

Instruction Manual of Waterproof Digital Thermometer Model PC-9230 / 9235

These products are designed to measure temperature. Do not use them for other purposes. Read this manual thoroughly before use, and keep it for future reference.

Features

Fast response achieved by ultra-narrow sensor needle with a diameter of 1.5 mm

Display orientation can be right side up / left side up

Maximum / minimum temperature shown by a single press

Waterproof body resists water splashes

Important Notices



Beware of Explosion

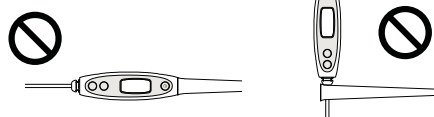
PC-9230 and PC-9235 are not explosion-proof. Never use them in an atmosphere containing flammable gases.



Cautions

To use the thermometer properly, follow the instructions below.

- **Do not use the device as a clinical thermometer.**
- **Hold the device in your hand while in use.** Leaving the device in a hot pot or the like may result in a deformation or malfunction.
- **Do not use the sensor sheath as a handgrip,** or the device may fall and get broken. Sensor sheaths are made only to protect sensor needles when not in use.

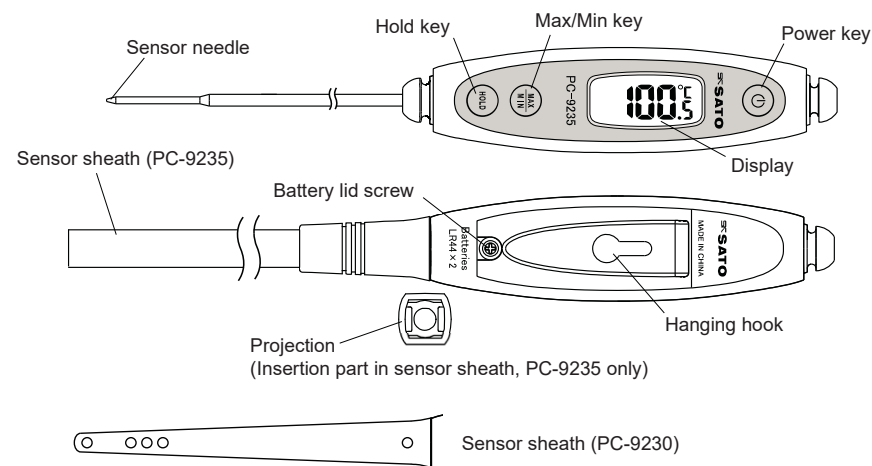


- Do not drop or give a shock to the device, as it is a sensitive instrument.
- Do not use the device under direct sunlight or aside a heat source, or it may worsen the measurement accuracy and result in a deformation or malfunction.
- Do not use the device in an environment with electrical noise, or the display may become unstable or the measurement error may increase. Some induction cooktops may affect the measurement, although the device is designed to resist them.
- Do not measure temperature out of the measurable range, or it may result in malfunctions.
- To eliminate the effect from ambient temperature and improve accuracy, insert the needle in a target for 20 times as long as the diameter of the sensor needle, thus 30 mm.
- Do not remain the needle inserted in a target for more than a minute if it is hot, or the heat may reach the main body and lead to a measurement error or deformation.
For your reference, PC-9230 and PC-9235 needs only 10 seconds to finish measurement when the needle in a room temperature is inserted in boiling water.
- Stay distant from the target and be sure not to burn yourself when it is hot.
- After measuring high temperature, wait until the needle cools down before installing the sensor sheath.
- For PC-9230, round holes on the sensor sheath faces up when it covers the needle. For PC-9235, a projection

on the sensor sheath faces up when it does the same.

- Do not leave the device in a place like an automobile on a fine summer day, or the extreme heat may damage the thermometer.
- Remove batteries if the device is not used for a long period of time. Otherwise, the batteries may leak resulting in malfunctions.
- Wet hands or water splashes do not affect the function of the device. However, underwater use is forbidden.
- Do not disassemble or customize the device, or it may cause a fatal malfunction.
- PC-9230 and PC-9235 can be fully rinsed with tap water unless they are kept submerged in water. After washing, wipe out with a dry cloth thoroughly.
- Do not wash or wipe the device with alcohol, thinner, or other organic solvents. Do not throw it in a dryer, either.
- For repair or calibration, contact us or a retailer from which you have purchased.

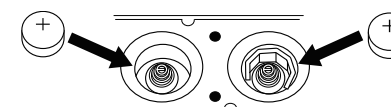
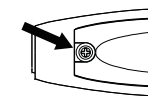
Names of Sections



Replacement of Batteries

When the device is used for the first time or the battery is low, install or replace it as described below. For your reference, the display starts blinking when the battery voltage gets low, and then shows "----" when it is critically low.

