# Operation Manual

# ORP tester ORP30 ORP tester

Thank you for selecting Clean products.

Before using the tester, relevant person must read and understand the contents of this operation manual. Operation Manual should be kept accessible within the person who use the testers.

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# 2. Precautions

**LEAN** 科霖儀器 Water Analysis Solutions



Please wipe up the electorde with clean tissue or cloth before using.

Do not throw or beat ,squash or twist the tester deliberately.

Do not expose to the direct sunlight or put in high humidity or high °

temperature environment .

Do not use for long time under water.

### 3. CONFIGURATION and LCD INTRODUCTION



S Data stabilized

Calibration Mode

Low battery indicator

- Measurement mode

Auto Lock function

Auto Lock after data stabilized

In calibration

Offset value below 50mV

Offset value between 50mV and 100mV



## 1. Product Overview

- Waterproof, dustproof housing-IP67 rated.
- Precise & easy operation, all functions operated in one hand.
- Widest applications: meet your indoor and outdoor water measurement needs, from lab to field brow-out measurement.
- User replaceable plane ORP electrode.
- Large LCD with backlight.
- 1\*1.5 AAA long battery life.
- Self-Diagnostic for easy troubleshooting (e.g battery indicator, message codes).
- Auto Lock Function
- Floats on water



Floats on water



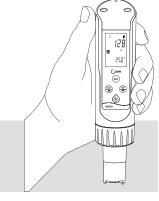
Large LCD with backlight Multi-line display for easy reading



Field throw measurement ( Auto Lock Function)



1\*1.5V AAA long battery life



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# 4. Key panel

### Key instruction

Short press: Short press means release the key once after pressing.

(If there is no mark out below, default it as Short press)

Long press: Long press means press the key for 3 seconds and then release it

Hold: Hold means not release the key and accelerate after a certain time. Not release the key
until the value is set as needed.



Long press to Power ON/OFF Short press to ON/OFF backlight Escape key when in calibration mode and setting up



Calibration key when in measurement mode Long press to enter into parameter browsing Increment values or scroll through the next options available



Data setting

Decrement values or scroll through the next options available



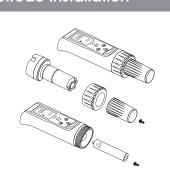
Confirm key
Press to unlock in Auto lock mode

### 5. Battery and Electrode installation

Unscrew the screw cap by following the arrow direction, slightly unplug the electrode, install the battery[pay attention to the anode and cathode of the electrode].

Then install back the electrode and the screw cap.

Low battery prompt is at the top of the screen when battery power is low. (You can refer to the LCD INTRODUCTION). Please change the same model battery.



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## 6. Measurement Mode

Press " to power up. The tester will then enter into measurement mode.

The measurement icon will twinkle if the data is unstabilized. Once stabilized, the top stabilized icon will be displayed then.

### 7. Calibration Mode

In measurement mode, press "  $\stackrel{(\triangle A)}{\blacktriangle}$  " to enter calibration mode. Prompting icons will be displayed on the screen.









Dip the electrode into the standard solution, the stabilized icon will be displayed at the top of the screen once the data stabilized. Press" (N)" to confirm. The screen will display "STD", with the standard value at the bottom. Press "(N)" or "(N)" or adjust the value as the standard value. Press "(N)" to confirm and then automatically move forward to the offset slope. If wrong, the "ERR" will be displayed. You can also press " to skip the calibration and back to the measurement mode.

Long press " $(\stackrel{\frown}{\underline{\mathbb{A}}})$ " to check through the calibrated parameters, Press " $(\stackrel{\frown}{\underline{\mathbb{A}}})$ " and " $(\stackrel{\frown}{\underline{\mathbb{A}}})$ " to check the Zero offset and measured value.





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### 9. Specification

Range	-1000 ~ +1000 mV
Resolution	1 mV
Accuracy	±1 mV
Temp. Range	0 - 100.0 °C / 32 - 212 °F
Working Temperature	0 - 60.0 °C / 32 - 140 °F
Temp. Resolution	0.1 °C / 1 °F
Calibration Point	1 points (Random point full-scale calibration)
Electrode	C\$2930 platinum plane electrode
LCD	20* 30 mm multi-line crystal display
Lock	Auto / Manual
Auto backlight off	1 minutes
Auto power off	5 minutes without key be pressed
Power	1x1.5V AAA battery
Dimensions	(H×W×D) 185×40×48 mm
Weight	95g
Protection	IP67

### 10. Package



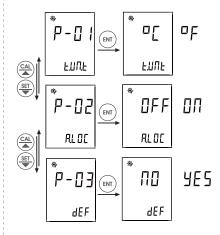
Size: L\*W\*H 210\*100\*65mm Weight: 350g MORP tester body

MORP tester body CS2930 electrode 1.5VAAA battery

### 8. Set up

In measurement mode, press " $\underbrace{\text{SET}}$ " to enter SET UP. Corresponding icons will be displayed. You can press " $\underbrace{\text{CAL}}$ " and " $\underbrace{\text{SET}}$ " to select the menu and then press " $\underbrace{\text{ENT}}$ " to confirm. Press " $\underbrace{\text{ENT}}$ " or " $\underbrace{\text{SET}}$ " to set up and confirm by press " $\underbrace{\text{ENT}}$ ". You can also press " $\underbrace{\text{ENT}}$ " to back to measurement mode.

The Set up menu as follow:



P01: Unit of the temperature. You can select between °C and °F.

PO2: Auto Lock. You can select "ON" or "OFF" to auto lock the data once stabilized.

P03: Factory defaults. You can select to revert to factory defaults.

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### 11. Error

When ERR occurs, you can check the electrode and the standard solution.

### 12. GENERAL INFORMATION

### Warranty

CLEAN Instruments warrants this product to be free from significant deviations in material and workmanship for a period of one year from the date of purchase. If repair is necessary and has not been the result of abuse or misuse within the warranty period, please return to CLEAN Instruments and amendment will be made without any charge. CLEAN Instruments Customer Service Center will determine if product problem is due to deviations or customer abuse. Out of warranty products will be repaired on a charge basis.

### **Return Of Malfunction Instruments**

Authorization must be obtained from CLEAN Instruments Customer Service Center to issue a RIR number before returning items for any reason. When applying for authorization, please nclude date requiring the reason of return. Instruments must be carefully packed to prevent damage in shipment and insured against possible damage or loss. CLEAN Instruments will not be responsible for any damage resulting from careless or insufficient packing.

Warning: Damage as a result of inadequate packaging is the User / distributor's responsibility

Please follow the guidelines below before transporting

### **Guidelines Or Returning Unit For Repair**

Use the original packaging material if possible, when transporting back the unit for repair. Otherwise wrap it with bubble pack and use a corrugated box for better protection. Include a brief description of any faults suspected for the convenience of Customer Service Center, if possible . If there are any questions, feel free to contact our Customer Service Center or distributors.