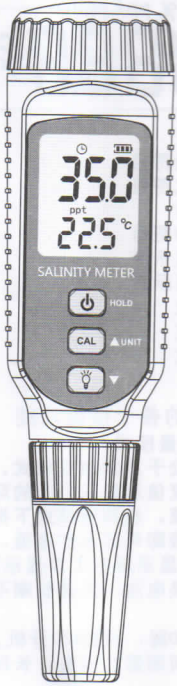


Pen Type Salinity meter INSTRUCTION MANUAL

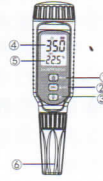


INTRODUCTION

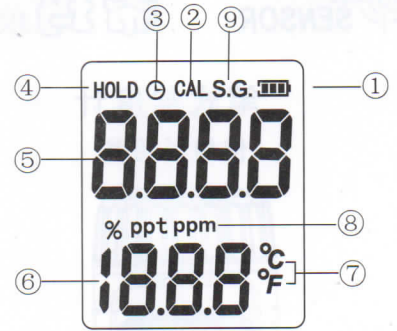
This device is portable and precise measurement. It made with industrial grade components and sensor it is high sensitive and accuracy, stable to work with different temperature, small size for easy storage and hand carry. It can measure the salinity value and measure solvent's temperature. Salinometer widely used in industrial, agriculture, medicine, food industrial scientific, research and environmental protection etc. It is very important that you need to read through this instruction before using this device to get the accurated readings.

1. Explanation of the appearance

- 1) Power ON/OFF / Data Hold button
- 2) Unit selection / Calibrate / increase button
- 3) Back light / reduce button
- 4) Salinity value reading area
- 5) Temperature reading area
- 6) Sensor Electrode



3. LCD DISPLAY SCREEN



- 1) Battery power icon
- 2) Calibration mode icon
- 3) Timer icon
- 4) Data Hold icon
- 5) Salinity value reading area
- 6) Solvent temperature reading area
- 7) Temperature unit °C/°F
- 8) Salinity value unit
- 9) Density of the unit

2. Technical parameters :

Technical parameters	
Salinity measuring range	0 ppm~999 ppm
	1. 00ppt~9. 99ppt
	10. 0ppt~100ppt
Resolution	1ppm/0. 01ppt/0.1ppt
Accuracy	+/-3% F.S. +/-1digit
Repeatability	+/- 1ppm/0.01ppt/0.1ppt
Solvent testing	0°C ~100°C
Temperature accuracy	0°C~60°C ±1°C
	60°C~100°C ±2°C
Power Supply	2*1.5V AAA battery
Display	LCD segment display
Working temperature range	0~50 °C
Working humidity range	≤85%RH
Size	180 X 25 X 45mm

4. Key function of instrument

- 1) Normal measurement mode: ensure power up is normal measurement mode, in this mode you can measure the conductivity and solvent's temperature value under test or environmental temperature value. In this mode, immerse the test probe into the solvent can detect the conductivity and temperature of the solvent under test.
- 2) If you find the battery power icon () become empty , please replace the battery immediately to ensure the instrument work in good condition. If the instrument don't use for a long period, please take off all the battery to prevent battery leakage damage the instrument.
- 3) [] key: depress to power on this instrument, for measurement, depress it more than 3 second to turn off this instrument.

4) [CAL/▲/UNIT] key:

- a) At normal measurement mode, depress more than 3 second go to calibration mode, CAL icon displayed in the screen.
- b) In this CAL mode, you can depress [CAL/▲/UNIT] key to increase the value of P1 and P2 calibration point, long press it can increase the value in fast way.
- c) In normal measurement mode, depress "CAL/UNIT" key can select the unit of Salinity between ppt (percentile ratio), % (percentage) and S.G (Specific gravity)
- 5) [] key:
 - i. Depress this key can turn on/off of the back light.
 - ii. In this CAL mode, you can depress [] key to reduce the value of P1 and P2 calibration point, long press it can deduct the value in fast way.
- 6) Auto Power Off setup: Before power up the unit, depress [] key and [CAL/▲/UNIT] key at the same time more than 3 second the unit will go to Auto Power Off setup mode, LCD display shown APO ON or APO OFF wording, depress [] key can select APO ON or APO OFF in sequential, after selection, depress [] key more than 3 second will save the selection and back to normal measurement mode.
 - a) APO ON mode: LCD display shown the timer icon, if no any key in, unit will turn off after 5 minutes.
 - b) APO OFF: No auto power off function, user must turn the unit off by depress the [] key, also LCD no timer icon shown.
- 7) Temperature unit selection: Before power up the unit, depress [] key and [] key at the same time more than 3 second unit will go to temperature selection mode, depress [] key once will select "C/F" in sequential, after selection, depress [] key more than 3 second will save the selection and back to normal measurement mode.

