

# HT20 Pro



***NON-CONTACT  
INFRARED THERMOMETER***

**User Manual**

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## Product Description

The HT20 Pro infrared temperature measuring gun (hereinafter referred to as the temperature measuring gun ) is a method using infrared reception thermometer for measuring the temperature of an object. When in use, just align the detection window conveniently to measure the position, you can quickly and accurately measure the object temperature.

## Working Principle

All objects whose temperature is higher than absolute zero will emit a proportion of infrared radiation energy according to their own temperature. The amount of radiant energy and its distribution by wavelength are very closely related to its surface temperature. According to this principle, the surface temperature of the object can be accurately measured, and the accurate temperature can be displayed by correcting the temperature difference between the surface of the object and the actual internal temperature.

## Product Features

1. Designed for measuring temperature, dynamic compensation of ambient temperature and object temperature.
2. High-sensitivity infrared temperature probe is adopted for high-precision and stable measurement accuracy.
3. With the function of color display, white font is displayed below 35 °C, green font is displayed below 37.3 °C, yellow font is displayed from 37.4 °C to 38 °C, orange font is displayed from 38.1 °C to 39 °C, and red font is displayed at 40 °C.
4. When the infrared temperature measuring gun detects that the environment is lower than 16 °C or higher than 35 °C, the display screen will display the prompt of "Err".
5. For temperature reminder function, When checking the body temperature is lower than 32 degrees, it will display the "LO" in white font and make a "di - di" sound. When the body temperature is above 37.3 degrees, it will appear in orange font and make a "di- di" sound. When the temperature is higher than 43 degrees, the "Hi" font is red and make a "di- di" sound.
6. The unit is °C / °F, which can be adjusted arbitrarily.
7. You can choose the mode of measurement, human body or object.
8. After the measurement is completed, the machine can be shut down automatically within 20 seconds (error range: +2s).

9.Small size, reasonable structure and easy operation.

## Emissivity

The emissivity of most organic or oxidized materials is 0.95 (preset in the machine). The machine cannot measure smooth or polished metal surfaces. The emissivity of human skin ranges from 0.95 to 0.98.

## Product structure Description



- ① Color display
- ② The handle
- ③ Battery cover
- ④ Infrared sensor
- ⑤ Measuring the trigger

## Operating Instructions

### Rapid Measurement

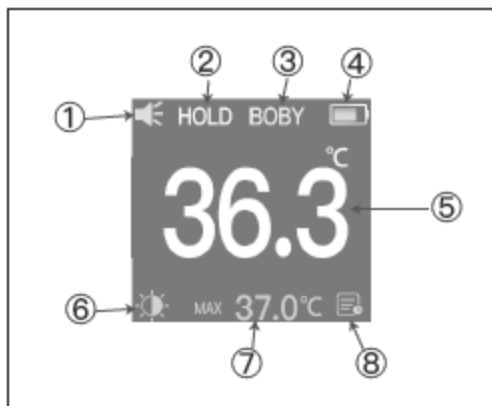
- (1) Open the battery cover and load two 1.5v AAA batteries. ;
- (2) Pull the trigger and start up
- (3) Measure the distance 5-15 cm away from the object.
- (4) Pull the trigger to complete the measurement.

Note: Lo means that the measured target temperature is lower than 32 °C (89.6 °F ).Hi means that the target temperature is higher than 42 °C (107.6 °F ).

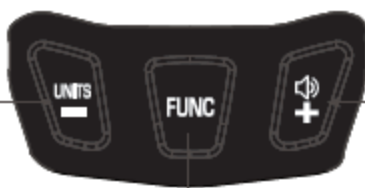


## Main Interface Display

- ① Buzzer display
- ② Data lock
- ③ Measurement mode (body/object)
- ④ Electricity
- ⑤ Measurement result
- ⑥ Backlight level
- ⑦ MAX/AVG/MIN value
- ⑧ Data Storage icon



## Key description and operation mode






Unit key/adjustment "-" key

Function key

Buzzer switch button  
adjustment "+" button

### 1. Selection of measurement mode

The default is anthropometric mode. In the main interface, press  once to enter the measurement mode selection (as shown in figure 1), select the required measurement mode by using the key  and  and then press the trigger once to return to the main page.

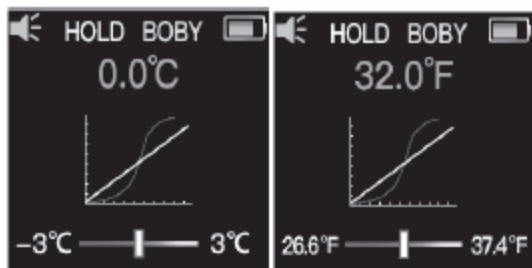


1)

The icon at the top of the anthropometric mode is: BOBY: BOBY  
The icon  $\epsilon$  at the top of the object measurement mode is: 0.95

## 2. Set temperature offset (temperature correction)

The current temperature is collected and the temperature is offset, ranging from  $-3^{\circ}\text{C}$  ( $-5.4^{\circ}\text{F}$ ) to  $3^{\circ}\text{C}$  ( $5.4^{\circ}\text{F}$ ). Press **FUNC** twice on the main page to enter the interface of temperature (figure 2). Offset the temperature by pressing **←** and **→**. **←** is to reduce the temperature and **→** is to increase the temperature. Pull the trigger once and return to the main page.



