Wireless Temperature Monitor

Model No.: ST323
Operation Manual
Please Read Carefully Before Using
Thank you for purchasing MSR Wireless Temperature Monitor. Before you start using this unit, please read this operation manual thoroughly.

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Congratulations! on the purchase of your new MSR Wireless Temperature Monitor. You may now “Rest Assured” of your loved one’s temperature either up close or from a distance, even from another room! “Why Wake your Sleeping Angel up”?

Your new “Wireless Temperature Monitor” is a Technologically advanced medical device intended for remote monitoring of body temperature for up to 100 hours of continuous use. It is intended for patients 3 years old to adult. The device consists of two parts: the transmitter and the receiver. The transmitter monitors body temperature (via the underarm sensor) then automatically transmits the measured temperature reading to the remote receiver.

The following are key features:

- Clinically Accurate: Meets or exceeds ASTM and CE accuracy standards.
- Accuracy Assurance Function – temperature reading transmits every 15 seconds!
- Fever alarm and fever receding points setting --- Hi, Lo.
- Memory Function - tracks previous readings every 30 minutes.
- Alarm Function – Alarm sounds when temperature deviates from personalized pre-set parameters.
- Additional Alarm Function – Alarm sounds should sensor become disconnected.
- Clock Function.
- Room Temperature Function – Scans and reads ambient temperature.
- Backlit for easy night reading when any button on the control panel is touched.
- FCC approved transmission frequency – 433.92MHz.
- Measures in Centigrade and Fahrenheit.

Trademark and patent Pending
【Specifications】

Size:  Transmitter: 2.24 x 1.60 x .72 in.
       Receiver: 2.85 x 2.85 x .90 in.

Weight: Transmitter: approx. 36g (1.21 oz)(without battery)
         Receiver: approx. 44.2g (1.49 oz) (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. when 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 affected.

Range of Temperature Settings: 10.0°C ~ 43.0°C (50.0°F ~ 109.4°F)

Temperature Accuracy: ±0.1°C / 0.2°F between 32°C ~ 43.0°C (89.6°F ~ 109.4°F)
                      ±0.5°C / 1.0°F beyond above range

Storage environment: Transmitter / Receiver
                     Ambient temperature: -10.0°C ~ 60.0°C (14.0°F ~ 140.0°F)
                     Humidity: 30% -80% RH

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

Transmitting Signal: When transmitter detects body temperatures exceeding the High-Low range three (3) times in a row, it transmits a signal to the receiver to sound an alarm.

Sound of Receiver Alarm: Low: Long BiBiBi
                         High: Short BiBiBi

Frequency of Transmission: 433.92 MHz
Memory Function: 200 sets
【Safety Notes】

Warning

1. Before you start using this unit, please read this operation manual thoroughly for the correct operation procedures.
2. This device is not waterproof and must never be submersed in any liquid.
3. Do not drop or disassemble the unit.
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 recommended that the battery is 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 user 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】
【Product Descriptions】

Receiver group:

- Light Indicator
- LCD
- Power Key
- Setting key
- Selection button
- Battery for Receiver

Setting Key
For Year/Month/Date/Time
Transmitter group:

- Power Key
- Light indicator
- Sensor Band
- Battery for Transmitter

Receiver group:

- Arm Band
- Sensor patch
When you see this Icon on the display, press “∧” or “∨” button to switch °C to °F or °F to °C.

When you see this Icon on the display, press “∧” or “∨” button to set high temperature (fever alarm point).

When you see this Icon on the display, press “∧” or “∨” button to set low temperature limit (fever receding point).

When you see this Icon on the display, this unit is on “alarm’ status, press “∧” or “∨” button to select buzzer on or off.

When you see this Icon on the display, this unit is on “memory’ function, press “∧” or “∨” button to clear memory function.

When you see this Icon on the display, this unit is on “wireless temperature monitor’ mode.

When you see this Icon on the display, this unit is on “ambient temperature monitor’ mode.

When you see this Icon on the display, this unit is on temperature setting mode.

