

EXTECH INSTRUMENTS

pH Waterproof Meter

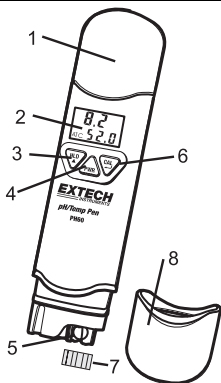
Models PH50 & PH60

User Guide

Description

Front Panel Controls

1. Battery compartment cap
2. LCD Display (pH & Temperature for PH60, pH only for PH50)
3. HOLD / ▲ button
4. PWR (On/Off) button
5. Electrode
6. CAL button
7. Electrode cap with sponge
8. Protective cap



Overview

pH Overview

pH is a unit of measure (ranging from 0 to 14pH) indicating the degree of acidity or alkalinity of a solution. pH tests are the most commonly performed measurements in water analysis and reports the hydrogen ion activity of a solution which is an indicator of acidity or alkalinity. Solutions with a pH less than 7 are considered acidic, solutions with a pH higher than 7 are known as bases, and solutions with a pH of near 7 are neutral.

Getting Started

- Before first use or after extended storage, soak the electrode (with its cap removed) in a pH 4 solution for at least 30 minutes.
- White KCL crystals may be present in the cap. These crystals will dissolve in the soak or they can be simply rinsed with tap water.
- Always calibrate close to the expected measurement value.
- A sponge is located in the electrode protective cap. Keep this sponge soaked with a pH 4 solution to preserve Electrode life during storage.
- Unless directed otherwise, a daily two point calibration is recommended to maintain accuracy and to verify the condition of the meter and electrode.

Specifications

Model	PH50	PH60
Display	Single LCD	Dual LCD
PH Range and Accuracy	2.0 to 12.0	0.0 to 14.0
PH resolution/accuracy	0.1pH / ± 0.3pH	0.1pH / ± 0.2pH
Temperature Range	—	32 to 122°F (0 to 50°C)
Temperature resolution/accuracy	—	0.5° / ± 1.8°F / 1°C
Automatic Temperature Compensation	—	Yes
Waterproof	Meets IP67	
Power	Four (4) LR44 button batteries	
Auto power off	After 20 minutes of inactivity	
Dimensions	6x1.5x0.9" (152x37x24mm); 2.3oz (65g)	

Operation

pH Measurements

1. Remove the protective cap and the electrode cap
2. Insert the electrode into the sample.
3. Press the PWR key to turn the meter on and slowly stir until the reading settles. The decimal point will blink while the meter is measuring.

pH Calibration (1, 2, or 3 points)

A two point calibration with a buffer of 7 plus 4 or 10 (whichever is nearest to the expected sample value) is always recommended. A one point calibration (choose the value closest to the expected sample value) is also valid. For best accuracy, always calibrate at the sample temperature.

1. Place the electrode into a buffer solution (4, 7, or 10) and momentarily press the CAL key. Note: pH 7 should be calibrated first, then 4 and/or 10 pH.
2. If meter successfully recognizes the solution "CAL" and the pH value will appear on the display in two seconds. Note: If the solution is more than 1pH off from the 4, 7, or 10pH standard, the meter will assume an error and abort the calibration. "EN" will be displayed for one second and then the meter will return to normal operation.
3. If the calibration buffer is another value other than 4, 7, or 10, such as 4.1, press the HLD/▲ button to adjust the value to the correct reading. The adjustable range for 4pH is from 3.5 to 4.5. for 7pH is from 6.5 to 7.5. For 10pH is from 9.5 to 10.5.
4. When calibration is complete, the meter automatically saves the value, displays "SA" and returns to normal operation mode after displaying "EN".
5. For a two or three point calibration, repeat steps 1-4.
6. Note: Always turn the meter off and then on before calibrating to allow sufficient time to complete the calibrations during one power cycle.

Changing the Displayed Temperature Units (Model PH60 only)

With the meter OFF, press and hold the PWR and CAL buttons until °F or °C appears in the display. Press the HLD/▲ button to toggle between them. Select the preferred unit and then press CAL to save. "SA" will appear in the display for one second and then return to normal operation.

Data Hold

Momentarily press the HLD/▲ button to freeze the current reading. The HOLD display icon will appear along with the held reading. Momentarily press the HLD/▲ key to return to normal operation.

Auto Power Off Disable

The meter will shut off after 20 minutes to save battery life if no buttons are pressed. To disable this feature, with the meter off, press and hold the PWR and HLD/▲ buttons simultaneously until an "n" appears for 1 second on the display. Release the buttons. Note: Turning the meter off will reactivate the Auto Power Off feature.

Battery Replacement

1. Remove the two screws from the battery compartment cap
2. Replace the four (4) LR44 batteries observing polarity.
3. Replace the battery compartment cap and secure with the screws



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