

ST Series Pen Meter Instruction Manual



Precision Beyond Balance

ST Series Pen Meters (pH/ORP/COND./TDS/Salinity)

- IP67 Waterproof
- Easy to use
- Auto power off function
- Wrist strap

Ohaus Corporation
7 Campus Drive
Suite 310
Parsippany, NJ 07054 USA
Tel: (973) 377-9000
Fax: (973) 944-7177
With offices worldwide

www.ohaus.com



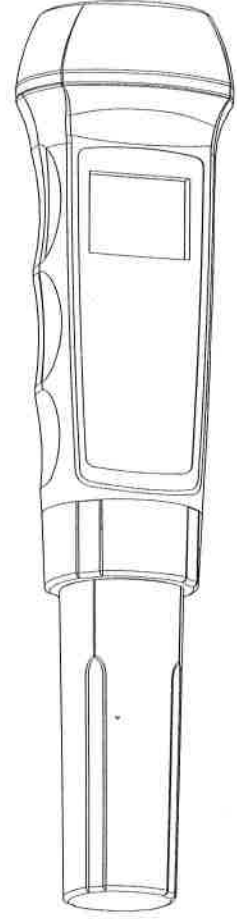
◆ Specification

Water Proof Pen Meters	ST10C-A	ST10C-B	ST10C-C	ST10T-A	ST10T-B	ST10S
Cond. range	0.0~199.9 $\mu\text{S}/\text{cm}$	0~1999 $\mu\text{S}/\text{cm}$	0.00~19.99 mS/cm	0.0~100.0 mg/L	0~1000 mg/L	0.0~10.0 ppt
Resolution	0.1 $\mu\text{S}/\text{cm}$	1 $\mu\text{S}/\text{cm}$	10 $\mu\text{S}/\text{cm}$ (0.01 mS/cm)	0.1 mg/L	1 mg/L	0.1 ppt
Accuracy	$\pm 2.5\%$ FS	$\pm 2.5\%$ FS	$\pm 2.5\%$ FS	$\pm 2.5\%$ FS	$\pm 2.5\%$ FS	$\pm 2.5\%$ FS
Battery	4 x 1.5V	4 x 1.5V	4 x 1.5V	4 x 1.5V	4 x 1.5V	4 x 1.5V
Dimension	183x45x35mm	185x42x37mm	185x42x37mm	185x42x37mm	185x42x37mm	185x42x37mm
Weight	105g	105g	105g	105g	105g	105g
Auto-off	After 6 min no operation	After 6 min no operation	After 6 min no operation	After 6 min no operation	After 6 min no operation	After 6 min no operation
Ambient temperature	0~50 °C(32-122°F)	0~50 °C(32-122°F)	0~50 °C(32-122°F)	0~50 °C(32-122°F)	0~50 °C(32-122°F)	0~50 °C(32-122°F)
Materials	ABS	ABS	ABS	ABS	ABS	ABS

ST20C/ST20T/ST20S pen meters Instruction Manual

Thank you for choosing OHAUS waterproof pen meters. Please read the manual completely before use. This manual serves the following models:

- ST20C-A (pen Conductivity meter)
- ST20C-B (pen Conductivity meter)
- ST20C-C (pen Conductivity meter)
- ST20T-A (pen TDS meter)
- ST20T-B (pen TDS meter)
- ST20S (pen salinity meter)



◆ First Usage

Condition the electrodes by rinsing and immersing it in pure water for 0.5 hour before use.

◆ Conductivity/TDS/Salinity Measurement

Remove the protection cap, rinse the Conductivity electrode with pure water (distilled water), and wipe clean.

- Press button-On/Off turn on the meter.
- Dip the electrode about 2 to 3cm into the test solution (at least 20ml). Wait until the reading stabilized.
- Clean the electrode with pure water after each measurement.

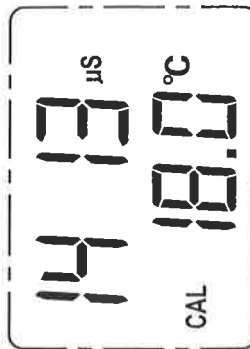
◆ Calibration

ST20C/ST20T/ST20S pen meters are factory calibrated, and does not need calibration in a few months.

Be cautious to use this function when you are not familiar with conductivity pen.

- With the pen meter off press and hold the button-On/Off for more than 10 seconds. Let pen meter go into calibration mode, the display shows "CAL" and blinking.
- Dip the electrode into standard solution. Press button-up and button-down to adjust the displayed value same as Calibration Data as shown in the table below. When adjusting, "CAL" is not blinking. When displayed value equals the Calibration Data, press the button-On/Off to confirm the calibration.
- "CAL" will disappear after calibration, and pen meter goes is into measurement mode.

