

Salinometer

Model: LS312
User Manual V1.0

Please read this manual carefully before using and reserve it for reference.

I、Instrument Introduction

The Salinometer is mainly used for salinity measurement in home kitchens, food processing, and aquaculture, as well as TDS measurement of drinking water. The instrument obtains the TDS, conductivity, salinity, hardness, and specific gravity of the test sample by measuring the conductivity between two electrode plates. It also uses different LCD backlight colors to indicate different salinity levels of fresh water and salt water. The instrument has a temperature compensation function and offers good repeatability and measurement accuracy.

Standards for the product:

JJG 761-2016 Verification Regulation of Electrode Salinometer

JJG 376-2007 Verification Regulation of Electrolytic Conductivity Meters

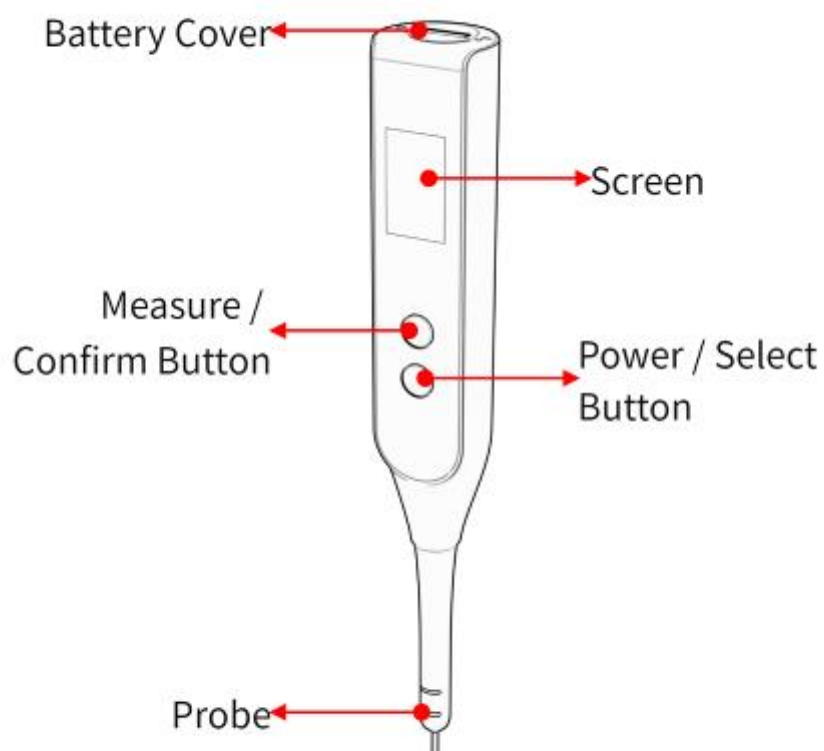
II、Parameters

Measurement object	Drinking water, seawater, brine, soup stock, and other daily-use water
Measurement parameters	SAL(salinity)、GH(hardness)、S.G.(specific gravity)、TDS(total dissolved solids)、EC(conductivity)、T(temperature)
Measurement range	SAL(0-5%)、GH(0-1000ppm)、S.G.(0.9800-1.2000)、 TDS(0-2000ppm)、EC(0-4000us/cm)、T(0-99℃)
Resolution	SAL(0.01%)、GH(1ppm)、S.G.(0.0001)、TDS(1ppm)、EC(1us/cm)、 T(0.1℃)
Measurement accuracy	SAL: $\pm 0.25\%$ GH: $\pm 5\%H$, H is the standard value S.G.: ± 0.002 TDS: 0-100ppm: $\pm 5\text{ppm}$; 100-2000ppm: $\pm 5\%H$, H is the standard value EC: 0-200us/cm: $\pm 10\text{us/cm}$; 200-4000us/cm: $\pm 5\%H$, H is the standard value T: $\pm 2^\circ\text{C}$
Display	240*135 1.14 inch TFT color screen

Power supply	2 AAA alkaline batteries
Dimensions	190.3*28.7*23.0 mm
Weight	About 71.1g
Operating temperature range	0~99°C
Storage temperature range	-10~60°C, 0~85%RH (no condensation)
Supply voltage	DC3V
Operating current	20mA
Operating power consumption	60mW

