KydroPro 100 Handheld multi-parameter water quality analyzer user manual

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1. Summaries

Dear customer,Thank you for purchasing our Kydro sonde Handheld Multiparameter Sensor and KydroPro 100 Portable water quality meter. Reading the entire manual before use is highly recommended for operation and maintenance the instrument and out of unnecessary trouble.

Please observe the operating procedures and precautions in this manual.

To make sure the effective after-sales protection provided by the instrument, please do not use any operation or maintenance other than which mentioned in the manual. Due to non-compliance with the precautions specified in this manual, any fault and loss caused shall not be covered by the warranty, and the manufacturer shall not bear any relevant responsibility. If you have any questions, please contact our after-sales service department or representative.

Carefully unpack the instrument and accessories from the shipping container, and inspect for possible damage during shipping. Check received parts with items on the packing list. If any parts or materials are damaged or missing, please contact your supplier or the authorized distributor or your supplier immediately.

Save all packing materials until you are sure that the instrument functions properly. Any damaged or defective items must be returned in their original packaging materials.

2. Overview

KydroPro sensor and KydroPro instrument for the measurement of pH, ORP, optical dissolved oxygen, conductivity, turbidity, temperature, salinity and more. KydroPro sensor allows for measurement of up to 5 parameters. They are automatically recognized by KydroPro instrument when connected. A backlit display, brief interfaces, simple operation keyboard, convenient calibration procedures, rechargeable battery, large log memory and powerful PC data program (Meter Read) make the instrument user friendly.

The dissolved oxygen sensor adopts the internationally leading fluorescence lifetime technology, which is based on the quenching principle of specific substances to active fluorescence in physics. The remarkable advantage of this fluorescence method in measuring dissolved oxygen is that it does not consume oxygen in the measurement process, so there is no flow rate limit, no need to preheat electrolyte, no need for maintenance and frequent calibration. The response time of Kacise optical dissolved oxygen probe is as low as 30 seconds, making the measurement of dissolved oxygen more accurate, more stable, faster and more convenient.

2.1. Introduction

2.2. Specifications

KydroPro Sensor Specifications		
Optical dissolved oxygen Sensor	Range	0-20mg/L or 0-200% air Sat.
	Accuracy	0- 200%：±1%
	Resolution	0.01mg/L
	Calibration method	One or Two point
Turbidity Sensor	Range	0.1-1000NTU
	Accuracy	±5% or ±0.3NTU
	Resolution	0.1 NTU
	Calibration method	Zero, One or Two point

4-electronic conductivity Sensor	Range	1uS/cm～100mS/cm or 0~5mS/cm
	Accuracy	±1%
	Resolution	1uS/cm～100mS/cm: 0.01mS/cm 0~5mS/cm: 0.01uS/cm
	Calibration method	One or Two point
pH Sensor	Range	pH: 0～14
	Accuracy	±0.1
	Resolution	0.01
	Calibration method	Three point
Salinity Sensor	Range	0~80ppt
	Accuracy	±1ppt
	Resolution	0.01 ppt
	Calibration method	One or Two point
Temperature	Range	0~50℃
	Accuracy	±0.2℃
	Resolution	0.01℃
Other specifications	Housing IP Rating	IP68
	Size	Φ22×166mm
	Communication protocol	RS-485, MODBUS
	Power Requirements	DC 5~12V，current<50mA
KydroPro Instrument Specifications		
Size	220 x 96 x 44mm	
Weight	460g	
Power	Two 18650 rechargeable batteries	
Storage temperature	-40~85℃	

Display	54.38 x 54.38LCD back illuminated
Data storage	Support
Pressure compensation	Built-in，auto compensation in 50~115kPa
IP rating	IP67
Regular Shutoff	Support

3. Setting-up

3.1. Configuration

The system includes the following list：

Item	Number	Note
KydroPro Instrument	1	
Kydro sonde	1	Including 4 sensors
18650 rechargeable battery	2	3350mAh/3.7V, used for KydroPro
D-type battery	2	Used for KydroPro
Port plug	4	
USB cable line	1	Micro USB
Wristband	1	
Screwdriver	1	To open the battery compartment
O-ring	1	Sensor cap sealing part
Sponge	2	To moisturize sensor cap
Protect Cap	1	To store the sensor cap

