

# OPERATION MANUAL

## AQUA SENTRY 1

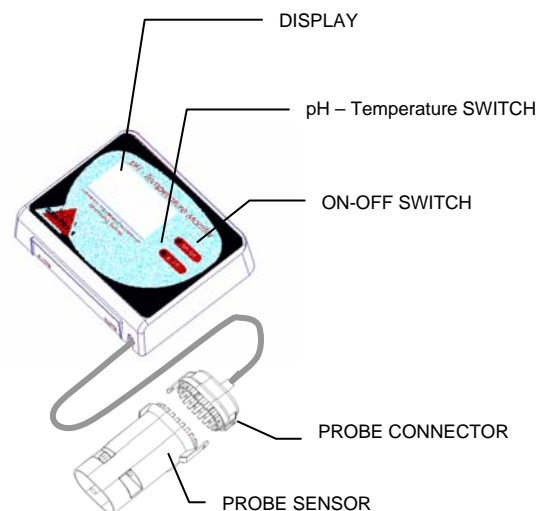
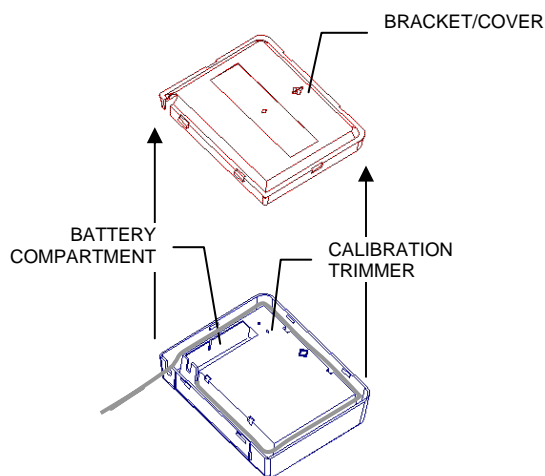
### CONTENT:

1. MAIN UNIT
2. pH-TEMP. PROBE SENSOR
3. A/C ADAPTER
4. DOUBLE SIDED TAPE
5. CALIBRATION SCREWDRIVER
6. CALIBRATION SOLUTION SACHET PH7.00
7. INSTRUCTION MANUAL

### SPECIFICATION:

MODEL:	AQUA-SENTRY 1	
	pH	Temperature
MEASURING RANGE:	pH4 to 10	10 to 80°C
RESOLUTION:	0.01pH	0.1°C
ACCURACY:	±0.2pH	±0.5°C
TEMPERATURE COMPENSATION RANGE:	10 to 80°C	
CALIBRATION:	BY OFFSET TRIMMER AT pH7.00	
SENSOR:	REMOTE COMBINE pH, TEMPERATURE PROBE	
POWER SUPPLY:	A/C – D/C 9 VOLT ADAPTER OR 9 VOLT BATTERY (OPTIONAL)	
BATTERY LIFE:	APPROX. 3 HOURS (CONTINUOUS USE)	
CASE MATERIAL:	ABS RESIN	

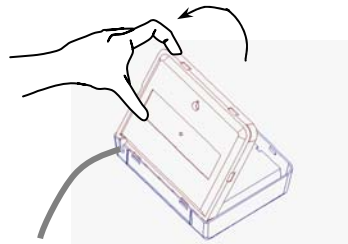
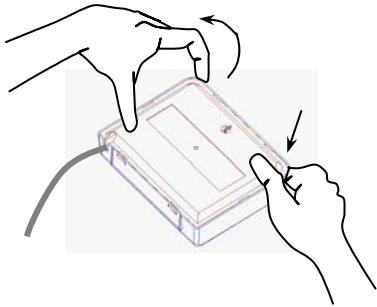
### PRODUCT ITEMS AND FUNCTIONS:



## INSTALLING THE UNIT:

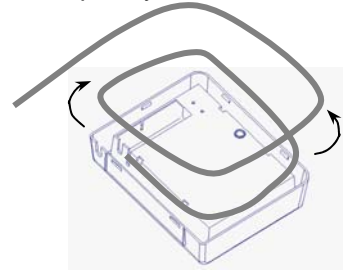
### OPERATING WITH A/C SUPPLY

**1.** To connect to the power supply, open the unit bracket/cover by pressing onto the top right corner of the unit, the left corner will rise up.