2)

## 3. Set emissivity (only valid for object measurement mode)

Press **FUNC** key 3 times on the main page to enter the emissivity setting interface (figure 3). Press **←** and **→** to set the emissivity. **←** is to reduce the emissivity and **→** is to increase the emissivity. Each time you press the button, the emissivity decreases or increases by 0.01. You can also press the button **←** and **→** to set the emissivity continuously and quickly! Emissivity ranges from 0.1 to 1.0. After setting, pull the trigger once and return to the main page.



3)

## 4. Measurement record enquiry




Press **FUNC** key 4 times on the main page to enter the measurement result recording interface (figure 4). By pressing **←** and **→** to check the measurement result in reverse order and positive order, the first 20 groups of measurement



4)

records can be queried in total. After the completion of the query, pull the trigger once to return to the main page.




## 5、 Backlight brightness adjustment

Press  key 5 times on the main page to enter the backlight brightness adjustment interface (figure 5). Press  and  to select the brightness. There are three types of backlight for adjustment: High, Middle and low. After adjustment, pull the trigger once and return to the main page.



5)

## 6、 Max, Avg, Min value selection

Press  key 5 times on the main page to enter the Max, Avg and Min value selection interface (figure 6). Press  and  to select three types of values. At the same time, when you return to the main page, the current selected value is displayed at the bottom of the main page!



6)


### Note:

Max: the maximum value measured after the last boot

Avg: the average value measured after the last boot

Min: the minimum value measured after the last boot

## 7、 Unit of measurement

Long press the button , you can switch the unit, there are two kinds of temperature units of  $^{\circ}\text{C}$  and  $^{\circ}\text{F}$  to choose from!

## 8、 Buzzer switch

Long press  to switch on and off the buzzer.

## Battery Replacement

When the battery icon flashes on the screen, it means that the power is almost exhausted and needs to be replaced.

Open the battery cover and remove the old battery.

Put in two new AAA batteries (please note the direction of the positive and negative poles), and close the battery cover.

**Note:**

1. If the product is not used for a long time, please take out the battery to prevent leakage.
2. Please properly dispose of used batteries in accordance with local regulations to avoid pollution!

## Precautions

1. The probe protective lens is the most easily damaged part of the infrared thermometer, so it must be take care to protect the probe lens.
- 2.Cleaning method of probe lens: Wipe gently with a cotton swab or soft cloth moistened with water or alcohol.
- 3.Do not charge or throw the battery into the fire. Dispose of the used battery in the designated area and use of substandard batteries may cause fire or explosion.
- 4.Special attention: When the product is not used for a long time, the battery should be taken out.
- 5.This product must not be immersed in water or exposed to direct sunlight.
- 6.Do not drop or bump the product, otherwise it will be damaged.
- 7.Please keep this product out of the reach of children.
- 8.It is forbidden to collide and mix with sharp objects, and it is prohibited to dismantle by yourself.
- 9.When the measuring environment changes (such as the sudden change of the ambient temperature, etc.), the product must be placed in the current environment for 10~15 minutes before use, otherwise it will lead to a large measurement error!



## Maintenance and cleaning

Because this product is a reusable device, please pay attention to cleaning and maintenance before use;

When not in use for a long time, please keep the inner cavity of the product probe clean and pay attention to dust-proof storage. In order to prevent the probe from being dirty, or the measurement results will be inaccurate.

### Cleaning:

Surface cleaning: Use a clean soft cloth or cotton swab to stick a little medical alcohol or water to wipe

#### **the dirt**

Probe cleaning: Wipe gently with a clean soft cloth or cotton swab and a little medical alcohol. The sensor probe should not be used until it is dry.

## Storage and transportation

The packaged product should be stored at a temperature of  $-20^{\circ}\text{C}$  to  $60^{\circ}\text{C}$  and a relative humidity is not more than 80%. No corrosive gas and well ventilated room. During transportation and loading and unloading, prevent throwing, heavy pressure, rain and stampede, and place them in the direction of the signs on the box.

## Product accessories list

Serial number	Accessories List	Quantity
1	color box	1pcs
2	Infrared thermometer gun	1pair
3	AAA alkaline battery	1pcs
4	Product manual	1pcs

## Technical data

Model	HT20 Pro
Measuring Distance	5cm-15cm
Measurement range	32°C~42.9°C (89.6°F~109.22°F)
Measurement accuracy	±0.2°C/±0.36°F
Display resolution	0.1°C (0.1°F)
Storage environment temperature	-20°C - +60°C(-4°F ~140°F) ≤80%RH, 760hpa-1060hpa
Operating ambient temperature	16°C - 35°C(60.8°F ~95°F) ≤80%RH, 760hpa-1060hpa
Emissivity	default 0.95
Power	2XAAA LR03 alkaline battery
Unit	°C/°F
Battery	Alert Battery Low Alert
Automatic shut-down	Auto power off without any operation within 20 seconds
Product size	141.1x89.6x38mm
Product weight	97g

For detailed technical parameters, please refer to the manual  
Implementation standards: GB/T 21417.1-2008