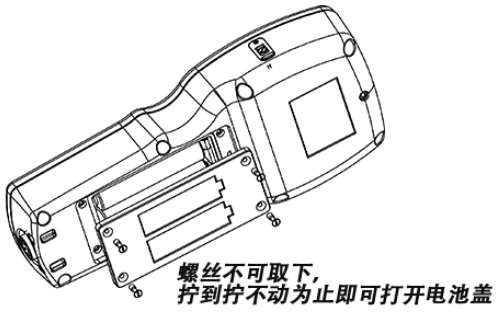
Note： Check the individual parts against the list of components. If anything is missing or damaged, notify after-sales service department immediately.

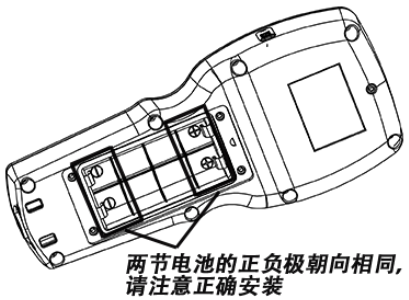
3.2. Installing the batteries

3.2.1. KydroPro instrument part:

The instrument is designed to operate with two lithium batteries. Please follow the below steps.

1）





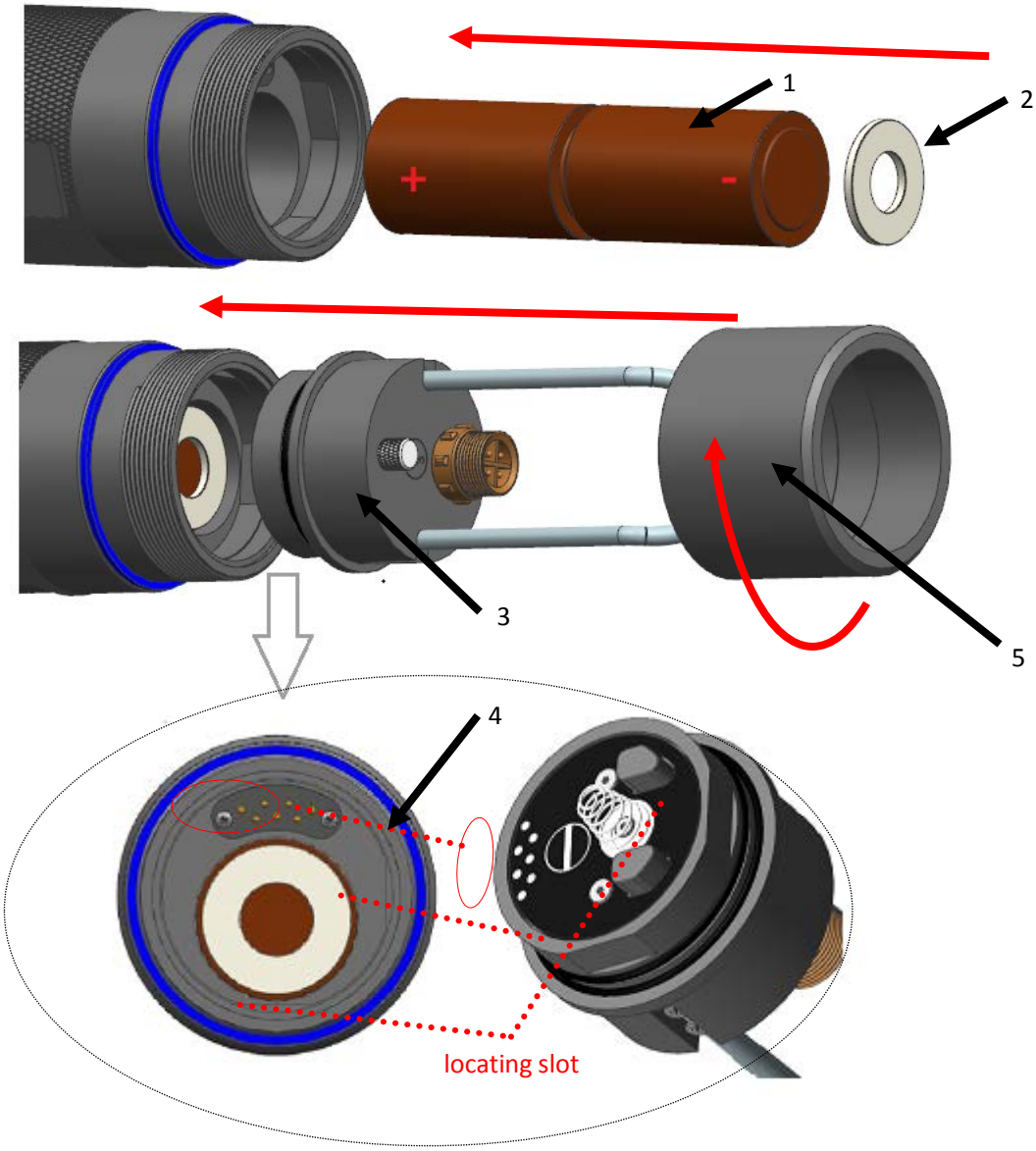
Unscrew the screws on the battery compartment and open it. Note: The screw can't be taken off. That means the battery compartment cannot be opened until the screw