Calibration display of ST20C-B or ST20T-B



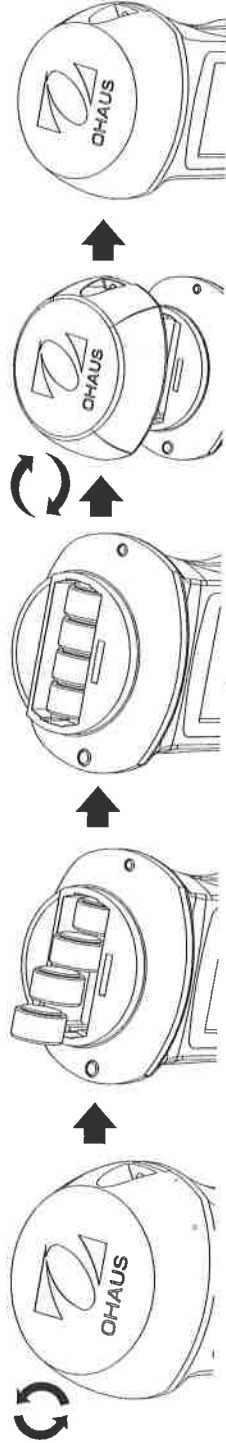
◆ **Order Information**

Model	Standard Solution Concentration	Calibration Data
ST20C-A	0.001 mol/L KCl	146.6 μ S/cm
ST20C-B	0.01 mol/L KCl	1413 μ S/cm
ST20C-C	0.1 mol/L KCl	12.88mS/cm
ST20T-A	0.001 mol/L KCl	146.6 μ S/cm (73.3 mg/L)
ST20T-B	0.01 mol/L KCl	1413 μ S/cm (706 mg/L)
ST20S	5% NaCl	50ppt

Model	Description
ST20C-A	Pen Conductivity Meter, range 0.0~1999.9 μ S/cm
ST20C-B	Pen Conductivity Meter, range 0~1999 μ S/cm
ST20C-C	Pen Conductivity Meter, range 0.00~19.99 mS/cm
ST20T-A	Pen TDS Meter with temperature, range 0.0~100.0 mg/L
ST20T-B	Pen TDS Meter with temperature, range 0~1000 mg/L
ST20S	Pen Salinity Meter with temperature, range 0.0~10.0 ppt

◆ **Maintenance**

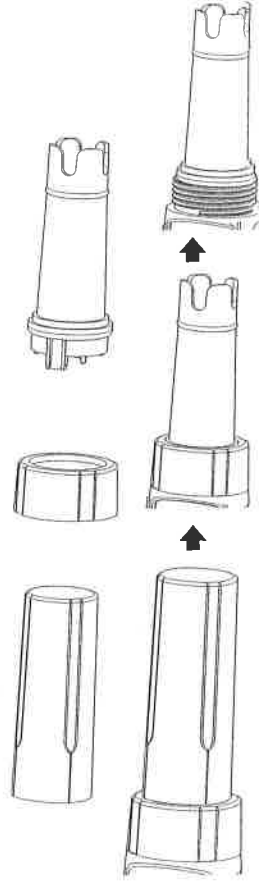
Clean the electrode after test and cover the protection cap, be sure storage solution is not dry in the cap. Harsh samples may short the pen meter life time, such as sticky, dirty or oily liquids. The meter use button battery 1.5V (AA)*4, replace all the batteries when the display fade or not turn on.



◆ Replaceable electrodes:

Electrode CT20A ST
Electrode CT20B ST
Electrode CS20C ST

The electrode is replaceable.



◆ Specification

Water Proof Pen Meters	ST20C-A	ST20C-B	ST20C-C	ST20T-A	ST20T-B	ST20S
Cond. range	0.0~199.9 $\mu\text{S}/\text{cm}$	0~1999 $\mu\text{S}/\text{cm}$	0.00~19.99 mS/cm	0.0~100.0 mg/L	0~1000 mg/L	0.0~80.0 ppt
Resolution	0.1 $\mu\text{S}/\text{cm}$	1 $\mu\text{S}/\text{cm}$	10 $\mu\text{S}/\text{cm}$ (0.01 mS/cm)	0.1 mg/L	1 mg/L	0.1 ppt
Accuracy	$\pm 1.5\%$ FS	$\pm 1.5\%$ FS	$\pm 1.5\%$ FS	$\pm 1.5\%$ FS	$\pm 1.5\%$ FS	$\pm 1.5\%$ FS
Temperature	0.0~99.9 $^{\circ}\text{C}$	0.0~99.9 $^{\circ}\text{C}$	0.0~99.9 $^{\circ}\text{C}$	0.0~99.9 $^{\circ}\text{C}$	0.0~99.9 $^{\circ}\text{C}$	0.0~99.9 $^{\circ}\text{C}$
Battery	4 x 1.5V	4 x 1.5V	4 x 1.5V	4 x 1.5V	4 x 1.5V	4 x 1.5V
Dimension	185x42x37mm	185x42x37mm	185x42x37mm	185x42x37mm	185x42x37mm	185x42x37mm
Weight	105g	105g	105g	105g	105g	105g
Auto-off	After 6 min no operation	After 6 min no operation	After 6 min no operation	After 6 min no operation	After 6 min no operation	After 6 min no operation
Ambient temperature	0~50 $^{\circ}\text{C}$ (32~122 $^{\circ}\text{F}$)	0~50 $^{\circ}\text{C}$ (32~122 $^{\circ}\text{F}$)	0~50 $^{\circ}\text{C}$ (32~122 $^{\circ}\text{F}$)	0~50 $^{\circ}\text{C}$ (32~122 $^{\circ}\text{F}$)	0~50 $^{\circ}\text{C}$ (32~122 $^{\circ}\text{F}$)	0~50 $^{\circ}\text{C}$ (32~122 $^{\circ}\text{F}$)
Materials	ABS	ABS	ABS	ABS	ABS	ABS