**ELECHICO**

# Infrared Thermometer
# CCIR1001

# Instructions

Users must read the instructions carefully before using this product.

Version V1.0

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# Introduction

Thank you for purchasing CCIR1001 non-contact infrared thermometer. The non-contact infrared thermometer is a kind of non-contact thermometer specially used for measuring the body temperature and the object temperature. It can measure milk, bathroom, room and other object temperature in the object temperature mode.

**Please read these instructions carefully before using this product and keep the instructions and the thermometer in a safe place.**

| The product name | Infrared thermometer |
|---|---|
| Model | CCIR1001 |
| Application | Body temperature |
| | Object temperature |

**Package Contents**

| No. | Name | Quantity |
|---|---|---|
| 1 | Infrared thermometer | 1 |
| 2 | Battery (AAA, optional) | 2 |
| 3 | User Manual | 1 |

**Registrant/Manufacturer:** Guangdong Chico Electronic Inc.
**Registered/Production address:**
Floor 2, Building 7, Hantian science and technology park, Guicheng, District of Nanhai, Foshan, Guangdong, China.
**Tel:** 86-757-86399122
**Fax:** 86-757-22804727
**Web:** www.gdchico.cn
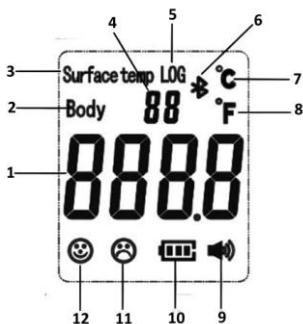**Executive standard:** EN60601-1, EN60601-1-2, IEC62321

# Contents

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## 1. Product Structure



1) Body & object switch
2) LCD display screen
3) SET button
4) Battery compartment
5) Power/measurement button
6) Up button
7) Down button
8) Measuring probe

## 2. Display description



1) Temperature valve
2) Body mode
3) Object mode
4) Memory/Mode No.
5) Memory recall
6) Bluetooth(reserved)
7) Celsius degrees
8) Fahrenheit degrees
9) Mute/Un-mute icon
10) Battery level
11) Crying face icon
12) Smiley face icon

## 3. Operating principle

The infrared temperature sensor collects infrared energy emitted by the body or object to convert into voltage signal. After being amplified by operational amplifier, the energy is filtered and put into the analog-to-digital converter. The digital signal is converted into a temperature reading by the central processing unit (CPU) to show on the LCD display.

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## 4.  Specifications

| | |
|---|---|
| Product name | Infrared thermometer |
| Model | CCIR1001 |
| Display resolution | 0.1 ℃/℉ |
| Operational temperature | 5℃-40℃ |
| Storage temperature | -20℃-55℃ |
| Operational humidity | ≤85%RH |
| Power supply | DC3.0 V, 2*AAA battery |
| Dimension | 149x95x45mm/5.9x3.7x1.8in |
| Weight | 140 g |
| Measurement range | Body temperature mode:32.1℃-42.9℃ |
| | Object temperature mode:0.0℃-100℃ |
| Accuracy | 35.0℃-42.0℃,±0.2℃ |
| | others,±0.3℃ |
| Measurement distance | 3 cm-5 cm |
| Body mode backlight | 32.1℃-37.4℃, green |
| | 37.5℃-37.9℃, yellow |
| | 38.0℃-42.9℃, red |
| Body temperature mode smiley face/crying face | 32.1℃-37.4℃,display smiley face |
| | 37.5℃-42.9℃,display crying face |
| | 32.1℃-42.9℃,display crying face |
| Automatic shutdown | 60s±2s |

## 5.  Features
  * Non-contact, accurate and reliable.
  * 99 sets of memories, easy to recall.
  * Auto shut-down and power-saving.
  * Switching between ℃ and ℉.
  * Mode selection：body mode and object mode
  * Backlight with three different color: green, yellow and red.