can't be turned;

2）Inspect battery compartment and install two batteries. Please pay attention to battery polarization marks inside the battery compartment, as shown in the figure below.

3）Close the battery compartment. Note that the sealing ring cannot fall off or be uneven. Make sure correct direction of compartment and tighten up the screws.

3.2.2.KydroPro sesor part:



1 D-type battery	2 Battery gasket	3 Tail plug	4 Connectors	5 Tail cover

The sensor is designed to operate with two D-type batteries. Please follow the below steps.

1. Remove the tail cover by unscrewing (counter-clockwise) with hand. Then pull out the tail plug.

2. Correctly align and seat the two D-type batteries and gasket into the sensor. Please pay attention to battery polarization marks, as shown in the figure.

3. Align the tail plug and sensor connectors and locating slot, then insert the tail plug into the sensor. Tighten up the tail cover clockwise and the installation is completed.

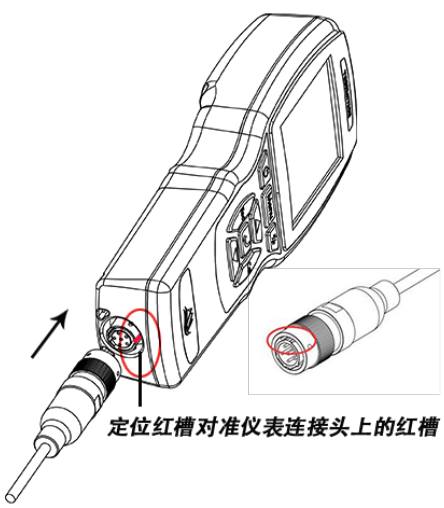
3.3. Installing

3.3.1. Connect the cable assembly to KydroPro 100

The sensor cable has a red slot on the mini-BNC connector which must align with the connector at the base of the instrument. Then insert gently and turn clockwise until the “click” sound is heard.

When remove the sensor, push the sensor cable connector in and turn out anticlockwise.

