Document Description

This chapter provides important advice on using this documentation.

The documentation contains information that must be applied if the product is to be used safely and efficiently.

Please read this documentation through carefully and familiarize yourself whit the operation of the product before putting it to use.Keep this documentation to hand so that you can refer to it when necessary.

Button action

Press :Press the button and then lift, a beep when lifting.

Press and hold:Press and hold the button for about 2s, raise it when you hear the beep.

When the function corresponding to the button is valid, there will be a beep. No sound means the current function is not available or the key sound is turned off.

Identification

Representation	Meaning	Comments
!!	Note	Provide important tips and information.
✓	Condition	The conditions that must be met before performing an operation.
➢, 1，2...	Objective	Represent want to achieve the objective. The numbers are the order of the steps required to achieve this goal, and must always be followed.
BUTTON	Button	Press/Hold the button.
-	Supplement	Additional instructions for certain operations or projects.
●	List	List some details or examples related to the project.
◆	Result	The result of performing some operation.

1. Safety advice

This chapter provides the general rules that must be followed and adhered to for safe use of this product.

Avoid personal injury/damage to equipment

- Do not use the measuring instrument and probes to measure on or near live parts(especially high-voltage electricity).
- Corrosive solvents can not be measured with the probe unless it is a designated anti-corrosion probe. Instruments are not in contact with the chemical agent,and do not use any desiccants.

Product safety/preserving warranty claims

- Operate the instrument only within the limits specified in the technical data.
- Always use the instrument in the correct manner and for its intended purpose.
- Do not place handles and cables in environments above 100 ℃ unless they are expressly approved for use at elevated temperatures. The temperature given on the probe is only related to the sensor's measuring range.
- Only open the instrument if it is explicitly stated in the documentation for maintenance and repair purposes. Perform only the maintenance and repair work described in this document. Follow the prescribed steps to perform maintenance and repair work. To be on the safe side, use only genuine spare parts from YOWEXA.

Ensure correct disposal

- Take faulty rechargeable batteries/spent batteries to the collection points provided for them.
- Send the product back to YOWEXA at the end of its useful life.We will ensure that it is disposed of in an environmentally friendly manner.

2.Intended purpose

This chapter giver the areas of application for which the product is intended.

Use the product only for those application for which it was designed.Ask YOWEXA if you are in any doubt.

YET-710 is a high-precision measuring instrument with calibration for temperature measurement.

Precision measurement: Whether cold storage or deep fat fryer, PT100 and PT1000 sensors can be sure that you accurately measure the full scale.

Safe and Reliable: Provides you with a safe and reliable measurement experience during your measurement.

High scalability: The user can be compatible with more probes through the calibration function, for example: PT100 (3916), PT100 (3926).

High performance: large backlit display, custom upper and lower limits, the limit is exceeded audible alarm, maximum / minimum / average display.

Optional practical accessories:TopSafe,waterproof anti-oil,IP65 degree of protection when connected to temperature probe.

The product was designed for the following tasks/applications:
- Temperature standard instrument
- Scientific experiments
- Medical
- Food
- Chemical industry
- HVAC industry

**The product should not be used in the following areas:**
- Hazardous explosive areas
- High voltage area
- Steelmaking industry

3.Product description

This chapter provides an overview of the components of the product and their functions.

