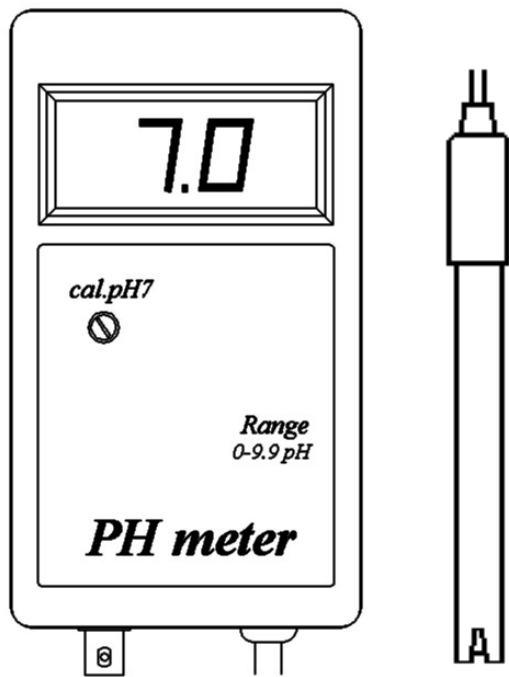


pH 測試器使用說明書



使用本 pH 測試器前，請確定當地的使用電壓，請詳細閱讀說明書，確保測試值的準確度。

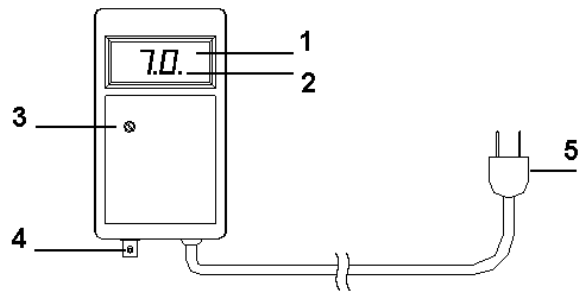
電極，置於水中不可超過填充孔高度，以免水進入電極內而損壞且定期(2~3星期)以軟毛牙刷輕刷清洗感應頭所附著之藻類或雜質，且作校正，以確保測量的準確性。不用時，電極請置於有3M KCL保存液(pH4校正液也可)之封套內，若有結晶乃屬正常現象。

- 3) pH 電極為一精密之玻璃製品，請勿敲擊。電極請勿用手及布類及酒精擦拭電極前端玻璃球，以免玻璃球破裂損壞。
- 4) 本儀器僅供室內使用。

電器規格

- | | |
|-----------|--|
| 電源規格 | : AC100-240V 50/60 Hz 轉換器 |
| 消耗功率 | : 大約 2 瓦。 |
| 顯示器 | : 0.56吋大型 LED 顯示器。 |
| pH測量範圍 | : pH 0~pH9.9. (pH10以上不顯示十位數，且亮燈指示。)
例如“0.0.”代表pH10.0,
“1.2.”代表pH11.2 |
| pH解析度(讀值) | : 0.1 pH。 |
| pH精確度(誤差) | : ±(0.1%+2 digits) (校正後)。 |
| 輸入阻抗 | : 10^{12} 歐姆。 |
| 外部校正 | : 外部 pH7 (CAL.)。 |
| 使用溫濕度限制 | : 攝氏 0°~ 50°。濕度低於 90% RH。 |
| 外觀尺寸 | : 外觀 150 x 85 x 40 mm.
(5.9 x 3.4 x 1.6 inch) |
| 附件 | : 說明書、儀器掛架、電極支架、pH7 校正液各一只。 |

測試器名稱說明



- 1) 顯示器
- 2) 測試值高於pH9.9以上指示燈
- 3) pH7外部校正鈕
- 4) pH電極BNC接頭
- 5) 電源轉換器插頭

使用方法

- 1) 接上電源。
- 2) 將 pH 電極裝入輸入端 (BNC接頭插入後，右轉到底)。
- 3) 將 pH 電極以蒸餾水稍作清洗擦乾後放入 pH7 校正液中，等數秒鐘顯示值穩定後，請調整“pH7”旋鈕；使顯示的值为 7.0。
- 4) 將 pH 電極從 pH7 校正液中取出以蒸餾水稍作清洗擦乾後，放入所要測試的水中即可開始測量pH值。

備註：(清潔及保養)

- 1) 在清潔電極或儀器外觀時，請將電源插頭拔出，關閉電源。
- 2) pH 電極置於水中不可超過電極帽高度，(如為可填充式)

為什麼要測pH值

pH值代表水質呈現酸或鹼性的狀態 (pH值等於7為中性，pH值大於7為鹼性，pH值小於7為酸性)，大部分的觀賞魚都能適應生活在pH值=7左右的中性水質，但許多魚種有特別的水質偏好。

