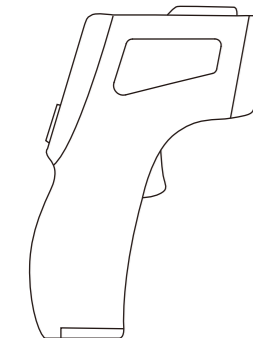




# Non-contact Infrared Forehead Thermometer

Product Model: GQ-129

## Product Manual



Epidemic Situation Emergency Products

DONGGUAN CITY GANGQI ELECTRONICS., LTD

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### 1. Description


This product is a non-contact infrared forehead thermometer that professionally measures the temperature of the forehead of the human body. According to the difference of human skin, the measured temperature will be different; the temperature caused by different parts of the human body will be different because the more exposed the human body The part is more affected by the ambient temperature.

### 2. Use safety manual

- Please read this manual carefully before use.
- The operating temperature of this product is 16 °C ~ 35 °C, the optimal temperature is 25 °C.
- Do not use this product in an environment above 50 °C or below 0 °C.
- Do not place this product near charged objects to avoid electric shock.
- Please do not use this product in an environment with relative humidity greater than 85%.
- Do not place this product too close to the electromagnetic range. (E.g. radio, mobile phone, etc.).
- Please do not expose this product to the sun, or near the stove, or contact it with water.
- Do not bump or drop the product, and do not use it if it is damaged.
- Sweat, hair, hat or scarf on forehead can affect the accuracy of the measurement.
- Make sure the measurement distance is within 5 cm.
- When forehead sweating or other reasons cause the forehead temperature does not reflect the body temperature normally, please measure from the earlobe.
- When cleaning is required, wipe the surface of the meter lightly with alcohol.
- Contact the distributor if there is any problem with the product and cannot repair the product by yourself.
- It is forbidden to take body temperature measurement when the ambient temperature changes greatly.

### 3. Features

- 1) Non-contact high-precision temperature measurement
- 2) Choice of °C or °F
  - Setting method: Press this button  for 8 seconds to switch.
- 3) Alarm value can be set (the preset value of this product is 38 °C)
  - Setting method: set by default
- 4) Buzzer function (can be on or off)
  - Setting method: Press this button  once to turn on the buzzer.
- 5) LCD display with backlight can be used by users in dark
  - Setting method: Press this button  once to turn on the backlight.

Press this button  for 8 seconds to convert to object measurement, LCD display"temp"; and then press again for 8 seconds to switch to the body measurement, LCD display"Body temp".

- 6) Automatic range selection; resolution is 0.1°C (0.1°F)
- 7) Can store the latest 32 measurement data (press the up and down arrow keys to view the latest 32 measurement data that has been stored)
- 8) Automatic data retention and automatic shutdown.

### 4. Other instructions

Non-contact infrared forehead thermometer is a professional thermometer for measuring human forehead. It is widely used in home use. This product cannot replace the diagnosis of doctors.

Measurement completion prompt function:  
Full display at power-on, backlight on, "----" displayed, °C flashing;  
Switch on: "Bi" sound ; Enter the measurement: "Bi" sound;  
The temperature measurement is completed, the temperature is lower than the fever alarm point,

"Bi" sound, and the temperature is within the range of 38°C~42.9°C, sounds six times.  
Fever prompt function:

In the body temperature mode, the electronic thermometer should have an over-temperature reminder function. When the measurement temperature is greater than or equal to 38 °C, there should be an audible prompt, and there is a "Bi Bi Bi Bi Bi Bi" sound.

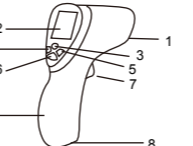
### 5. Precautions Before Use

- Power On Self Test
  - △ Aim at the measured object, press the measurement switch, the LCD will display all the numbers and characters of the self-test, and the self-test screen appears. This screen is displayed for about 1 second.
  - △ After the self-test, you will hear a "Bi" sound, indicating that the power-on self-test has been completed, and the temperature of the target is displayed on the LCD.

### 6. Product Structure

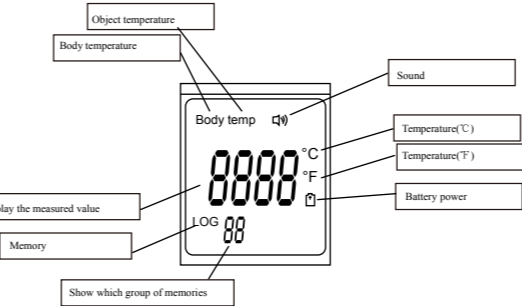
Model: GQ-129  
Structural composition: It is mainly composed of infrared probe assembly, main circuit board assembly, LCD display assembly and housing assembly.

