TEMPERATURE MONITOR**





Model No.: ST323C

Operation Manual

Reading Before Using



Thank you for purchasing MSR Wireless Temperature Monitor with Remote Monitor. Before you start using this unit, please read this operation manual thoroughly.

### Contents

Introduction
Specification
Safety Note
Components
Product Descriptions
Preparation Before Using
Operation
Other applications
Ambient Temperature Measurement
Clock
Alarm
Responding to Temperature Alarm
Display Screen Messages
Light Indicator
Battery Replacement
Care and Storage
Warranty

#### [INTROUDCTION]

The "Wireless Temperature Monitor" (called device) is a newly innovative medical device intended for remote monitor of the armpit temperature up to 100 hours continuously for patients of 3 years older to adult when they are developing fever. The device consists of two units: the transmitter and the receiver. The transmitter functions as the unit not only to monitor the armpit temperature but also to transmit the temperature measured to the receiver that is remotely located by about 160 feet away. The receiver functions as the unit to receive the transmitted temperature signal from the transmitter and display on the LCD screen the temperature monitored. The frequency of the transmission is at 433.92 MHz that is approved by FCC for medical use. The receiver can automatically register the temperature in the memory at an interval of every 30 minutes since the beginning of monitoring. The care taker can set the alarm for upper and lower temperature limits of the monitored armpit temperature. If the monitored temperature exceeds the set limit, either upper or lower, the receiver will begin to alarm and flash to alert the care taker for taking proper action in response to the alarm.

The device is also designed to function as a regular clock and ambient thermometer when armpit temperature monitor is dysfunctional. Also the receiver is equipped with the backlight function for easy night reading.

The device is already approved by FDA and the CE mark is obtained as well. The technology is proprietary and the patent application to the US Patent and Trademark office is already submitted.

# **[Specifications]**

**Size:** Transmitter: 56.95 x 40.64 x 18.41mm

Receiver: 72.4 x 23 mm

**Weight:** Transmitter: approx. 11.20g (without battery)

Receiver: approx. 41g (without battery)

**Product Material:** Transmitter: ABS

Receiver: ABS

**Type of Batteries:** Transmitter: 3V x 1 (CR2032)

Receiver: AAA / 1.5V x 2

**Life of Batteries:** Transmitter: Approx. > 500hrs

Receiver: Approx. > 200hrs

**Backlight:** Backlight will be ON for 5 sec. whenever you press any button

**Effective Distance for Transmission and Reception:** 

160 feet distance (approx.50M) in an open space. If there are objects in that space, the transmission distance will be shortened.

**Range of Temperature Settings:**  $10.0 \sim 43.0 (50.0 \sim 109.4)$ 

**Temperature Accuracy:** ±0.1 / 0.2 between 32 ~ 43.0 (89.6 ~ 109.4 )

 $\pm 0.5$  / 1.0 beyond above range

**Storage environment:** Transmitter / Receiver

Ambient temperature:  $-10.0 \sim 60.0 (14.0 \sim 140.0)$ 

Humidity: 30% -80% RH

**Temperature Measurement Interval**: Transmitter measures body temperature once every 15 seconds.

**Transmitting Time:** When transmitter detects body temperatures exceeding the Hi-Lo range three (3) times in a row, it transmits a signal causing the receiver to sound an alarm.

**Sound of Receiver Alarm:** Lo: Long Bi.... BiBi (repeats 6 times)

Hi: Short Bi ...... Bi (repeats 6 times)

Frequency of Transmission: 433.92 MHZ

**Memory Function:** 200 sets

During measurement mode, press "\" or "\" to review lasting

readings.