Installation：



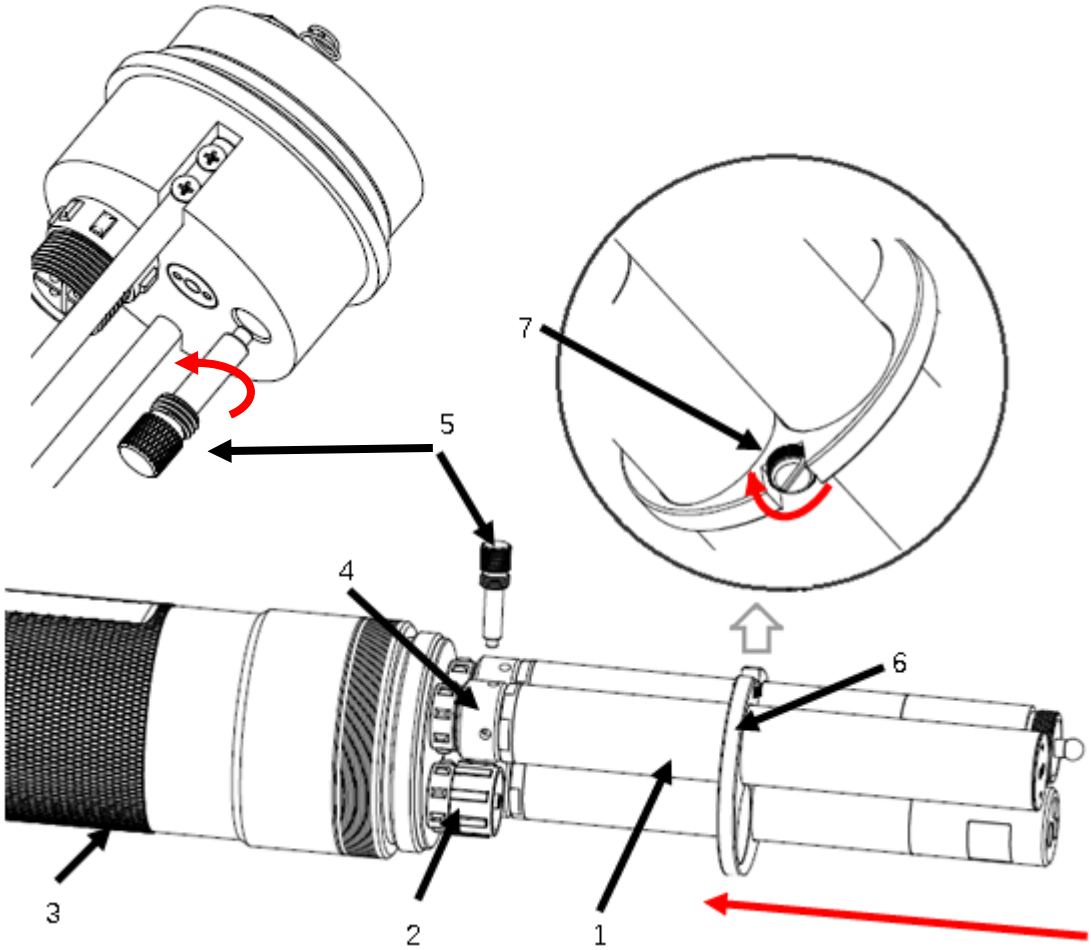
Removal：

3.3.2. Kydro sonde installation

Installation：

1. First rotate the sensor removal tool counterclockwise from the top of sensor, as shown in the figure below.
2. Carefully align the sensor and bulkhead connectors by inserting the sensor into the port then finger-tighten the retaining nut clockwise. If any resistance is felt, use the sensor removal tool to tighten the retaining nut clockwise until snug.
3. Insert the retaining ring and tighten the fixing screw clockwise.

Note: Do not over-tighten the fixing screw. Over-tightening can cause damage to the sensor or retaining ring not covered by the warranty.