- ①. Infrared sensor
- ②. LCD display
- ③. Backlight on / off button
- ④. Up button (view historical data)
- ⑤. Down button (view historical data)
- ⑥. Sound switch button
- ⑦. Measurement switch



- ⑧. Battery cover
- ⑨. Handle

### 7. LCD display description



### 8. Product scope and contraindications

- #### 8.1 The scope of products
- The body temperature of the subject is displayed by measuring the heat radiation from the forehead.
- #### 8.2 Product contraindications
- 1) Conditions such as birth defects, congenital malformations, septic shock, and circulatory

- failure may severely affect forehead temperature measurement
- 2) Suffering from mental disorders.
  - 3) Suffering from severe heart, liver and kidney diseases.

### 9. Technical index

执行标准: GB T 21417.1-2008 医用红外体温计 第一部分: 耳腔式

#### 9.1 Basic parameters

Show exact bits	0.1°C (0.1°F)
Power	DC 3V (2 AAA batteries in series)
Size	95*42.5*156mm
Weight	124g
Production date	See product nameplate for details

#### 9.2 Measuring range

Human body mode temperature range	32.0~42.9°C
Measuring distance range	3-5cm (The best distance is 3 cm)
Automatic shut-down	About 30s

#### 9.3 Measurement accuracy

32°C~34.9°C	±0.3°C
35°C~42°C	±0.2°C
42.1°C~42.9°C	±0.3°C

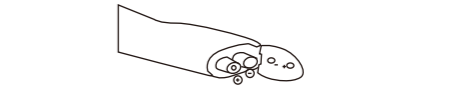
- #### 9.4 Service life
- Product life is 2 years.
- #### 9.5 Software release version
- V1.0

### 9.6 Work, storage, transportation, and environmental requirements

- 1) Operating environment:
  - Operating temperature: 16°C~35°C, best 25°C;
  - Relative humidity: ≤85%;
  - Atmospheric pressure: 70kPa~106kPa
  - Power: DC 3V (2 AAA batteries in series)
- 2) Storage and transportation environment:
  - Storage temperature: 0°C~+40°C;
  - Relative humidity: 10%~85%;
  - Non-corrosive gas, well-ventilated room.
  - The transportation requirements are stipulated in the order contract, and the severe impact, vibration and rain and snow splashing during transportation must be prevented.

### 10. Operating instructions

- #### 10.1 Battery instructions
- At the bottom of the handle, there is an oval with an arrow on it. Please push the battery cover forward with your hand in the direction of the arrow.



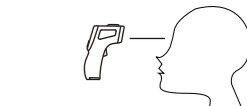
#### ■ Note for battery installation and replacement:

- 1) After the battery cover is opened, place the battery in the direction of the positive and negative electrodes at the place where the batteries are installed. Pay attention to the correct orientation of the positive and negative electrodes.
- 2) Wait for 10 minutes to warm up for the first time or immediately after inserting a new battery.

- 3) When the battery power is low, the symbol will appear on the display, prompting to replace the new battery, open the battery compartment cover (see 6 product structure), pay attention to the positive and negative polarity when replacing the new battery. Improper placement may cause damage to the product.
- 4) Remove the battery when it has not been used for a long time to prolong its service life and prevent damage due to battery leakage.

#### 10.2 Temperature measurement steps

1. Point the thermometer at the center of the forehead (above the center of the eyebrow) and keep it vertical, about 3-5 cm away. Press the measurement switch and the temperature will be displayed immediately.



2. When the measurement switch is pressed (see 6 Product Structure), the current measurement temperature value is displayed on the display, and the measurement data can be automatically stored (press the up and down arrow keys to check the latest 32 measured data that has been stored).

Note:  
1) Before measuring, make sure that there is no hair, sweat, makeup or hats on it.  
2) When forehead sweating or other reasons cause the forehead temperature does not reflect the body temperature normally, please measure after aiming at the earlobe, and make sure that there is no hair, sweat, cosmetics or hat covering.



- 3) The non-contact infrared forehead thermometer has not been used for a long time, the first time the machine is

opened for environmental temperature detection, and the boot time is extended by 1 to 2 seconds.

4) A person's body temperature changes at different times of the day and is also affected by other external conditions, such as age, gender, and skin color.

