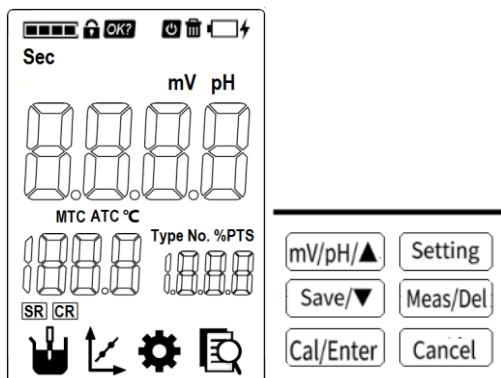


PHB-21 Portable pH Meter Operation Manual

1. Specification

Parameters: pH, mV, Temperature
pH level: 0.01pH
pH range: (-2.00 ~ 18.00)pH
mV range: (-1999 ~ 1999)mV

2. Screen Icons



Symbol	Explanation	Symbol	Explanation
	Reading state	mV	mV
	Reading is locked	pH	pH
	Confirm the option	Sec	Sec
	Automatic shutdown	°C	°C
	Delete the result	%PTS	Percentage slope value
	Auto-read		continuous-read

Symbol	Explanation	Symbol	Explanation
MTC	Manual temperature compensation	ATC	Auto Temperature compensation
	Measurement	No.	No.
	Calibration		Power low
	Setting		Charging
	View		

3. Maintenance& Precaution

3.1. The meter

- Before turning on the instrument each time, please check the electrode socket at the back of the instrument, it must be ensured that they are connected with measuring electrodes or Q9 short-circuit plug, otherwise it may damage high-resistance device of the instrument.
- Please place the Q9 short-circuit plug in a dry and clean environment to prevent short-circuit plug head being corroded and affects the short-circuit effect.
- The electrode socket of the meter must be kept clean and dry, and should not be in contact with acid, alkali or salt solution.
- If the meter is not used for a long time, please disconnect the power supply.

3.2. pH electrode

- After the measurement, the electrode protection cap should be put on in time, and the protection cap should be some external reference supplement solution to keep the electrode bulb moist, do not keep the electrode soaked in distilled water for a long time.
- The Q9 short-circuit plug of the electrode should be kept clean and dry to prevent short-circuit by corrosion, or else it would result in measurement inaccuracy or failure.

4. Preparation

- Install the instrument and electrode.
- Prepare standard buffer solutions such as pH4.01, pH7.00, pH10.01 to calibrate.
- Remove the protective cap at the lower end of the pH electrode, pull down the rubber cover at the upper end of the electrode. Expose the top hole, rinse the electrode with distilled water.
- Press the power key to turn on the instrument.

5. Calibration

- Enter "Cal/Enter" key to calibrate.
- Put the cleaned electrode into the standard solution 1(such as pH7.00

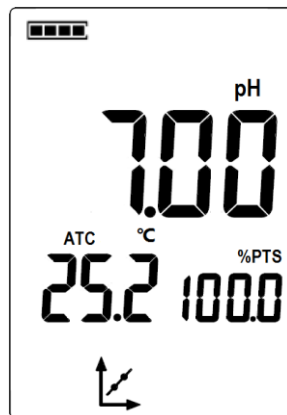
standard solution), the instrument would display pH and temperature.

- 3 . After the reading is stable, press the "Cal/Enter" key to complete the 1-point calibration, and the instrument identifies standard solution 1 and display the standard pH value at the current temperature.

Note: When calibrating, please make sure that the measuring end of the pH composite electrode and the reference electrode junction are completely immersed in the standard buffer solution.

- 4 . If multi-point calibration is required, please replace other standard buffer solutions and repeat steps 2 and 3 calibration procedure. The instrument supports up to 3-point calibration, after 3 standard solution calibrations, the instrument will automatically end the calibration and return to the measurement state.

Note: If only 1 point calibration is required (electrode slope is 100%), after completing 1 point calibration, press the "Cancel" key to leave the calibration state and enter the measurement state.



6. Measurement

- 1 . Set the reading mode in the meter.

- 1) In the idle status, press "Setting" to access the main setting menu.
- 2) Press the "pH/mV/▲" or "Save/▼" to highlight "1" **SR** **CR** and press "Enter" key.
- 3) Press the "pH/mV/▲" or "Save/▼" to highlight **SR** or **CR** to set the desired the reading mode.
- 4) Press "Enter" key to save the setting and return to the idle status.

- 2 . Put the measurement end of the electrode into the sample solution.
- 3 . Press "Meas/Del" key to enter into measurement status.
- 4 . When the reading is stable, read the results.

- 5 . Press the "Save/▼" to save the measurement results.

- 6 . In the measurement status, press the "Save/▼" more than 3 seconds to access the data management.

- 7 . In the measurement status, press the "pH/mV/▲" key to switch between pH and mV results displayed.

Note: For accurate measurement, please calibrate and measure at the same temperature.

