

Calibration pH

When you select *pH* from the calibration menu, the menu as in *figure 10.2.1* will appear. In this menu it is possible to calibrate the pH.

For calibrating the pH value, it is important to have the right tools at hand. The pH is calibrated using 2 independent constant buffer solutions with different pH values. Make sure you have these solutions with you before starting the calibration.

To check the pH measurement, we advise to have a well calibrated third party handmeter with its own pH electrode. A colorimetric comparison like the phenol-red solution is only an indication, not an absolute value

```
pH calibration
Cal. pH 7 at 7.00
Start pH 7 calibr. >
Cal. pH 4 at 4.01
```

```
Start pH 4 calibr. > Reset pH calibr. > Water temp. C 25
```

Figure 10.2.1

Take the following steps in order to calibrate the pH:

- Make sure the pH fluids are at the right temperature
 Select Calibrate pH 7 at 7.00 and press enter (←).
 Either fill in your choice of buffer solution, or leave this unchanged at 7.00. Confirm with (✓).
- 2. Take the electrode out of the buffer jar and flush it with clean water.

 Now select Start pH 7 calibration and press enter (←).
- 3. The top screen as in *figure 10.2.2* appears. Take your pH electrode and put it in the pH solution of your choice.

```
pH 7.00 calibration
Probe Hz : 1500
Actual pH : 7.01
Press (V) to save
```

```
pH 4.01 calibration
Probe Hz : 654
Actual pH : 3.99
Press (V)to save
```

Figure 10.2.2.



SPI 170 AMP

- 4. Gently stir the electrode through the solution for about a minute.
- 5. Check the value at Actual pH. Wait for this value to get stable, then confirm with (\checkmark) .
- 6. Now flush the electrode with clean water.
- 7. Execute steps 2 -8 with the pH 4.01 calibration (or your own calibration).
- 8. The pH is now calibrated at 2 points.
- 9. As final confirmation, we advise to flush the electrode once more, and to put it in the pH 7.00 solution.
- 10. Press (*), and select *Overview*. Check if the pH is now at 7.00 or very close.
- 11. Flush the electrode once more, and place it in the buffer jar.