3.1Display and control elements

Overview
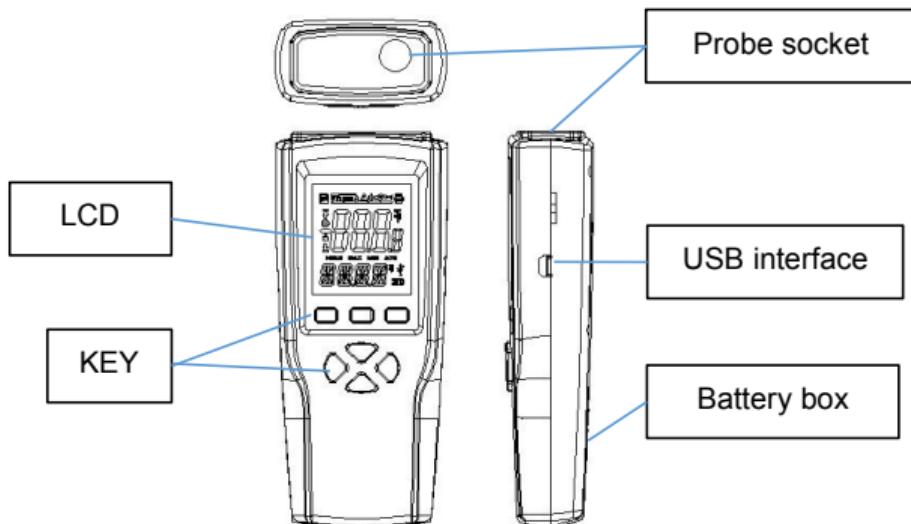
Button functions

Button	Functions
MENU	Open/leave configuration mode(hold the button)
⏻	Switch instrument on;Switch instrument off(hold the button)
☀	Switch display light on/off
ALARM	Switch limit alarm on/off
CAL	Open/leave calibration mode(hold the button)
PT100/PT1000	Switch type of probe
HOLD	Keep reading
MAX/MIN/AVG	Display maximum/minimum/average value；Scavenging maximum/minimum/average value(hold the button)
℃/℉	Switch unit of reading

Important displays

Display	Meaning
⚠	Alarm:display when alarm is enable
↑	Upper alarm limit:flashes when the temperature is above the upper limit
↓	Lower alarm limit:flashes when the temperature falls below the lower limit
⏻	Auto shutdown:display when auto shutdown is enable
🔇×	Mute:display when button mute
🔋	Battery capacity:display with battery power - 3 segments in the battery symbol are lit:Instrument battery is fully charged - No segments in the battery symbol are lit:Battery is almost spent
ψ	USB：display when the instrument is connected to USB

Display area division

Status area

Main screen

Vice screen
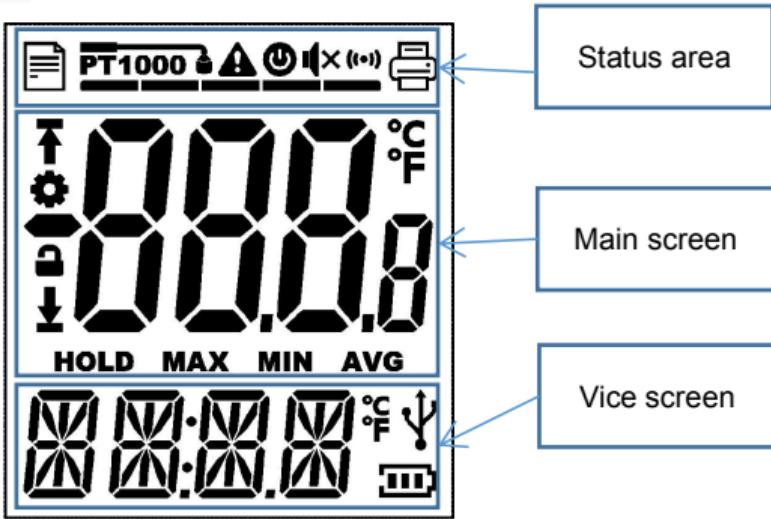
Dividing the area is for quick positioning of the icons or readings you want to view.

3.2 Interface

Probe interface

The pluggable probe can be connected to the measuring instrument via the probe socket.

USB

The instrument can be connected to a computer or other 5V-USB-powered device via a Micro USB cable.

3.3 Voltage supply

The instruments are powered by three 1.5V AAA or 1.5V rechargeable batteries under normal conditions. USB interface can provide 5V voltage in emergencies. However, unstable USB power supply will result in inaccurate measurement, so USB power supply is not recommended.

4. Ready to work

This chapter describes the steps required to commission the product.

➢ **Remove the protective film from the display**
➢ **Insert the battery / rechargeable battery**
   1. Open the cover by pushing the battery compartment cover on the back of the instrument in the direction of the arrow.
   2. Insert the battery / rechargeable battery (1.5V AAA batteries) into the battery compartment. Pay attention to the polarity of the battery.
   3. Push the cover of the battery compartment in the opposite direction of the arrow.
➢ **Check the screen**
   1. Press ⏻ to turn on the instrument.
   2. After the beep, the instrument enters the power-on state. The screen will be fully displayed. You can compare the following figure to detect the screen display is complete.

5.Operation

This chapter describes the steps that have to be executed frequently when using the product.

