# Clinic Patch Thermometer (Temponitor)

## USER INSTRUCTION

Model KD-2100



Manufacturer :

K-Jump Health Co., Ltd.
No. 56 Wu Kung 5ᵗʰ Rd.,
Wu Ku Industrial Park,
Taipei Hsien, Taiwan 248

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## Contents

### Intended for Use
This device is intended to be used to monitor the body temperature by applying the temperature patch to body skin or axillary.

### Notice
1. Use of this thermometer is not to be a substitute for consulting with a physician.
2. Person with pacemaker implemented should consult the doctor before using this device.
3. Intensive supervision is necessary when using this device on infant, children and compromised person.

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.

1

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## Precaution

### FCC Interference Statement
FCC ID : RYZTEMPONITOR
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference with not occur in a particular installation. If this equipment does not cause harmful interference to radio or TV reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocated the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into and outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
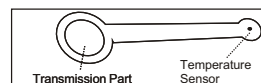
### Caution: To assure continued FCC compliance
Any changes or modifications not expressly approved by the grantee of this device could be void the user's authority to operate the device.
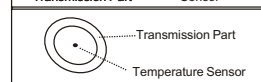
## About the Device (1)
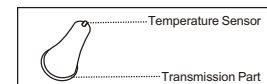
### The Patch
**KD-PT01**
**Under Arm Patch**



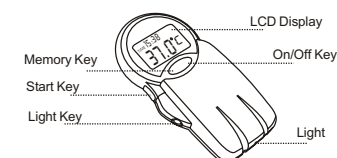**KD-PT02**
**Body Skin Patch**
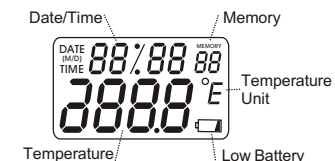
2

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## About the Device (2)

**KD-PT03**
**Ear Plug Patch**
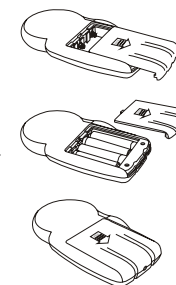


### KD-2101 Temperature Reader



### The LCD



### Battery installation / replacement

1. Remove battery cover by pulling the battery cover.
2. Install/replace four new 1.5 V Size- AAA batteries into the battery compartment. Note that be sure the batteries should have the correct polarity.
3. Close the battery cover.



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## Setting the Device

### Setting Date and Time
After installation/replacement of the batteries, the date and time are re-freshed to default value; a setting is necessary by following steps:

1. Under power-off mode, keep pressing the "M" key until it shows a flashing "2003" which is the setting mode of year.
2. Every clicking of the "M" key to enter the next mode said month    date    hour    minute to the end.
3. Every clicking of the of "O/I" key will add one to the value for your setting.
4. After the setting, the device is always back to "power-off" mode.

M key

20 03

DATE (M/D)   1/ 1

DATE (M/D)   1/ 1

TIME   12:00

TIME   12:00

O/I key (+ 1)

### Setting °C or °F
The KD 2101 provides user to select the unit in either °C or °F by following steps:

1. Click the "O/I" key to turn on the device.
2. The LCD will show all segments first and enter to default unit mode; now, you have 5-second period for the setting; keep pressing the O/I key and the unit will switch to either °C or °F you want.

TIME   12:25   °F   - - -

↓ ↑
(Keep pressing O/I key for 2 sec)

↓ ↑

TIME   12:25   °C   - - -
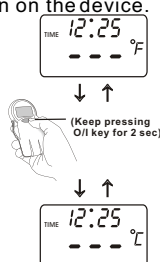
4

## Preparation before Measurement

### About the sensor
The sensors is constructed by two parts: *transmitter* and *temperature sensor*. The transmitter is used for inducing power as well as data transmission; the temperature sensor is used for body temperature detecting.

### Applying the Sensor
*For fixing the sensor, a dressing (or surgical) adhesive tape will be needed. A high quality tape without side-effect is recommended since long period (usually 24~48 hr) adhesion.*

1. Apply the **sensor** to ear canal, armpit or abdominal area below navel (depended on different types).
2. For armpit and body skin, fixing the sensor by medical adhesive tape(s). Be sure the firmness.
3. Subject is allowed to dress cloth rather than naked.
4. For infant or baby, the patch under diaper will benefit the measurement result since warmer measurement environment.

Insert the ear tape patch into ear canal.