1 Sensor	2 Port plug	3 Bulkhead	4 Sensor retaining nut
5 Sensor removal tool	6 Retaining ring	7 Fixing screw	

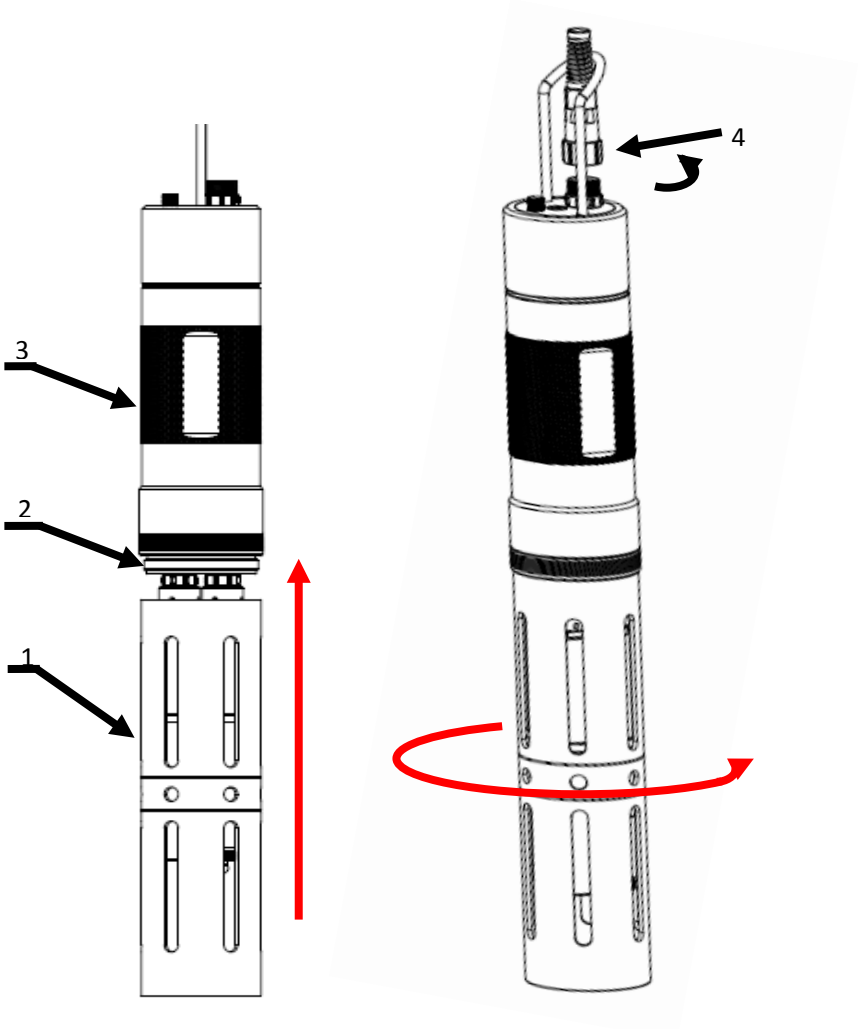
Removal：

First remove the fixing screw anticlockwise and pull out the retaining ring. To remove a sensor, insert the sensor removal tool into the retaining nut, then rotate the retaining nut counter-clockwise to loosen. Pull the sensor straight out of the port and place it on a clean surface.

Note: Install a port plug if not reinstalling a sensor in the exposed port. Exposure to water can cause damage or corrosion to the connectors.

3.3.3. Sensor guard installation and connect the cable to Kydro sonde

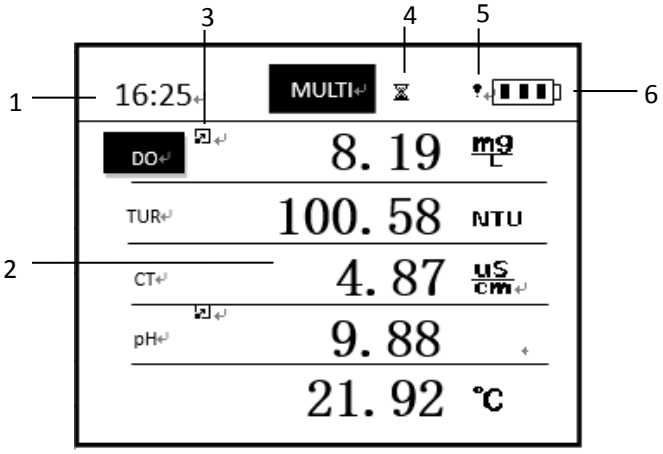
1. Carefully push the sensor guard toward the bulkhead until the sensor guard threads align with the bulkhead threads.
2. Carefully finger-tighten the sensor guard clockwise.
3. The sensor cable must insert gently and align with the connector at the top of the sensor. Then finger-tighten the connector clockwise.



1	Sensor Guard
2	Bulkhead threads
3	Bulkhead
4	Connector

4. Operation

Press key to turn the KydroPro 100 on. When there is no sensor connected, the measurement interface will display “No Signal!”. If Kydro Sonde 100 is connected, the display will show up to 5 parameters as shown in the figure below.



1	Time（min：sec）
2	Parameters: Including data of 4 sensors and temperature.
3	Press ”✓” can switch unit of selected sensor
4	In logging data every 1 second
5	Battery warning: Indicting that will shut itself down soon.
6	Battery indicator. If appears, directly charge by using USB cable provided with or remove the rechargeable batteries to charge.