## 11. Reference temperature

### 11.1 Normal body temperature range at different measurement locations

The human body is a very complex biological comprehensive system. Body temperature is an important data indicating whether human life activities are normal. Usually we measure our health by measuring the temperature of the forehead, cochlea, anus, mouth and armpit. It is measured in different parts. Body temperature will vary, please refer to the table below for specific differences:

Measurement Parts	Normal temperature (°C)	Normal Fahrenheit (°F)
anus	36.6~38	97.8~100.4
Oral cavity	35.5~37.5	95.9~99.5
armpit	34.7~37.3	94.4~99.1
ear	35.8~38	96.4~100.4
forehead	36~37.2	97.4~98.4

### 11.2 Normal body temperature range at different ages

A person's body temperature changes at different times of the day, and is also affected by other external conditions, such as age, gender, skin color, fatness, etc. For the normal temperature range of different age groups, please refer to the table below:

Age	Normal temperature (°C)	Normal Fahrenheit (°F)
0~2 years	36.4~38.0	97.5~100.4
3~10 years	36.1~37.8	97.0~100.0
11~65 years	35.9~37.6	96.6~99.7
>65 years	35.8~37.5	96.4~99.5

Note:

Women's body temperature is different from men's, generally about 0.3 °C higher than men's, body

temperature during ovulation will rise 0.3 °C -0.5 °C than usual.

## 12. Advice

The protective glass outside the LCD frame is very important, and it is also the fragile part of the instrument. Please use it carefully.

Do not charge non-rechargeable batteries and do not throw them into fire.

Do not expose the product to the sun, and do not touch the water.

## 13. Care and Maintenance

### 13.1 Product care and cleaning

- The probe part is the most precise part of the product and must be carefully protected.
- Do not use abrasive cleaners to clean the product.
- Never immerse the product in water or other liquids.
- Keep this product in a dry place to avoid dust, pollution and direct sunlight.
- Please clean the non-contact electronic thermometer regularly, usually once a month. If necessary, you can clean it properly according to the actual soiling of the product. Use a dry soft cloth to clean the non-contact electronic thermometer. If the instrument is extremely dirty, use a cotton cloth or cotton swab with an alcohol content of 70% to clean and disinfect the case and sensor head (the infrared detector cannot be wiped). Be careful not to allow liquid to penetrate the inside of the thermometer.

### 13.2 Product Maintenance

If you encounter the following problems during use, please follow the instructions in the maintenance instructions to find a solution. If the problem persists, please contact our customer service.

1) LCD cannot display the value

If it is lower than 32 °C or higher than 42.9 °C in the body measurement state, the LCD will not display data, and display "Lo" or "Hi".

2) LCD display message "Hi"

Use non-contact electronic body temperature timer, LCD display message "Hi", indicating that it has exceeded the measurement range or the temperature is higher than 42.9 °C in human temperature measurement mode.

3) LCD display message "Lo"

Using a non-contact electronic body temperature timer, the LCD displays the message "Lo", indicating that the measurement temperature is lower than the measurement range or the temperature is lower than 32 °C in the human body temperature measurement mode.

The information "Lo" or "Hi" appears in the following situations for reference:

Reasons for "Lo" or "Hi"	Advice
Temperature value is affected by hair and sweat.	Ensure no obstructions during temperature measurement.
Temperature is affected by changes in airflow.	Ensure that the air remains stable during temperature measurements.
The measurement distance is too far.	Please note that the measurement distance should not be greater than 5 cm.
Enter indoors from low or high temperature outdoors.	Please wait for 20 minutes and wait for the subject's temperature to adapt to the measurement environment before measuring.

## 14. Waste disposal instructions

Disposing electronic products and batteries directly in the trash can cause harm to the environment. Please dispose of them in accordance with the laws in your area.

Do not discard the non-contact electronic thermometer at the end of its use. Please dispose of it according to the laws in your area, or contact the manufacturer for recycling.

### 15. Electromagnetic compatibility warning

Note:

- The non-contact electronic thermometer meets the requirements of YY0505-2012 standard electromagnetic compatibility.
- The user should install and use the electromagnetic compatibility information provided in the

random files.

- Portable and mobile RF communication equipment may affect the performance of non-contact electronic thermometers, and avoid strong electromagnetic interference when using, such as near mobile phones, microwave ovens, etc.
- Guidelines and manufacturer's declarations are detailed in the attachment.
- Warning:
- The equipment or system should not be used close to or stacked with other equipment. If it must be used close to or stacked, it should be observed to verify that it can operate normally in the configuration in which it is used.

## 15. Symbol Description

Symbol Graphics	Meaning	Symbol Graphics	Meaning
	Note, refer to the attached file		Refer to manual
	Low voltage alert		BF type application part
	Trash can		

## 16. Product accessories list

1 thermometer, 1 manual, 1 certificate, 1 pair of 7th battery.

