Portable LCD Digital PH Meter Pen of Tester Aquarium, Pool, Water, Wine, Liquid PH meter Model: PH-02 / 210797



Temperature compensation, automatic removing ATC

Batteries Included: 2 x 1.5 V (LR44 or AG13 button cell) not included Dimensions (mm): 155x29 x16 mm Weight: 52g

# 1. Instructions for PH meter calibration powder:

## PH meter calibrator notes:

PH standard sample substance. It can be used by adding distilled water. It is suitable for the calibration of any type of acidity meter. The two specifications are PH=4.00; 6.86 and the validity period is five years.

There are two specifications for the preparation of PH, PH standard solution, 4.00 and 6.86. Each package can prepare 250ml standard solution. (Be sure to add water according to the required ratio, otherwise it will affect the accuracy of the calibration and increase the error)

**Note:** (The PH pen has been calibrated before shipment, and does not need to be recalibrate after receiving the goods! In the following cases, The PH meter must be recalibrated. After calibration, it has been used or placed for a long time; the electrode is used very frequently; the measurement accuracy requirements are relatively high.

## 2. Method of calibration solution and calibrate:

Prepare all buffer solutions in separate, clean and sterilized container, preferably that can seal for later use.

Empty the contents of the buffer powder into 250ml distilled water, stir well. The powder has a shelf life of 2 years. The calibration solution can be reused under the premise of no pollution or contamination. The shelf life after mixing with water is about 6 months. Follow the steps below to use the calibration solution:

Rinse the PH meter electrode with distilled water (2-3 times) and dry excess water from the probe before inserting in the buffer solution.

1.Immerse the PH electrode in the buffer solution with a PH of 6.86 (at  $25^{\circ}$ C) and gently stir the probe in the solution. Press and hold the calibration button until the LCD display flashers the calibration value while still submersed in the solution. This could take between 3 ~ 5 seconds.

2, Rinse again the PH meter electrode with distilled water (2-3 times) and dry excess water from the probe before inserting in the 2nd buffer solution.

3.Immerse the PH electrode in the buffer solution with a PH of 4.00 (at  $25^{\circ}$ C) and gently stir the probe in the solution. Press and hold the calibration button until the LCD display flashers the calibration value while still submersed in the solution. This could take between 3 ~ 5 seconds.

4, Rinse again the PH meter electrode with distilled water (2-3 times) and dry excess water from the probe before inserting in the 3rd buffer solution if required. Now the PH probe is ready for testing.

5, The calibration procedure for 9.18 PH is not necessary but can be performed with the same procedures as mentioned above but in the 3rd buffer solution.

6. The displayed value should be within the error tolerance range compared with the PH value of the buffer solution. The two-point calibration is to use two specifications of calibration solutions. For the three-point calibration is to calibrate with three specifications of calibration fluid. First start calibration with 6.86, then 4.00, this order cannot be changed and must be followed.

## 3. Operating steps:

1. Remove the protective cover.

2. Clean the PH meter's electrode with distilled water first. And wipe the electrode dry with soft tissue paper.

3. Turn on the switch located in front "ON/OFF.

4. Insert the PH meter into the liquid to be tested until the liquid is immersed in the "immersion line". If conditions permit, the solution can be immersed slightly above the "immersion line".

5. Gently stir in the liquid and wait for about 2 ~ 5 seconds. Read the displayed value.

6. Finished use. Clean the electrode with distilled water. Turn off the display. Place the protective cover to protect the glass electrode.

## 4. Note:

Please note that the PH pen probe is made of glass, which is fragile. After using dry with absorbent paper to gently absorb the water on the probe.

## **Battery installation:**

If the display lettering is faded or contrast is light the battery should be replaced. When replacing the battery, just pull out the battery compartment to replace it. Pay attention to the polarity of the battery.

## 5. Maintenance:

Always replace the protective cap after use.

if not being used for long period, remove batteries.

If not being in uses for a long period and need to be reuse immerse the probe into distilled water for 2 ~ 3 hours in case the probes has dried out. Calibration might be required.

Never place the prob in direct sun light or in a hot aria.