

# Instruction Manual for Salt Meter with Thermometer Model SK-5SII

Thank you for purchasing the Salt meter model SK-5SII. SK-5SII is designed to measure salinity concentration and temperature. Do not use this instrument for any other purposes.

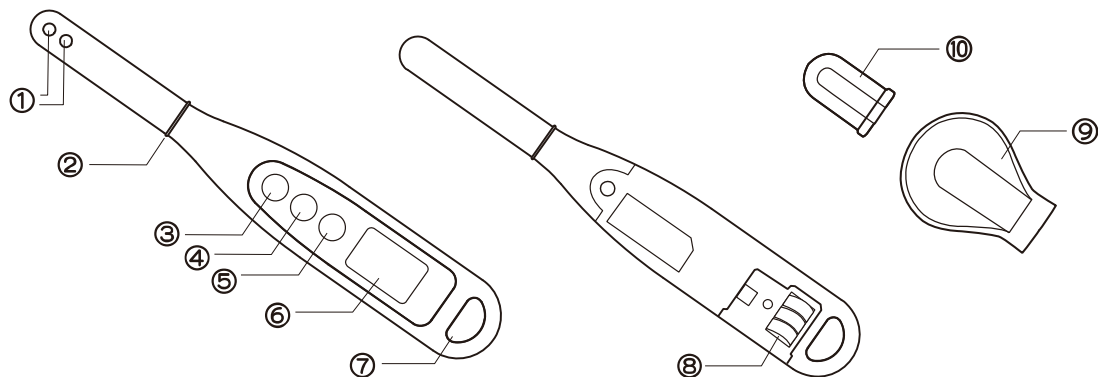
Read this manual thoroughly before using and keep it in a safe place for your future reference.

## **Warnings**

For the safe use of this instrument, observe strictly the following

- Do not solder, short-circuit, disassemble, heat or fire a battery to avoid an exothermic heat, a leakage of battery fluid or an explosion.
- If the battery leaked fluid is spilt on your clothes or your skin, wash it off with water and if it gets into your eyes, wash it off with clean water and seek a medical attention immediately.
- Batteries pose a danger of suffocation or poisoning if swallowed. Keep batteries out of reach of children.
- When disposing or storing a battery, seal the battery terminals with a tape to keep away from a direct contact with metals and other batteries since the contact might cause an explosion or damage.
- For environment conservation, dispose used batteries in compliance with local rules and regulations.
- Keep batteries out of reach of children. If swallowed, contact a medical assistance immediately.

## Names and functions of components



① **Sensor part** : This part measures salinity concentration and temperature. The temperature sensor is built-in and two gold-plated nail heads like is a sensor for salinity concentration.

② **Food liquid level limit line**  
: The unit can be immersed only up to this line. The unit is not water-proof above this line.

③ **Power key** : Turns the power on or off (equipped with auto power-off function).

④ **Mode key** : Sets the measurement mode to salinity concentration (%) or temperature (°C). The unit enters the temperature measurement mode after power-on. Pressing this key toggle between the measurement modes of salinity concentration and temperature.

⑤ **Hold key**

- **Salinity measurement mode**

- : Press this key to hold the measured value. To cancel the measured value, press this key again. When the measured value becomes stable, it is automatically frozen and "HOLD" appears on the display.

- **Temperature measurement mode**

- : Press this key to hold the measured value. To cancel the measured value, press this key again.

⑥ **Display** : Displays the measured values.

⑦ **Hook**

⑧ **Battery box**

⑨ **Sample spoon** : Used to collect liquid for measurement. The tip is made of resin. Cool the sample liquid to 60°C or less before use.

⑩ **Sensor protection cap**

Temperature



Salinity concentration



## **For accurate measurement**

- Be sure to lightly wipe the sensor part with a wet cloth before using the unit. Accurate values cannot be displayed if foreign matter is adhered to it.
- When measuring, be careful not to let the sensor part touch any solid matter or the wall or the bottom (must be 1 cm away) of the container (e.g., pot and pan).
- The unit is designed to measure the temperature of sample liquid between 0 to 60°C. Measuring the temperatures of samples falling out of this range could cause the unit to fail; immediately remove the unit from such samples.
- When using a sample spoon, fully fill the spoon with the sample.
- When measuring solid matter (e.g., tofu and cereals), finely mash it first and then dilute it with water before measuring.
- For a sample whose salinity falls out of the measurement range of up to 5%, dilute it with water before measuring.



Be sure to clean the sensor before measuring; even a new salt meter could have oil or dust stuck to the sensor part.

### \* Washing the sensor

Wash the sensor part (gold in color) at the tip of the unit by rubbing thoroughly with a commercial sponge moistened with neutral detergent, then rinse it well with tap water.

Note that inadequate washing could affect the measuring accuracy.

## **Measuring salinity concentration value**

1. Pressing the power key displays the current temperature.
2. The mode is set to temperature measurement initially. Press the mode key to switch to salinity concentration measurement mode.
3. Sufficiently immerse the sensor part into the liquid of the food (soup or broth).
4. When the measured value becomes stable, it is automatically frozen and "HOLD" appears on the display. Read the value, and then remove the unit from the sample liquid.
5. After checking the measured value on the display, press the Hold key to start measuring again.
6. After completion of measurement, turn the power off.

## **About salinity concentration**

1. If the sample has a large quantity of other ions such as calcium and magnesium, it may show a higher salinity value than the actual value.
2. If the sample has a high viscosity, it may show a lower salinity value than the actual value.
3. Avoid measuring samples such as cream soup with a high oil content. In addition, fatty foods such as butter cannot be correctly measured due to the oil film that forms on the sensor surface.

## Measuring temperature

1. Pressing the power key displays the current temperature.
2. Sufficiently immerse the sensor part into the sample.
3. Wait for approximately 30 seconds until the temperature sensor stabilizes.
4. When the displayed value becomes stable, read the measured value. Press the Hold key to hold the measured value.
5. After completion of measurement, turn the power off.

## Replacing the batteries









Replace the batteries with new ones if **B** appears on the display.

1. Open the cover at the back of the unit, remove the old batteries, and then install the new batteries with their polarities aligned correctly. (Always replace all three batteries at the same time.)
2. Close the cover and turn on the power to check that the unit turns on before use.
  - The batteries included with the unit are for verifying operation, and so may have a shorter life than expected.

### Display marks

Display	Description
°C	Temperature of measured object
%	Salinity concentration of measured object
HOLD	Measured value is held
ERROR	Exceed the measuring range (higher than 65°C)
<b>B</b>	require the replacement of battery

### Levels of Salinity concentration

Display	Salinity concentration
	less than 0.1%
	0.1% to 0.3%
	0.4% to 0.6%
	0.7% to 0.8%
	0.9% to 1.0%
	1.1% to 1.2%
	1.3% to 2.0%
	more than 2.0%

**SK SATO KEIRYOKI MFG.CO.,LTD.**

3-4, Kanda-kajicho, Chiyoda-ku, Tokyo 101-0045 Japan

URL: <http://www.sksato.co.jp/english/>