

pH Meter Calibration/Use Instructions

1. Carefully remove electrode from storage solution (3.8 M KCl)
 - rinse with deionized water and very carefully pat dry with a Kimwipe
 - slide black rubber sleeve up or down to expose fillhole
2. Calibrate to pH 7.00
 - clear previous calibration by pressing **setup** then press **enter**
 - immerse electrode in *fresh* pH 7.00 buffer, stir
 - do not allow stir bar to hit electrode!
 - let pH reading stabilize **S**
 - press **standardize**
 - meter will recognize as pH 7 buffer, and displays calibration slope of 100.0%
3. Calibrate to 2nd buffer
 - remove electrode from pH 7.00 buffer, rinse, dry
 - immerse electrode in *fresh* 2nd buffer (typically pH 4.00 or pH 10.00), stir
 - let pH reading stabilize **S**
 - press **standardize**
 - meter will recognize 2nd buffer and display new calibration slope
 - 95% – 100% is ideal
 - 90% – 105% is acceptable to the meter
 - < 90% or >105% results in meter error, see below
4. Remove electrode from 2nd buffer, rinse, dry, measure sample(s)
5. When finished:
 - rinse and dry electrode
 - slide rubber sleeve to cover fillhole
 - return electrode to storage solution
 - turn off stir plate and clean up any mess

Notes

- A. Calibration should be performed prior to every use.
- B. Treat the electrode with extreme care! It is very fragile and expensive!
- C. Rinse and dry electrode between each different solution immersion.
- D. The most common reason for calibration errors is the use of expired buffers.
 - Buffers are cheap and not a sensible means to cut costs.
 - How can you trust your results if you are using expired buffer?
- E. If you break the electrode, report it immediately! Do not try and hide it!