



皆仪  
AZOVTE<sup>®</sup>

诸事皆仪

# 水质检测笔

## 中英文说明书





# 引言

- 感谢您购买本公司生产的水质检测笔。
- 本手册仅提供本产品的相关测量功能的使用方法以及使用方面的注意事项,要发挥本产品的最佳使用效能,使用前请详阅本手册,并妥善保管本手册以便不时之需。
- 当您收到此产品时请检查仪器是否完好,配件是否齐全,如有缺失或是其它任何问题请您尽快与供应商联系。

# 产品特色

- 双读值显示
- 温度补偿功能
- 低电量显示
- Type-C 充电
- 自动关机功能
- °C/°F温度单位切换
- 多点校正设计
- 笔型设计,轻巧易携带
- 测量范围宽&多种测量单位可选



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## English

## Catalogue

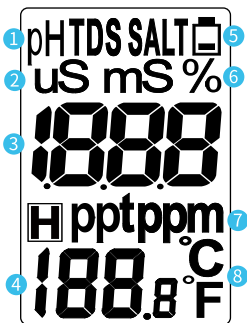
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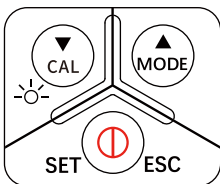
# 产品参数

| 型号      | 8373                                                                      | 8372          | 8371/8375                                                                                            |
|---------|---------------------------------------------------------------------------|---------------|------------------------------------------------------------------------------------------------------|
| 盐度范围    | 0 to 9999ppm<br>10.0 to 100.0 ppt<br>(0.00%~10.0%)                        | 0~55.0ppt     | 0.0~15%(8371)<br>0.0~25%                                                                             |
| 盐度分辨率   | 1ppm/0.1ppt<br>(0.01%/0.1%)                                               | 0.1ppt        | 0.1%                                                                                                 |
| 盐度精度    | ±1%(FS+digit)                                                             | ±1%(FS+digit) | 0.1~1.9%(±0.1%)<br>2.0~4.9%(±0.2%)<br>5.0~9.9%(±0.5%)<br>10.0~14.9%(±1.0%)<br>15.0~25.0%(±2.0%) 8375 |
| 温度范围    | 0.0~90.0°C                                                                | 0.0~60.0°C    | 0.0~90.0°C (8371)<br>0.0~60.0°C (8375)                                                               |
| 温度分辨率   | 0.1°C/0.1°F                                                               |               |                                                                                                      |
| 温度精度    | ±0.5°C/±0.9°F(量程0.0~60°C)<br>±1.2°C/±2.2°F(量程0.0~90°C)                    |               |                                                                                                      |
| TDS范围   | 0~1999ppm<br>(2.00 to 19.99)*f ppt<br>(20.0 to 140.0)*f ppt<br>f:TDS 转换系数 | /             | /                                                                                                    |
| TDS分辨率  | 1ppm<br>0.01ppt<br>0.1ppt                                                 | /             | /                                                                                                    |
| TDS精度   | ±(1%FS+digit)                                                             | /             | /                                                                                                    |
| TDS转换系数 | 0.3~1.00<br>(default:0.50)                                                | /             | /                                                                                                    |
| 电导范围    | 0 to 1999uS<br>2.00 to 19.99 mS<br>20.0~140.0mS                           | /             | /                                                                                                    |
| 电导分辨率   | 1uS<br>0.01mS<br>0.1mS                                                    | /             | /                                                                                                    |
| 电导精度    | ±(1%FS+digit)                                                             | /             | /                                                                                                    |
| EC温度系数  | 2.1%/°C                                                                   | /             | /                                                                                                    |
| 盐度校正    | 同电导                                                                       | 35.00ppt      | 10%氯化钠(同8371)                                                                                        |
| TDS校正   | 同电导                                                                       | /             | /                                                                                                    |
| 电导校正    | 1413uS<br>12.88mS<br>111.8mS                                              | /             | /                                                                                                    |
| 校正范围    | ±20%出厂校正<br>≥10%FS                                                        | /             | /                                                                                                    |