III、Operation

1. Instrument Structure



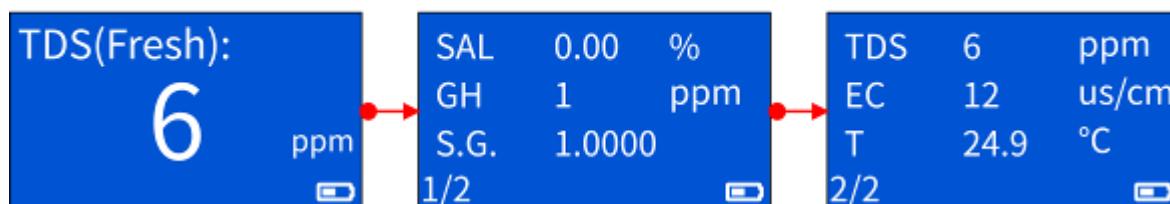
2. Measurement

Insert the probe of the instrument into the water sample to be tested, and short press  to start measurement. After the measurement is completed, the instrument will determine the salinity level of the water quality based on the test data. According to different water quality judgment results, the display screen will show different backlight colors: fresh water — blue, saline water — green.

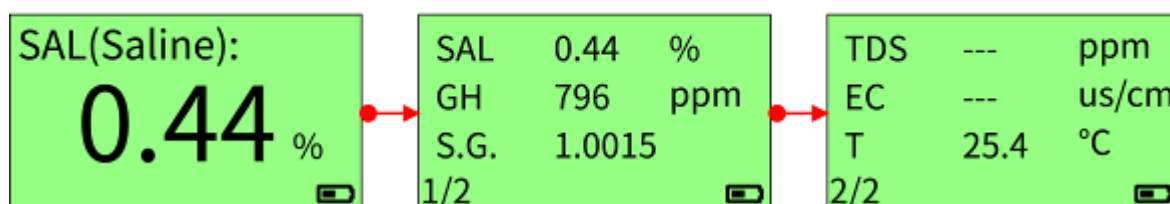
Water quality judgment:

EC(us/cm)	TDS(ppm)	Salinity	Water Quality	Backlight Color
0-4000	0-2000	<0.3%	Fresh Water	Blue
>4000	>2000	0.3%-5.0%	Saline Water	Green

Measure Fresh Water (Salinity<0.3%) :

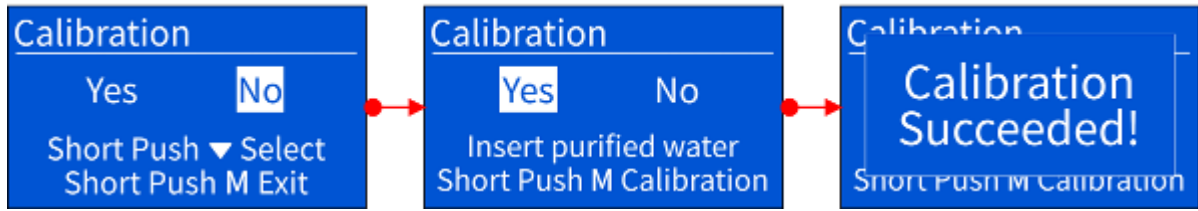


Measure Saline Water (0.3%≤Salinity≤5.0%) :



3. Zero Calibration

If the TDS value is not “0” when measuring purified water or distilled water, zero calibration is required. In measurement mode, long press the  button to enter the zero calibration interface. In the calibration interface, short press the  button to select the [Yes/No] option, and short press the key to confirm the selection. Insert the instrument probe into purified water or distilled water, then short press the  to start zero calibration. After calibration is completed, the message “Calibration Succeed! ” will appear, and the instrument will return to the measurement page.

