

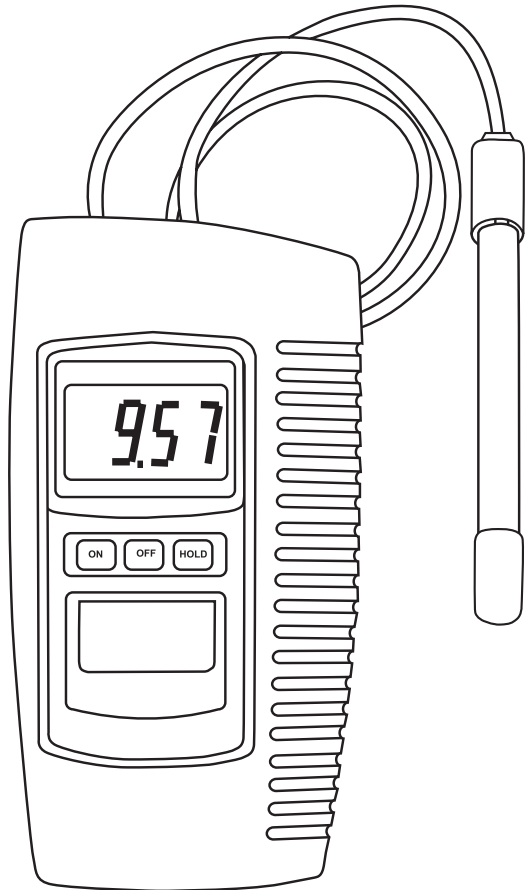
Lovibond® Water Testing

Tintometer® Group



SensoDirect Salt110

Salt Meter - Instruction Manual



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1. General description

- * General purpose salt meter with broad application including Swimming Pools, Water Conditioning, Aquaria & Fish Hatcheries, Food & Beverage Processing, Photography, Laboratory, Paper Industry, Plating Industry, Quality Control and Education.
- * High quality, compact unit with a separate electrode that is designed for easy operation.
- * Water resistant front panel with easy to read LCD display and rubberised function keys

Unpacking

Please check that the shipment includes the following items:

- Lovibond® SensoDirect Salt110
- Lovibond® SensoDirect Salt Sensor
- 9V Battery
- Protective Cover
- 7 Screws
- Screwdriver
- Plastic Cover Calibration Screws
- Instruction Manual

Battery installation

Prior to first use take the instrument out of the protective cover open the battery compartment and insert the 9V battery.

Ensure polarity is correct.

Protective Cover

The instrument is equipped as standard with the protective cover.

Prior to the first measurement please fix the cover by using the enclosed screws. The protective cover ensures reliable operation even in harsh environments.

When the instrument is used without the protective cover please use the enclosed plastic cover to protect the calibration screws against dust and humidity.

2. Specification

Display	LCD, 21.5 mm (0.7") digit height Maximum display count no. 10
Measurement Range	0 -10% salt (% weight) Test values over 10% doesn't confirm with the specifications
Over Range	Display shows „1“
Resolution	0.01% salt
Accuracy (23 ± 5°C)	± 0.2% salt for 0 - 3 % ± 0.5% salt for 3 - 10 %
Sample Time	Approx. 0.4 seconds
Data Hold	Freezes the salt value on the display
Temperature Compensation	Automatic, 0 - 50°C (32°F - 122°F)
Operating Temperature	0 - 50°C (32°F - 122°F)
Operating Humidity	Maximum 80% relative humidity
Power Supply	006P DC 9V battery (heavy-duty type), MN1604 (PP3) or equivalent
Power Current	Approx. DC 5 mA
Weight	380 g
Dimensions	Meter: 208 x 110 x 34 mm (L x W x H) Electrode: 22 mm diameter x 120 mm length

Instrument adjusted by the manufacturer.

