



MEFE
MITCHELL ENGINEERING
FOOD EQUIPMENT PTY LTD

Operation Manual



Digital pH and Temperature Meter

CAT 65PH

Revision 2

Specifications

Range:

PH: 0.00 ~ 14.00PH

Temperature: 0°C ~ 50° (32 to 122 ° F)

Resolution:

PH: 0.01PH

Temperature: 0.1°C

Accuracy:

PH: ± 0.01PH

Temperature: ± 0.1°C

Automatic Temperature Compensation: 0°C ~ 50°C

Battery Type: 3 x 1.5V (AG13) included

Environment: 0°C ~ 50°C; RH ≤95%

Calibration: Two points with auto buffer recognition(4.00 and 6.86. Buffer solution 9.18 for reading only)

Operation

Connect the PH Electrode onto the PH Meter and remove the protective cap on the end of the PH Electrode.

First, rinse the electrode with distilled water, and dry it with filter-paper.

Turn the meter on by pressing the power button.

Immerse the PH Electrode in the solution to be tested.

Stir gently and wait for the reading to stabilise. **Do not tap it against the glass.**

Press the "HOLD" button, the Meter stops reading and displays the PH level and the temperature. Press the "HOLD" button again and the PH level and temperature will resume reading.

After every use, rinse the PH Electrode with water to minimise contamination. Turn the meter off by pressing the power button.

Always replace the protective cap after use.

NEVER LEAVE ELECTRODE TO DRY. Store with a small amount pH 4.00 buffer solution.

Battery Install

If the meter does not turn on or the display fades, replace the batteries. Unscrew the cap on the top of the Meter and replace the batteries, then screw the cap back on. Pay attention to the polarity of battery.

Switching Temperature Modes

The default temperature reading for the meter is in Celsius. To change the temperature mode, quickly press the “TEMP/CAL” button to switch from Celsius to Fahrenheit.

Bracketing

Bracketing (also known as two-point or multi-point calibration) consists of calibrating two pH points—one above and one below your desired pH range. For example, if you want to measure the pH of milk, which has a pH around 6, you would use the 4.00 and 6.86 buffers for a two-point calibration.

PH Calibration

Note: Please use supplied bottles and PH buffer powder to create solution first.

Pour a small quantity of pH4.00, pH6.86, and pH9.18 solution into separate clean beakers.

For particularly accurate calibration, it is advised to use two beakers for each buffer solution; the first is to be used for rinsing the Electrode, the second is to be used for the calibration. This way, the risks of contaminating the buffer solution is reduced to a minimum.

Switch on the instrument.

Immerse the Electrode in a pH6.86 buffer solution, and gently stir it until the reading stabilises.

Press and hold the “TEMP/CAL” button for about 5 seconds. The meter will automatically adjust to a reading within a range of the solution the meter is in. Once the display shows “6.86” release the “TEMP/CAL” button and rinse the electrode with distilled water.

Immerse the electrode in a pH4.00 buffer solution, and gently stir it until the reading stabilises.

Press and hold the “TEMP/CAL” button for about 5 seconds. The meter will automatically adjust to a reading within the range of the solution the meter is in. Once the display shows “4.00” release the “TEMP/CAL” button and rinse the electrode with distilled water.

Immerse the electrode in a pH9.18 buffer solution. Wait for the reading to stabilise and display exactly “9.18” -

Note: This pH meter does not calibrate to 9.18, this meter only has two calibration points, however to test your calibration, you can use the 9.18 solution to check the meter is reading high range.

The calibration of the instrument’s pH range is now complete.

Important:

The instrument’s pH range must be re-calibrated whenever:

The electrode has not been used for a long since the last calibration.

The electrode has been used in particularly taxing conditions.

The utmost accuracy is required.

When using the instrument, Do Not press and hold the “TEMP/CAL” button unless you are calibrating, as this will reset the calibration.

Frequent calibration is the best habit to keep in pH measurement because calibration keeps your readings accurate and reliable. Although we recommend calibrating every day, we understand that it is a time-consuming task and many people are busy. If High accuracy is not important in your measurements it is okay to calibrate once or twice a week.

Probe Replacement

If you find your pH Meter is giving very strange readings, ie bouncing around from a low to a high pH, or reading 0.00—

This occurs when the probe has been left to dry, the probe is a precision instrument, and must be cared for properly, if you find your readings aren't working, and calibrating isn't fixing, replacing the probe is the next step.

You can purchase a replacement probe (65PH 3) through MEFE via www.mefe.com.au.