## 屏幕按键说明



- |                |          |
|----------------|----------|
| 1. PH、TDS、盐度模式 | 2. 电导率单位 |
| 3. 测量数值        | 4. 温度数值  |
| 5. 低电提示        | 6. 盐度单位  |
| 7. 盐度/TDS单位    | 8. 温度单位  |



1. “ ”: 开关机键, 长按进入/退出设置。
2. “Mode/  ”: 模式切换, 设定向上调整键。
3. “CAL/  ”: 校正键, 背光键, 设定向下调整键。

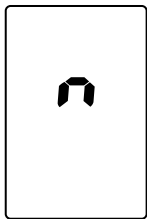
# 测量

1.按“ ”开机。

2.将EC电极放置在待测溶液,轻轻前后左右摇晃,EC电极头前方要留出2cm的空间,1分钟左右EC电极温度和待测溶液温度达到平衡,即可记录数据。当溶液温度超过70℃时,电极浸入时间不能超过1分钟,即1分钟内要测量完成。

3.单按“Mode/▲”键可依次切换EC/TDS/盐度模式(仅AE8373)。

4.正常测量模式下单按“CAL/▼”键可以开/关背光,如果10分钟没有任何按键操作会自动关机,如需取消自动关机在关机后同时按“ ”和“Mode/▲”键开机出现“n”字样则自动关机取消。(如图1,若仪器关机再开则需重新设置)



(图1)

5.接上Type-C接口的充电器开始充电,充电完成后显示“End”,然后自动关机。

6.测量结束后,一定要用清水(如自来水)清洗EC电极,可以用软毛牙刷刷洗EC电极头,如果测量溶液有油脂,一定要用清洗剂将EC电极表面的油脂清洗干净!

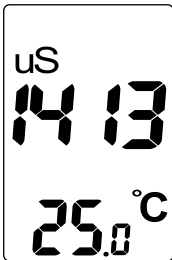
## 校正 (8373)

1.有3个校准范围分别是:

- 1) 0~1999 $\mu$ S,默认用1413 $\mu$ S标准溶液。
- 2) 2.0~19.99mS,默认用12.88mS标准溶液。
- 3) 20~140.0mS,默认用111.8mS标准溶液。

2.将EC电极在一杯清水中漂洗1分钟,甩干并用纸巾擦干EC电极表面。

3. EC电极放入1413 $\mu$ S标准溶液瓶中, (可放置在玻璃杯中, 避免翻倒), **轻轻搅动1分钟**, 按“CAL/▼”大于1秒进入校正模式, 按“Ⓢ”键完成校正, 如果此时测量值与被测溶液值相差小于2 $\mu$ S则校正正确, 反之, 则再按“Ⓢ”退回重新校正直到校正正确。也可以选择其他标准溶液进入校正模式后, 按“Mode/▲”或“CAL/▼”将数值调整到与标准溶液一致即可。(如图2) 长按“Ⓢ”键可以退出校正模式。



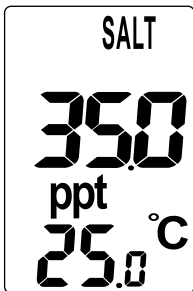
(图2)

4.取出EC电极, 1413 $\mu$ S标准溶液放好, 用清水冲洗EC电极, 甩干并用纸巾擦干EC电极表面。

5.按照3,4的步骤可以完成12.88 $\mu$ S和111.8mS校正。

## 校正 (8372)

- 1.将EC电极放在一杯清水中漂洗1分钟,甩干并用纸巾擦干EC电极表面。
- 2.把EC电极放入35.0ppt标准溶液瓶中,(可放置在玻璃杯中,避免翻倒),**轻轻搅动1分钟**,按“CAL/▼”大于1秒进入校正模式,按“Ⓢ”键完成校正如果此时测量值与被测溶液值相差小于0.1ppt则校正正确,反之,则再按“Ⓢ”退回重新校正直到校正正确。(如图3)  
长按“Ⓢ”键可以退出校正模式。



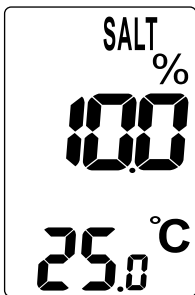
(图3)