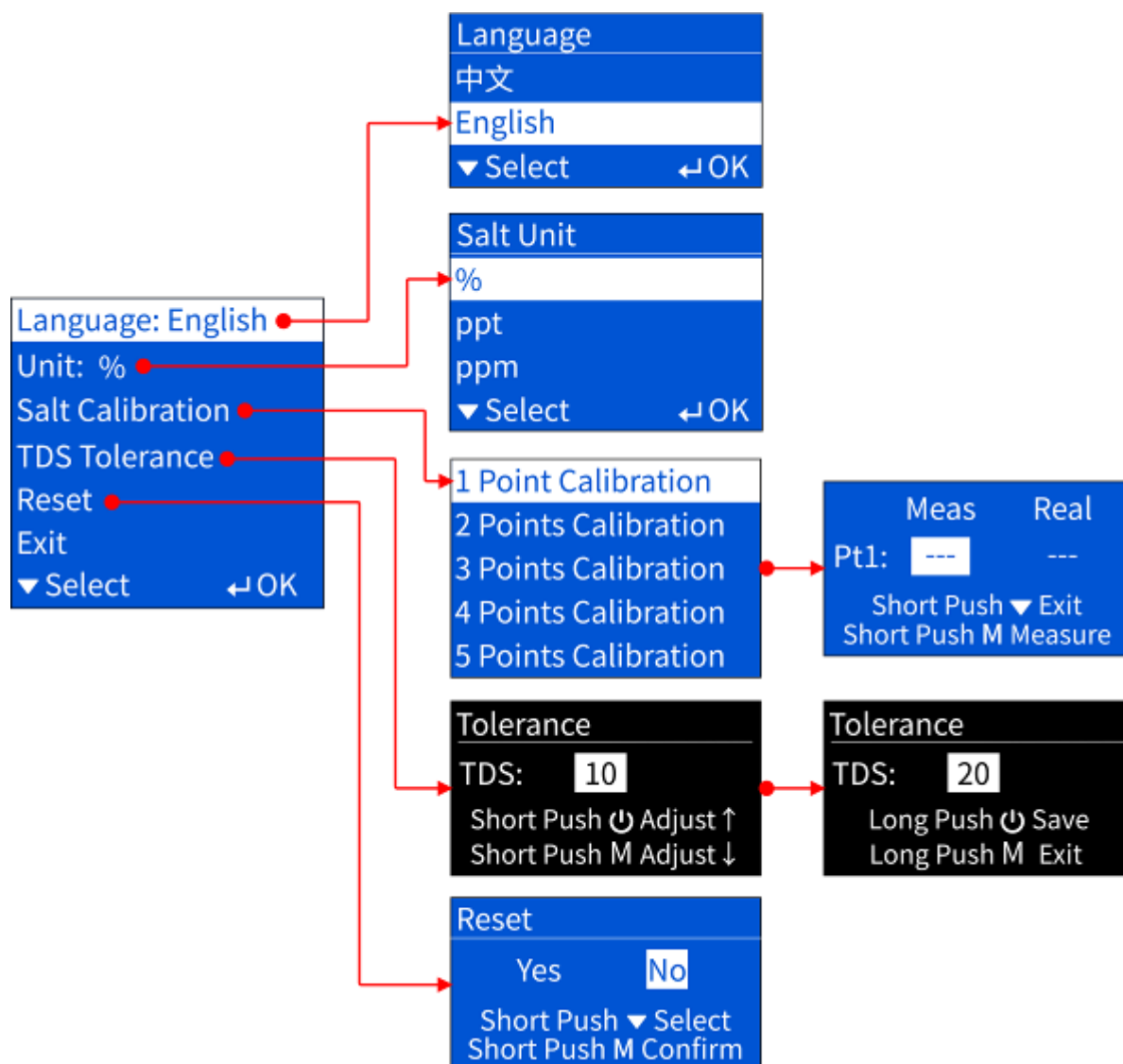


If the calibration fails, the possible reasons are as follows:

- The instrument has not been placed into purified water or distilled water.
- The probe is contaminated. Please rinse it with clean water before calibration.

4. Main Menu

With the instrument powered off, long press the  button for 3 seconds to enter the instrument [Main Menu]. There are 6 sub-options. Short press the  button to select [Language, Unit, Salt Calibration, TDS Tolerance, Reset, Exit], and short press the  button to confirm the selection.



5. Mobile Operation

The instrument is equipped with a Bluetooth communication module. You can scan the QR code on the instrument with WeChat to connect to the mini program for operation.

IV、 Attentions

1. The instrument must not be used for testing corrosive liquids.
2. Before measurement, the salt deposits and dirt on the probe must be cleaned, and then the probe should be wiped dry with a paper towel or soft cloth to avoid contaminating the test sample.
3. After measuring a liquid and removing the instrument, the residual liquid on the probe must be cleaned to prevent different liquids from mixing and causing deviations in test data.

4. The maximum temperature of 99°C refers to short-duration measurements only. Do not use the probe continuously at high temperatures, as prolonged exposure may cause the probe to rupture. Damage caused by probe rupture is considered user-induced and is not covered by the warranty. It is recommended to perform measurements at temperatures below 70°C.
5. Do not use alcohol or other organic solutions to clean the contact probe, as this may cause permanent damage.
6. Remove the batteries when the instrument will not be used for a long time.

V、 Packing List

No.	Product Name	Quantity	Unit
1	Salinometer	1	set
2	User manual	1	pcs

VI、 Service

1. The instrument has one-year warranty. If the instrument works abnormally, please send it to our company for maintenance.
2. We provide long-term spare parts supply and lifetime repair service for users.
3. We provide instrument calibration service for users.
4. We provide long-term free technical support.

Manufacturer: Shenzhen Linshang Technology Co., Ltd.

Website: www.linshangtech.com

Service hotline: 086-755-86263411

Email: sales21@linshangtech.com