Adhesive tape

sensor

Adhesive tape sensor
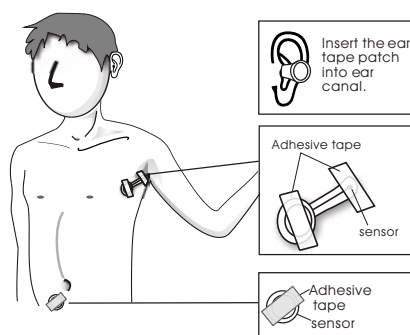
5

## Important Information

### *Period for Heat Equilibrium*

After applying the sensor, a 5~10 minutes waiting for temperature equilibrium between the sensor and your skin surface will be necessary before taking the first measurement.

Skin surface temperature

Room temperature

5~10 min.   → Start data reading
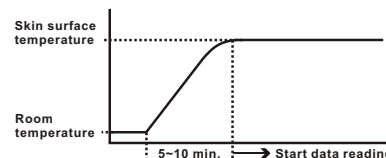
### *Room Temperature Affects Skin Temperature*

Skin is major organ for maintenance of body temperature; either hot or cold environment will cause skin temperature to rise or to fall. It is recommended that subject is kept in a comfortable room temperature (usually 22~28°C (71.6~82.4 °F) for taking the measurement.
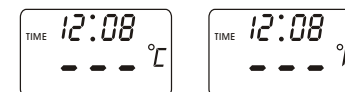
### *Notice*

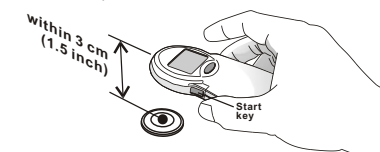When using the skin sensor or armpit sensor, wipe body skin with a dry towel.
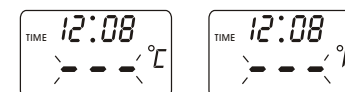
6

## Start Measurement

1. Turn on the device, the device will perform system checking automatically until "ready for detecting" as figure:

TIME   12:08   °C   - - -

TIME   12:08   °F   - - -

2. Place the reader on the upright direction of the transmitter around 3~4 cm (1,5 inches) distance.

within 3 cm (1.5 inch)

Start key

3. Click the "start key", the device starts scanning the patch temperature with flashing "---".

TIME   12:08   °C   - - -

TIME   12:08   °F   - - -

4. The result is then shown on the LCD with 2 beep sounds. Measurement is completed.

TIME   12:08   36.5 °C
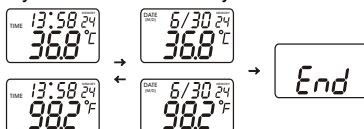
TIME   12:08   97.7 °F

5. For another reading, just repeat the steps mentioned above.

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## Reading the Memories

1. The KD-2100 provides 24-set memories including date/time information for your tracking of the measurement by simply clicking the "M" key.

**M key**

2. The first click will trigger to show the nearest measurement being taken. To navigate previous ones, further click "M" key to show the memory data.

```
TIME 13:58 24        DATE 6/30 24
36.8 ℃    →    36.8 ℃    →    End
TIME 13:58 24   ←    DATE 6/30 24
98.2 ℉         ←    98.2 ℉
```

Note:
The memory data will be re-freshed once the batteries are replaced. Be sure to record the data to your note if it is important.
The maximum memories to be stored are 24-set, in case of the data bank is full, the earliest one will be erased automatically.

### Using the Flash Light
The KD-2100 equipped with flash light which allows user to operate during dark area. By pressing the "Flash Light" button, one can easily shine the limited target area without disturbing the subject.

**Flash Light Button**
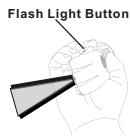
### Turn Off the Device
After use, you can turn off the power by clicking the O/Ikey, or, the device will turn off automatically after 60 seconds without any operation.

