

Oritronic



Non-contact infrared thermometer

Model# : DM3997

User manual

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Product Overview

DM3997 is a professional thermometer designed to measure the temperature of the forehead and the surface of the human body. It can switch to human body mode for measuring human body temperature and switch to object mode for measuring the temperature of a milk bottle, bathroom or room.

Product name: Non-contact infrared thermometer

Product model#: DM3997

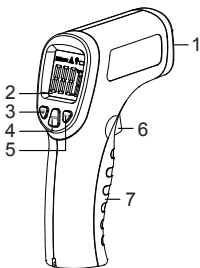
Scope of application: Display the body temperature of the measured object by measuring the heat radiation of the forehead.

Contraindications: None

The main structure and composition

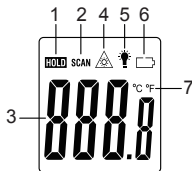
This product is mainly composed of infrared detection part, circuit amplification, Compensation part, and display part.

1. Infrared detection head
2. LCD display
3. Backlight control keys
4. Body Mode / Object Mode Switch key
5. Celsius / Fahrenheit Conversion Key
6. Measuring switch
7. Battery compartment cover



LCD display description

1. Data hold state
2. Data read status
3. Displayed value
4. Object mode
5. Backlight
6. Low battery symbol
7. Celsius or Fahrenheit ($^{\circ}\text{C}$ or $^{\circ}\text{F}$)



Function and technical parameter introduction:

- Four-digit display number: 888.8
- Four keys operation
- Controllable white LED backlight
- Human body temperature and surface temperature function switch
- Fahrenheit / Celsius temperature unit display selectable
- Low battery indication
- Auto-shutdown function
- Temperature measurement range:
 - Under Object mode: 0°C - 100°C
 - Under Body mode: 32°C - 43°C
- Temperature data accuracy:
 - Object mode data error: $\pm 1.5^{\circ}\text{C}$
 - Forehead temperature error $\pm 0.2^{\circ}\text{C}$

- Measurement distance 3 - 5CM
- Power supply: 2 pieces of AAA 1.5V batteries




Operating Instructions



1. Install the battery:

The thermometer is in off status after the battery is installed.

2. Start up:

Press the "Measuring key" in the off state, then the thermometer is turned on, waiting for LCD displays for 1S, and the backlight is turned on to enter the measurement status after 1S.

Before the measurement results appear, the digital part still shows 888.8.  This icon changes to body mode and object mode. Thermometer default as body mode.  Not lit in body mode,  lit in object mode.


Celsius / Fahrenheit Conversion Key & Backlight control key is with shutdown memory function, backlight icon  , surface temperature icon .

The HOLD and SCAN icons indicate as: press "Measuring switch "and shows "SCAN" on LCD display, release "Measuring switch "shows "HOLD "on LCD display. When released, the buzzer with "bi bi" beeps. If you release the "Measuring switch" before the measurement result appears, it will not appear "bi bi" sound, and there will be "bi bi" sound after the measurement result appears.



3. Temperature measurement:

When in the body mode (default at startup), press and hold the "Measuring switch "to take a temperature measurement at a rate of 2 times per second. The SCAN icon is displayed on the LCD. The HOLD icon disappears. After releasing the "Measuring switch ", the temperature measurement is stopped. The icon appears and at the same time there will be "BIBI" sound twice.



 This icon is off.

In the object mode: Press and hold the "Measuring switch "to measure temperature at a rate of 2 times per second. The SCAN icon is displayed on the LCD. The HOLD icon disappears. After releasing the Measuring switch, the temperature measurement is stopped. There will be "BIBI" sound at the same time.  This icon shows the status.

4. Backlight control

Press the backlight control key to turn on / off the backlight. When the backlight is on, is displayed  on the LCD and  disappears when the backlight is off.


5. Mode switching

Press "Body / Object Mode Switching Key" to switch between body and object modes. The default is human body mode. The icon  is displayed on the LCD when switching to the surface temperature, and  disappears when turned off. Can be switched in the test state.

