

# PH-803

DIGITAL PH/ORP CONTROLLER  
OPERATION MANUAL



Applications: Aquariums, Fish hatcheries, Swimming pools, Laboratory, Water conditioning, Schools and colleges etc.

## Technical Specification

Measuring Range:

PH: 0.00 ~ 14.00PH

ORP: -1999 ~ 1999mV

Resolution:

PH: 0.01PH

ORP: 1mV

Accuracy:

PH:  $\pm 0.1\% + 0.02\text{PH}$

ORP:  $\pm 5\text{mV}$

Set Range:

PH: 3.50 ~ 10.50PH

ORP: -500 ~ 500 mV

Relay Contact:

5A/240VAC

Display:

double 4 LED display reading

Power Supply:

In Label

Environment Temperature:

0 ~ 50°C, Humidity < 95%

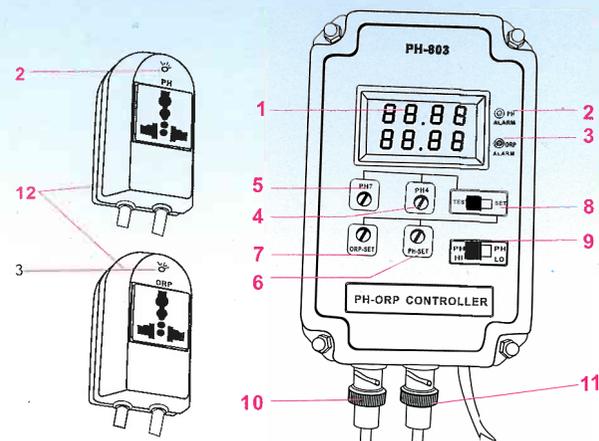
Dimensions:

160mm × 102mm × 40mm

Weight: 872g

## Front Panel Description

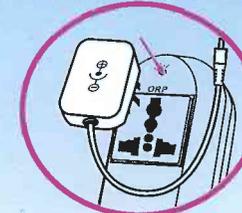
1. Display
2. PH Indicator of output in action
3. ORP Indicator of output in action
4. PH4 calibrate adjustment knob
5. pH7 calibrate adjustment knob
6. PH Set adjustment knob



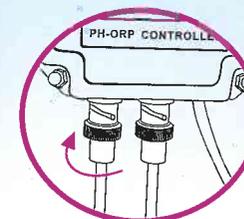
7. ORP Set adjustment knob
8. function switch
9. [HI/LO]PH action function switch
10. pH electrode input terminal
11. ORP electrode input terminal
12. Control output power socket

## Operating Information

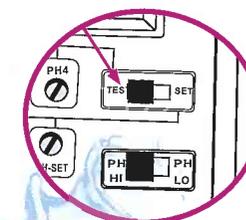
- 1) Connecting AC power supply (Make sure the correct voltage.)



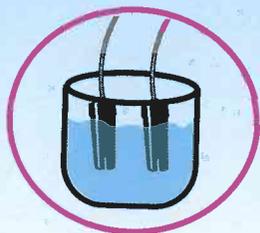
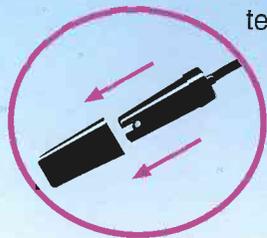
- 2) Connecting the PH and ORP electrode into the input terminal socket respectively.



- 3) Slide the [TEST/SET] switch to 'TEST' position.



4) Remove the protective cap of electrode. Put the electrode into the measured solution to be tested.



### **Instrument Setting**

- 1) Slide the [TEST/SET] switch to 'SET' position.
- 2) Adjust the 'PH-SET and ORP-SET' knob until the display reading exact your requirement.
- 3) When measuring, please slide the [TEST/SET] switch to 'TEST' position: Slide the [HI/LO] PH action function switch to 'PH-HI' position, when pH measuring value goes above the set value, which the PH control output in action. Slide the [HI/LO] PH action function switch to 'PH-LO' position, when pH measuring value below the set value, while the PH control output in action. when ORP measuring value below the set value, which the ORP control output in action.

### **PH Calibration**

- 1) Pour a small quantity of pH6.86, pH4.01 and pH9.18 solution into clean beakers.
- 2) For a particularly accurate calibration, it is advised to use two beakers for each buffer solution; one is to be used for rinsing the electrode, the other is to be used for the calibration. In this way, the risks of contaminating the buffer solution are reduced to a minimum.
- 3) Connect AC power supply, slide the [TEST/SET] switch to 'SET' position.
- 4) Immerse the electrode in a PH6.86 buffer solution. Waiting for the reading stabilized and adjust the 'PH7' knob until it displays 6.86.
- 5) Take away the PH electrode from buffer solution, and clean the electrode with clear water.
- 6) Immerse the electrode in a PH4.01 buffer solution. Waiting for the reading stabilized and adjust the 'PH4' knob until it displays 4.01.

7) Take away the PH electrode from buffer solution, and clean the electrode with clear water.

8) Immerse the electrode in a PH9.18 buffer solution. Waiting for the reading stabilized until it displays 9.18 (Permission in erroneous scope).

The calibration for the instrument is now complete.

### **Remark (Instruction For Cleaning And Maintenance)**

- 1) There is a protection 'dead band' for output it action. The control output in action when the measuring value goes above the set value 3-5 digits. The control output off when the measuring value below the set value 3-5 digits.
- 2) The control output will be automatic turned off when slide the [TEST/SET] function switch in 'SET' position while adjusting the set valve.
- 3) It must to pull out the power plug (turn off) when cleaning the controller.

4) Please wipe the housing with drying when cleaning, do not wipe with wetting.

5) It had better cleaning the electrode with soft brush during 1-2 months to make sure the reading within accuracy when measuring in a long time.

6) In door use only.

**NOTE: Please use this controller away from electronic ballast.**

