

AROWANA PRO OPERATION (MANUAL)

PRODUCT SPECIFICATION

OPERATING RANGE	0~14pH	0~50°C
RESOLUTION	0.1pH	0.1°C
ACCURACY	±0.2pH	±0.5°C
BATTERY	4x1.5V BUTTON CELL (ALKALINE LR44 OR EQUIV.)	
BATTERY LIFE	APPROX. 150 HOURS (CONTINUOUS USE)	
AUTO SHUT-OFF	APPROX. 15 MIN.	
OPERATING TEMPERATURE	0°~50°C	

pH & temperature are the most basic test parameters for Arowana aquarium.

A healthy Arowana requires a water condition near to its native environment to thrive.

At the right water condition, the fish will be more healthy and resistant to sickness, and therefore able to glow in full color.

Commercially available liquid pH adjusters are used to adjust pH. But care must be taken to make adjustment over a period of time, otherwise the water will contain too much chemicals. The ArowanaPro tester takes out the chore of tedious chemical drip tests.



Water resistant - floats on water - drop shock - simple to use

TRANS INSTRUMENTS



Arowana Pro (Aquaria)

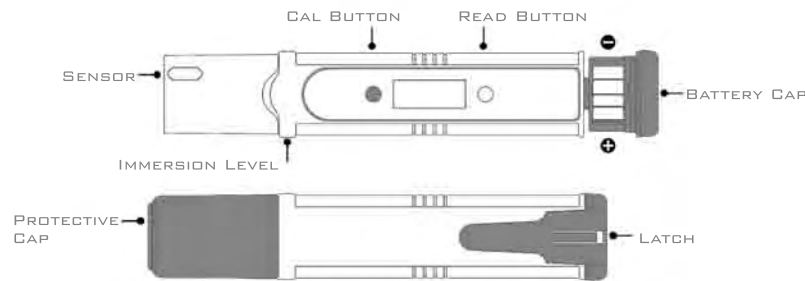
for Aquaculture . Hatchery . Monitoring of CO₂ in planted tank

pH & Temperature functionion - Auto End-point - One-Touch calibration

Water resistant - floats on water - drop shock - simple to use

ISO 9001 Certified Firm

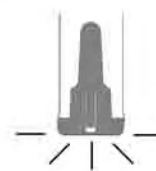
PRODUCT FEATURE



BATTERY CAP INSTALLATION

INSTALLING BATTERY CAP

This unit is shipped with the battery cap open. Close the battery cap by pressing Cap on on a hard surface until the latch **clicks**, indicating a secure lock.



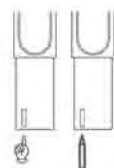
REPLACING BATTERIES

1. Lift latch with a pen or mini screwdriver. **DO NOT PULL** latch out completely.
2. Use the thumb to push Cap forward.
3. Hold the battery cap and separate it from the meter.
4. Replace all batteries according to polarity.

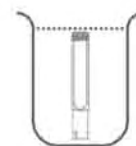


PRECAUTIONS IN HANDLING

Do not touch, rub or scratch the sensor. It is very delicate and might break or loose its sensitivity.



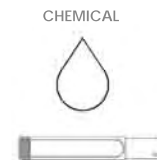
Do not submerge the unit underwater. Though the unit is water resistant, it cannot come under high pressure underwater. If it is dropped into water, retrieve it immediately and wipe dry with a cloth.



Do not store unit without the protective cap or under high temperature and direct sunlight. This will shorten the life span of the meter and cause premature expiry of the sensor.

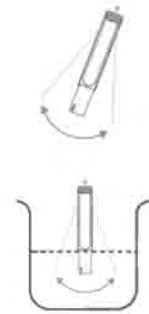


Do not clean unit with thinner or solvents. This will damage the unit. Use only mild detergent on damp cloth to clean and rinse unit if needed.



MAKING MEASUREMENT

1. Remove protective cap and press READ button once to switch on.
2. Display will appear blinking. Random readings or " - - - " displayed are normal when sensor is not in contact with liquid.
3. Rinse the sensor area with water and shake the tester in the same way you would use a mercury thermometer, every time before each measurement.
4. Dip the sensor into liquid, shake to remove bubbles. Wait for a stable endpoint reading to establish where display will stop with a beep.
5. Display will alternate between pH and temperature.
6. Press the **pH±°C** button to toggle between display during measurement. Press the READ button to make another measurement.
8. If the glass sensor is dry, a slow response will result with 2 to 3 digit off on repeated measurement. Dip the sensor area in a cup of water for 30 to 60 minutes before testing again.
9. To switch off the tester, hold-down the READ button for 3 seconds.
10. Always rinse, shake dry sensor and replace with protective cap before storing.