## 6.  Replace the battery
When the battery icon is flashing which means that the battery level is too low, please replace the batteries in time to prevent reducing the measurement accuracy.
For replacement please follow the instructions in the "Install the battery" section.

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## 7. Installation, Operation, or Illustration

1.    Install the battery (see figure 1)



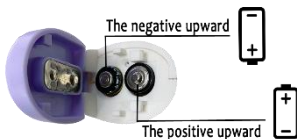The negative upward

The positive upward

Figure 1

2. When using the thermometer for the first time or after putting the battery in, please wait for 10 minutes before taking measurements.

3. Select the body temperature mode and keep the thermometer probe about 3-5cm away from the forehead, hold the measurement button, slide to temple and release the button, the beep is heard, you can now read the value. And make sure your forehead is not covered with hair, sweat, cosmetic or hat (see figure 2).

4. Please measure the temperature behind the earlobe if the measured forehead temperature is affected by ambient temperature variation or sweat. And make sure your earlobe is not covered with hair, sweat, cosmetic or hat.



3-5 cm

Figure 2

5. Please select object temperature mode to measure milk, room or other object temperature.

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## 8. Setting description

| No. | Mode code | Mode Name | Operation |
|-----|-----------|-----------|-----------|
| 1 | A | Check ambient temperature | Turn it on, press "+" & "—" button for 3 seconds after the backlight off till the display shows "A" and value, to check current ambient temperature. |
| 2 | b | Check blackbody temperature | Press "+" button once again in "A" mode till display shows "b" and value, to check blackbody temperature |
| 3 | U | Check battery voltage (not available) | Press "+" button once again in "b" mode till display shows "U" and value, to check battery voltage. (not available) |
| 4 | F0 | ambient temperature compensation | Press "+" button once again in "b" mode till display shows "F0" and value, to check ambient temp compensation. In this state, press MODE button into ambient temp compensation setting, then press "+" or "—" to set compensation value; when it is complete, press SET button to confirm it. |
| 5 | F1 | Body temperature compensation | Press "+" button once again in "F0" mode till display shows "F1" and value, to check body temp compensation. In this state, press SET button into body temp compensation setting, then press "+" or "—" to set compensation value; when it is complete, press SET button to confirm it. |
| 6 | F2 | Blackbody temperature compensation | Press "+" button once again in "F1" mode till display shows "F2" and value, to check blackbody temp compensation. In this state, press SET button into blackbody temp compensation setting, then press "+" or "—" to set compensation value; when it is complete, press SET button to confirm it. |

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## 9. How to use thermometer

**How to check the memory data**
The thermometer will save current measurement data automatically. Press "+" or "—" button to check the memories one by one.

**How to switch between mute and un-mute**
When the thermometer is turned on, press the SET button to switch from un-mute to mute.

**How to switch from ℃ to ℉**
When the thermometer is turned on, keep pressing the SET button for 3 seconds to switch from ℃ to ℉.

**How to switch modes**
Toggle between "Body" and "Object" with MODE button.

## 10. Warning and Precautions

1) Please read these instructions carefully before using this thermometer.
2) Do not use the thermometer in high humidity environments. (＞85%RH)
3) Please use the thermometer within 5℃-40℃.
4) Please make sure the measurement distance is within 3-5cm.
5) the accuracy of the measurements can be affected by the hair, sweat, hat or scarf.
6) Please put the thermometer in indoors for at least 30 minutes prior to the measurement when the room temperature changes greatly.
7) Keep the thermometer away from direct exposure to the sun and keep it in a dust-free, dry area, well-ventilated place at a temperature between -20℃- 55℃.
8) Keep the thermometer away from electrified objects to avoid electric shock.
9) Keep the thermometer away from electromagnetic range (such as radio, mobile phone, etc.)
10) Protect the thermometer from severe Impact and shock. Do not use the thermometer if there are signs of damage on the measuring sensor or on the instrument itself.
11) Please measure the temperature behind the earlobe if the measured forehead temperature is affected by sweat or other reasons.
12) Please use clean soft cloth moistened with water or swab moistened with medical alcohol to clean the thermometer casing. Ensure that no liquid enters the interior of the thermometer while cleaning.