## Maintenance

| | |
|---|---|
| Do not drop the unit. | |
| Do not modify or disassemble the unit or patch. | |
| Do not twist the sensor. | |
| Use a cloth moistened with water or neutral detergent to clean the body of the unit and then wipe it dry. | |
| Avoid thinner, benzene, and other harsh cleaners. | |
| Avoid storage in high temperature, direct sunlight, high moisture, and dust. | |
| Remove the batteries if the unit will not be used for a long time. | |

## Error Message

| Error Marks | Correction |
|---|---|
| **H** | The temperature measured was higher than the specified operating range. **Please measure again.** |
| **L** | The temperature measured was lower than the specified operating range. **Please measure again.** |
| **Err** | **System Failure** The device is either out of function or unable to store memory data. **Check with the dealer.** |
| **Er 1** | **Transmission Failure** 1. Re-position the reader to closer distance. 2. Replace a new patch due to the one is malfunction. 3. Replace the batteries. |
| (battery icon) **or No display** | **Low Battery Indication** Replace four 1.5V size AAA batteries |

## Specifications

***Power Source***
6V$_{DC}$; 1.5Vdc AAA size battery X4

***Measuring range***
90.0 F ~ 109.9 F,(32.0 C ~ 43.9 C)

***Resolution***
±0.1 F (±0.1 C)

***Accuracy***
±0.2°F (±0.1°C): 93.2~107.6°F (32.0 ~ 42.0°C).
±0.4°F (±0.2°C): other range.

***Operation Frequency***
13.56MHz

***Operation Range***
4cm diameter circle with distance within 3cm.

***Memory***
24 memories

***Low battery***
Replace the batteries if the low battery indicator appears.

***Power OFF***
Automatically after 1 minutes of non use.

***Operating environment***
+60.8 F~+104.0 F(+16.0 C ~ +40.0 C),at 95%RH

***Storage environment***
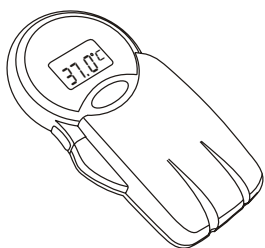-68.0 F~+122.0 F(−20.0 C ~ +50.0 C),at 95%RH

# Clinic Patch Thermometer (Temponitor)

## USER INSTRUCTION

Model KD-2101

Manufacturer :

K-Jump Health Co., Ltd.
No. 56 Wu Kung 5th Rd.,
Wu Ku Industrial Park,
Taipei Hsien, Taiwan 248

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- Reorient or relocated the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into and outlet on a circuit different from that to which the receiver is connected.
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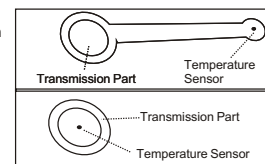
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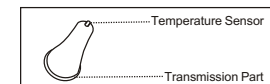## About the Device (1)
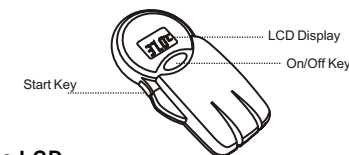
### The Patch
**KD-PT01**
**Under Arm Patch**

Transmission Part / Temperature Sensor

**KD-PT02**
**Body Skin Patch**

Transmission Part / Temperature Sensor

2

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## About the Device (2)

**KD-PT03**
**Ear Plug Patch**

Temperature Sensor / Transmission Part

### KD-2101 Temperature Reader

Start Key / LCD Display / On/Off Key

### The LCD

Memory / Low Battery / MEMORY / Temperature Unit / Temperature
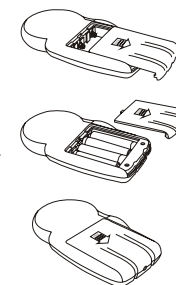
### Battery installation / replacement

1. Remove battery cover by pulling the battery cover.
2. Install/replace four new 1.5 V Size- AAA batteries into the battery compartment. Note that be sure the batteries should have the correct polarity.
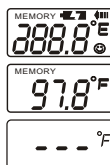3. Close the battery cover.
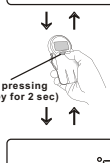
3

## Setting °C or °F

The KD 2101 provides user to select the unit in either °C or °F by following steps:
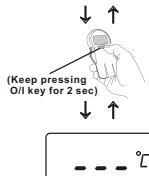1. Click the "O/I" key to turn on the device.

2. The LCD will show all segments first.

3. Then the LCD will show last measured data.

4. As the "memory" icon disappears; now, you have 5-second period for the setting; keep pressing the O/I key and the unit will switch to either °C or °F you want.

**(Keep pressing O/I key for 2 sec)**

## Applying the Sensor

*For fixing the patch, a dressing (or surgical) adhesive tape will be needed. A high quality tape without side-effect is recommended since long period (usually 24~48 hr) adhesion.*
1. Apply the **temperature sensor** to ear canal, armpit or abdominal area below navel (depended on different types).
2. For armpit or body skin types, fixing the sensor by medical adhesive tape(s). Be sure the firmness.
3. Subject is allowed to dress cloth rather than naked.
4. For infant or baby, the sensor under diaper will benefit the measurement result since warmer measurement environment.
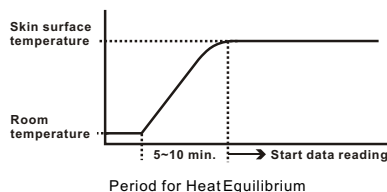
4

## Applying the Sensor

Insert the ear tape sensor into ear canal.

