

VEVOR

Upgrade · The Home Creator Way

PH Meter

MODEL: AE8601

MODEL: AE8601



This is the original instruction, please read all manual instructions carefully before operating. VEVOR reserves a clear interpretation of our user manual. The appearance of the product shall be subject to the product you received. Please forgive us that we won't inform you again if there are any technology or software updates on our product.

Introduction

1. Thank you for purchasing the pH detector produced by our company.
2. This manual only provides the usage methods and precautions for the measurement functions of this product. To achieve the best performance of this product, please read this manual carefully before use and keep it properly for future use.
3. When you receive this product, please check if the instrument is in good condition and if the accessories are complete. If there are any missing or other issues, please contact the supplier as soon as possible.

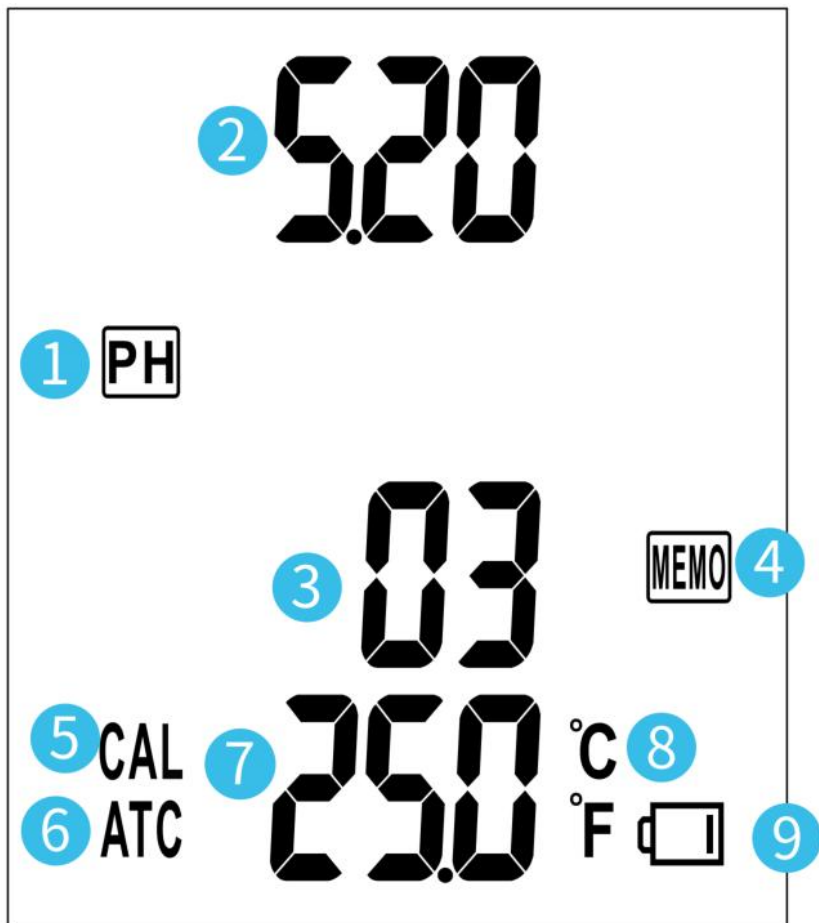
catalogue

● Specification	(01)
● LCD Display	(02)
● Keypad	(03)
● pH Measurement Steps	(04)
● Calibration	(05)
● Setting	(06)
● Maintenance	(09)
● Important declare&	(09)
● Warranty	(10)
● Product Application	(10)
● Product Usage Environments and Target Users	(10)
● PACKING LIST.....	(11)