6. Celsius and Fahrenheit conversion

Press the Celsius/Fahrenheit Conversion Key once to switch the measured value between Fahrenheit and Celsius. The °F icon is displayed on the LCD at Fahrenheit and the °C icon at Celsius.
Default as °C

7. Low battery indication

When the LCD shows the  battery symbol, it means that the battery is in a low battery state.

Operation: Open the battery compartment cover, and replace the battery, paying attention to the correct position of batteries Positive and negative.

Improper placement may cause damage to the product.

8. Shut down

If No operation in 7S, enter sleep mode.

Use precautions

1. Please always wait for a 10 minutes warm up for the device when first use or after just put in battery.
2. Before use, please keep the sensor and probe cavity clean.
3. Please use the thermometer in a stable temperature environment.
When the ambient temperature fluctuates greatly (such as from indoor to outdoor), please leave it for ten minutes to measure.
4. Do not start measuring body temperature immediately after measuring extremely high or low temperature objects, please

leave it for ten minutes before next operation.

5. When the measurement object comes from a place with a big temperature difference from the measurement environment, it should stay in the measurement environment for at least five minutes.
6. Try not to measure under forehead blow, water, and sweat, apply cosmetics, etc. Do not measure body temperature within 30 minutes after exercise, bathing, and meals.
7. When measuring the human body, aim at the forehead, the distance is about 3 - 5CM, press the Measuring switch, the temperature will be displayed immediately.

Error message and solution

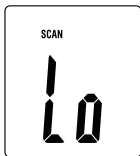
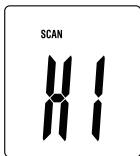
1. LCD display temperature is below 32 °C

If in object mode, the temperature of 32 °C shows the temperature of the human skin surface rather than the body temperature.

2. LCD display message HI

Using non-contact infrared forehead temperature thermometer, LCD may display message HI

The analysis shows that the measurement range has been exceeded: the temperature measured in human mode exceeds 43 °C or the surface mode exceeds 100 °C



3. LCD display information LO

Using non-contact infrared forehead thermometer, LCD may display the message LO

The analysis indicates that the measurement range has been exceeded: the temperature measured in human mode is lower than 32°C or the temperature in surface mode is lower than 0°C

There are several situations when the message LO or HI appears:

| Reason for displaying message LO or HI | Suggestions |
|--|---|
| The temperature value is affected by hair and sweat | Ensure that there is no obstruction during temperature measurement |
| Temperature is affected by air flow changes | Ensure that the air remains stable during temperature measurements |
| The measurement distance is too far | Please note the measurement distance (3 - 5CM) |
| Walk into the room from low or high Temperature outdoors | Please wait 10 minutes for the subject's temperature to adapt to the measurement environment before measuring |

Special instructions for safe use

Warning: The use of this product cannot replace the doctor's diagnosis. If you have a high or long-term fever, please seek medical treatment, especially for infants, otherwise you may delay your illness.

Keep this product and batteries out of the reach of children.

- When not in use for a long time, remove the battery.
- Do not disassemble, repair and modify this product by yourself.
Do not use it if it is damaged.
- Do not expose this product to the sun or near a stove, or expose it to water.
- Do not bump, drop, step on, or vibrate this product.
- Do not use in places subject to strong static electricity or electromagnetic waves.
- Do not leave the product in an environment above 50 °C or below 0 °C.

Maintenance and care methods

- Please wipe the surface of the thermometer with 70% alcohol-free cotton, and do not use corrosive cleaners.
- The protective glass outside the LCD frame is very important, and it is also the fragile part of the thermometer. Please use it carefully, and do not bump, drop, or step on it.
- The detection head is the most precise part of the product. When the detection lens becomes dirty, please wipe it with a soft dry

cloth or cotton swab. Do not use a paper towel or a dry towel.

- Keep the product in a dry place, avoid dust, pollution and direct sunlight, and avoid contact with water or other liquids.
- Please do not charge non-rechargeable batteries, do not approach or throw them into fire to avoid battery explosion. Discard batteries or this product in accordance with local regulations.