5.1 Connecting a probe

- Plug the PT100 / PT1000 probe into the probe socket of the instrument.
- Probe plug has directionality. In the unsuccessful installation of the probe, please change the direction of the plug, do not force insert.
- This product supports hot-swappable probe, which means you can plug the probe in the case of the instrument is turned on. However, it should be noted that the measurement data may be abnormal during hot plugging, so this method is not recommended.

5.2 Switching the instrument on/off

➢ **Switching the instrument on**
  1. Press 🔘 .
  ◆ Measurement view is opened:The current reading is displayed. If no reading is available, "Err" is displayed.
➢ **Switching the instrument off**
  1. Press and hold 🔘 .
  ◆ The screen icon / indicator is completely cleared, the backlight is on. After lifted the backlight goes out.

5.3 Switching the display light on/off

➢ **Switching the display light on/off**
   ✓ The instrument is switched on.
   1. Press 🔅 .

5.4 Performing settings

➢ **To open configuration mode**
   ✓ The instrument is switched on and is in measurement view.HOLD,MAX,MIN, AVG are not activated.
   1. Press and hold MENU .Enter the configuration mode.
      ‼ 🔧 is displayed when in configuration mode. You can press the ◀ / ▶ to toggle between different configuration options.
      You can always exit the configuration mode, just press and hold MENU until switching to another interface.When you exit the configuration mode, the changed configuration will be saved.
➢ **To set the temperature alarm upper limit**
   ✓ Configuration mode is opened, ↑ is lit.
   1. Press ▲ to increase the temperature limit, press ▼ to decrease the temperature limit.
➢ **To set the temperature alarm lower limit**
   ✓ Configuration mode is opened, ↓ is lit.
   1. Press ▲ to increase the temperature limit, press ▼ to decrease the temperature limit.

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➢ **To set the temperature alarm type**
  - ✓ Configuration mode is opened, ⚠ is lit.
  1. Use ▲ / ▼ to select the desired option.
     - BUZ:Alarm with buzzer.
     - LED:Alarm with backlight.
     - BOTH:Alarm with buzzer and backlight.
➢ **To set the automatic shut-down time**
  - ✓ Configuration mode is opened, ⏻ is lit.
  1. Use ▲ / ▼ to increase or decrease the time of automatic shut-down.
     - The unit is minute (min). Can be set 0 ~ 60 minutes, 0 minutes means do not use the automatic shut-down feature.
➢ **To set button sound**
  - ✓ Configuration mode is opened, 🔇 is lit.
  2. Use ▲ / ▼ to select the desired option.
     - BEEP:Turn on the button sound.
     - MUTE:Turn off the button sound.
➢ **To reset**
  - ✓ Configuration mode is opened,vice screen area shows "RST".
  1. Use the ▲ / ▼ to change the function's enable from "OFF" to "ON". Then press MENU.
     - ◆ After reset, the configuration options will return to the first item, which is to set the temperature alarm upper limit.

5.5 Calibrate the instrument

➢ **To open the calibration mode**
  ✓ The instrument is switched on and is in measurement view.HOLD,MAX,MIN or AVG are not activated.Probe connected to the instrument with readings.
  1. Press and hold `CAL`.Open the calibration view.
     ◆ In this view,PT100/PT1000 is flashing.The main screen shows the saved pre-calibration readings. If there is no data, it will display "---".
       The vice screen area displays "CP: xx", where xx is the calibration point number, which is 01 ~ 20. Each number can save a set of calibration point data.
     ‼ This product supports both PT100 / PT1000 probes, so the two probes can be individually calibrated.
       Each probe has 20 calibration points.**Calibration will directly affect the data, make sure to use high-precision instruments for calibration.**

➢ **Set / edit the calibration point**
  ✓ Calibration mode is opened.
  1. Press ◄ / ► to select a calibration point number .
  2. Press CAL to open edit view.
     ◆ The main screen displays the reading, the vice screen area to display the calibration reading.
  3. Press ▲ / ▼ to adjust the sub-panel calibration reading to the correct reading. Press CAL to save.
     ‼ It is forbidden to have the same pre-calibration reading or the same post-calibration reading in different calibration point numbers. For example, "CP: 01, 12.00 ℃, 10.00 ℃" and "CP: 02, 12.00 ℃, 11.00 ℃", which is the same pre-calibration reading in different calibration point numbers.

➢ **Delete calibration point**
  ✓ Calibration mode is opened.
     1. Press ◄ / ► to select a calibration point number .
     2. Press MENU to delete the data saved at the calibration point. Press and hold MENU to clear all calibration point data.