SPECIFICATION

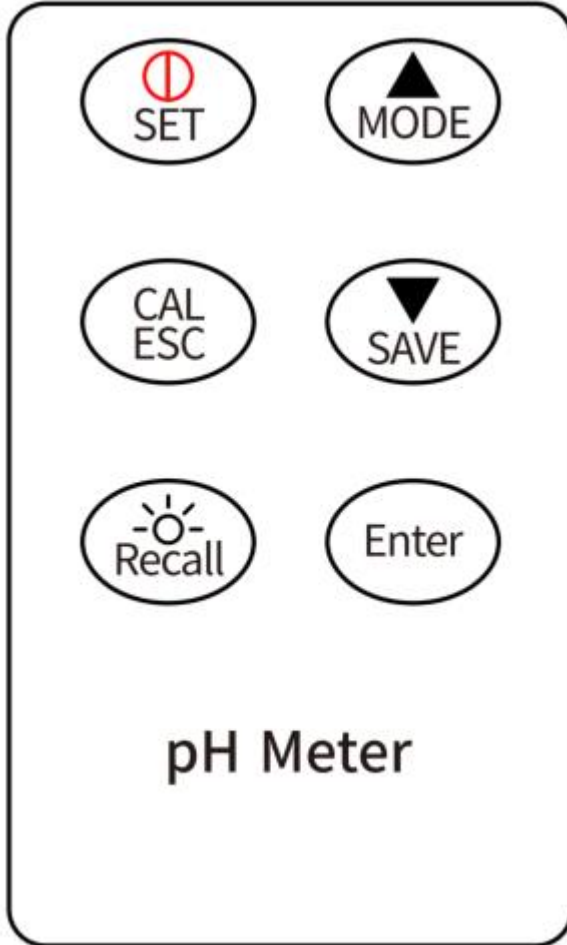
pH measurement range	0.00~14.00pH
pH resolution	0.01pH
pH accuracy	±0.1pH
Temperature measurement range	0.1~60.0°C
Temperature resolution	0.1°C
Temperature accuracy	±0.5°C
Working environment	0~50°C; 0~80%RH
Storage environment	0~60°C; 0~90%RH
pH Calibration	4.00/6.86/9.18 pH three-point calibration
Automatic temperature compensation (ATC)	Yes (for pH measurement only)
Memory record	Up to 99 records
Auto power off	After one hour of inactivity
LCD size	41*50mm
Backlight	Yes
Power Supply	DC1.5V×4 (AAA)

LCD Display



1. "pH" pH indication
2. pH Measurement value
3. Total number of records
4. Icon for data storage
5. "CAL" means calibration
6. "ATC" means automatic temperature compensation
7. Temperature of meter
8. Temperature unit
9. Low battery warning, please replace the battery to ensure the accuracy of the measurement.

Keypad



⏻/SET key: Short press to turn on/off; press > 1s in measurement mode to enter setting mode.

CAL / ESC key: press > 1s in measurement mode to enter calibration mode; Short press in setting mode to exit setting mode.

☀️/Recall key: Short press to turn on or off the backlight; press > 1s to recall the saved data; Press the up and down keys to select the record data one by one; and press the ESC key to exit the record recall mode.

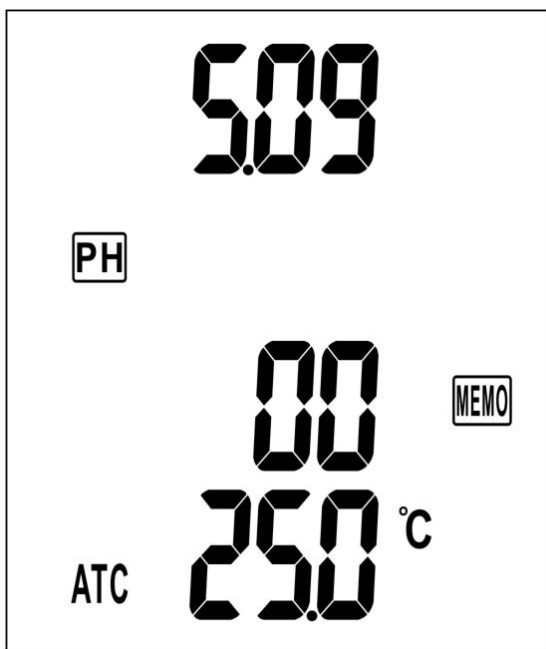
▲/MODE key: Increase the setting value; Switch measuring modes.

▼/SAVE key: Decrease the setting value; Short press in measurement mode to save data (Maximum of 99 records, New data can not be saved if the memory is full. it is needed to clear up existing 99 memories for new data).

Enter key: Key to confirm setting and calibration.

pH Measurement Steps

1. Be sure to remove the pH electrode soaker bottle from the electrode before measurement, Plug the pH and Temp. probe into the port on the top of the meter, press "⊙/SET" to turn on the meter, the press "▲/MODE" key to switch to the pH measurement mode as shown in the figure below.