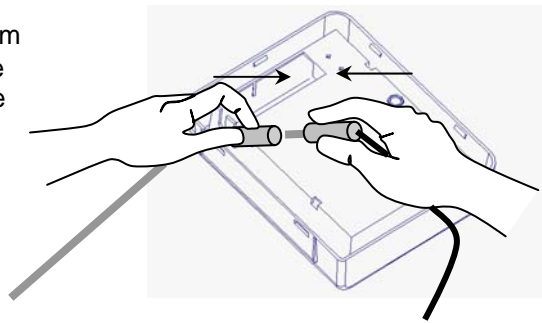


**2.** Pull the cover out completely

**3.** Unravel the wire of the probe connector completely.



**4.** You will notice a connector at the bottom of the recess. Plug the connector from the AC adapter to this connector. Connect the AC adapter unit onto the main A/C power socket and switch it on.



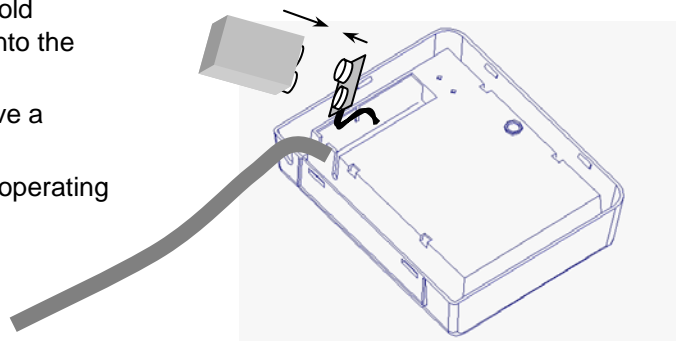
### OPERATING WITH BATTERY (OPTIONAL)

The unit can also be operated using a battery. This is useful when you want to move the unit to take measurements at different locations. For full mobility, A/C supply connector can be removed temporarily.

**1.** Plug in a 9-Volt alkaline battery (sold separately) accordingly and place it into the battery compartment.

**2.** A regular 9-volt battery should have a continuous usage of about 3 hours.

**3.** Disconnect the battery if you are operating with AC power supply.

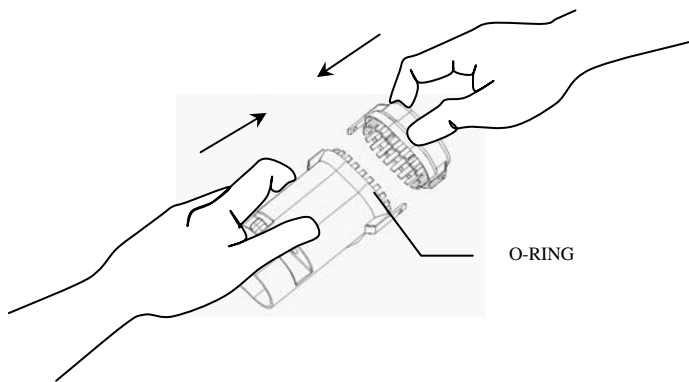


## INSTALLING THE PROBE SENSOR

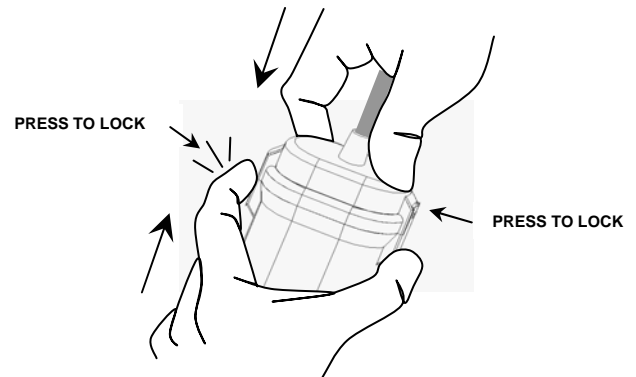
The unit is equipped with a dual sensor probe that senses pH as well as temperature reading. It can be replaced easily at the probe point. This eases the necessity to remove the whole cable while replacing a new probe.