- 3.取出EC电极,35.0ppt标准溶液放好,用清水冲洗EC电极,甩干并用纸巾擦干EC电极表面。

## 校正 (8371/8375)

1.将EC电极放在一杯清水中漂洗1分钟,甩干并用纸巾擦干EC电极表面。

2.把EC电极放入10%NaCl(氯化钠)标准溶液瓶中(可放置在玻璃杯中,避免翻倒),**轻轻搅动1分钟**,按“CAL/▼”大于1秒进入校正模式,按“①”键完成校正,如果此时测量值与被测溶液值相差小于0.1%则校正正确,反之,则再按“①”退回重新校正直到校正正确。(如图4)  
长按“①”键可以退出校正模式。



(图4)

3.取出EC电极, 10%NaCl(氯化钠)标准溶液放好,用清水冲洗EC电极,甩干并用纸巾擦干EC电极表面。

## 设定(8373)

1.测量模式下,长按“

2.P40校正点值:在设定模式,按“Mode/▲”或“CAL/▼”键切换到P40,按“

(P40)



(P43)



(P44)



(P45)

3.P50电极常数:在设定模式,按“Mode/▲”或“CAL/▼”键切换到P50,按“

(P50)



(P53)



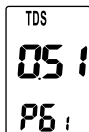
(P54)



(P55)

4.P60 TDS转换系数:在设定模式下,按“Mode/▲”或“CAL/▼”键切换到P60,按“

(P60)



(P61)

5.P80切换温度单位:在设定模式下,按“Mode/▲”或“CAL/▼”键切换到P80,按“”键进入P81,可按“Mode/▲”或“CAL/▼”键切换°C/°F单位,按“”键保存设定,再按回到P80。



(P80)



(P81)

6.P90清除校正数据:在设定模式下,按“Mode/▲”或“CAL/▼”键切换到P90,按“”键进入P91,按“Mode/▲”或“CAL/▼”键出现“YES”字样,按“”键即清除校正数据,再按回到P90,清除校正数据后需要重新校正。



(P90)



(P91)

7.设定模式中长按“”键可以退出设定模式。

## 设定(8371、72、75)

1.测量模式下,长按“”键进入设定模式。

2.P40校正点值:在设定模式,按“Mode/▲”或“CAL/▼”键切换到P40,按“”键切换到P45查看校正点标准溶液值,按“”回到P40。



(8372显示)



(8371/75显示)

3.P50电极常数:在设定模式,按“Mode/▲”或“CAL/▼”键切换到P50,按“”键切换到P55查看相应校正范围的电极常数,按“”回到P50。



(P50)



(P55)

4.P80切换温度单位:在设定模式下,按“Mode/▲”或“CAL/▼”键切换到P80,按“”键进入P81,可按“Mode/▲”或“CAL/▼”键切换°C/°F单位,按“”键保存设定,再按回到P80。



(P80)



(P81)

6.P90清除校正数据:在设定模式下,按“Mode/▲”或“CAL/▼”键切换到P90,按“Ⓢ”键进入P91,按“Mode/▲”或“CAL/▼”键出现“YES”字样,按“Ⓢ”键即清除校正数据,再按回到P90,清除校正数据后需要重新校正。



(P90)



(P91)

7.设定模式中长按“Ⓢ”键可以退出设定模式。

## 故障代码

- 1) E02:测量值超出下限;
- 2) E03:测量值超出上限;
- 3) E04:测量温度错误;
- 4) E31:硬件问题,需要维修;

## 常见问题

1:错误操作:**测量完不清洗,这是错误的!**

测量完成后,一定要用清水(如自来水)清洗EC电极,可以用软毛牙刷刷洗EC电极头。尤其测量溶液有油脂一定要用清洗剂将EC电极表面的油脂清洗干净。

## 特殊声明

- 1.旧电池必须按照地方法律和规则来处理。
- 2.本公司保留对本产品设计规格及说明书内容的更新修改的权利,若有变更恕不另行通知!