When you see this Icon on the display, this unit is on clock setting mode.
【Preparation Before Using】

Step one: Install battery

One CR2032 (3 volt) battery
● Use a coin or a screw driver to open the battery cover by turning counter-clockwise.
● Insert one battery in the battery compartment. The positive (+) side should be faced up.
● Turn clockwise to close the battery cover.

Two AAA (1.5V) batteries
● Remove the battery compartment cover.
● Insert two batteries in the battery compartment as indicated.
● Put the battery cover back on.

Step two:

Press the button of the sensor patch to the sensor band
Step three: Fasten the arm band

Step 1
Put the armband on the upper arm and adjust armband to the proper tightness

Step 2
Peel off the cover from the sensor patch.

Step 3
Affix the sensor patch under the armpit

Remark:
** The sensor patch is one-time use, when you use up the attached 3 sensor patches, you can buy it from your nearby distributor.

** If oil or similar substance gets on the surface of the adhesive patch, it will not stick as well and will not last as long.

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

- 10 -
To activate the I/O button
Press the button for approximately 3 seconds to activate this device.
The LCD will show all segments temporarily.

To switch between °F/°C
When the device is activated, click “set” button until “C or F” appears
on the display, Press “∧” or “∨” for switching between °F and °C, then
press “set ” button once again.

To set “Hi ”(fever alarm point) temperature limit:
Following °F/°C setting, “Hi” will appear on the display, press “∧” or
“∨” to set high temperature then press “set” button once again.
(Temperature setting will change in increments of 0.1°C (or 0.1°F)
∗ To set “Lo (fever receding point)” temperature limit:
Following “Hi” temperature setting, “Lo” will appear on the display, press “∧” or “∨” to set low temperature then press “set” button once again.
(Temperature setting will change in increments of 0.1°C (or 0.1°F)

![Lo F]

Pre-set temperature for Hi and Lo:

![995 F 76 F]

∗ To set Mute mode
The default is in sound mode. To use mute mode, when icon is on the display, press “∧” or “∨” to see below icon on the display and press “set” button once again.

![OFF]

∗ To clear memory
The default is in memory mode. To clear memory, when icon is on the display, press “∧” or “∨” to see below icon on the display and press “set” button once again.

![CLR]

∗ To set temperature monitor mode
Following memory mode setting, you will see “tr “ on the display, press “set” button twice to begin the temperature monitor.
At the same time, make sure the sensor patch is under the armpit of the patient.

![tr]

***“ tr” stands for transmitting, under this mode, you can monitor temperature.
Memory Retrieval

In temperature monitor mode, press “^” or “\(\)” to retrieve the temperature and press the “set” button to retrieve the date / time. Continue the same procedure to retrieve more sets of data from previous monitor.

Remark: If the thermometer measures the temperature to be over the “Hi” temperature or below the “Lo” temperature you have set, the receiver will sound continuously (bi-bi-bi) and indicator light flashes red.
【Operation】
Ambient Temperature Indicator

Ambient Temperature Measurement
Press the button to activate this unit, click “set” button continuously to see "TR" on the display. Press “∧” or “∨” when “rE” as below picture is on the display, press ”set” button twice to begin for ambient temperature measurement.

Remark: “rE” stands for “Receiver”
【Operation】
Clock

The Receiver can be used as clock alone.

※ To set year/month/ date / time
Press ◀ to activate this unit, click the “set” button continuously until the icon (⬇) is shown on the left side of the display, press “∧” or “∨” to select icon is (⬇️) shown on the left side of the display.

When the clock signal on the display, press ”set” button (on the back of receiver) twice, you can set year / month/ date time in turn.

Remark: 1). “Time” button is to adjust year / date / time.
Whenever you finish year setting or date or time setting in order, do not forget to press “set” button once.

2). After setting, press on/off button twice, it will be in table clock display.
【Responding to Temperature Alarm】

After the receiver sounds the alarm, it will continue to ring unless the receiver is switched off manually (alarm can be temporarily turned off by pressing any key on the receiver).