### Appendix

Guide and manufacturer's declaration - electromagnetic emissions		
The non-contact infrared forehead thermometer is expected to be used in the electromagnetic environment specified below, and the purchaser or user should ensure that it is used in this electromagnetic environment:		
Launch test	Compliance	Electromagnetic Environment Guide

RF emission GB4824	Group 1	Non-contact infrared forehead thermometers use radio frequency energy only for their internal functions. As a result, its RF emissions are low and there is little chance of interference with nearby electronic equipment.
RF emission GB4824	Class B	Non-contact infrared forehead thermometers are suitable for use in all facilities, including homes and public low-voltage power supply networks directly connected to homes.
Harmonic emission GB17625.1	Not applicable	
Voltage fluctuation / flicker emission GB17625.2	Not applicable	

Guidance and manufacturer's declaration - electromagnetic immunity			
The non-contact infrared forehead thermometer is expected to be used in the electromagnetic environment specified below, and the buyer or user should ensure that it is used in this electromagnetic environment:			
Immunity test	IEC60601 Test level	Coincidence level	Electromagnetic environment - Guidelines
Electrostatic discharge (ESD) GB/T17626.2	±6 KV contact discharge ±8 KV air discharge	±6KV contact discharge ±8KV air discharge	The floor should be wood, concrete or tile, and if the floor is covered with synthetic material, the relative humidity should be at least 30%.
Power frequency magnetic field (50/60Hz) GB/T 17262.8	3A/m	3A/m	If image distortion occurs, it may be necessary to keep the non-contact infrared forehead thermometer away from the power frequency

			magnetic field source or install magnetic shielding, and the power frequency should be measured in the intended installation site to ensure that it is sufficiently low.
Note: U <sub>1</sub> refers to the AC grid voltage before the test voltage is applied.			

Guidance and manufacturer's declaration - electromagnetic immunity			
The non-contact infrared forehead thermometer is expected to be used in the electromagnetic environment specified below, and the buyer or user should ensure that it is used in this electromagnetic environment:			
Immunity test	GB9706 test level	Coincidence level	Electromagnetic Environment - Guide

RF radiation GB/T17626.3	3V/m 80MHz~2.5GHz	3V/m	Portable and mobile RF communications equipment should not be used closer to non-contact infrared thermometers than the recommended isolation distance, including cables. This distance should be calculated using a formula corresponding to the frequency of the transmitter. Recommended isolation distance d=1.2√P 80 MHz ~ 800 MHz d=2.3√P 800 MHz ~ 2.5 GHz In the formula: P - According to the transmitter's maximum rated output power provided by the transmitter manufacturer, in watts (W); d - Recommended isolation distance in meters (m). The field strength of the fixed RF transmitter is determined by surveying the electromagnetic field a, and in each frequency range b should be lower than the compliance level. Interference may occur near the equipment marked with the following symbol. 
Note 1: In the 80MHz to 800MHz frequency, the higher frequency band formula is used. Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from buildings, objects and people.			
a. Fixed transmitting airport strength, such as: base stations for wireless (cellular / cordless) telephones and ground mobile radios, amateur radio, AM (amplitude modulation) and FM (frequency modulation) radio broadcasts, and television broadcasts. The field strength can not be predicted accurately in theory. To assess the electromagnetic environment of fixed RF transmitters, surveys of electromagnetic sites should be considered. If the measured field strength of the non-contact infrared thermometer is higher than the RF compliance level of the above application, the non-contact infrared thermometer should be observed to verify its normal operation. If abnormal performance is observed, supplementary measures may be necessary, such as reorienting or positioning the non-contact infrared thermometer.			
b. In the entire frequency range from 150 KHz to 80 MHz, the field strength should be lower than 3V / m.			

Recommended isolation distance between portable and mobile RF communication equipment and non-contact infrared thermometers				
Non-contact infrared forehead thermometers are expected to be used in a controlled electromagnetic environment with radiated RF disturbances. Depending on the maximum output power of the communication device, the purchaser or user of the non-contact infrared thermometer can prevent electromagnetic interference through the minimum distance between the portable and mobile RF communication equipment (transmitter) and non-contact infrared thermometer recommended below.				
Transmitter's rated maximum output power / W	Isolation distance corresponding to different frequencies of the transmitter / m			
	150KHz~80MHz d=1.2√P	80MHz~800MHz d=1.2√P	800MHz~2.5GHz d=2.3√P	
0.01	Not applicable	0.12	0.23	
0.1	Not applicable	0.38	0.73	
1	Not applicable	1.2	2.3	
10	Not applicable	3.8	7.3	
100	Not applicable	12	23	
For the rated maximum output power of the transmitters not listed in the table above, the recommended isolation distance d, in meters (m), can be determined using the formula in the corresponding transmitter frequency column, where P is provided by the transmitter manufacturer Transmitter maximum output power, nit is watts (W). Note 1: In the 80MHz to 800MHz frequency, the higher frequency band formula is used. Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from buildings, objects and people.				

Product technical requirement number:

Use period: 2 years

Manufacturer / After-sales service: Dongguan City Gangqi Electronics Co., Ltd.

Production Address: Privately operated industrial district Shiyong, Hengli Town, Dongguan City, Guangdong Province, China

Brand operator: SHENZHEN JR-MA ELECTRONICS CO.,LTD

After-sales service Tel: 0755-2342 1972

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