

SD 50

pH



1. Power ON/OFF



Press briefly



If ! is displayed, press to deactivate

Automatically turns off after 8 minutes of inactivity



Press and hold (3 sec.) to turn the instrument off



Press to activate / de-activate backlight

2. Taking a reading



Remove protective cap and immerse the instrument into the sample to be measured so that the instrument is submerged to the sealing ring level.

Reading is displayed



Press briefly ! to freeze / unfreeze



Press and hold (3 sec.) to store data
While pressing button, memory listing (e.g. 01) appears

3. Calibration

Rinse electrode thoroughly with distilled water before using in each buffer solution.

Re-calibrate according to individual recommendations.

Use Lovibond® Standard Solutions or pH buffer tablets in accordance with the kit manual (see 4.)



Remove protective cap from the probe. Turn ON, rinse electrode with distilled water and immerse the probe into pH 7 M solution.



Press and hold (3 sec.) to start calibration

CAL 1 will flash

Wait until ⏰ disappears



Press 1 sec.
Calibration will take place

CAL 2 will flash



Exit for 1 point calibration or go to 2nd point calibration



Rinse electrode with distilled water and immerse into pH 4 M buffer solution.

CAL 2 will flash

Wait until ⏰ disappears



Press and hold (1 sec.)

Calibration will take place
CAL 3 will flash



Exit for 2 point calibration or go to 3rd point calibration



Rinse electrode with distilled water and immerse into pH 10 M buffer solution

CAL 3 will flash

Wait until ⏰ disappears



Press and hold (1 sec.)

Calibration will take place

3 point calibration is finished

! M H will appear on screen and show type of calibration (1 point to 3 point calibration)

4. Preparation of buffer solution

1. Fill a clean beaker with 20 ml distilled water.
2. Add one buffer tablet of the required value and shake or crush with a clean stirring rod until the tablet dissolves.
3. Allow to stand for about two minutes to ensure that the buffer is completely dissolved and to allow any insoluble particles to settle.
4. Immerse the electrode into the buffer solution and carry out calibration (see 3. Calibration)
5. Remove the electrode and rinse it thoroughly
6. Use the buffer solution only once

Accuracy

The maximum tolerance of fresh buffer solutions is ± 0.05 pH.

5. Selection of pH and mV mode



Toggle to select mode

Note: mode mV does NOT show ORP on the display, only millivolt.

6. Recall Data



Power ON



Press and hold (3 sec.)

Most recent memory setting will flash



Press to recall

Most recent memory setting is displayed



Toggle to other stored values



Press to exit

7. Delete Stored Data

Recall Data (see 6.)
Press and hold (3 sec.)



CLEAR will flash

Confirm deletion of stored data
This erases all stored data



Automatic return to normal display

8. Select Buffer System



Power ON



Press and hold (3 sec.)



Press 1 x



Current pH system will flash
Press to confirm



Toggle to change / select (7.00 or 6.86)



Save and exit

9. Set Date/Time display type



Power ON



Press and hold (3 sec.)



Press 4 x

Date is displayed



Confirm



Toggle to 12 hour clock (am/pm) or 24 hour clock



Save and exit

10. Set Date and Time



Power ON

Select Date/Time type first (see 9.)



Press and hold (3 sec.)



Press 2 x



Time will flash



Confirm

Select minutes



To increase



To decrease



Save and change to hours



To increase



To decrease



Save and change to Year



To increase



To decrease



Save and change to Day/Month



To increase



To decrease



Save and exit

11. Set Temperature System



Power ON



Press and hold (3 sec.)



