USER MANUAL

Multipurpose Digital Meter

SM 01

Dear Customer,

Thank you for purchasing our product, please read this manual carefully in order to properly use this product and for your own safety.

Range of Application

This product only fit for measuring specific gravity of marine water. If it's applied to liquid other than salt water, measure value might be different than actual value.
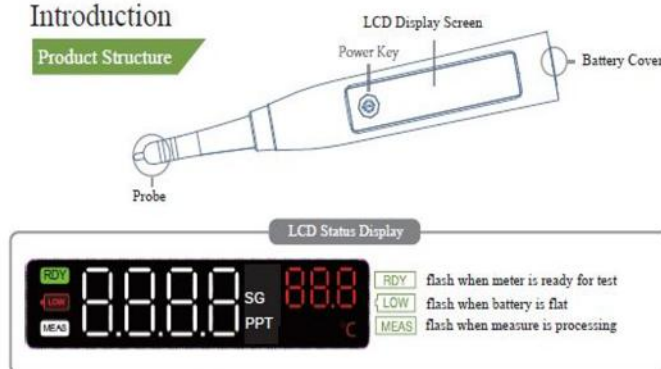
Features

* Large Color LCD Display Screen
* High Resolution Measurement Reading
* Precision Measurement Value
* Automatic Temperature Compensation
* Water Temperature and TDS Reading
* Vibration Alarm for Test Start and Completion
* Low Battery Reminding Function

Introduction

Product Structure

LCD Display Screen
Power Key
Battery Cover
Probe

LCD Status Display

RDY — flash when meter is ready for test
LOW — flash when battery is flat
MEAS — flash when measure is processing

Specification

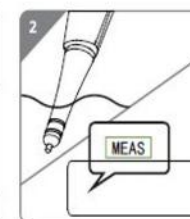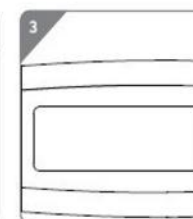|	
Work Theory	Electronic Conductivity Measurement
Measure Range	Temperature : 0°C~50°C Salinity: 0 ~ 50PPT Specific gravity :1.000 ~ 1.043 TDS 1 ~ 300 ppm
Resolution	Temperature: 0.1°C Salinity: 0.1PPT Specific gravity: 0.001
Tolerance	Temperature :±1.0°C Salinity :±1.5PPT Specific gravity :±0.001 TDS: ±3% of FS
Measure environment	0°C~50°C
Energy Saving Feature	Automatically Shut Down after 1 minute
Temperature Compensation	Automatic Temperature Compensation
Display Screen	Color LCD Display Screen
Testing State	Meter vibrates once means it's ready test starts Meter vibrates twice and measure value flash twice when test finish Measure value blinks twice and display on screen stably
Battery Replacement Reminding	Low icon flashes
Power supply	1.5V*2EA （AAA battery）
Water Resistance Level	life water resistance

Application Guide

Measuring method

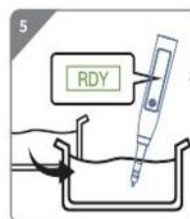**1** Press power button RDY Icon flashes

2 Dip the probe into testing solution , MEAS icon flashes, device vibrates once and measuring starts

3 Measuring finished, device vibrates twice and the measured S.G. & Temp value blinks twice at the same time, then display on LCD screen stably

4 Press power key once Salinity PPT Value shows up on LCD , press power key again, TDS value show up, press power key once again, device turns off
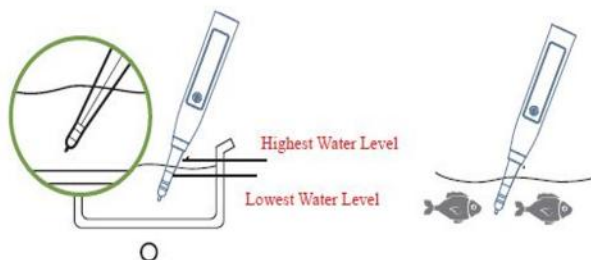
5 Repeatedly test is available without cleaning probe, in order to get a higher precision measure result ,cleaning probe is recommended before continuing next round test. Measurement should be started when RDY icon flashes

6 After measurement finished, please clean the probe with neutral liquid or clean water and dry it up with the soft cloth and storage it properly

Precautions

Highest Water Level

Lowest Water Level

Make sure probe is clean before measuring, it's allowed to clean it with clean water and then wipe it with a soft cloth.
Keep the probe away from bottom and side more than 2cm, half of the probe dip into water is recommended. (Do not touch the residue in liquid)

Keep the probe away from fish or other creatures (contains other solid items) for an accurate measure

Calibration

Calibration need to be proceed carefully as it will directly affect measure value. Before calibration, test the calibration solution contained in the package box, if measured salinity ppt value is out of 35±2PPT, then manual calibration is necessary. Recommend to use new standard 35 PPT salinity liquid because it can be polluted by a long term storage or water evaporation.

`C-5L`

`35.0` PPT

2.5 cm
5mm
1cm

Long press power key for 5 seconds when device is power off

When " C-5L " display on LCD , dip the probe into 35ppt standard solution

When calibration is completed, 35.0PPT will show up on screen, then press power key once and turn it off

During the calibration (measure), make sure the probe dip into water vertically and locate in the center of the solution container. Put the probe in 2.5cm water depth , 1cm away from the container wall and 0.5cm from the container bottom

Attention

①Keep away from fire, heaters and other hot objects
②Be careful of burns when measuring hot liquid
③Recommended to use specified battery and not to use rechargeable battery or mixed usage
④Do not open or disassemble product
⑤To avoid measure error, do not drop or impact the product
⑥Probe scratch, rusty, other material cover on probe surface may result in measurement error
⑦After usage probe can be washed with clean water, keep it dry with using soft cloth
⑧If keep it for long time not used, please take out the batteries
⑨Standard solution is not edible, if solution contact skin incautiously ,just need to clean it with tap water

Replacement of battery

◆Replacement time : when `LOW` icon flashes
　　①Low battery may cause measurement error, battery replaced is needed
　　②Please re-insert when product is not working properly after new battery replacement
　　③New battery may be discharged in long circulation period, in this case, please replace new one

◆Replacement Method
① Rotate the battery cover counterclockwise to "open" location and take out the battery
②Put 2 AAA battery into with"+" pole direction outward
③ Turn the battery cover clockwise direction to "close" location
④Remark : to prevent damage, pay attention to "+""-" pole of battery

CLOSE　　　　OPEN　　　　BATTERY INSERTED