MAKING MEASUREMENT WITHOUT AUTO-LOCK

1. To disable auto-lock measurement, remove the unit from water, press and hold down both the READ button and CAL button until a blinking small 'A' sign on right corner of the display disappear.
2. Meter will now take continuous measurement indicated by a blinking display.
3. You can freeze the display by pressing the READ button once. Pressing a second time will release it.
4. To enable the auto-lock feature again, press and hold down both the READ button and CAL button until the 'A' sign re-appear.



If the unit is stored for a long time and the sensor become dry, a slow response will result. Dip the sensor area in a cup of water or preferably pH7 calibration solution for 30 to 60 minutes before testing again.

Never soak the sensor in water over night as this will cause premature expiry of sensor.

In the presence of certain radio transmitters, this product may produce erroneous readings. If this occurs then measurements should be repeated at another location.

CALIBRATION

NOTE: Regular calibration is necessary to maintain its accuracy. Depending on usage, perform a check once a week if it is used once daily; check or calibrate once a month if it is used once weekly. If multiple uses are required daily, then daily check or calibration before tests will ensure its accuracy.

This tester is factory calibrated. But due to prolong storage, the unit must be re-calibrated before use. Soak the sensor in tap water for 10 minutes prior to calibration..

Calibration should be performed at room temperature of about 25°C or 77°F.

At anytime, pressing the READ button a few times will cancel and exit the calibration mode.

1. Use only pH7.0 buffer solution for calibration. The attached satchel is for single use only.
Standard Buffer Solution : pH 7.00 Order Code : SP0701
2. Remove protective cap. Always rinse sensor area with water, shake tester in the same way you would use a mercury thermometer before each and every test.
3. Cut open the shorter side of the pH7 satchel and slide the sensor area till it is fully immersed. Tap or jiggle a little to remove bubbles.
4. Hold on to the satchel, then press and hold down CAL button until it displays CAL blinking. 7.0 will be displayed in a blinking mode.
5. Wait for a stabilized end-point reading when the display stops with a beep. Calibration is completed.
6. Rinse the sensor area thoroughly with water before continue testing.

AQUARIUM CONTROL

Arowana is a tropical fish and heater should be employed if local climate is below 25 ° C. Check the water temperature regularly along with pH. Taking into account other parameters like the softness or hardness of water (obtain a DiscuSoft tester for the test), when the pH and temperature is nearest to the Arowana's native water condition, the fish will glow in full colors and in perfect beauty.

The recommended water condition for Arowana is as follows:

pH control : 6.2 to 7.2pH

Temperature control : 26 to 27 °C (Hospital tank temperature about 30°C)

Hardness : 3 to 10 dH

(Arowana acquired may have been acclimatized to different reading, check with your local dealer for the requirements)

NOTES ON PH ADJUSTMENT:


While adjusting pH value, take care not to overload the buffering capacity of the aquarium.

Make adjustment in small incremental over a period of time with pH adjusters and test the tank water with the ArowanaPro at each dose. This will prevent shocks to the fish due to a sudden fluctuation in pH. When an Arowana is shocked, it will become restless and may jump out of the water.

Regular checks with your ArowanaPro will help you to maintain the water condition suitable for the Arowana.

Keeping in mind that regular water changes and filter cleaning also play an important part in keeping the fish healthy as Arowana cannot tolerate ammonia, nitrite and nitrate.

ERROR CODE & MAINTENANCE

- When Err appears during measurement or calibration, it means a stable reading cannot be established. This could be due to a dry sensor. Try soak the sensor in a cup of water for 1 hour and re-test. When **E7**, **E4** or **E10** appear during calibration, it could mean a wrong standard solution is used. Otherwise, the sensor could be damaged or expired.
- Keep in mind that all pH sensors age with time and usage. Therefore, re-calibration is necessary to maintain accurate reading.
- If the unit is stored for a long period of time, the sensor will become dry. This will result in a slow response to a stable reading. Soaking the sensor area in a cup of tap water or preferably pH7 solution for 30 minutes to 1 hour will restore sensitivity to the sensor.
- When the battery symbol  continuously appears on the display, this indicates a low battery and only 2 hours of continuous use remain. Replace all four batteries according to instructions overleaf.
- Note that the pH sensor has a limited life span of about 365 tests or 1 year whichever is earlier. When the unit fails to calibrate or responds very slowly, it means that the unit should be replaced. It is not possible to repair a broken or expired sensor.