Press 3 x

Temperature system will flash



Confirm

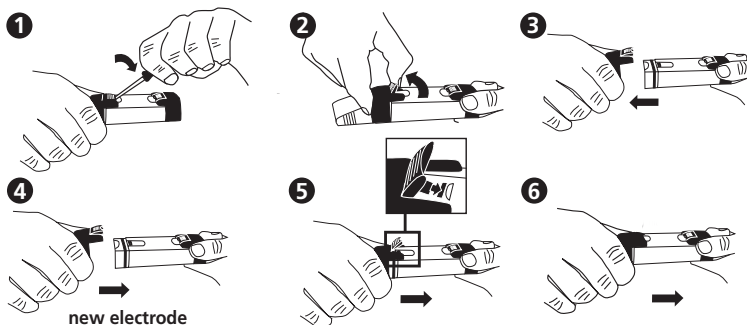


Select Temperature style (°F/°C)

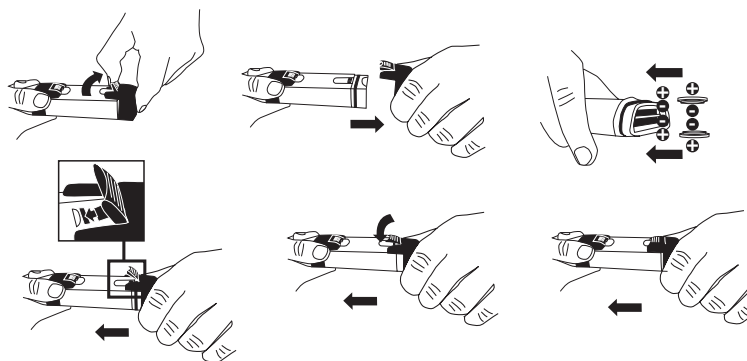


Save and exit

Replacement of electrode



Replacement of batteries



Error Code and Actions

Description	Range	Action
Electrode not installed or faulty	Thermistor: 0.5~100 kΩ	Install or replace electrode
pH out of range	0~14 pH	Use new solution or replace electrode
Electrode is not touching the sample solution		Immerse electrode into solution
Temperature out of range	0~60 °C	Bring solution to the temperature within range
Offset out of range	-60~60 mV	Use new buffer or replace electrode
Slope out of range 50~68 (mV/pH)	85%~115%,	Use new buffer or replace electrode
mV out of range	-1800~1800 mV	Use new solution

pH Buffer

Article No.

72 12 50 pH buffer-set, each 90 ml (25°C)	4.00/7.00/10.00
72 12 52 pH buffer 4.00 (25°C)	1 litre
72 12 54 pH buffer 7.00 (25°C)	1 litre
72 12 56 pH buffer 10.00 (25°C)	1 litre
51 56 00 buffer tablets pH 10	100 pc.
51 56 01 buffer tablets pH 10	250 pc.
51 56 10 buffer tablets pH 7	100 pc.
51 56 11 buffer tablets pH 7	250 pc.
51 56 20 buffer tablets pH 4	100 pc.
51 56 21 buffer tablets pH 4	250 pc.

Warranty

The waterproof SD 50 is warranted to be free from manufacturing defects for 2 years and electrode (probe) module for 6 months.

Storage of electrode

The sponge in the protective cap should be moistened with tap water.

Store electrodes dry when instrument is not being used for longer periods.

Moisten electrode in tap water for some hours before initial use and after dormant periods.

Accessories

19 50 017	Battery CR 2032 (2 Batteries required)
19 48 20	pH replacement electrode
38 48 01	Beaker, 100 ml

SD 50 pH Specifications/Features

- Operating range: 0-60 °C, 0-14 pH, -1800 mV to +1800 mV
- pH resolution 0.01 pH, accuracy ± 0,05 pH
- Selectable buffer system (pH 7.00 or pH 6.86): 1-, 2- or 3-point-calibration with auto-recognition
- Automatic Temperature compensation
- mV resolution 0.1 mV within ±1000 mV and 1 mV over ±1000 mV, accuracy ±20 mV
- Temperature resolution and accuracy 0.1 °C, selectable °C or °F
- Time and date display with 25 sets of data storage (non-volatile)
- 22x22 mm LCD display, with backlight
- 2 x CR 2032 batteries
- Battery life > 25 hr (continuous use, backlight OFF), low battery indicator on LCD display
- Auto-power off to save battery-life (8 minutes non-use)