5. INSTRUMENT CALIBRATION METHOD

Open the battery door that located at the top of the instrument, insert two AAA button type battery into this compartment with correct polarity. If you have replaced with a new sensor electrode, please do the calibration before use this instrument to measure again.

If measuring interval time is short, each month calibration once is enough.

Before calibrate this instrument, please immerse the sensor electrode with pure water at least 15minutes, to wetting the surface of the electrode and clean the surface of it.

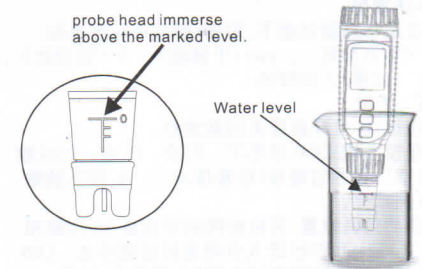
This instruction use three point calibration method for calibrate this unit, please following the step one by one.

The unit and calibration solution must be calibrated at ambient environment temperature 25°C +/-2 °C. At normal measurement mode, depress [CAL/▲/UNIT] key more than 3 seconds, unit go to calibration mode (P0).

- 1) LCD screen shown "CAL 000ppt P0" go to zero point calibration mode, CAL keep flashing at the screen. Please rinse sensor electrode with distilled water and stirred few seconds to move out the bubble on the electrode, immerse the electrode in the pure water, keep sensor electrode about middle of the water, don't touch the bottom of the container, when the instrument detected the signal become stable (about 10 seconds), LCD display shown "PAS", it means the unit passed zero calibration and unit automatic go to next calibration point, LCD screen "CAL 7.00ppt P1" means it successful passed the P0 calibration.
- 2) Clean the sensor electrode quickly with pure water, rinse the sensor electrode into 7.00ppt salinity calibration solvent, and stirred few seconds to move out the bubble on the electrode, keep sensor electrode about middle of the water, don't touch the bottom of the container, when the instrument detected the signal become stable (about 10 seconds), LCD display shown "PAS", it means the unit passed P1 calibration. If you can't find 7.00ppt salinity calibration powder, you can buy a similar one and setup the calibration point value by depress [CAL/▲/UNIT] key or [] key to match the value of your in hand conductivity calibration powder, the range of P1 calibration point is from 5.00ppt to 8.5ppt.
- 3) Clean the sensor electrode quickly with pure water, rinse the sensor electrode into 40.0ppt salinity calibration solvent, and stirred few seconds to move out the bubble on the electrode, keep sensor electrode about middle of the water, don't touch the bottom of the container, when the instrument detected the signal become stable (about 10 seconds), LCD display shown "PAS", it means the unit passed P2 calibration. If you can't find 40.0ppt salinity calibration powder, you can buy a similar one and setup the calibration point value by depress [CAL/▲/UNIT] key or [] key to match the value of your in hand conductivity calibration powder, the range of P2 calibration point is from 25.0ppt to 34.0ppt.
- 4) If your Conductivity Calibration powder is not as our pre-set value, you can set it up by depress [CAL/▲/UNIT] key or [] key to match the value of your in hand conductivity calibration powder, then proceed the calibration as above method

- 5) If at the calibration process you find "Err" shown at the LCD screen, it means the calibration failed, maybe the calibration powder value not in our range or the sensor electrode damaged.

warm reminder (figure show)



In instrument calibration mode, please don't immerse the probe head below the marked level, to avoid water go inside the instrument to make short circuit of the components.

Special Announcement

Our company reserved the right to change the design and the user manual without prior notice to the end user.