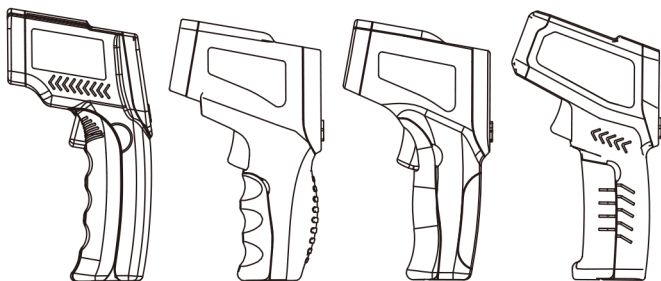# FOREHEAD THERMOMETER (2 in 1) MANUAL

1. Application

Forehead thermometer (two in one) is special for testing forehead temperature with easy and convenient way by press one button to show the temperature reading without any contact with skin to avoid the cross infection, and it works as the function as screening flue. It is suitable for families, hotel, library, enterprises and institutions, school, customs and airport, etc, and also can use in hospital for screen function.

2. How it works

The article will emit energy to around environment with light speed if their temperatures are above absolute zero, and then the lense of the infrared thermometer collects the energy onto the sensor to get a low voltage output data which is in direct proportion with the temperature of the article, then the data is converted and shown as the temperature reading of the article on the LCD screen.

3. Operation

The thermometer is mainly composed of the parts as the diagram 1 shows
1).Turn on
Pressing the measurement button, then the thermometer turns on with the default mode of forehead temperature testing.
2).LCD displays
The LCD displays the signal of functions (as diagram 2 and 3 shows)
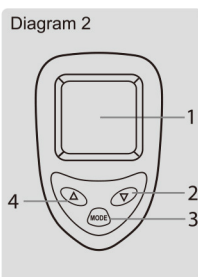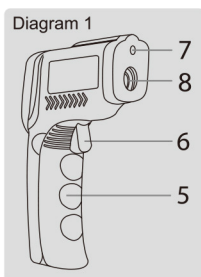**3).Measurement**
Aim to target article with thermometer head and press the measurement button, and let the button go and then get a single test reading (need to press the button for at least 0.8 second), or press the measurement button all the time for continuous testing with many reading results (maximum 32 records)
4).Turn off
The thermometer will turn off automatically after 15 seconds without any operation
5).Additional function
--1.after the thermometer turn on, press the button 3 to convert the forehead temperature and article surface temperature reading into each other
--2.after the thermometer turn on, press the button 3 for 5 seconds to show F1 38.0 on the display, then press button 2 and button 4 to convert Celsius and Fahrenheit degree into each other
--3.after the thermometer turn on, press the button 3 for 5 seconds to show F1 38.0 on the display, then press button 3 once again to show F2 38.0, then press button 2 or button 4 to turn on or turn off the alarm voice
--4.after the thermometer turn on, press the button 3 for 5 seconds to show F1 38.0 on the display, then press two times on button 3 to show F3 38.0, then press button 2 or button 4 to set tempearture for alarm
--5.after the thermometer turn on, press the button 3 for 5 seconds to show F1 38.0 on the display, then press three times on button 3 to show F4 38.0, then press button 2 or button 4 to turn on or turn off the display back light
--6.Before the thermometer turn on,keep to press button 3 and button 6 all the time and meanwhile install the battery,the screen will show figures after that, then press button 2 or button 4 to revise the temperature reading.(Remove the battery after revise ,then install the battery again to save the data.)