Adhesive tape

sensor

Adhesive tape sensor
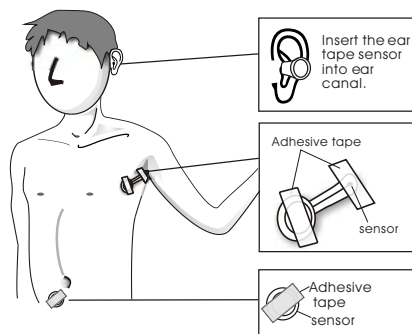
*Notice*
When using the skin sensor or armpit sensor, wipe body skin with a dry towel.
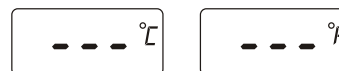
*Room Temperature Affects Skin Temperature*
Skin is major organ for maintenance of body temperature; either hot or cold environment will cause skin temperature to rise or to fall. It is recommended that subject is kept in a comfortable room temperature (usually 22~28°C (71.6~82.4 °F). Also, after applying the sensor, a 5~10 minutes waiting for temperature equilibrium between the sensor and your skin surface will be necessary before taking the first measurement.
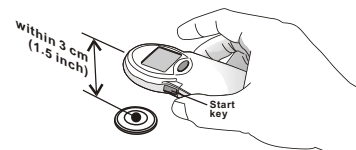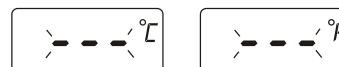
Skin surface temperature

Room temperature

5~10 min. → Start data reading

Period for Heat Equilibrium

5

## Start Measurement

1. Turn on the device, the device will perform system checking automatically until "ready for detecting" as figure:

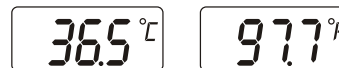--- ℃          --- °F

2. Place the reader on the upright direction of the transmitter around 3~4 cm (1,5 inches) distance.

within 3 cm (1.5 inch)

Start key

3. Click the "start key", the device starts scanning the patch temperature with flashing "---".

--- ℃          --- °F

4. The result is then shown on the LCD with 2 beep sounds. Measurement is completed.

36.5 ℃          97.7 °F

5. For another reading, just repeat the steps mentioned above.

6

## Maintenance

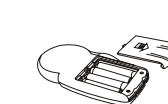| | |
|---|---|
| Do not drop the unit. | |
| Do not modify or disassemble the reader or sensor.. | |
| Do not twist the sensor. | |
| Use a cloth moistened with water or neutral detergent to clean the body of the unit and then wipe it dry. | |
| Avoid thinner, benzene, and other harsh cleaners. | |
| Avoid storage in high temperature, direct sunlight, high moisture, and dust. | |
| Remove the batteries if the unit will not be used for a long time. | |

7

## Error Message

| Error Marks | Correction |
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| **L** | The temperature measured was lower than the specified operating range. **Please measure again.** |
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| **Er 1** | **Transmission Failure**<br><br>1. Re-position the reader to closer distance.<br>2. Replace a new patch due to the one is malfunction.<br>3. Replace the batteries. |
| **or**<br>**No display** | **Low Battery Indication**<br><br>Replace four 1.5V size AAA batteries |

## Specifications

***Power Source***
$6V_{DC}$; 1.5Vdc AAA size battery X4

***Measuring range***
90.0 F ~ 109.9 F,(32.0 C ~ 43.9 C)

***Resolution***
±0.1 F (±0.1 C)

***Accuracy***
±0.2°F (±0.1°C): 93.2~107.6°F (32.0 ~ 42.0°C).
±0.4°F (±0.2°C): other range.

***Operation Frequency***
13.56MHz

***Operation Range***
within 4cm diameter circle with distance within 3cm.

***Memory***
automatic display last measurement

***Low battery***
Replace the batteries if the low battery indicator appears.

***Power OFF***
Automatically after 1 minutes of non use.

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+60.8 F~+104.0 F(+16.0 C ~ +40.0 C),at 95%RH

***Storage environment***
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