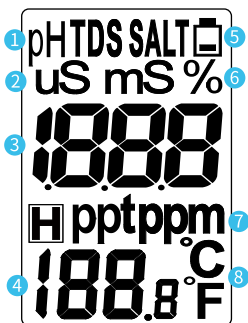
## 保修事项

- 1.本产品自购买日起,在正常使用未经拆装,维修或第三方因素的损坏下一年内享受保修服务,在任何正常情况下均提供维修。
- 2.上述保修条款只对主机有效,探头配件等耗材不在保修范围内。

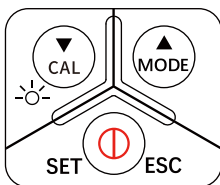
# Specification

| Model                                | 8373                                                                                   | 8372          | 8371/8375                                                                                            |
|--------------------------------------|----------------------------------------------------------------------------------------|---------------|------------------------------------------------------------------------------------------------------|
| Salt Range                           | 0 to 9999ppm<br>10.0 to 100.0 ppt<br>(0.00%~10.0%)                                     | 0~55.0ppt     | 0.0~15% (8373)<br>0.0~25%                                                                            |
| Salt Resolution                      | 1ppm/0.1ppt<br>(0.01%/0.1%)                                                            | 0.1ppt        | 0.1%                                                                                                 |
| Salt Accuracy                        | ±1%(FS+digit)                                                                          | ±1%(FS+digit) | 0.1~1.9%(±0.1%)<br>2.0~4.9%(±0.2%)<br>5.0~9.9%(±0.5%)<br>10.0~14.9%(±1.0%)<br>15.0~25.0%(±2.0%) 8375 |
| Temp Range                           | 0.0~90.0°C                                                                             | 0.0~60.0°C    | 0.0~90.0°C (8371)<br>0.0~60.0°C(8375)                                                                |
| Temp Resolution                      | 0.1°C/0.1°F                                                                            |               |                                                                                                      |
| Temp Accuracy                        | ±0.5°C/±0.9°F(0.0~60°C)<br>±1.2°C/±2.2°F (0.0~90°C)                                    |               |                                                                                                      |
| TDS Range                            | 0~1999ppm<br>(2.00 to 19.99)*f ppt<br>(20.0 to 140.0)*f ppt<br>f:TDS conversion factor | /             | /                                                                                                    |
| TDS Resolution                       | 1ppm<br>0.01ppt<br>0.1ppt                                                              | /             | /                                                                                                    |
| TDS Accuracy                         | ± (1%FS+digit)                                                                         | /             | /                                                                                                    |
| TDS factor                           | 0.3~1.00<br>(default:0.50)                                                             | /             | /                                                                                                    |
| EC Range                             | 0 to 1999uS<br>2.00 to 19.99 mS<br>20.0~140.0mS                                        | /             | /                                                                                                    |
| EC Resolution                        | 1uS<br>0.01mS<br>0.1mS                                                                 | /             | /                                                                                                    |
| EC Accuracy                          | ± (1%FS+digit)                                                                         | /             | /                                                                                                    |
| Conductivity Temperature coefficient | 2.1%/°C                                                                                | /             | /                                                                                                    |
| Salt Calibration                     | EC                                                                                     | 35.00ppt      | 10%NaCl(8371)                                                                                        |
| TDS Calibration                      | EC                                                                                     | /             | /                                                                                                    |
| EC Calibration                       | 1413uS<br>12.88mS<br>111.8mS                                                           | /             | /                                                                                                    |
| acceptable window                    | ±20%of the factory default value and<br>≥10%FS                                         | /             | /                                                                                                    |

# Key introduction

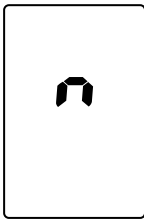


- |                     |                 |
|---------------------|-----------------|
| 1 PH、TDS、EC pattern | 2 EC Company    |
| 3 Measured value    | 4 Temp value    |
| 5 Low power prompt  | 6 Salinity unit |
| 7 PH/TDS Company    | 8 Temp Company  |



1. “”: Turn on and power off the meter setting key, quitting key.
2. “Mode/▲”: Toggling the measurement data, the up adjustment key in setting.
3. “CAL/▼”: Calibrating key, turn on/off the backlight, Turn on/off the backlight, recall the saved data, the down adjustment key in setting.