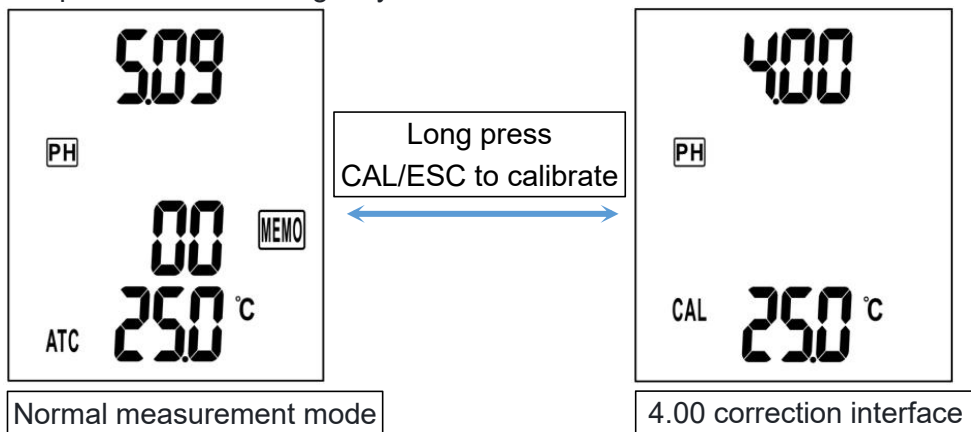
2. Dip the pH electrode and the Temp. probe into the sample, stir the pH electrode gently back and forth, The reading will be stable after about 1 minute, then read and record the data.
3. After powered on, press the "☼/Recall" key will turn on the backlight, and press the "☼/Recall" key once again to turn off the backlight. it will

turns off automatically after 1 hour of inactivity. To override the automatic power off, hold down the "Ⓞ/SET+ ▲/MODE" keys at the same time for 2 seconds to turn on the meter until "n" appears. The automatic power off is disabled after rebooting and needs to be reset.

4. After measurement, rinse the pH electrode and Temp. probe with clean water (e.g. tap water). You can brush the pH electrode tip with a soft brush softly, be careful about the glass bulb for lasting pH electrode life.
5. After using, plug the probe into the soaker bottle and then rotate the bottle to fit into the cover tightly. (make sure there is enough solution which is KCL in it).

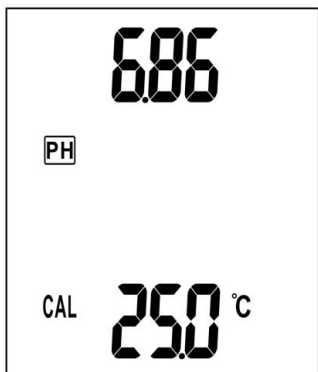
Calibration

1. We recommended that you should calibrate the pH probe every half a month. Before calibration you should use a soft brush to clean the glass bulb area softly!
2. Rinse the pH electrode probe with clean water for 1 minute, shake off the water on them slightly and wipe the surface of the pH electrode probe with a tissue gently.

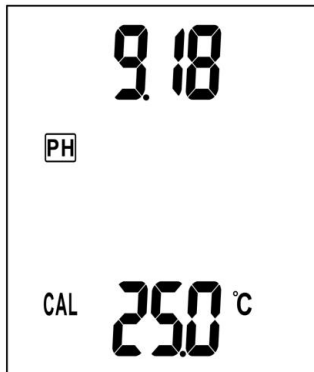


3. Dip the pH electrode probe into the 4.00pH buffer solution (the buffer solution can be placed in a clean container to avoid overturning), gently stir it for 1 minute, press the "CAL/ESC" key for more than 1 second to enter the calibration mode, the value and CAL icon on the screen will flash, press the "Enter" key to complete the calibration, if

the difference between the measured value and the buffer solution is less than 0.02pH, the calibration is correct, otherwise press the "CAL/ESC" key to recalibrate until the calibration is correct.



(6.86Calibration interface)



(9.18Calibration interface)

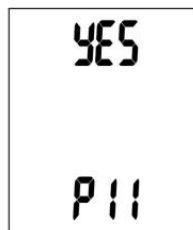
4. Take out the pH electrode probe, place the 4.00 pH buffer solution back, rinse the pH electrode probe with clean water shake off the water on them slightly and wipe the surface of the pH electrode probe with a tissue gently.
5. Repeat steps 2, 3, and 4 to complete the 6.86pH and 9.18pH calibrations. (The buffer solution shall not be mixed with other liquids and shall be stored at room temperature and kept in dark place).