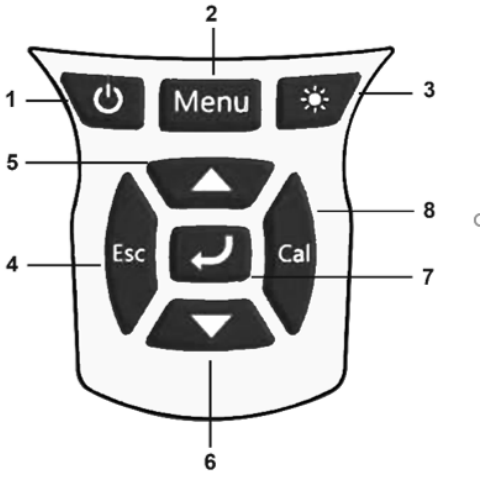
Keypad Function

1		Short press	Turn the KydroPro on
		Long press	Turn the KydroPro off
2	Menu	Short press	Switch to Menu interface
3		Short press	Turn the backlight on and off
4	Esc	Short press	Exit settings； Return to the previous interface
5		Short press	Scroll up the menu selection Increase figure
6		Short press	Scroll down the menu selection Decrease figure
7		Short press	Accept a menu selection Accept setting and values Switch unit
8	Cal	Short press	Switch to Calibration interface
		Long press	Switch to factory Calibration recovery interface

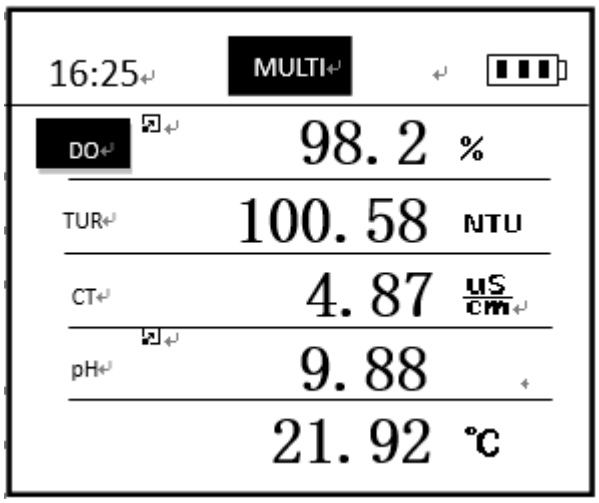
Note:

Short press： press and hold less than 2sec

Long press： press and hold more than 2sec



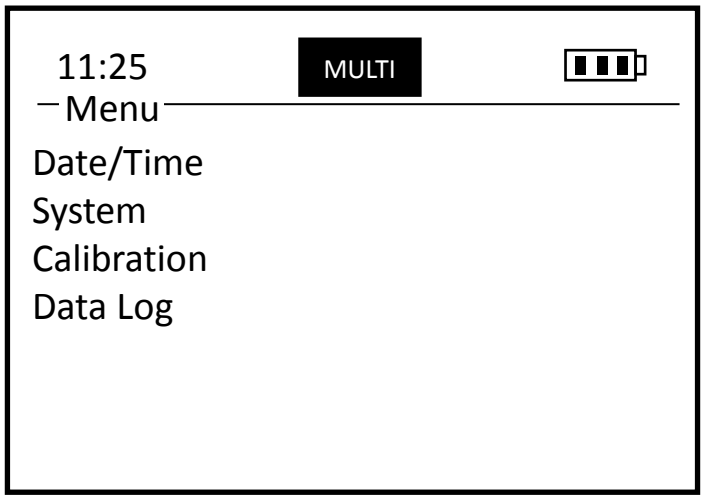
4.1. Measurement interface



The measurement interface contains four sensor parameters: DO, Turbidity, Conductivity, pH. To switch to each sensor, use the "▲▼" keys to highlight a selection. If there is a "🖻" beside the selection, press "↙" can switch its unit.

If the data is out of float, a "ovf" will flash

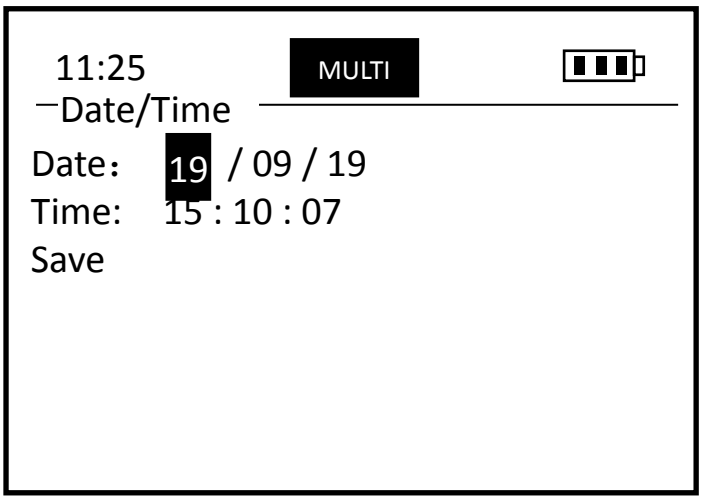
If "--"displayed, it means the probe is disconnected or does not exist.



