

# Trouble with pH meter calibration

## The Problem

---

Nick called and was having trouble calibrating his pH meter. He had pH4 and pH7 calibration solutions but was unable to get the pH meter to calibrate. He was worried he may have damaged the probe and thought this may be why it wasn't calibrating, but he could not remember knocking the probe at all.

## The Solution

---

We discussed Nick's calibration procedure and it turned out he was reusing the same buffer solution each time he calibrated. After each calibration he was tipping the solution back into the same bottle. This repeated recycling contaminated the pH4 and pH7 solutions meaning that they no longer had pH values of 4 and 7. We recommended that Nick replace his pH4 and pH7 buffer solutions and the issue resolved itself.

Below are some more tips about calibrating your pH probe.

- Always use fresh buffer solution each time you calibrate. Once a solution has been used to calibrate it should be considered contaminated
- Always check for physical damage to the probe before calibration
- Clean your pH electrode regularly. Soaking your probe in a 1:1 bleach/water solution for about 30 minutes once a month will improve the responsiveness of your electrode
- Rinsing your electrode with distilled water between samples and calibrations is a good idea, but never store the electrode in distilled water as it can "suck" the ions out of the electrode by osmosis
- Distilled water is not the same as pH7 buffer solution and it should not be used for calibration. Although pure water should technically be neutral (pH7), dissolved gases and minerals from the environment can cause this to change to anything from around 6.5 up to 8.5.

If you need any assistance with pH meter calibration or if you wish to know further details about calibration please feel free to contact one of our friendly Scientists via [email](#) or phone on 1300 737 871.

## Recommended Products

---

### pH4-500 - pH4,01 Buffer Solution, 500ml

---



500mL bottle of pH4 buffer solution

### pH7-500 - pH7,00 Buffer Solution, 500ml

---



500mL bottle of pH7 buffer solution

### pH-Starter - 4 Pack of pH Buffer solution (pH 4, pH 7, pH 10) and electrode storage solution, 250ml each

---



A cost effective way to get all 3 buffer solutions and some electrode storage solution.