If a longer probe length is needed, a 5 meters extension cord is available. Ask from your local dealer for more information to purchase before proceeding with the installation.

**1.** Open the Probe sensor from the packing. Check and see if the O-RING is fitted properly on the probe, this seal is to keep the probe watertight. Install the probe to the probe connector as shown.

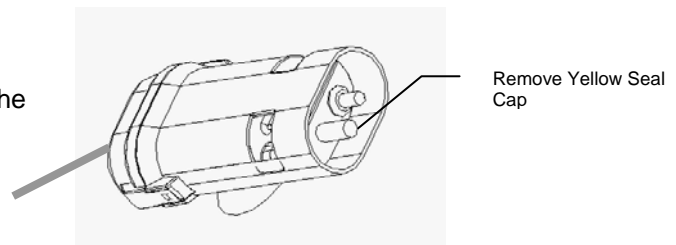


**2.** Lock the connection by pressing on the snap catch on both sides.



**3. IMPORTANT:** Snap catch must be locked on both sides to ensure a watertight installation.

**4.** At the sensor area of the probe, plug out the yellow seal cap at the sensor area.



## CHECKING THE SYSTEM

1. Press the ON-OFF button to switch on the unit. The display will light up and show some random reading or display a "1" at the left side of display. This is normal, as the sensor is not measuring anything when it is not placed into the water.

2. Press the pH-°C button to switch the display to temperature mode. The display will show the ambient room temperature. This shows that the temperature mode is functioning properly.

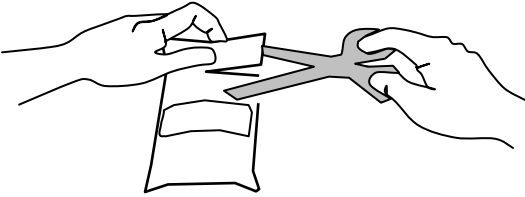
3. Before you install the probe into the aquarium, proceed to calibrate the unit.

## CALIBRATING THE UNIT

Unit must be calibrated for the first time of use.

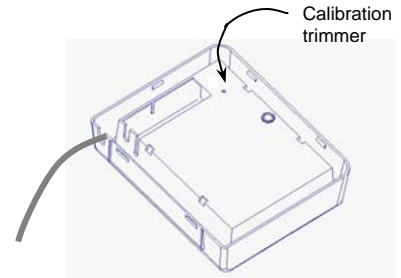
**1.** Switch on the unit.

**2.** Cut to open the sachet of calibration solution.

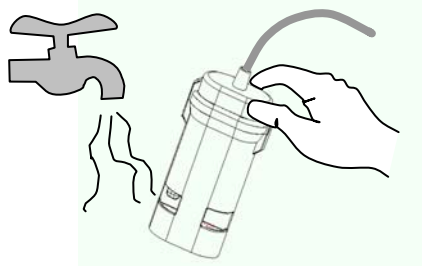


**3.** Dip the probe sensor into the sachet fully and shake the probe to remove bubbles. Place the probe into a cup or glass to prevent from toppling and spilling.

**4.** Locate the calibration trimmer hole at the back of the unit. This is where the screwdriver will be inserted for calibration.

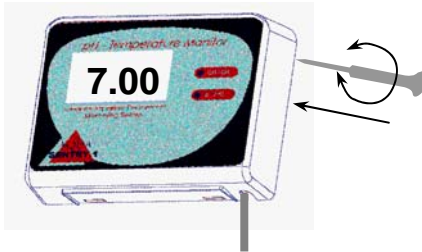
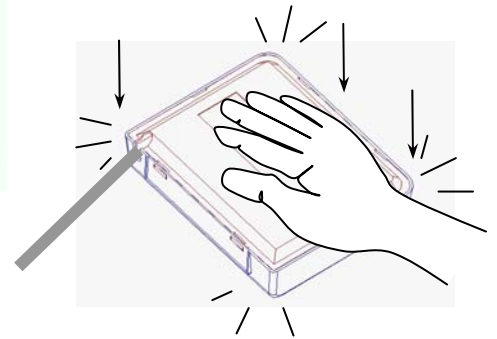


**5.** Wait a while for the display will show a stable reading. If reading does not show 7.00, insert the screwdriver into the calibration trimmer hole and adjust the reading till it read 7.00. Calibration completed.



