Trace2o

Hydrolite-pH

HL101-pH User Manual

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Conditioning Before First Use

The pH sensor must be hydrated to perform properly. If the pH electrode has been stored dry, soak as long as needed to re-hydrate the sensor. Electrode storage solution works best, followed by pH buffer solution, followed by tap water. 10 minutes is usually adequate but it may take much longer if the bulb is extremely dry. The transparent cap can be used for soaking and storage. Keep upright for best results. Never store the sensor for extended periods of time in deionised water.

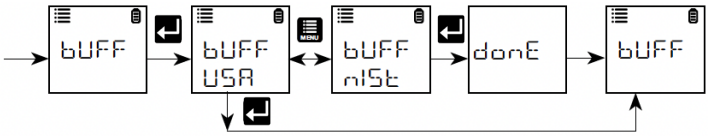
Measurement

1. Remove the cap and press the ⏻ to turn on the tester.
2. Dip sensor in at least 20mm of test solution or up to the MAX fill line of the cap.
3. Stir gently while the reading stabilises and wait for the ⏱ icon to stop blinking.
4. The ☑ will appear on the display indicating that the reading is stable and measurement is complete.

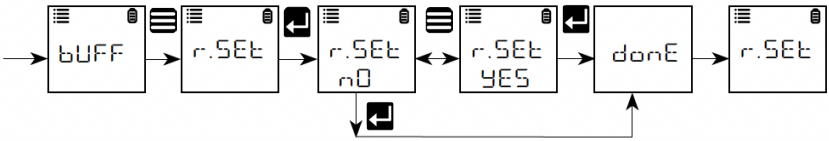
Note: The tester automatically shuts off after 8.5 minutes of non-use to conserve batteries if you forget to turn it off.

Menu (To Change Settings)

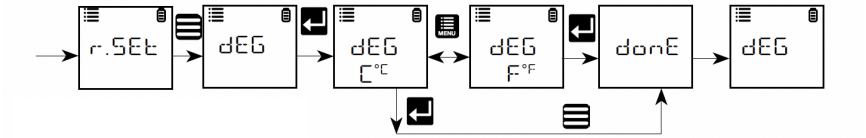
Press ☰ to begin, and to leave the menu at anytime. Press ⌗ to return to the measurement mode.
To choose USA (4.0, 7.0, 10.0) or NIST (4.0, 6.9, 9.2) buffer values for automatic calibration:



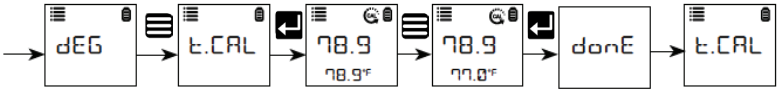
To reset the calibration to factory default condition:



To change Celsius / Fahrenheit temperature unit:



To adjust the temperature reading:



Calibration

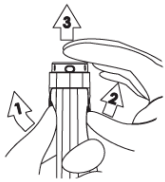
For best results, periodic calibration with accurate buffers is recommended prior to measurement. Use up to 3 standards and bracket your intended measuring range in any order. The tester will return to measurement after each calibration point and retain the calibration when the instrument is powered off.

1. Remove the cap and press the ⏻ to turn on the tester.
2. Dip the sensor in at least 20mm of pH buffer.
3. Stir gently and press ⌗ to begin the pH calibration.
4. The display will show CAL followed by the default pH value. ↻ is indicated on the display during calibration mode.
5. The ⏱ icon will stop blinking when the pH reading is stable.
6. The ☑ icon is displayed when the automatic buffer value has been detected
7. After 3 seconds, the tester will automatically calibrate the value. Alternatively, pressing ↵ will also accept the value manually. Tester will show donE to confirm the calibration.
8. 8. To calibrate additional point(s), repeat with additional pH buffers.
9. 9. To abort pH calibration, press ⌗ to escape.

Useful Notes

1. To avoid cross contamination, rinse with clean water between samples and calibration standards.
2. For long-term storage, fill the cap with 20 mm of storage solution (NOT de-ionised water). This will keep the sensor conditioned and ready for next use.
3. Not recommended for prolonged use with solutions containing heavy metals, proteins, tris buffer, or sulfides which will clog the junction leading to slow response and eventual failure.

Changing Batteries (4) A76 or LR44 button cell type



1. Holding the tester with one hand, slide in the thumb to clear the front catch.
2. While still holding the tester, slide in the other thumb to clear the back catch.
3. With both catches are cleared, vertically slide the battery cover off the tester.
4. Change the batteries noting the polarity (flat positive side to the left). Replace the battery cover onto the tester with the shorter tab above the display locking the front and back to ensure a watertight seal.

Maintenance

1. Rinse sensor with clean water after each use.
2. Clean the sensor with a soft brush and mild dish soap to remove dirt and grease.

Error Messages

1. –Batteries are weak and need replacement soon.
2. bAt Lo (low battery) – The battery power is too low to power on the instrument and requires immediate replacement.
3. StBL Err (stabilising error) – Appears when calibration is attempted but the reading is not yet stable. Wait for the reading to stabilise or manually confirm the calibration by pressing enter.
4. bUFF Err (buffer error) – The buffer is outside of the calibration range.
5. SLPE Err (slope error) – The 2nd or 3rd calibration point is not within 80% to 120% slope range.
6. Or (over range) – The reading is above the measuring range of tester.
7. Ur (under range) – The reading is below the measuring range of tester.

Testers and Accessories Order Information

Part Number	Product Description
Pocket Tester	
HL101MO	pH pocket tester with batteries
Storage and Cleaning Solutions	
HLPH0401	pH 4.01 Buffer solution, 60ml
HLPH0700	pH 7.01 Buffer solution, 60ml

Warranty

This instrument is supplied with a warranty against manufacturing defects for a period of one year from the date of purchase.

Hydrolite-pH

Specifications	
pH	
Range	0.00 to 14.00 pH
Resolution	0.1 pH
Relative Accuracy	±0.1 pH
No. Of Cal Points	Up to 3 points: calibration standard sold separately
Sensor Type	Non-replaceable single junction sensor
Temperature	
Range	0 to 50.0 °C /32.0 to 122.0°F
Resolution	0.1°C / 0.1°F
Relative Accuracy	±0.5°C /±0.9°F +1 LSD
Automatic Temperature Compensation	Yes
General	
Power	Includes (4) batteries (A76 or LR44 equivalent)
Auto-Off	8.5 mins after last key press
Operating Temp	5 to 45 °C
Ingress Protection	IP67 rating: waterproof
Dimensions (lxWxH)	17 x 4.5 x 3 cm

Applications
Hydroponic - Agriculture - Aquaculture & Aquariums - Pools & Spas - Education - Cooling Towers - Water Treatment - Environmental Monitoring - Food & Beverage - Manufacturing - Printing and more!

1 Year Warranty - Made in Singapore
Please refer to inside for operating instructions.

Leak proof, transparent cap with a stable base

Lanyard provision

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