



# ST 20D Pen DO Meter Instruction Manual

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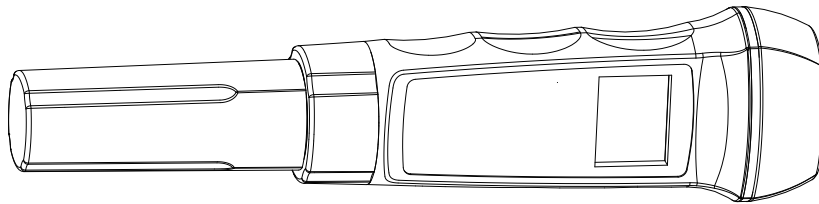
After more than a century of perfecting the art of measurement through our durable weighing products, OHAUS precision is now available in a line of portable electrochemistry products that provides accurate measurement of DO, pH, ORP, conductivity, TDS and salinity.

ST series pen meters are the economical option when you are simply looking for meters that are easy to use and provide accurate measurements.

The pen meters should not be used by Children of age 12 or younger.

This product conforms to the EMC Directive 2004/108/EC. The Declaration of Conformity is available online at [europe.ohaus.com/europe/en/home/support/compliance.aspx](http://europe.ohaus.com/europe/en/home/support/compliance.aspx).

Thank you for choosing OHAUS waterproof pen Dissolved Oxygen meter ST20D. Please read the manual completely before use.



## First Usage

Turn off the membrane part, fill the electrolyte, then turn on the membrane. Warm up the DO pen meter by turn on it. The meter will turn off automatically after 10 minutes.

## Calibration and measurement

After warm up, turn on the meter. Put ST20D in the air, press button "Cal";

The meter will display "100" and blink under the signal, now the meter is calibrating 100% DO value; after 3 to 5 minutes when the signal is stable, press button "Hold/Enter" to finish 100% DO calibration.

Now we have two options:

1. Press button "Hold/Enter" to finish 1 point calibration and exit to measurement interface.

**Note: Ohaus suggest that only do one point (100%) calibration for ST20D. Do not need perform 2 point (0%) calibration if the sample DO value is not too low (e.g. <1 mg/L).**

2. Put the ST20D into the Zero-Oxygen solution. Press button "Cal" to do the 0% point calibration, LCD will display and blink "0" under the signal, after about 3 minutes when the signal is stable, press button "Hold/Enter" to finish 0% calibration.

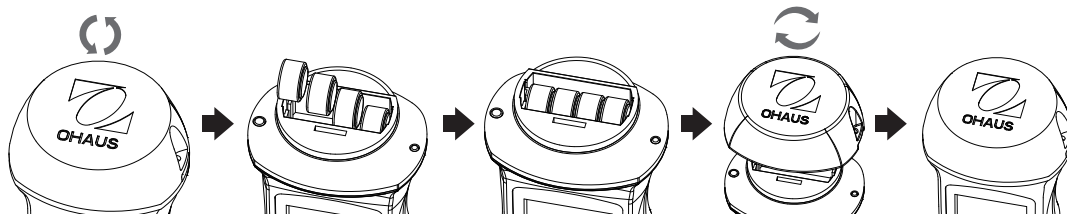
Zero-Oxygen solution is saturated  $\text{Na}_2\text{SO}_3$  (CAS NO 7757-83-7) solution. Ohaus offer DO zero-oxygen chemical (30059257).

After calibration, rinse the pen DO tip, then we can measure the sample.

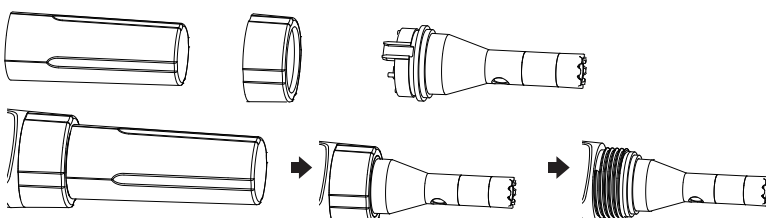
## Maintenance and Storage

After the usage, turn off the membrane, rinse the electrode and membrane, makes them dry and turn on the membrane part to store.

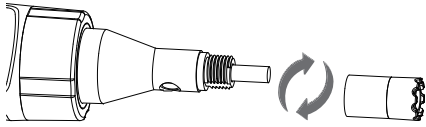
Harsh samples may short the pen meter life time, such as sticky, dirty or oily liquids.



The electrode is replaceable.



The membrane part is replaceable.



#### ◆ Order Information

Model	Description	Item NO.
ST20D	Polarographic waterproof pen DO meter	30073986

#### ◆ Accessory:

30222083	Pen Electrode, ST20D
30222084	Membrane part with electrolyte for ST20D
30059257	DO Zero Oxygen Chemical

#### ◆ Specification

Water Proof Pen DO Meter	ST20D
Measurement range	0.0 – 19.9 mg/L
Resolution	0.1 mg/L
Accuracy	± 0.5 mg/L
Battery	4 x 1.5V
Dimension	183×45×35mm
Weight	90g
Auto-off	After 10 min no operation
Ambient temperature	5~45 °C(41-122°F)
Materials	ABS



In conformance with the European Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE) this device may not be disposed of in domestic waste. This also applies to countries outside the EU, per their specific requirements. Please dispose of this product in accordance with local regulations at the collecting point specified for electrical and electronic equipment. If you have any questions, please contact the responsible authority or the distributor from which you purchased this device. Should this device be passed on to other parties (for private or professional use), the content of this regulation must also be related. For disposal instructions in Europe, refer to [www.ohaus.com/weee](http://www.ohaus.com/weee). Thank you for your contribution to environmental protection.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient or relocate the receiving antenna, increase the separation between the equipment and receiver or consult the dealer or an experienced radio/TV technician for help.