Diagram 1

Diagram 2

1:LCD
2:set button
3:function button
4:set button
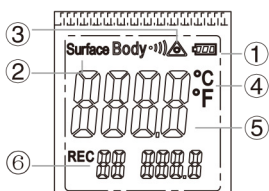5:the cover of battery space
6:measure key
7:laser
8:infrared sensor

Diagram 3

① : low battery symbol
② : forehead tempearture or article surface temperature
③ : laser
④ : ℃ and ℉ symbol
⑤ : current temperature
⑥ : storage of test records

4. Specification

01). the choice between forehead temperature and surface temperature
02). forehead testing range: 32℃ to 42℃
03). article surface tempeature test range: 0℃ to 180℃
04). accuracy: 32℃ to 42℃ ±0.3℃ for forehead test temperature ±2℃ or 2% for article surface temperature
05). testing way of forehead temperature: test on the forehead or behind ear position
06). working environment temperature: 0℃ TO 50℃ for surface-temperature testing 23℃ ±3℃ for forehead-temperature testing
07). test distance: 5cm to 15cm from thermometer head to forehead for forehead temperature, and distance spot ratio 12:1 for article surface temperature test as diagram 4 shows
08). operation humidity: 10-95% RH
09). response time: 0.8 second
10). spectral response: 8 – 14 um
11). fever alarm: set the alarm temperature as you want (the default temperature is 38℃)
12). records: maximum 32 testing records
13). display with back light
14). turn off automatically within 15 seconds without any operation
15). over range shows "HI" or "LO" on LCD
16). power: 9V battery
17). battery life: 12 hours
18). emissivity: preset as 0.95

5. Tips:

Please check whether the forehead is sweaty or covered by hair, and whether the battery has enough power, and whether the distance is correct as 5 to 15cm, and also the change of environment will affect the test result.
In order to get the reliable test reading, please make some necessary inspection before **use as follows:**
Please put the thermometer into the working environment about 20 minutes to make it adapt to environment before use.

6.Note

Please kindly note: this thermometer is only for screening as your reference, and it does not offer final data for medical use, so if you find any abnormal temperature of you, please use medical thermometer for further test.

7.Test distance for surface temperature:

Test distance for surface temperature: farther the target, larger the test spot area, usually it is named as "D:S" (Distance Spot Ratio).The diameter of measurement spot area is 3.0cm if test distance is 36cm, and the thermometer will show the average temperature reading of 3.0cm diameter testing spot area. (as diagram 4 shows)
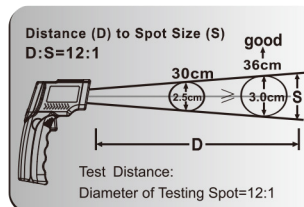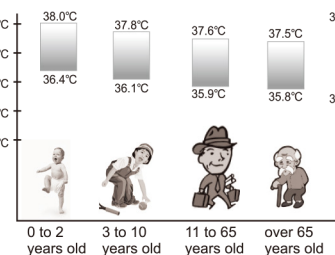
Diagram 4

8. Maintance

Lense cleaning: use the clean compressed air to blow off loose particles, and use the soft brush to remove the debris away, at last clean it with wet cotton cloth. (please do not use solvent to clean lense)

9. Warning

In order to avoid the hurt, please be sure to use the thermometer according to following instructions:
1). do not point laser directly or indirectly (through reflective surfaces) at eyes.
2). please do not use broken thermometer and please check the thermometer body to see whether it is complete before use.
3). please replace with a new battery if the low battery symbol shows on display
4). if the thermometer does not work well, please do not use it, because maybe its protective construction has been destoyed. If any questions, please inspect and repair it by the professional department.
5). pleae do not use the thermometer nearby or in the areas of gas, steam or dust.
6). In order to avoid scald, please kindly note: the real temperature of the article with high emissivity will be higher than the one which thermometer shows
7). If do not use the thermometer properly according to this manual, then the protection function of thermometer maybe become invalid.

◆ CAUTIONS:

In order to avoid to hurt thermometers or equpments which need to be tested, please be sure:
1). EMF (electro-magnetic fields) from arc welders or induction heaters
2). Thermal shock (caused by larg or abrupt ambient temperature changes, it allows 30 minutes for thermometer to stabilize before use).
3). Do not leave the thermometer on or near objects of high temperature