

# **Economical Rugged Series**

## **M1200K**

**T-HENG**

**ECONOMICAL RUGGED SERIES**

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## **INTRODUCTION**

The Economical Rugged pH Meter (Model M1200K) is cost-effective and meets requirements of most users. It is accord with Advanced Rugged Meters like fully waterproof, shockproof, reliable accuracy and a striking exterior.

## **FEATURES**

IP67 Waterproof

Shockproof

2\*AAA Battery

User friendly

pH Measurement

High Accuracy

5 data points for Calibration

Automatic Temperature Compensation

Rapid Response

Restore Factory Default

HOLD

Auto Power-Off

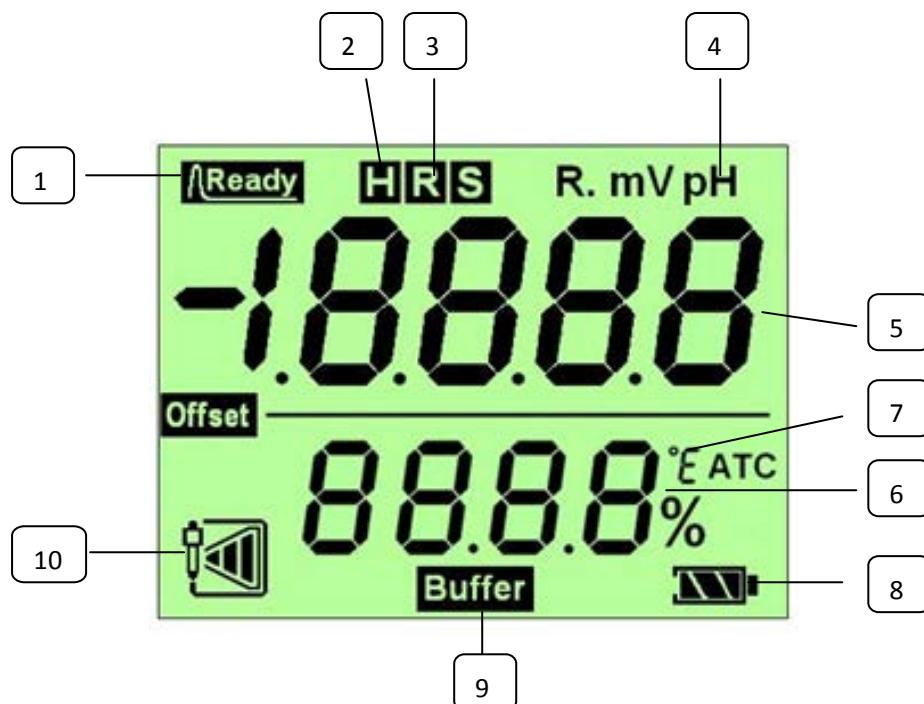
## **MATERIALS SUPPLY**

Meter

2\*AAA Battery





Instruction

## LCD DISPLAY



	Name	Description
1	Ready	Displayed when measuring results are stable
2	H	HOLD
3	R	Restore factory settings
4	pH	unit
5		Main Display
6		Second Display
7	Temperature Unit	Current temperature unit
8	Battery Icon	Current battery power level
9	Buffer	Calibrating
10	Probe Life Icon	Need to replace new probe when it show blank

**Probe Life Icon :**

90%~100% , shows full	
Between 85%~90% , shows 2 cells	
Between 75%~85% , shows 1cells	
Less than 75% , shows 0 cells	

**KEYPAD**

	Name	Function	Remark
1	POWER	Power on/off	
2	MODE	Switch mode	
3	HOLD/SET	HOLD/SET	

**SETUP MODE****Power On**

1. Press **POWER** once to turn the meter on.
2. Press **POWER** again to turn the meter off.

NOTE: All operations are operational when the meters power on.

**Temperature Units**

Temperature unit °C , Range [0.0 – 60.0]

Temperature unit °F , Range [32.0 – 140.0]

## **Working Mode**

**MODE** , enter into different mode :

1. Enter into measurement mode as soon as power on.
2. Press **MODE** once , “°C” flash on the Second Display, Degrees Celsius temperature unit mode.
3. Press **MODE** twice , “°F”flash on the Second Display, Degrees Fahrenheit temperature unit mode.
4. Press **MODE** three times , “Buffer” flash on the Second Display ,Calibration mode.
5. Press **MODE** four times , “R” flash on the Main Display , Restore factory default mode.

## **HOLD/SET**

HOLD/SET , when in the Measurement Mode, it acts as HOLD function.

When in the Setting Mode, it acts as Confirmation or Selection function.

## Set Temperature Units

1. Press **MODE** once , “°C” flash on the Second Display , press **HOLD/SET** to confirm temperature unit.

When the meter connect to probe, current temperature value will show on the Second Display; on the other hand, show the default 25°C without probe.

2. Press **MODE** twice, “°F” flash on the Second Display, press **HOLD/SET** to confirm temperature unit.

When the meter connect to probe, current temperature value will show on the Second Display; on the other hand, show the default 77°F without probe.

## pH Calibration

In the Measurement Mode

1. Immerse the pH probe in standard buffer solution until **READY** shows.(Get high accuracy ,please immerse the probe for 3min or longer .)
2. Press **MODE** three times, **Buffer** flash on the Second Display, press **HOLD/SET** to enter Calibration Mode. (BUFFER stop flashing)
3. The meter will automatically recognize the standard buffer solution and automatic calibration. During this process, calibration value will be shown on the Second Display.
4. After Calibration, meter automatically returns to Measurement Mode.

*Up to 5 points calibration: 1.68 4.00 7.00 10.00 12.45*



Temperature°C	pH1.68	pH4.00	pH7.00	pH10.00	pH12.45
0	1.67	4.01	7.12	10.65	13.42
5	1.67	4.00	7.09	10.52	13.21
10	1.67	4.00	7.06	10.39	13.00
15	1.67	4.00	7.04	10.26	12.81
20	1.68	4.00	7.02	10.23	12.63
25	1.68	4.00	7.00	10.00	12.45
30	1.69	4.01	7.00	9.87	12.30
35	1.69	4.02	6.99	9.74	12.14
40	1.69	4.03	6.98	9.61	11.98
45	1.70	4.04	6.97	9.48	
50	1.71	4.06	6.97	9.35	
55	1.72	4.07	6.97	9.23	
60	1.72	4.09	6.96	9.10	

Note : For high accuracy, we recommend that users should regularly calibrate.

In the following situation, users must recalibrate meters.

- Replace probe
- After measuring aggressive chemicals
- Need high accuracy
- After measuring strongly acidic/alkaline substances (pH<2 or pH>12)
- At least once a month

## **Restore Factory Default**

Press **MODE** four times , **R** flash on the Main Display , press **HOLD/SET** to restore factory default and meter will return to Measurement Mode after LCD full-shown for 1S.

## **AUTO POWER-OFF**

The meter will automatically power off without any operation for 8 min.

## SPECIFICATION

pH Meter		
Mode	pH	Temperature
Range	0 to 14pH	0.0-60.0°C (32-140°F)
Resolution	0.01pH	0.1°F (0.1°C)
Accuracy	±0.02pH	±0.9°F (±0.5°C)
Responding Time	20S	30S
Calibration	Up to 5 points	
Temperature Compensation	Auto (ATC) from 32-140 °F or 0-60 °C	
Operating Temperature	32-122°F ( 0~50°C )	
Battery	2*AAA	
Probe	Plastic electrode	