例如：

pH < 7 的魚種：如七彩神仙，亞馬遜燈科魚等，喜好pH=6.0到6.5的水質。

pH > 7 的魚種：如海水魚喜好pH=8.4的水質，非洲慈鯛喜好pH7.5到8.0的水質。

※ 所以對的pH值，才能把魚養對！

水質過酸時怎麼辦

應該調升水中的pH值，常見調整方法可以採用：

使用珊瑚砂底床，添加pH或KH、GH調高液(粉)劑或錠片，使用陰離子交換樹脂等方法。

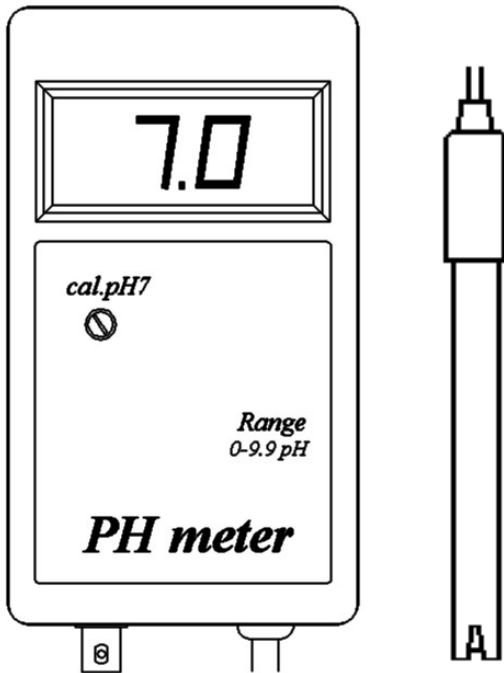
水質過鹼時怎麼辦

應該調降水中的pH值，常見調整方法可以採用：

使用弱酸性底土底床，增加 RO(逆滲透)水使用比例，使用陽離子交換樹脂，添加pH調低液(粉)等方法。

OPERATION MANUAL

DIGITAL pH TESTER



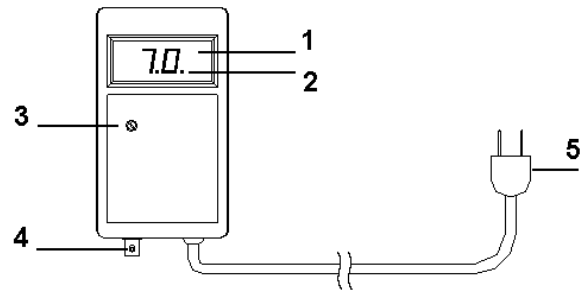
Before putting the pH meter to use, please check the local power line voltage, and please read the following instructions carefully.

- 2) The immersed level for electrode should not be higher than the electrode cap. (When use the refillable electrode, the level should be lower than filling open to avoid the water entering into the open and cause damage.) It had better cleaning the pH electrode sensor with soft brush and calibrate the pH electrode during 2-3 weeks to keep the test accuracy. Please keep the electrode in the storage bottle with 3M KCL buffer (or standard buffer solution pH4.0) to storage, the crystallization is normal for the keeping.
- 3) pH electrode is accurate glass product, please do not knock it, and do not use finger, cloth and alcohol to clean it to avoid the damage.
- 4) Indoor use only.

GENERAL SPECIFICATION

Power Supply	: AC100-240V 50/60 Hz adaptor
Power Consumption	: Approx. 2 watts.
Display	: 0.56" LED.
Measurement	: 0 to 9.9 pH (not show "10" digit when above pH9.9) for example "0.0." is pH10.0, "1.2." is pH11.2.
Resolution	: 0.1 pH.
Accuracy at 25°C	: ±(0.1%+ 2 digits) after calibrating.
Impedance	: 10 ¹² ohms.
Calibration Knob	: External pH7 (CAL.).
Operating Humidity & Temperature	: Humidity Max. 90% RH. 0 to 50°C (32 to 122°F).
Dimension	: 150 x 85 x 40 mm (5.9 x 3.4 x 1.6 inch).
Standard Accessories	: Instruction manual , PH Meter Holder, Electrode Holder and pH7 buffer each one.

TESTER DESCRIPTION



- 1) Display
- 2) Indicator of reading is above pH9.9
- 3) pH7 calibrate adjustment knob
- 4) pH electrode BNC input terminal
- 5) AC power adaptor plug

OPERATING (CALIBRATION)

- 1) Connecting power supply.
- 2) Connecting the pH electrode to the input BNC terminal.
- 3) Take away pH electrode from the storage buffer solution, and clean with fresh water, put the pH electrode into the standard buffer solution pH7.0. Waiting for a few seconds for a stable reading and please adjust the "pH7" knob until the display reading exact 7.0
- 4) Take away the pH electrode from the pH7.0 buffer solution, and clean with fresh water. Then you can put the pH electrode into the water of tank for measuring.

REMARK (INSTRUCTION FOR CLEANING AND MAINTENANCE)

- 1) It must to pull out the power plug (turn off) when cleaning the tester.

WHY SHOULD WE KNOW pH RANGE

pH value shows the acid or alkaline state of water (pH value equals 7 is neutral, it is alkaline as pH value is greater than 7, and acid as pH value is less than 7), most of the fish can adapt to life in water around pH =7, but many species have special water preferences.

Such as:

- species of pH < 7: Discus, Amazon cardinals, preferences for pH=6.0 to 6.5.
- species of pH > 7: Marine fish preferences for pH=8.4 and African cichlids preferences for pH 7.5 to 8.0 .

※THE RIGHT pH RANGE KEEP THE FISH RIGHT !

WHAT TO DO AS pH RANGE IS TOO LOW

The pH range of water should be shifted up, the methods of adjustment you can take: Use coral gravels substrate, anion exchange resin, add additives of powder, solution or tablets which can shift pH 、KH and GH range up.

WHAT TO DO AS pH RANGE IS TOO HIGH

The pH range in water should be shifted down, the methods of adjustment you can take: Use weak-acid gravels substrate, cation exchange resin and higher portion of reverse osmosis water. Add additives of powder or solution which can shift pH range down.