Setting

1. **P10 for deleting the saved data:** In measurement mode, press the "⊙/SET" key > 1S to enter the setting mode P10, then press the "Enter" key to P11, press the "▲/MODE" or "▼/SAVE" key until "YES" appears press "Enter" again to confirm cleaning all memory meter will return to P10 when memories are deleted.

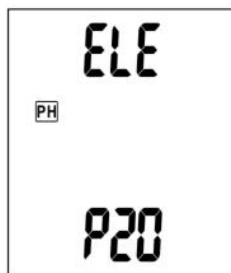


(P10)



(P11)

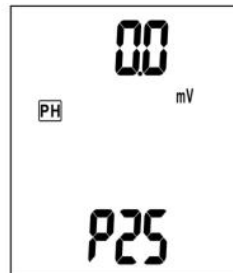
2. **P20 for setting pH electrode parameters:** In setting mode, press "▲/MODE" or "▼/SAVE" key to switch to P20, press "Enter" key to switch from P21 to P25 in turn, you can check slope value in P21, P22, P23, P24, and check offset voltage in P25.



(P20)



(P21~24)

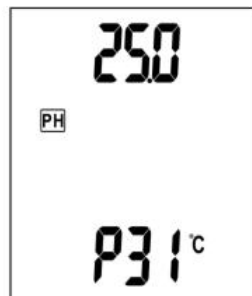


(P25)

3. **P30 for setting manual compensation temperature:** In setting mode, press "▲/MODE" or "▼/SAVE" key to switch to P30, press "Enter" key to enter P31, and then press "▲/MODE" or "▼/SAVE" key to adjust the manual compensation temperature value, press "Enter" key to complete the manual compensation temperature setting.



(P30)



(P31)

4. **P80 for switching temperature unit:** In setting mode press "▲/MODE" or "▼/SAVE" key to switch to P80, press "Enter" key to enter P81, and then press "▲/MODE" or "▼/SAVE" key to select °C/°F unit press "Enter" key to confirm.

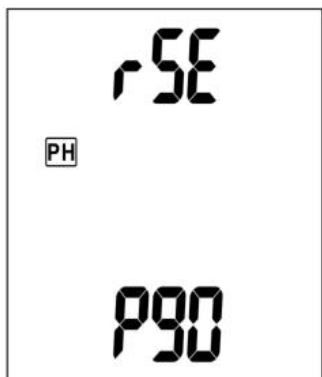


(P80)

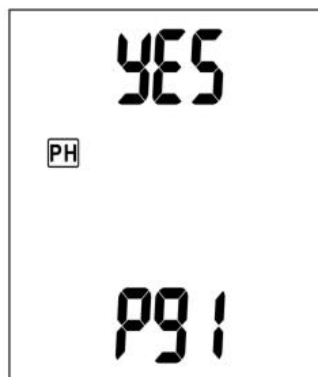


(P81)

5. P90 for clearing calibration data: In setting mode, press "▲/MODE" or "▼/SAVE" key to switch to P90, press "Enter" key to enter P91 press "▲/MODE" or "▼/SAVE" key until the word "yes" appears, press "Enter" key to clear the calibration data, after clearing the calibration data, you need to re-calibrate.



(P90)



(P91)

Error code

1. E02: Reading is under the lower limit;
2. E03: Reading is over the upper limit;
3. E04: The original temperature data error result in this error;
4. E13: Slop or offset value of pH probe is out of range. Clean or re-calibrate pH probe or replaced with a new probe;
5. E31: Measuring circuit failure, repair is required;

Maintenance

1. **Misoperation:** leave the pH probe without the soaker bottle after the measurement. After using, clean the probe and plug the probe into the soaker bottle (make sure there is enough solution which is KCL in it), rotate the bottle to fit into the cover tightly.
2. **If not used for a long time, you should handle it as follows:**
 - 1) Plug the probe into the soaker bottle (make sure there is enough solution), rotate the bottle to fit into the cover tightly.
 - 2) Take out the battery, otherwise the battery solution maybe leak and cause damage to the meter!
 - 3) Make sure to store it in a temperature above zero to prevent freezing!

Warning: Soaker solution, buffer solution, etc. cannot be eaten!Keep out of reach of children!