# Measurement

1. Press “

(P1)

5. The meter connected to the mobile phone charger with Type C port will start charging. After charging is completed "End" will be displayed, and then it will automatically shut down.
6. After measurement, rinse the EC electrode with clean water (e.g. tap water). You can brush the EC electrode tip with a soft brush softly. If there is grease in the measuring sample, be sure to clean the grease on the surface of the EC electrode with detergent.

## Calibration (8373)

1. There are three calibration ranges, they are:

Range1: 0~1999  $\mu\text{S}$ , default using 1413  $\mu\text{S}$  standard solution

Range2: 2.0~19.99  $\text{mS}$ , default using 12.88  $\text{mS}$  standard solution;

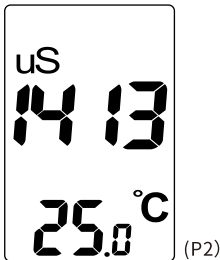
Range3: 20.0~140.0  $\text{mS}$ , default using 111.8  $\text{mS}$  standard solution;

Which range is used to measure, then which range should be calibrated.

2. Rinse the EC electrode with clean water for 1 minute, shake off the water on them slightly and wipe the surface of the EC electrode with a tissue gently.

3. Dip the EC electrode into 1413  $\mu\text{S}$  standard solution (the standard solution can be placed in a clean container to avoid overturning), gently stir it for 1 minute, press the "CAL/▼" for more than 1 second to enter the calibration mode, the solution value and CAL icon on the screen will flash, remember the solution value, press the "Ⓢ" key to complete the calibration, if the difference between the measured value and the solution value is less than 2  $\mu\text{S}$  the calibration is correct, otherwise press the "CAL/▼" to recalibrate until the calibration is correct. Other standard solution can also be selected. After entering the calibration Mode, press "Mode/▲" or "CAL/▼" to adjust the value to the same as the standard solution.

If you want to quit the calibration mode, press "Ⓢ" more than 1 second to return to the measurement mode.



4. Take out the EC electrode, place 1413  $\mu\text{S}$  standard solution back, rinse the EC electrode with clean water, shake off the water on them slightly and wipe the surface of the EC electrode with a tissue gently.

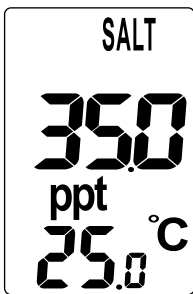
5. In the same way, 12.88  $\text{mS}$  and 111.8  $\text{mS}$  calibration can be completed by repeating the steps in 3.4.

## Calibration (8372)

1. Rinse the EC electrode with clean water for 1 minute, shake off the water on them slightly and wipe the surface of the EC electrode with a tissue gently.

2. Dip the EC electrode into 35.0 ppt standard solution (the standard solution can be placed in a clean container to avoid overturning), gently stir it for 1 minute, press the "CAL/▼" key for more than 1 second to enter the calibration mode, the solution value and CAL icon on the screen will flash, remember the solution value, press the "Ⓜ" key to complete the calibration, if the difference between the measured value and the solution value is less than 0.1 ppt the calibration is correct, otherwise press the "CAL/▼" key to recalibrate until the calibration is correct.

If you want to quit the calibration mode, press "Ⓜ" more than 1 second to return to the measurement mode.



(P3)

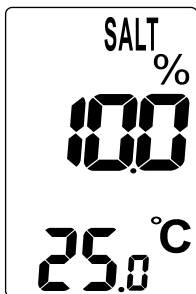
3. Take out the EC electrode, place 35.0 ppt standard solution back, rinse the EC electrode with clean water, shake off the water on them slightly and wipe the surface of the EC electrode with a tissue gently.

## Calibration(8371/75)

1. Rinse the EC electrode with clean water for 1 minute, shake off the water on them slightly and wipe the surface of the EC electrode with a tissue gently.