**6.** Rinse the probe sensor thoroughly with water before setting into the aquarium.

**7.** Replace the bracket/cover by compressing the cover onto the main unit.



## TAKING MEASUREMENT

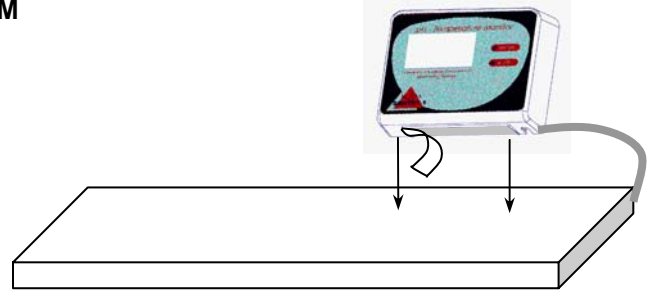
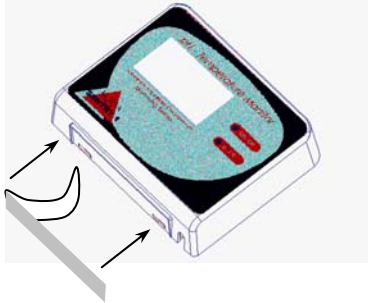
With the unit setup with the AC power supply, you can leave the unit on for 24 hours. You can switch between display of pH or temperature by pressing the pH-°C button.

Take note that different location of the Probe Sensor in the aquarium or pond will give you different measurement. This is because water is not circulated at some corners to represent the overall aquarium or pond water condition.

To avoid inaccurate measurement, position the Probe Sensor in the aquarium or pond just below the water line and near the area where water is flowing. It is preferred to place the probe sensor near the outlet or the return inlet of the circulation system. Once the Probe Sensor is set in the right position, you should leave it there permanently.

## PERMANENT MOUNTING ON TOP OF AQUARIUM

**1.** Expose the double-sided tape and paste at the bottom recess of the unit. Decide the position on top of the aquarium. The area where the unit is mounted should be clean and dry.

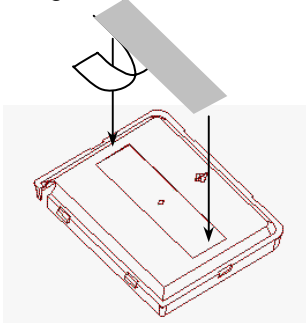


**2.** Expose the double-sided tape and paste the unit onto the desired position on top of aquarium.

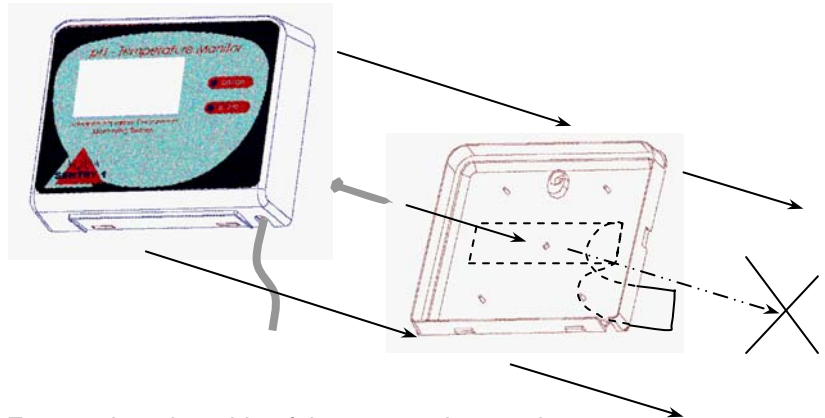
## PERMANENT MOUNTING ONTO THE WALL

Decide where you want to place the unit and use a pencil and mark the center position where the unit will be mounted. The monitor should be installed in the area where you can see while viewing the aquarium, so you can monitor the pH reading each time you get to the aquarium. It is advised not to conceal the unit inside the cabinet, as this will defeat the purpose of a monitoring device. The recommended position is best mounted above the aquarium at the back of the wall. Also take into consideration the power socket should be within the wire length of the AC adapter.