Caution: It is dangerous to automatically switch off the receiver alarm without finding out why it sounded in the first place. Doing so makes the caretaker forget the importance of taking immediate action for the patient. The correct procedure is:

1. Hear the receiver alarm sounds.
2. Turn off the “alarm” by pressing any button on the receiver.
3. Go to the patient immediately.
4. Provide proper care to the patient.
5. Reset or turn off the receiver if necessary.

<table>
<thead>
<tr>
<th>Alarm</th>
<th>Display on LCD</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>BiBi- BiBi– BiBi</td>
<td>NorF and weak antenna signal</td>
<td>When the receiver doesn’t receive signal from transmitter</td>
</tr>
<tr>
<td>Bi - Bi</td>
<td><img src="image" alt="Display" /></td>
<td>Short circuit of sensor or sensor patch disconnect from sensor band.</td>
</tr>
<tr>
<td></td>
<td><img src="image" alt="Display" /></td>
<td>Sensor patch disconnect from the armpit of patient</td>
</tr>
<tr>
<td>Short Bi-Bi-Bi</td>
<td></td>
<td>Temperature is higher than the fever alarm point (Hi) you set</td>
</tr>
<tr>
<td>Long Bi-Bi-Bi</td>
<td></td>
<td>Temperature is lower than the fever receding point (Lo) you set</td>
</tr>
</tbody>
</table>
【Important Signal】

- ⚡ Indicates low battery on the transmitter when the LCD shows a flashing battery signal.
- ⚡ Indicates low battery on the receiver when the LCD shows a battery signal.
- ⚡ If the reading of the patient is less than 32.0°C (89.6°F), the LCD will display “Lo”.
- ⚡ If the reading of the patient is greater than 43.0°C (109.4°F), the LCD will display “H”.
- ⚡ Short circuit of Sensor or sensor patch disconnect from sensor band.
- ⚡ Sensor patch disconnect from the armpit of patient.

【Light Indicator】

<table>
<thead>
<tr>
<th>Light</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>● Power On</td>
</tr>
<tr>
<td></td>
<td>● Receiving signal</td>
</tr>
<tr>
<td>Red</td>
<td>● Alarm</td>
</tr>
<tr>
<td></td>
<td>● Short circuit of Sensor or sensor patch disconnect from sensor band</td>
</tr>
<tr>
<td></td>
<td>● Sensor patch disconnect from the armpit of patient</td>
</tr>
<tr>
<td>Orange</td>
<td>● Low battery</td>
</tr>
</tbody>
</table>

Remark: The light indicator is off in clock mode.
【Battery Replacement】

**Transmitter:**
When a battery sign appears in the transmitter LCD display, it means the battery is low and should be replaced as described below:

1. Removed the battery compartment cover from the bottom of the transmitter.
2. Take out the battery.
3. Insert new battery securely in place, with words facing up.
4. Put the battery compartment cover back on.

Important Note: Clock mode needs to be reset after batteries replaced.

**Receiver:**
When Red LED light of receiver blinks, it indicates low battery condition. To replace batteries, follow the procedures described below in order to avoid causing damage.

1. Remove the battery compartment cover. Take out the batteries.
2. Insert new batteries.
3. Put the battery compartment cover back on.
【Care and Storage】

**Environment of Use:**
When used in an environment with obstacles, the effective distance of transmission will be reduced. The effective distance of reception will also be reduced when the power is low.

**Storage Condition:**
When the receiver is not in use, the product should be stored inside the house.
Do not expose it to sunlight or place next to high temperature stove. Heat can negatively impact functioning of the batteries and electric circuit.

**Removing batteries:**
If the receiver is not in use, the batteries should be removed in order to conserve battery life.
【Warranty】

This temperature monitor carries a 2 year warranty from the date of shipment. The distributor reserves the right to repair or replace free of charge for changing necessary parts to correct defects in the material or workmanship.

The warranty does not apply to damage resulting in failure due to the following: accidents, abuse, disassembly by unauthorized individuals.
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Read the instructions in this manual carefully.

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