

Approved by Director: Dr. Guy Vallaro

Electrode preparation

1. Remove Wetting Cap from electrode.
2. Clean any salt deposits from the electrode by rinsing with dH₂O.
3. Verify the Electrode Filling Solution is at least 2" high. If not, remove plug on fill hole and fill.
4. **Leave the fill hole open during use and closed during storage.**

Rinse (with dH₂O) and blot-dry electrodes between each measurement (**DO NOT WIPE**).

Standardizing for pH measurement

- Standardize before each use.
 - Standardize meter and electrode using at least 2 buffers with pH values bracketing the expected pH of your samples.
 - Stir with magnetic stir bar and stirrer for faster response.
 - To escape from standardizing mode, press "Standardize" key again.
1. Clear existing buffers when doing a new standardization. Use the **setup** and **enter** buttons to clear the existing buffers.
 2. Press and release the **mode** button until your digital display indicates pH mode.
 3. Immerse electrode in a buffer solution. Stir gently. Allow the electrode to reach a stable value.
 4. Press **standardize**. The meter flashes the current buffer set and recognizes the flashing buffer. When the signal is stable, or when you press **enter**, the buffer is entered.
 5. The meter displays the percent slope of the electrode as 100.0% on the first buffer.
 6. To enter a second buffer, place the electrode in the second buffer solution, stir, allow time for the electrode to stabilize, and press **standardize** again. The meter recognizes the buffer.
 7. Next, the meter performs a diagnostic test of the electrode. The display indicates electrode condition. The meter displays the % slope of the electrode.
 8. **Slope Error** indicates that your electrode is not working properly. The electrode response must be between 90 and 105% slope. Measurements causing slope error are not accepted, used or stored by the meter. Press **enter** to continue if error occurs.
 9. To enter a third standard, place the electrode in the third buffer solution, stir, allow to stabilize, and press **standardize**. The results will be the same as in steps 7 and 8.
 10. After entering each buffer, the *Standardizing* icon goes off and the *Measuring* or *Stable* icon appears on the display to indicate that the meter returns to *Measuring* operation.
 11. You can now measure the pH of your solution.

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Electrode storage

Store electrode in its Wetting Cap containing 3M KCl. Use QR-267 for recording formulation of 3M KCL.

DO NOT STORE IN WATER OR BUFFER!!!!

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