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13) The measuring probe is the high-quality precision part and must be carefully protected. Do not touch or press the probe with fingers or other objects. Use an alcohol swab or cotton swab moistened with 95% to clean the measuring probe.

14) lease do not charge non-rechargeable batteries and put them into the fire.

15) Please remove the batteries if the thermometer will not be used for a long time.

16) Waste electrical materials should be sent to a dedicated collection point for recycling and disposal follow the local laws and regulations as direct disposal in the garbage can is harmful to the environment.

17) Do not throw the thermometer directly into the dustbin. Instead, dispose of it follow the local laws and regulations or contact the manufacturer for recycling.

## 11. Important note

1) Remove the hair and sweat from your forehead area before taking the measurement.

2) Please select the appropriate temperature when taking a temperature.

3) Use of this thermometer is not intended as a substitute for consultation with your physician or pediatrician.

4) If damaged, do not attempt to repair the instrument! Please contact dealer.

5) Medical electronic products require special precautions according to the EMC regulations.

6) The thermometer is suitable for all ages.

## 12. Advice before first use

In order to obtain accurate, stable and reliable measurement data, please check according to the following steps before using the thermometer.

First step: Use a traditional thermometer to measure someone. Suppose the measured temperature is 36.5℃.

The second step: Use our thermometer to measure the temperature of the same person. Keep the thermometer probe about 3-5cm away from the forehead when taking a measurement (Please remove any obstacles that may affect the measurement, such as hair, sweat, etc.). If the reading is also 36.5 ℃, it indicates that the thermometer can be used in normal Settings. If you get a lower reading, such as 35.5℃, you need to do temperature calibration. Press "+" & "—" button for 3 seconds after the backlight off till

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the display shows "A" and value, Press "—" button once again till display shows "F2" and value. In this state, press SET button into blackbody temp compensation setting.
The third step: Press the SET button to exit the setting mode, and then compare the temperature

**The normal range of body temperature at different site**

| Measuring part | Measurements(℃) | Measurements(℉) |
|---|---|---|
| Rectal temperature | 36.6-38 | 97.8-100.4 |
| Oral temperature | 35.5-37.5 | 95.9-99.5 |
| Axillary temperature | 34.7-37.3 | 94.4-99.1 |
| Ear temperature | 35.8-38 | 96.4-100.4 |

The body temperature may vary with the time and is also affected by other external conditions such as age, sex, skin color, and so on.

**The range of normal body temperature at different age**

| Age | Measurements(℃) | Measurements(℉) |
|---|---|---|
| 0-2 years old | 36.4-38 | 97.5-100.4 |
| 3-10 years old | 36.1-37.8 | 97.0-100 |
| 11-65 years old | 35.9-37.6 | 96.6-99.7 |
| ＞65 years old | 35.8-37.5 | 96.4-99.5 |

## 13. Care and Cleaning

* The measuring probe is the high-quality precision part and must be carefully protected. Do not touch or press the probe with fingers or other objects. Use an alcohol swab or cotton swab moistened with 95% to clean the measuring probe.
* Do not use corrosive cleaning agent. Please use clean soft cloth moistened with water or alcohol swab moistened with medical alcohol to clean the thermometer casing. Ensure that no liquid enters the interior of the thermometer while cleaning.
* Never immerse the thermometer into water or other liquids (not waterproof).
* Keep the thermometer away from direct exposure to the sun and keep it in a dust-free, dry area, well-ventilated place.