3. Funktionsbeschreibung

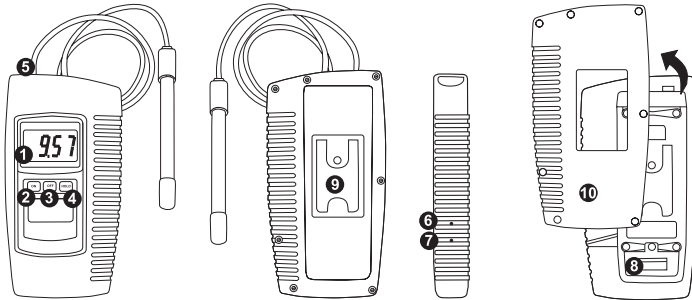


Figure 1

- ❶ Display
- ❷ Power ON Button
- ❸ Power OFF Button
- ❹ Data Hold Button
- ❺ Salt probe input socket
- ❻ Calibration Screws
- ❼ Battery compartment/cover
- ❽ Stand
- ❾ Protective cover
- ❿ Probe Handle
- ⓫ Salt Sensor

4. Taking measurements

- 1) Connect the Salt probe to the probe input socket (Figure 1, ❺).
- 2) Power on the instrument by pressing the Power ON Button.
- 3) Hold the „Probe“ Handle by hand and immerse the Salt Sensor wholly into the measured solution.
Shake the Probe several time to let the air bubble leave away from the Salt Sensor until the reading value reach stable. Display will show the salt values (% weight) as NaCl.
- 4) The Probe Head has build in a temperature sensor for the usage of automatic Temp. compensation. If the temperature of measured salt solutions is changed, then it should take few minutes to let the display reading reach the stable value.
- 5) Press the „Hold Button“ (Figure 1, ❹) will hold the measured value and the LCD will indicate a „Hold“ symbol on the display during the measurement. Press the Hold Button again to exit the data hold function.

5. Calibration

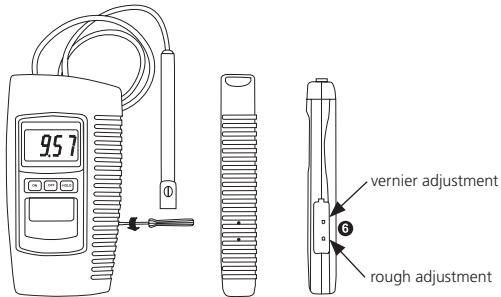


Figure 2

To calibrate the meter:

1) Prepare a 0.6% weight salt Solution (NaCl) $\hat{=}$ 6000 mg/l (ppm).

For example: 100g salt Solution contain 6g salt.

2) Hold the Probe Handle by hand and immerse the let the Probe Head wholly into the measured solution

Shake the Probe several time to let the air bubble leave away from the Probe Head until the reading value reach stable.

Calibrate the instrument with the calibration screws (Figure 2, **6**) until display show the value same as 0.60 exactly

3) Alternative Calibrations

Concentration	1000g salt solution contains	mg/l (ppm)	Display reading
3%	30 g Salt	30000	3.00
8%	80 g Salt	80000	8.00

6. Changing the battery

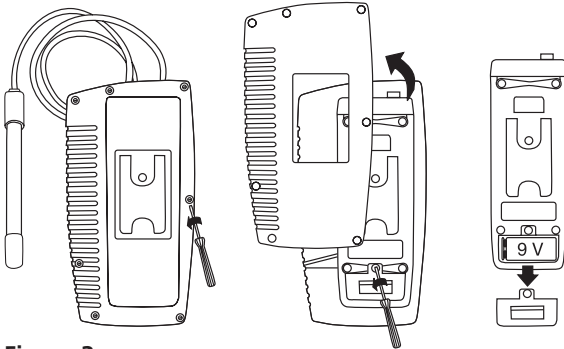




Figure 3

- 1) „“ in the left corner of the display indicates that it is necessary to replace the battery. However, accurate measurements may still be made for several hours after the “Low Battery” indicator first appears.
- 2) Remove the protective cover before replacing the battery. To replace the battery, remove the Battery Compartment Cover (Figure 3, ) on the rear of the meter.
- 3) Remove the battery, install a replacement one (006P DC 9V battery (heavy duty type), MN1604 (PP3) or equivalent). Ensure Polarity is correct. Replace the battery compartment cover.

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