2. Dip the EC electrode into 10% NaCl standard solution (the standard solution can be placed in a clean container to avoid overturning), gently stir it for 1 minute, press the "CAL/▼" key for more than 1 second to enter the calibration mode, the solution value and CAL icon on the screen will flash, remember the solution value, press the "Ⓢ" key to complete the calibration, if the difference between the measured value and the solution value is less than 0.1%, the calibration is correct, otherwise press the "CAL/▼" key to recalibrate until the calibration is correct.

If you want to quit the calibration mode, press "Ⓢ" more than 1 second to return to the measurement mode.



(P4)

3. Take out the EC electrode, place 10% NaCl standard solution back, rinse the EC electrode with clean water, shake off the water on them slightly and wipe the surface of the EC electrode with a tissue gently.

## Setting(8373)

1.While in measuring mode, press “

2.P40 for standard solution value: In setting mode, press “Mode/▲” or “CAL/▼” key to switch to P40, then press “

|                                                                                  |                                                                                   |                                                                                   |                                                                                   |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|  |  |  |  |
| (P40)                                                                            | (P43)                                                                             | (P44)                                                                             | (P45)                                                                             |

3.P50 for Cell constant: In setting mode, press “Mode/▲” or “CAL/▼” key to switch to P50, then press “

|                                                                                    |                                                                                     |                                                                                     |                                                                                     |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |  |
| (P50)                                                                              | (P53)                                                                               | (P54)                                                                               | (P55)                                                                               |

4.P60 for TDS conversion fraction: In setting mode, press “Mode/▲” or “CAL/▼” key to switch to P60, then press “

|                                                                                     |                                                                                     |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |
| (P60)                                                                               | (P61)                                                                               |

5.P80 for select temperature unit: In setting mode, press “Mode/▲” or “CAL /▼” key to switch to P80, press “Ⓢ” key to enter P81, and then press “Mode/▲” or “CAL /▼” key to select °C/°F unit, press “Ⓢ” key to confirm and back to P80.



(P80)



(P81)

6.P90 for clearing calibration data: In setting mode, press “Mode/▲” or “CAL/▼ ” key to switch to P90, press “Ⓢ” key to enter P91, press "Mode/▲" or " CAL /▼" key until the word “yes” appears, press “Ⓢ” key to clear the calibration data, and back to P90, after clearing the calibration data, you need to re-calibrate.



(P90)



(P91)

7.If you want to quit the setting mode, press “Ⓢ” more than 1 second to return to the measurement mode.

# Setting(8371、72、75)

1.While in measuring mode, press “” more than 1 second to enter Setting mode.

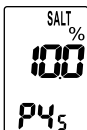
2.P40 for standard solution value: In setting mode, press “Mode/▲” or “CAL/▲” key to switch to P40, then press “” to switch from P43 to P45 in turn, you can view the standard solution value in P45.



(8372显示)



(8371/75显示)



3.P50 for Cell constant: In setting mode, press “Mode/▲” or “CAL/▼” key to switch to P50, then press “” to switch from P53 to P55 in turn, you can view the cell constant of the probe in P55.



(P50)



(P55)

4.P80 for select temperature unit: In setting mode, press “Mode/▲” or “CAL/▼” key to switch to P80, press “” key to enter P81, and then press “Mode/▲” or “CAL/▼” key to select °C/°F unit, press “” key to confirm, and back to P80.



(P80)



(P81)

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



(P90)



(P91)

6.If you want to quit the setting mode, press "Ⓢ" more than 1 second to return to the measurement mode.

## Error message

- 1) E02: Measurement data is under the lower limit,
- 2) E03: Measurement data is over the upper limit,
- 3) E04: Temperature measurement is error,
- 4) E31: Hardware failure.

## Common problems

1. No cleaning after measurement, it is wrong.  
After measurement, rinse the EC electrode with clean water (e.g. tap water). You can brush the EC electrode tip with a soft brush softly. Especially there is grease in the measuring sample, be sure to clean the grease on the surface of the EC electrode with detergent.

## Special statement

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 the content of the manual of this product. If there is any change, it will not be notified.

## 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.

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