## 14. Error and Troubleshooting

If you encounter the following problems in use, please refer to the following guide to solve the problem. If the problem still cannot be solved, please call

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our after-sales service. Do not attempt to repair the instrument!

| Symptom | Possible Cause | Description & Solution |
|---------|----------------|------------------------|
| Failed to power on. | The battery level is too low | Replace with a new battery |
| | Polarities of the batteries are reversed. | Ensure the batteries are in the right position |
| Display "Lo" or "Hi" | Out of measurement range Body temperature mode：<br><32.1℃ displays Lo<br>>42.9℃ displays Hi | 1.Make sure there are no sweat or other objects on the measured parts.<br>2.Make sure the air is stable when taking a measurement.<br>3.Make sure the measurement distance is within 3-5cm. |
| Display "Err" | The ambient temperature is too high or too low. | Please keep the thermometer in the new measurement environment for at least 30 minutes. |
| The battery icon flashing | The battery level is too low | Replace two new AAA batteries. |

## 15. Storage requirements:
keep the thermometer in a non-corrosive gas, dry area, well-ventilated place at a relative humidity less than 85%.
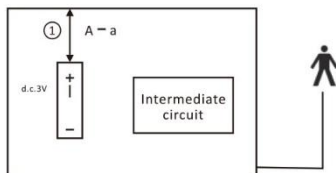**Production date**: Refer to the production batch label.
**Shelf life**: three years.

## 16. Symbols

| 3V⎓ | 3V DC power supply |
|------|---------------------|
| ⚡ | Type B applied part |
| 🗑 | Waste batteries should be sent to a dedicated collection point for recycling follow the local laws and regulations. |
| ⚠ | Attention! Refer to the attached document. |
| ♻ | This manual is paper and can be recycled |

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## 17. Safety classification description

a) Shock proof type: Internal power equipment
b) Degree of shock protection: type B.
c) No into liquid protection.
d) Do not use in the presence of burning flammable anesthetic gas mixed with air or nitrous oxide.
e) Operating mode： continuous running equipment
f) Hand-held device
g) Rated voltage and frequency: d.c.3V
h) No protection against defibrillation discharge effect.
i) No input signals and output signals.
j) Input power of equipment: inapplicable.
k) Non-permanent equipment.
l) EMC GB4824: Group 1 of Class B



Insulation figure 3

## 18. Warranty and After-sale Service

The device is under warranty for 1 year from the date of purchase.

The batteries, the packaging, and any damage caused by improper use are not covered by the warranty.

Excluding the following user-caused failures:

1.Failure resulting from unauthorized disassembly and modification.

2.Failure resulting from an unexpected dropping during application or transportation.

3.Failure resulting from not following the instructions in the operating manual.

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Guangdong Chico Electronic Inc.

Warranty Card

Product Name: _____ Product Model: _____

Purchase Date: _____ Customer Name: _____

Customer Com: _____ Customer Tel: _____

Customer Add: _____ Post Codes: _____

Signature & Seal:

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CERTIFICATION

Product Name: _____

Product Model: _____

Checker: _____

Test Date: _____

## Company Profile

Guangdong Chico Electronic Inc., established in 2003, is a professional manufacturer engaged in the research, development, production, sale and service of smart controller, temperature data logger, medical instrument, and so on. We are located in Foshan with convenient transportation access. Dedicated to strict quality control and thoughtful customer service, our experienced staff members are always available to discuss your requirements and ensure full customer satisfaction.

In recent years, our company has introduced a series of advanced equipment including automated AOI machine, SMT machine, automated assembly machine, FCT machine and so on. In addition, we have obtained ISO 9001certificates.Selling well in all cities and provinces around China, our products are also exported to clients in such countries and regions as United Kingdom, France, America, Middle East and so on. Our factory covers an area of about 7000 square meters and possesses a team of hight-tech talents those who have exquisite technique and rich experience on the zone of energy efficient appliances and high efficient switching power supply. We also welcome OEM and ODM orders. Whether selecting a current product from our catalog or seeking engineering assistance for your application, you can talk to our customer service center about your sourcing requirements.