**1.** Open the bracket/cover, paste the double-sided tape on the bracket/cover within the rectangular recess.



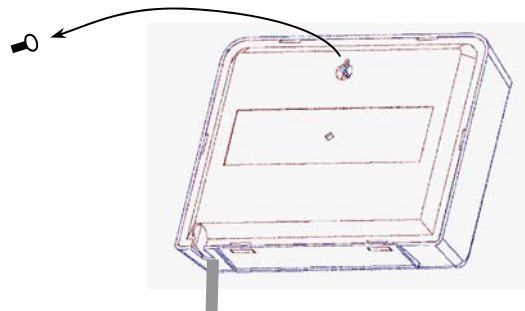
**2.** For concrete wall, drill a standard hole and knock a wall plug into the hole. Clean the area and wipe dry.



**3.** Expose the other side of the tape and press the cover onto the marked position of the wall. Drive a screw through the center hole into the wall to secure the bracket/cover. Snap the main unit onto the bracket/cover.

## TEMPORAL MOUNTING OF THE UNIT

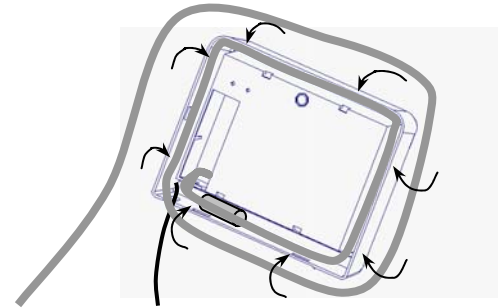
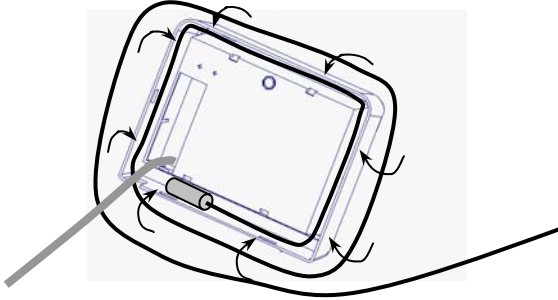
The unit has a provision for temporal mounting on walls. With a 1 inch nail on the wall, the unit can be hooked to the nail.



## TIDYING UP WIRES (no more messy wires!)

The unit has a built-in wire compartment for concealing excess wires. Hide excess wires into the side groove of the unit starting with the AC adapter wire as follows:

1. With the bracket/cover opened, set the probe connector wire outward. Then wind and insert the AC adapter wire into the side groove of the unit till the desired extension length.



2. Followed by the Probe wire with the same procedure.

3. Use wire trunk or anchors to secure wires leading to the aquarium and power point.

## MAINTENANCE

Checking and re-calibration should be performed weekly for the first month of installation. After the probe sensor gets stabilized, calibration may be done quarterly.

It is preferred to perform a monthly check to ensure optimum measuring accuracy. Additional calibration solution (order code: 7010) can be obtained from you local dealer.

If there is an accumulation of algae or mold on the probe, flush it with water and use a cotton bud to gently wipe the surface of the glass sensor. Do not use abrasive or hard object to scratch the glass sensor. The glass sensor may be damaged or loses it's sensitivity.

If readings are erratic or unit fails to be calibrated, it could be due to an expired probe sensor. The probe sensor has a life-span of about 12 months, subject to the conditions of use. If the sensor had been installed for about one year, replace the probe sensor promptly.

## LIMITED WARRANTY

Trans Instruments (S) Pte. Ltd., warrants this product for a period of 12 months from date of purchase against all defects in material and workmanship, and the probe sensor the same for a period of 6 months.

This warranty does not apply to the abuse, misuse or tempering of the product.

If repairs or adjustments are required, upon sending, the product must be properly packaged and insured against possible damage or loss in the shipment. Purchase invoice MUST be accompanied in returned product or else warranty is considered void.

Send the product via courier service or parcel postage with freight fully paid. After verification that the product is within warranties, it will be repaired and returned free of charge. The product will be returned via courier service on freight collect basis.