Temperature effect on pH buffer

ph4.00									
5	10	15	20	25	30	35	40	45	50
4.00	4.00	4.00	4.00	4.00	4.01	4.02	4.03	4.04	4.06

ph6.68									
5	10	15	20	25	30	35	40	45	50
6.95	6.92	6.90	6.88	6.86	6.85	6.84	6.84	6.83	6.83

ph9.18									
5	10	15	20	25	30	35	40	45	50
9.39	9.33	9.28	9.23	9.18	9.14	9.10	9.07	9.04	9.02

Important declare

1. Old batteries must be disposed of in accordance with local laws and regulations.
2. The company reserves the right to update and modify the Design Specifications and Manual of this product without prior notice.

Warranty

1. The meter is warranted to be free from defects in material and workmanship for a period of one year from the date of purchase. This warranty covers normal operation and does not cover battery misuse, abuse, alteration, tampering, neglect, improper maintenance or damage resulting from leaking batteries.
2. The above warranty terms are only valid for the main instrument and consumables such as probe accessories are not covered by the warranty.

Battery Safety Warning:

Do not disassemble, short-circuit, or expose to fire.

Do not use batteries not specified in this manual.

Disposal Information:

This product contains batteries, which must be recycled separately. Do not dispose of with household waste. Please contact your local recycling center or electronic retailer for proper disposal.

Warning-To reduce the risk of injury, user must read instructions manual carefully.

Please properly keep product. Check whether the product is abnormal before use. If it is abnormal, please stop using it.

Product Application

This instrument, which uses a pH indicator electrode to measure the pH of solutions, food, soil, etc. via potentiometry, has its pH measurement accuracy as a key indicator for evaluating its performance.

Product Usage Environments and Target Users

Laboratory Use

1. pH Pen

Application Scenarios: Professional water quality testing, hydroponics, swimming pools, etc.

Features: Special-purpose replaceable electrode; three-point calibration; accuracy: 0.1 pH.

2. Food pH Pen

Application Scenarios: Professional food testing.

Features: Special-purpose replaceable electrode; three-point calibration;

accuracy: 0.1 pH.

3. pH Tester

Application Scenarios: Laboratory research.

Features: Highest-grade electrode requirement; replaceable electrode; three-point calibration; accuracy: 0.1 pH; data storage function; multi-electrode port compatibility.

Soil Testing

Soil pH Meter

Application Scenarios: Farms, manors, planting, etc. (for measuring soil pH value) .

Features: Special-purpose electrode for soil testing; no calibration required; low accuracy requirement.

Household Use

pH Pen

Application Scenarios: Household water testing.

Features: Low-grade non-replaceable electrode; no calibration function; low measurement accuracy.

PACKING LIST

Name	Specification	Qty(pcs)	Notes
Main unit	/	1	
Instruction Manual	/	1	
Calibration Buffer Powder Packet	4.00	1	sachet each
	6.86	1	sachet each
	9.18	1	sachet each
pH electrode tip	/	1	Probe cable length: ~1.15 m (incl. probe)
Temperature Probe	/	1	
Dry Battery	DC1.5V (AAA) 600mAh	4	
Suitcase	/	1	

Battery Safety Warning:

Do not disassemble, short-circuit, or expose to fire.

Do not use batteries not specified in this manual.

Disposal Information:

This product contains batteries, which must be recycled separately. Do not dispose of with household waste. Please contact your local recycling center or electronic retailer for proper disposal.

Warning-To reduce the risk of injury, user must read instructions manual carefully.

Please properly keep product. Check whether the product is abnormal before use. If it is abnormal, please stop using it.

CORRECT DISPOSAL

This product is subject to the provision of European Directive 2012/19/EU. The symbol showing a wheellie bin crossed through indicates that the product requires separate refuse collection in the European Union. This applies to the product and all accessories marked with this symbol. Products marked as such may not be discarded with normal domestic waste, but must be taken to a collection point for recycling electrical and electronic devices.

FCC Information:

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment!

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1) This product may cause harmful interference.
- 2) This product must accept any interference received, including interference that may cause undesired operation.

WARNING: Changes or modifications to this product not expressly approved by the party responsible for compliance could void the user's authority to operate the product.

Note: This product has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules, These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This product generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this product does cause harmful interference to radio or television

reception, which can be determined by turning the product off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the distance between the product and receiver.
- Connect the product to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for assistance.

