

# **Economical Rugged Series**

## **M1500K**

**T-HENG**

**ECONOMICAL RUGGED SERIES**

---

T-HENG Mechanical & Electrical Co. Ltd.

Tel: (+86) 010-60251782 Fax: (+86) 010-60252017

Web: [www.t-heng.com](http://www.t-heng.com)

---

**CONTENT**

INTRODUCTION .....	3
FEATURES.....	4
MATERIALS SUPPLY .....	4
LCD DISPLAY.....	5
KEYPAD.....	6
SETUP MODE .....	6
Power On.....	6
Temperature Units .....	6
Working Mode.....	6
HOLD/SET .....	7
Set Temperature Units .....	7
DO Calibration .....	8
Restore Factory Default.....	9
AUTO POWER-OFF .....	10
SPECIFICATION.....	11

## **INTRODUCTION**

The Economical Rugged DO Meter (Model M1500K) 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

DO Measurement

High Accuracy

2 data points for Calibration

Automatic Temperature Compensation

Rapid Response

Restore Factory Default

HOLD

Auto Power-Off

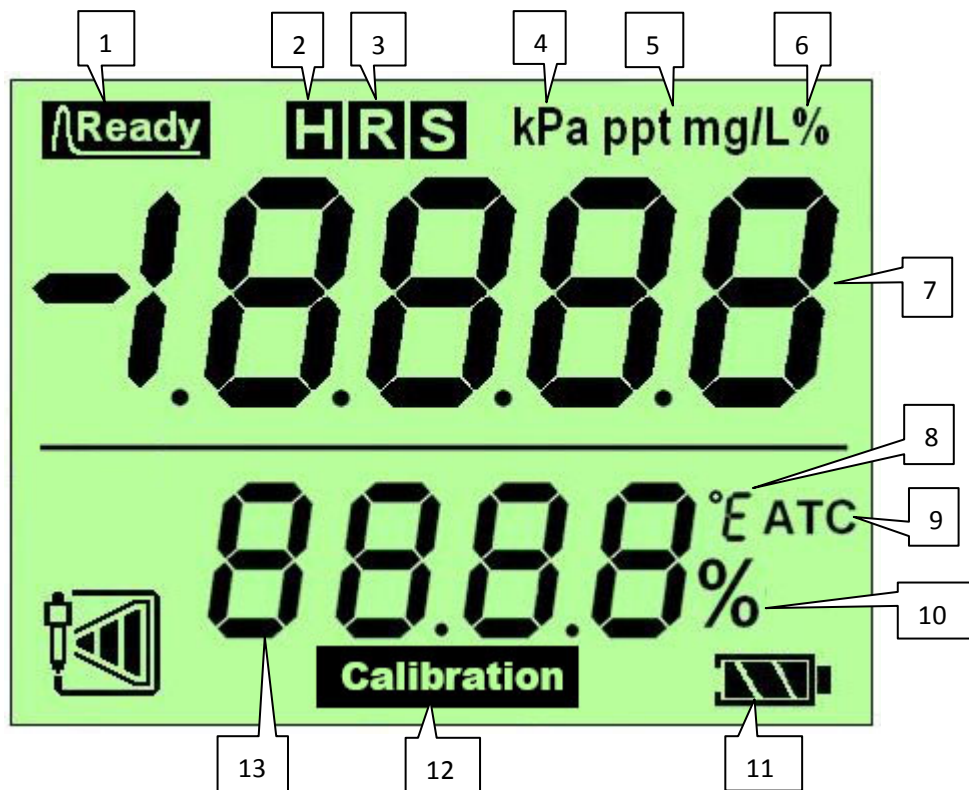
## **MATERIALS SUPPLY**

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	kPa	Barometric Pressure Unit
5	mg/L ppm	Dissolved Oxygen Unit
6	%	Saturation
7	Main Display	
8	Temperature Unit	
9	ATC	Auto Temperature Compensation
10	% Unit	
11	Battery Indicator	
12	Calibration	
13	Second Display	

## 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, wait for 5 min (electrode polarization)
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 – 50.0]

Temperature unit °F , Range [32.0 – 122.0]

### Working Mode

**MODE** , enter into different mode :

1. Enter into measurement mode as soon as power on.
2. Press **MODE** once , "%” flash on the Second Display, Saturation mode
3. Press **MODE** twice , "mg/L” flash on the Second Display, Oxygen content

mode

4. Press **MODE** three times “°C” flash on the Second Display, Degrees Celsius temperature unit mode.
5. Press **MODE** four times , “°F” flash on the Second Display, Degrees Fahrenheit temperature unit mode.
6. Press **MODE** five times , “Calibrating” flash on the Second Display , Calibration mode.
7. Press **MODE** six times , “R” flash on the Main Display , Restore factory default mode.
8. Press **MODE** seven times , “P.1” flash on the Main Display , Salinity mode.
9. Press **MODE** eight times , “P.2” flash on the Main Display , Pressure 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** three times , “°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** four times, “°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.

## DO Calibration

### 0 Calibration

1. Turn on the meter or return to the Measurement Mode
2. Select % Mode and Immerse the DO probe in the zero-oxygen solution until **READY** shows.(Get high accuracy ,please immerse the probe for 3min or longer .  
The next steps must be performed only when the expectation value will be below 5%.)
3. Press **MODE** a few times until the **Calibrating** is flashing on the Second Display, press **HOLD/SET** to enter Calibration Mode. (Calibrating stop flashing)
4. The meter will automatically recognize the standard solution and automatic calibration. During this process, calibration value will be shown on the Second Display.
5. After Calibration, meter automatically returns to Measurement Mode.

### 100% Calibration

In the Measurement Mode

1. Turn on the meter or return to the Measurement Mode
2. Select % Mode and Place the probe at 1cm above the liquid until **READY** shows.(Get high accuracy ,please keep the probe for 1min or longer .)
3. Press **MODE** a few times until the **Calibrating** is flashing on the Second Display, press **HOLD/SET** to enter Calibration Mode. (Calibrating stop flashing)
4. The meter will automatically recognize the standard solution and automatic



calibration. During this process, calibration value will be shown on the Second Display.

5. After Calibration, meter automatically returns to Measurement Mode.

*At most 2 points calibration: 0% and 100%, when the solution cannot be recognized, show "Err" for 2s. Then automatically returns to Measurement Mode.*

*NOTE: For 100% calibration, air calibration way is a simple, quick, approximate method.*

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

## **Restore Factory Default**

Press **MODE** six 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

DO Meter			
Mode	%	Mg/L	Temperature
Range	0 to 199.9	0~19.99	0.0-50.0°C (32-122°F)
resolution	0.1	0.01	0.1°F (0.1°C)
Accuracy	±1.5% FS	±1.5% FS	±0.9°F(±0.5°C)
Responding Time	1min	1min	1min
Calibration	At most 2 points		
Temperature Compensation	Auto (ATC) from 32-122°F or 0-50°C		
Operating Temperature	32-122°F ( 0~50°C )		
Battery	2*AAA		
Probe	Plastic electrode		