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6.Measuring

This chapter describes the steps that are required to perform measurements with the product.

- ✓ Turn on the instrument and enter the measurement view. Insert the probe.
- ➢ **Perform the measurement and read the current temperature reading on the screen.**
  - When the alarm function is turned on, once the temperature exceeds the upper limit or lower than the lower limit, the instrument will start alarming.
  - The alarm stops when the reading is below the upper limit or above the lower limit.
  - To save battery power, the alarm will be automatically stopped 10 minutes after the alarm is started(alarm with buzzer and backlight for 5 minutes).
- ➢ **Switch alarm on/off**
  1. Press ALARM to switch on/off alarm function.
- ➢ **Keep readings.**
  2. Press HOLD to hold the readings.The vice screen will continue to show the probe readings.
- ➢ **Displaying or reset the maximum/minimum/average.**
  1. Press MAX/MIN/AVG can be switched to display the value.Press HOLD to hold the readings.
  - The following values are displayed in turn: MAX, MIN, AVG, current reading.
  2. Press and hold MAX/MIN/AVG ,until the main screen MAX, MIN, AVG all lit.
- ➢ **Switch units.**
  1. Press ℃/℉ to switch between degrees Celsius and Fahrenheit.
- ➢ **Switch the probe type.**
  1. Press PT100/PT1000 to switch between PT100 and PT1000.

7. Care and maintenance

This chapter describes the steps that help to maintain the functionality of the product and extend its service life.

- ➢ **Cleaning the housing :**
  1. If the housing is dirty, clean the housing with a damp cloth.
     Do not use aggressive cleaners or solutions!
- ➢ **Replacing the battery / rechargeable battery:**
  - ✓ The instrument is switched off
  1. Remove the battery cover in the direction of the arrow marked on the battery cover
  2. Take out the exhausted battery / rechargeable battery and place the new battery / rechargeable battery in the battery compartment. Pay attention to battery polarity!
  3. Replace the battery cover and push it in the opposite direction of the arrow.

8.Question and answers

This chapter givers answers to frequently asked questions.

Question	Possible causes	Possible solution
▭ is lit,or flash	● Instrument battery is almost spent	● Replace instrument battery
The instrument automatically shut-down	● The automatic shutdown is switched on. ● Battery capacity is too low	● Switch function off ● Replace battery
Instrument backlight flashing uncontrollably	● Alarm type is "LED" ● USB supply voltage higher than 6V	● Switch type to "BUZ" ● Disconnect USB power
Main screen display "Err"	● Not the specified probe ● Probe type and configuration mismatch ● Measuring temperature exceeds the measuring range	● Replaced with the specified PT100 / PT1000 probe ● Press PT100/PT1000 ● Measure the allowable range
Main screen shows "Err" and ▭ is flashing	● Probe is not plugged in ● Probe break	● Connect probe ● Replace the probe

Question	Possible causes	Possible solution
Press the button with no sound and $\mathbb{I}^\times$ is not displayed	• LCD break • Beep break	• Please contact your dealer or YOWEXA Customer Service
Inaccurate measurements	• Probe does not meet specifications • Calibration point set wrong • Instrument internal circuit is damaged	• Please use the specified probe • Clear all calibration points • Please send back YOWEXA maintenance

9.Technical data

Characteristic	Value
Parameters	Temperature(℃/℉)
Measuring range	-200~+800℃/ -328~+1472℉
Resolution	0.01℃/0.01℉ (-99.99℃~+99.99℃/-99.99℉~+99.99℉) 1℉(+1000℉~+1472℉) 0.1℃/0.1℉ (rest of range)
Instrument accuracy	±0.2℃/±0.4℉ (-100.0~+199.9℃/-148.0~+391.8℉) ±0.2% of reading(rest of range)
Probe	PT100(385),PT1000(385)temperature probe
Measuring rate	1/s
Operating temperature range	-20~+50℃/-4~+122℉
Storage temperature	-40~+70℃/-40~+158℉
Voltage supply	3xAAA battery/1.5V rechargeable Battery
Battery life	Approx . 156 h (The backlight is off)
Protection class	With Topsafe(accessory part)and probe connected:IP65
CE Directive	CE/EMC、ROHS
Warranty	2years

System accuracy by the quality of the probe! Listed above are the YET-710 native accuracy.