/ : Can be selected on the receiver

**ON:** Transmitter: Press ON/OFF button 3 seconds

Receiver: Press On/OFF button for 3 seconds

**OFF**: Transmitter: Press ON/OFF button over 4 second

Receiver: Press ON/OFF button for 3 seconds

## **Safey Note**

## Warning

- 1. Before you start using this unit, please read this operation manual thoroughly for the correct methods of usage.
- 2. This device is not waterproof and must be never submersed in any liquid.
- 3. Do not drop or disassemble the units.
- 4. Avoid exposing the thermometer to direct sunlight, high temperature, moisture or dirt.
- 5. If the unit will not be used for a long time, it is advisable that the battery be removed and stored from the reach of children.
- 6. If the unit becomes contaminated, clean it with a damp cloth.

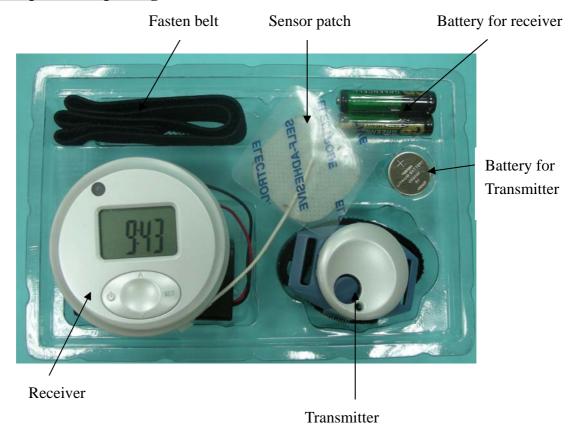
Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user authority to operate the equipment.

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 received, including interference that may cause undesired operation.

The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

# [Components]

### Components in packing



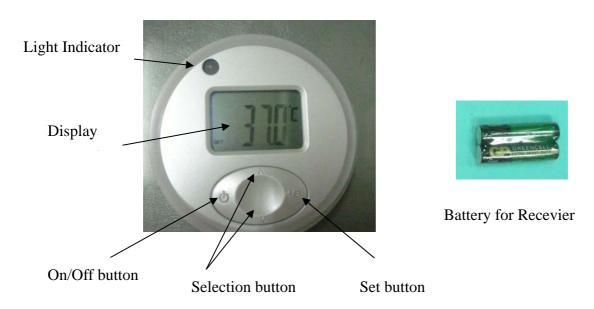
#### **Components assembly**

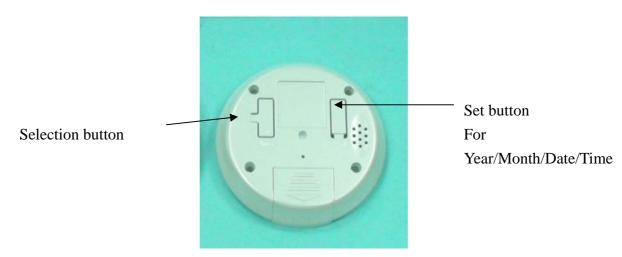




# [ Product Descriptions ]

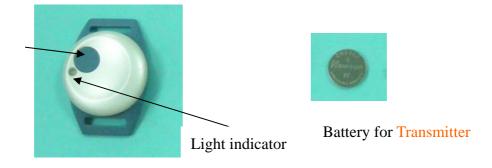
## Receiver group:

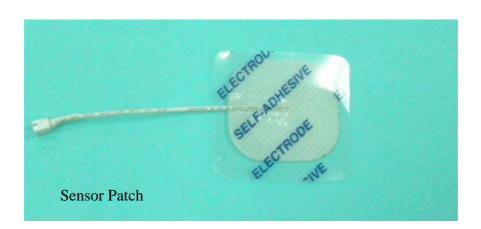


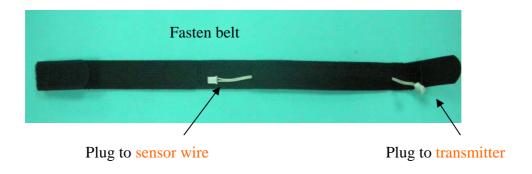


## Transmitter group:

#### On/Off button







# **[ Preparation Before Using ]**

## **Step one: Install battery**



#### One CR2032 (3 volt) battery

- Remove the battery compartment cover
- Insert one battery in the battery compartment, as indicated by the positive (+) faced up.
- Replace the battery cover