Menu

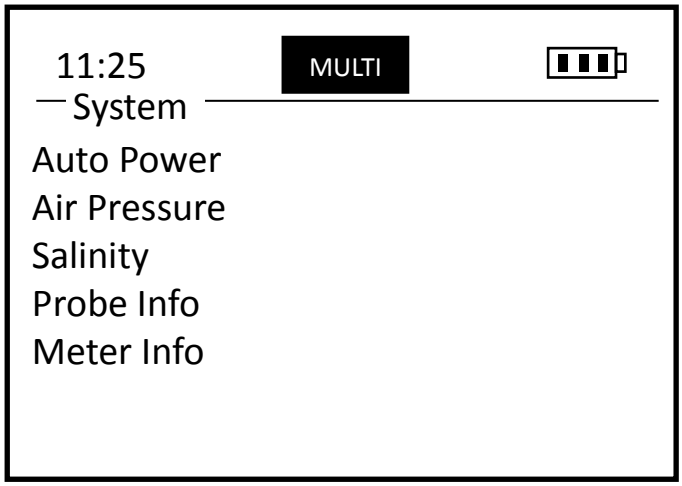
Press the Menu key to switch to menu interface. To select a menu item, use the "▲▼" key to highlight the selection and press the "↙" button. To exit a menu or menu item, press the ESC key.

4.2. Date/Time

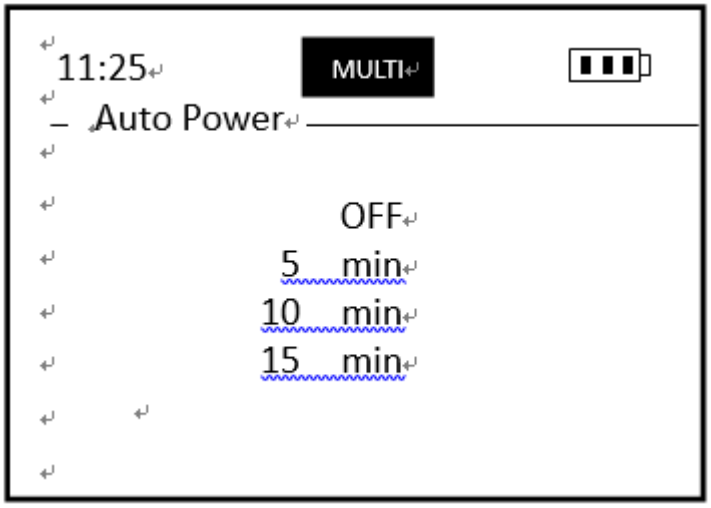


Date/Time menu is where you can setup date and time. Use the ▲or ▼keys to scroll through the highlight data, and then press the "↙" key to move on to next data. Select Save and press the "↙" key to accept desired Data/Time. Then will shows "Save Success!".

4.3. System



System menu is where you can enquire and setup all parameters. These include Auto Power, Air Pressure, Salinity, Probe Info, and Meter Info. To switch to a menu item, use the "▲▼" keys to select an option, and the "↙"key to accept.