1. If the device is wet, wipe it out first.
2. Turn the battery lid screw anticlockwise to loosen it and remove the lid. The screw is designed not to drop from the lid.
3. Place LR44 batteries on electrode springs so that the positive side faces up.
4. Confirm that the packing seal is firmly put into the groove, then tighten the screw to close the lid. If the seal is wet or dirty, wipe it out before closing the lid.





Cautions Related to Batteries

- Replacement batteries must be new and of the same type. Mixed use of different types or new and old batteries may cause an explosion or leakage.
- If the battery fluid leaks out, wipe it away immediately without touching it directly. When it is split on your skin or clothing, wash it off with clean water. In case the fluid gets into your eyes, see a doctor immediately after washing it off with water.
- Do not solder, short-circuit, disassemble, heat or fire a battery. Doing so may cause an exothermic heat, explosion, or leakage.
- Do not dispose of batteries in a fire, or it may explode to hurt you.
- For environmental conservation purposes, dispose of batteries in compliance with local rules and regulations.
- Keep batteries out of the reach of children. If they are swallowed accidentally, consult a doctor immediately.
- Wrap batteries with a tape to insulate when they are stored or disposed. Collision with other metals or batteries may lead to a fire or explosion.

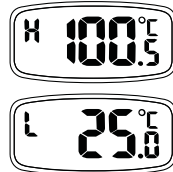
How to Use

Follow the instruction in "Replacement of Batteries" for the initial use.

- Press the Power key to turn on the power.
- Penetrate the needle into a target carefully.
- Press the Power key again to turn off after use. Also, it turns off automatically when no key is touched for 10 minutes.

Max/Min Key

- Pressing the Max/Min key when a measured value is indicated shows a sign of "H" and a maximum temperature.
- Pressing the Max/Min key when a maximum temperature is indicated shows a sign of "L" and a minimum temperature.
Display of maximum or minimum temperature lasts 5 seconds and turns back to that of a current temperature.



Memory of maximum and minimum temperatures are reset in the cases below:

- when batteries are replaced.
- when the Max/Min key is pressed for 5 seconds until a sign of  is lit while either maximum or minimum temperature is displayed.

To reset both the maximum and minimum, follow the procedure above for each.

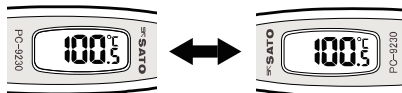
Hold Key

Pressing the Hold key fixes the display with a sign of "h" blinking in the left.

Re-pressing the same key makes the display show a current temperature again.

Rotation of Display Orientation

When the Max/Min key is pressed for 2 seconds while a measured value is shown, the display turns upside down. Pressing the key again for 2 seconds turns the indication back to the original.



Warranty Policy

Our products are warranted to be free from defects in materials and workmanship for a period of one year from date of delivery. If repair is necessary and has not been the result of misuse, force majeure, or transportation arranged by yourself within the one-year period, please return the products on freight prepaid basis. Correction of the defect will be made without charges. We alone will determine if the product problem is due to deviations or customer misuse.

Out-of-warranty products will be repaired for a fee.

Before returning, request for our acknowledgement first.

For details, contact us or a retailer from which you have purchased.

SATO KEIRYOKI MFG. CO., LTD.

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<https://www.sksato.co.jp/en/>

Specifications

Product name	Waterproof Digital Thermometer	
Model no.	PC-9230	PC-9235
Catalog no.	1756-00	1758-00
Measuring range	-50 to 240°C	
Resolution	0.1°C	
Accuracy	±0.7°C (-10.0 to 100.0°C), ±1.2°C (-20.0 to -10.1°C, 100.0 to 200.0°C), ±2.0°C (200.1 to 240.0°C), ±2.5°C (-50.0 to -20.1°C)	
Sampling time	Approx. 2 seconds	
Operation ambient	0 to 40°C, less than 90%rh without condensing	
Power	LR44 button cell x 2	
Battery life	7 months if used for 10 minutes a day Attached batteries are for test purpose and may last shorter.	
Waterproofness	IPX7 (watertight) No harmful effect shall occur when it is immersed in water of room temperature as deep as 1 m for 30 minutes.	
Materials	ABS resin, stainless steel SUS304	
Dimensions	Whole part: 181 x 23 x 23 mm (L, W, D)	Whole part: 393 x 23 x 23 mm (L, W, D)
Whole part includes sensor needles.	Sensor needle: Ø 1.5 x 18 mm (end) + Ø 2.5 x 70 mm (root)	Sensor needle: Ø 1.5 x 18 mm (end) + Ø 2.5 x 281 mm (root)
Weight	28 g including batteries	30 g including batteries
Accessories	Sensor sheath x 1, LR44 button cell x 2	

Specifications and appearance are subject to change for improvement.

Visit our website <https://www.sksato.co.jp/en/> for the latest information.

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