Specifications

	pH	Temp
Range	0 - 14	0 - 55 °C 32-130°F
Accuracy	± 0.2 pH	± 2 %
Scales	pH	°C, °F
Resolution	0.1 pH	0.1°C 0.1 °F

Features

Operating Environment	0 - 50 °C (32 - 122 °F)
Calibration	Digital calibration by push button
Probe	Glass sensor and reference tube electrodes
Power Source	3 x 1.5V button cell batteries (included) (LR44 or equivalent)
ATC	Automatic Temperature Compensation
Other Features	Auto shut-off / Low battery indicator

PH-80

pH/Temp Hydrotester

User's Guide

Before You Start!

Your PH-80's sensor must be wetted in the electrode storage solution for at least 15 minutes prior to use. The solution is inside the small mylar packet (included). Simply pour this solution into the cap, so that the sponge is moist. Excess solution can be poured out. Insert the meter into the cap and stand upright for 15 minutes.

The large Mylar packet contains a 7.0 pH buffer solution to be used for calibration. Mix the contents of the packet with 100 ml of distilled water. When stored in a sealed container, the solution will last approx. 2-4 weeks. Additional pH buffers (PH-BUF) and storage solution (PH-STOR) is available for purchase from your retailer.

Taking pH Measurements

Remove the cap. (Do not use the cap for testing.)

Click the POWER button. The screen will display 'PH' for a moment. Once 'PH' changes to a number, your meter Is ready for measurements.

Dip the meter's sensor into the water, liquid or solution to be tested.

Lightly swirl the meter to ensure the removal of air bubbles or electric charges.

The meter will display a reading almost instantly. Keep the meter in the water until the reading stabilizes (up to 30 seconds, depending on the situation).

To view the reading out of the liquid, dick the HOLD button. This will freeze the reading on the screen. Clicking HOLD again will release it.

Click the POWER button to tum the meter off.

Shake any excess water off the meter and rinse with low TDS water (such as distilled, RO or DI), or use compressed air to clean it. Put the cap back on.

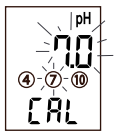
NOTE - The PH-80 is extremely sensitive in low conductivity water (below 10 µS). If you use the meter in such water; it is better to test in flowing water; or swirl the meter continuously while obtaining the reading. The reading will stabilize in 10-15 seconds

Temperature And Switching Temperature Modes

The temperature reading is always displayed on the LCD panel (except in calibration mode), and Is shown simultaneously with pH readings.

The default mode for temperature is Celsius. To change the temp mode, quickly click the TEMP/CAL button to switch from Celsius to Fahrenheit or vice-versa.

pH Calibration



Proper calibration of your PH-80 is essential for accuracy and performance. Your meter was factory calibrated to pH 7.0 as a convenience for your first few uses. Calibrate your meter to a level that is dose to what you will be testing, or in the center of a range. Your PH-80 should be calibrated at least once per month. The PH-80 features auto-calibration to pH 4.0, 7.0 or 10.0

Turn the meter on and insert into a pH buffer solution of 4, 7 or 10. If your meter shows the correct reading, stop here. If not, press and hold the CAL button for 10 seconds. The display will flash and the temperature reading will change to a flashing 'CAL' image.

Select your desired calibration level (4, 7 or 1 O) by clicking the UP or DOWN buttons (Indicated by the arrows). The measurement will change and a small Icon will indicate the value. When the number matches the solution, click ENTER.

'CAL' will flash as 'C --CA - CAL' indicating progress. Allow 5-60 seconds, do not press any buttons, and if possible, do not move the meter.

When the meter is calibrated, 'End' will flash and the measurement will reappear.

Changing the Batteries

When the meter displays a flashing battery symbol, your batteries are getting weak and should be replaced soon. To change the batteries:

Pull out the orange battery compartment using your thumb nail.

Remove the three batteries.

Insert new batteries in the direction as depicted inside the compartment. The flat side of the battery is the positive(+) side. The meter uses LR44 batteries.

Close the battery compartment. Make sure it is tightly closed.

Error Messages and Troubleshooting

The sensor is damaged or old	⚠	You need a new meter
The water's TDS level is below 5 ppm	⚠	It will work in higher TDS water
The pH level is below 0 or above 14	---	The PH-80's range is 0.0 to 14.0
There is internal damage	*Err*	You need a new meter
The meter cannot calibrate	--- *Err*	Check the solution / reset to default
The temperature is out of range	*Err*	The liquid must be within range

Care, Maintenance & Tips

Regular calibration and proper sensor care is essential for good performance.

Always store the meter with the cap on tight (with the sponge moist). Never touch the glass electrodes, and never let nutrient solutions dry on the sensor .

It is normal for salt deposits from the storage solution to form on the outside or rim of the cap. Simply wipe off with a tissue or rubbing alcohol.

Clean after each use by rinsing in low TDS water or a pH 7.0 solution. Only add an electrode storage solution to the cap sponge. (Never store in anything else.)

FOR ADVANCED USERS ONLY: If the meter is used In widely varylng pH levels or often calibrated to different points, performance may be affected and you may need to reset to the factory defaults. To reset, with the meter on and in the air, press and bold the HOLD button for ten seconds. 'End' will briefly appear. Recalibrate to pH 7.0.

Warranty

Your PH-80 is covered by a one-year factory warranty against manufacturing defects. If you find that the meter has a manufacturing defect, and you have already attempted to troubleshoot (including calibration), please contact 800.383.2777(within the United States) or email Warranty@HMDigital.com to receive further instructions. Before sending the product back to us, please include the following below,

- Your name
- Phone number/ Address
- Description of Problem
- Proof of purchase, must include Date