

# D-54 pH/EC Meter (item 2172)

## Quick Start Guide

### pH

#### Probe preparation (sect. 6.1. of manual)

The pH probe should be connected to channel 1 of the D-54 Reader (see fig. 1). The probe should always have a sufficient quantity of internal filling solution (item # N360647 ). This solution should be changed every three to six months to maintain probe performance. The old solution should be removed with a syringe and new solution added until it is completely filled, leaving few or no bubbles (fig. 2).

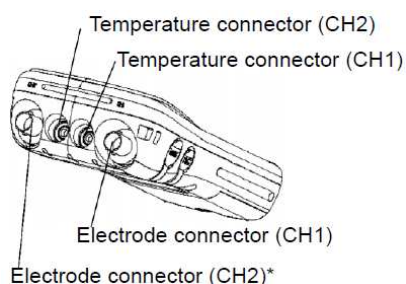


Figure 1

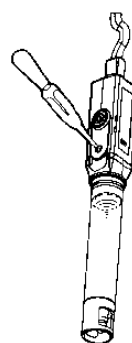
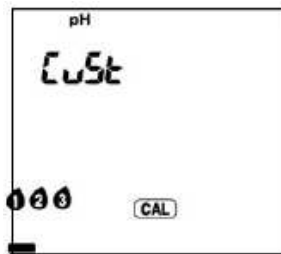
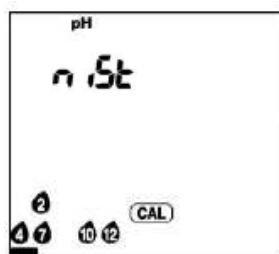
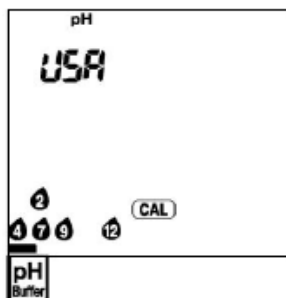


Figure 2

#### Setting the pH7 standard solution mode (sect. 3.4.3 of manual)

The meter allows for calibration at a pH of either 6.8 (NIST), 7.0 (USA) or a customer-specified value. Spectrum ships the meter with pH 7.0 solution. To confirm the meter is in USA mode:

1. With the meter in measurement mode, press the SET key to enter the pH Buffer selection mode.
2. Pressing the ENTER key will toggle you between the 3 modes. Select USA mode.



3. Press the MEAS key to return to measurement mode.

### Calibration (sect. 2.5 of manual)

1. Open the internal solution filler port (fig. 3).
2. Immerse the tip of the probe into the pH7 to a depth of at least 3cm (fig. 4). Allow the reading to stabilize.
3. With the meter in pH measurement mode (this can be selected by pressing the MODE key), press the CAL key to enter calibration mode. The CAL icon will appear (fig. 5)
4. Press the CAL key again to initiate the calibration procedure. The measured value will be displayed and the HOLD icon will blink until the reading stabilizes.
5. The HOLD icon will stop blinking when calibration is complete (fig. 6).
6. Press the MEAS key to return to measurement mode.
7. Repeat the above procedure in pH4 solution to perform a 2-point calibration.

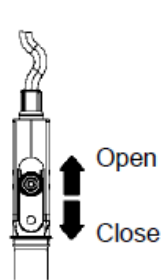


Figure 3

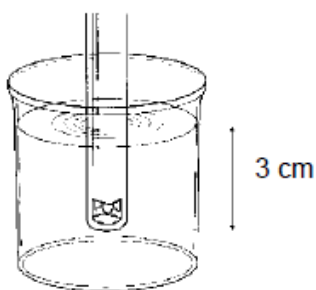


Figure 4



Figure 5

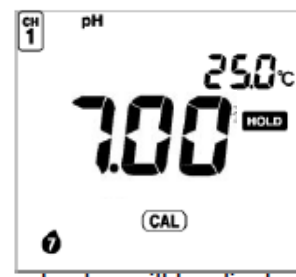


Figure 6

## EC

The EC probe should be connected to channel 2 of the D-54 Reader (see fig. 1).

### Setting the Conductivity Unit Setting to “/cm” mode (sect. 3.4.10 of manual)

1. From Measurement mode, press the SET button until you're in COND Unit Setting Mode (fig. 7).
2. Press the ENTER button until S/cm appears (fig. 8).
3. Press MEAS to return to measurement mode

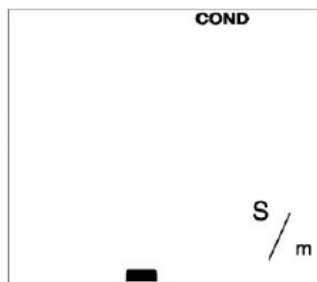


Figure 7

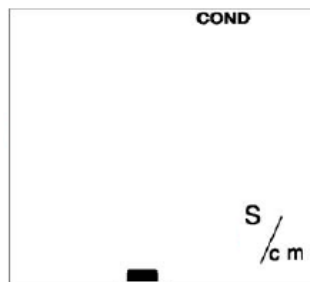


Figure 8

Setting meter for Auto Temperature Compensation (sect. 3.4.4 of manual)

1. From Measurement mode, press the SET button until you're in Temperature Compensation Setting Mode (fig. 9).
2. Press ENTER until the screen displays "Atc".
3. Press MEAS to return to measurement mode.



Figure 9

Set Cell Constant (sect. 2.8 of manual)

1. From Measurement mode, press the MODE button until you're in COND measurement mode (fig. 10).
2. Press CAL to enter CELL SET mode (fig. 11).
3. Press ENTER until the screen displays CELL x 1 (fig. 12).
3. Press the arrow buttons to adjust the cell constant to the value written on top of the probe.

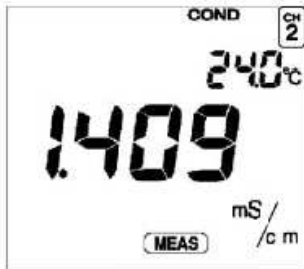


Figure 10

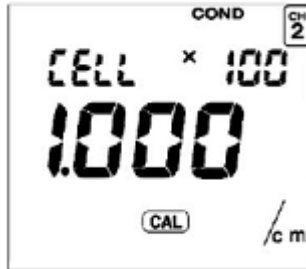


Figure 11



Figure 12

Calibrating EC (sect. 2.8 of manual)

1. Immerse electrode in EC calibration solution. Probe should be immersed above the hole.
2. From COND Measurement mode (this can be selected by pressing the MODE key), press CAL to enter CELL SET mode.
3. Press MODE to enter calibration mode (fig. 13).
4. Press the arrow buttons to adjust the display to the expected value.
5. Press CAL to initiate calibration.
6. The HOLD icon will stop blinking when calibration is complete.
7. Press MEAS to return to measurement mode.

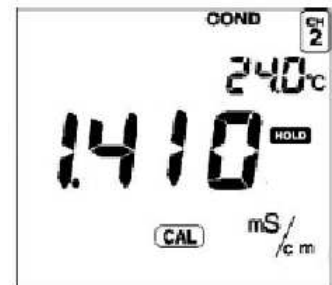


Figure 13