



bettergrowHYDRO

How do I calibrate my pH meter?

All hydroponic growers need to test the pH of their nutrient solution for successful growing. The pH of a solution can be tested using a standard pH test kit (sample vial with drops of indicator solution), litmus test strips, or a digital pH meter. Litmus paper and standard test kits are cheap and easy to use; however, the degree of accuracy isn't very high. Digital pH meters, although more expensive than the alternatives, are easy to use and very accurate. All pH meters need to be calibrated on a regular basis; as time passes by and with frequent use your pH meter it will lose calibration. You will also find that as the batteries get older your meter will lose calibration. Keeping your meter calibrated will help keep your plants in good health and at optimal growth.

Your method of calibration will depend on what type of meter you own. pH meters require that you calibrate the meter with two pH solutions, pH 7 (neutral) and pH 4 (acidic). If you use your pH meter every day it is advisable to calibrate your meter once a week. To calibrate your meter you will need three clean glass/plastic containers that can hold sufficient solution to immerse the pH probe. One container will hold water for rinsing the probe, another container for the pH 7 solution and the last container for the pH 4 solution. Before you calibrate your meter do a visual inspection of the meter. Check for cracks on the meter, algae or salt deposits on the probe or any matter that shouldn't be on the probe. If there is algae or salt deposits on the probe clean it with a moist cotton swab. Once this has been done you are ready to calibrate your pH meter.

Hanna Checker 1 (HI98103)

1. Rinse probe in water and briefly shake off excess.
2. Switch the meter on.
3. Place probe into pH 7 solution and allow the pH reading to settle.
4. Adjust pH 7 screw on the top side of the meter until the meter reads 7.
5. Rinse probe again in water and shake.
6. Place probe into pH 4 solution and allow the pH reading to settle.
7. Adjust the pH 4/10 screw on the top side of the meter until the meter reads 4.
8. Your pH meter is now calibrated.

Hanna pHep 4 & pHep 5 (HI98127 & HI98128)

1. Rinse probe in water and briefly shake off excess.
2. Press the MODE button to turn meter on.
3. Place probe into pH 7 solution and allow the pH reading to settle.
4. Press the MODE button again to "turn the meter off" BUT keep holding the button down until the screen goes from "OFF" to "CAL". Immediately release the MODE button.
5. "7" will appear on the screen and "cal" will flash on the bottom left corner. (The meter is now calibrating pH 7).

6. Once the meter has finished calibrating for pH 7 the screen will change from “7” to “4”. At this point take the meter out of the pH 7 solution and rinse the probe quickly in the water, briefly shake off excess, and then place it directly into the pH 4 solution. Swirl the probe in the solution for a few seconds.
7. The screen will read “4” and “cal” will flash at the bottom left corner of the screen. (The meter is now calibrating pH 4).
8. Once the calibration sequence has been completed the screen will flash “OK” and go directly into reading in the pH mode.

Hanna Combo Meter (HI98129)

1. Rinse probe in water and briefly shake off excess.
2. Press the MODE button to turn the meter on.
3. If the meter is reading in EC or pH press the SET/HOLD button until the meter is reading in pH mode.
4. Place probe into pH 7 solution and allow the pH reading to settle.
5. Press the MODE button again to “turn the meter off” BUT keep holding the button down until the screen goes from “OFF” to “CAL”. Immediately release the MODE button.
6. “7” will appear on the screen and “cal” will flash on the bottom left corner. (The meter is now calibrating pH 7).
7. Once the meter has finished calibrating for pH 7 the screen will change from “7” to “4”. At this point take the meter out of the pH 7 solution and rinse the probe quickly in the water, briefly shake off excess, and then place it directly into the pH 4 solution. Swirl the probe in the solution for a few seconds.
8. The screen will read “4” and “cal” will flash at the bottom left corner of the screen. (The meter is now calibrating pH 4).
9. Once the calibration sequence has been completed the screen will flash “OK” and go directly into reading in the pH mode.

If by mistake you hold the MODE button down to long while trying to calibrate and it goes into TEMP just press the MODE button until you get back to the reading mode. If you press the SET/HOLD button while the meter is in the TEMP or CONV modes you could alter the settings of your meter.

Hanna pH Grochek (HI981408)

1. Rinse pH and grounding probes in water and briefly shake off excess.
2. Place pH and grounding probes into pH 7 solution and allow the pH reading to settle.
3. Adjust the pH 7 screw on the face of the meter until the meter reads “7”.
4. Rinse the pH and grounding probes in water and shake.
5. Place pH and grounding probe into pH 4 solution and allow the pH reading to settle.
6. Adjust the pH 4 screw on the face of the meter until the meter reads “4”.
7. The pH calibration is now complete.

Hanna Grochek Portable Meter (HI9813)

1. Rinse probe in water and briefly shake off excess.
2. Switch the meter on.
3. Place probe into pH 7 solution and allow the pH reading to settle.

4. Adjust the pH dial on the face of the meter until the meter reads “7”.
5. Once this has been done the calibration is complete.

Oakton pH Waterproof Tester 1 & 2

1. Rinse probe in water and briefly shake off excess.
2. Switch the meter on.
3. Place probe into pH 7 solution and allow the pH reading to settle.
4. Press the CAL button. “CA” will flash briefly and then the pH reading will flash.
5. Press the HOLD/CON button. This will calibrate the meter to pH 7.
6. Rinse probe in water and shake.
7. Place probe into pH 4 solution and allow the pH reading to settle.
8. Press the CAL button. “CA” will flash briefly and then the pH reading will flash.
9. Press the HOLD/CON button. This will calibrate the meter to pH 4.
10. The meter is now calibrated.

Always remember to keep the pH probe moist when not in use. It is best to use storage solution, otherwise use pH 4 solution. Only place storage solution in the well of the cap if you are using the Hanna Combo Meter (HI98129). It's not good to store the EC/TDS/CF/PPM probe in a storage solution; keep it dry. Never reuse your calibration solutions. Never pour your used calibration solutions back into the calibration solution bottles; this will contaminate the unused solution.

Your pH meter must be recalibrated every time you change the batteries. If the pH meter is a waterproof meter and you change the batteries be careful not to damage and of the O-rings or gaskets as this will allow water enter the meter causing damage. If the O-rings are damaged or lost and water/fluids get into the meter the warranty will become void.