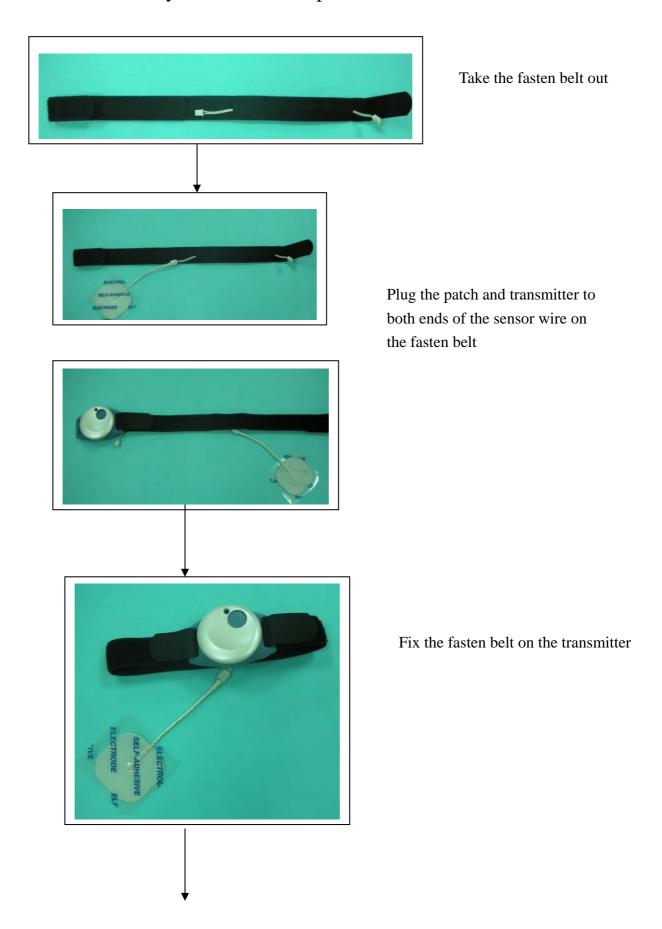




#### Two AAA (1.5V) batteries

- Remove the battery compartment cover
- Insert two batteries in the battery compartment, as indicated.
- Replace the battery cover

# **Step one:** Connect the patch and fasten belt and transmitter when you use it for temperature monitor





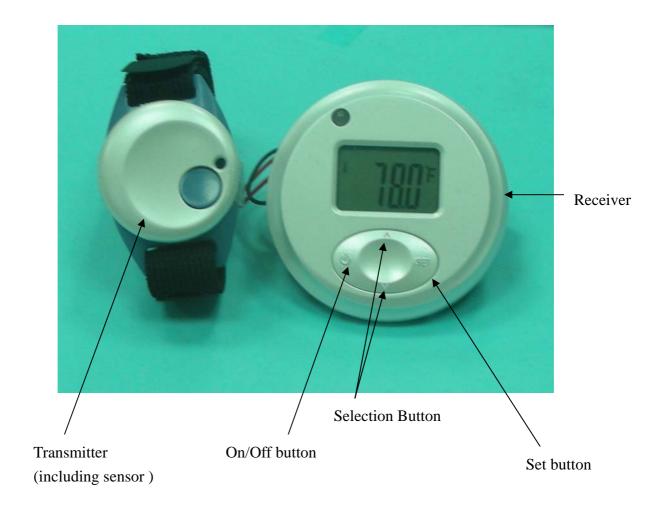
Wear it on the upper arm



Peel the cover on the patch and affix the patch on the armpit of the patient.

Note: The receiver should be kept with the caretaker remotely.

# [Operation]



#### \* To activate the I/O button

Press the I/O button approx. 3 second to activate this device. The LCD show all segments



#### \* To Change / mode (the default is )

When the device is activated, press "set" button till you see "C" on the display. Press " $\land$ " or " $\lor$ " to select / mode.



#### Note:

"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 received, including interference that may cause undesired operation."