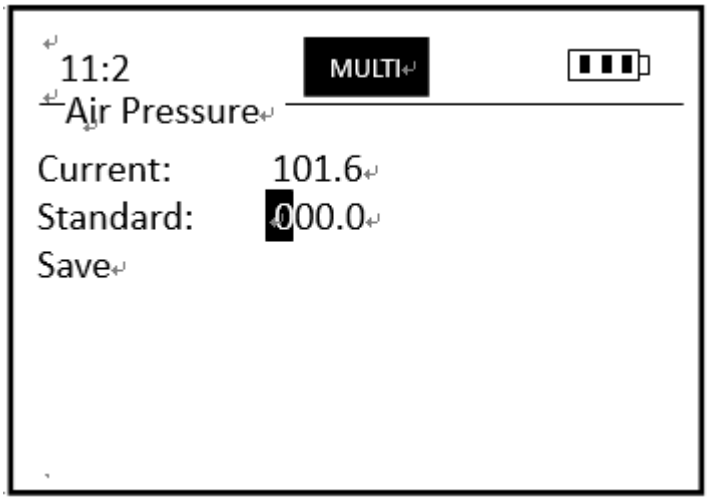
Auto Power

In Auto Power, there are four mode:

OFF indicates the power supply is normally open,

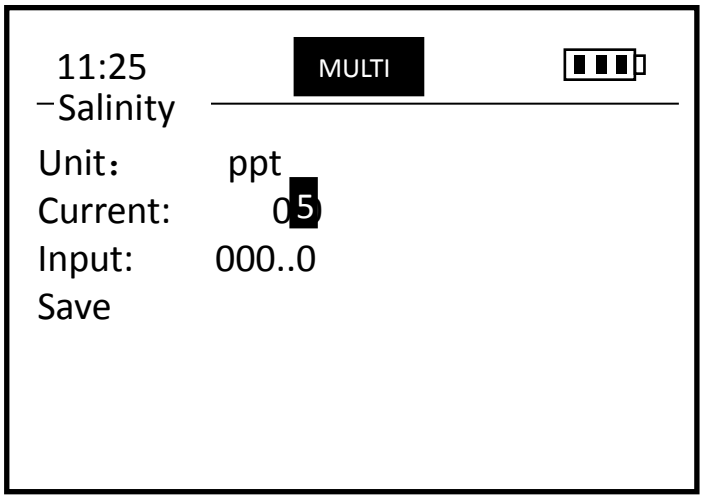
When set to 5 min , 10 min, 15 min, the instrument will shut off after 5 minutes, 10 minutes, 15 minutes of no operation,

Use the "▲▼" keys to select the mode, and the "↙"key to accept. The instrument use 5 minutes by default.



Air Pressure

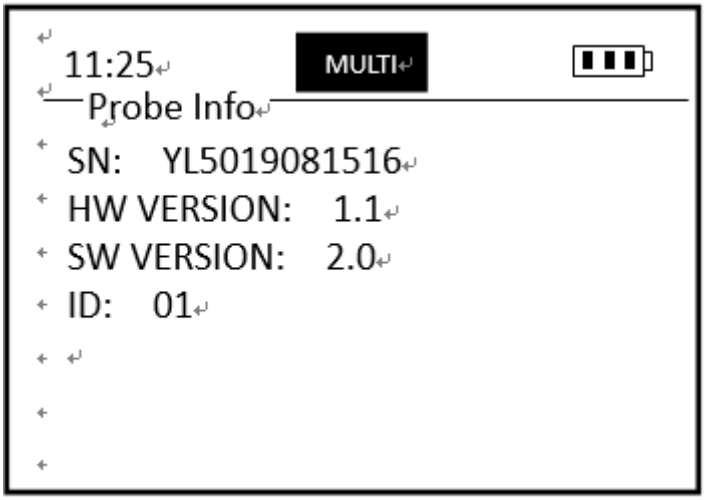
This menu can do Air calibration in kPa as it will effect DO value. Current indicates measured air pressure. Standard indicates the desired pressure that to be calibrated. Make adjustments with the ▲or ▼arrow keys and the "↙" key to move on to next value. Select Save and press the "↙" key to accept.



Salinity

This menu can setup salinity value. The DO value will increase as salinity decreases. The instrument can compensate for the deviation. Make adjustments with the ▲or ▼keys and then press the "↙" key to turn to next data. Select Save and press the "↙" key to accept desired salinity. The default value is 0 ppt. Generally, the fresh water is 0-0.5ppt, and the sea water is 35ppt.

If Salinity sensor exits, the setup will be failed.



Probe Info

This menu includes 4 sensors option. Select highlight sensor can check information of sensor including SN, HW version, SW version, Modbus ID.

Meter Info

This menu can check information of the instrument including SN, HW version, SW version.

4.4. Calibration

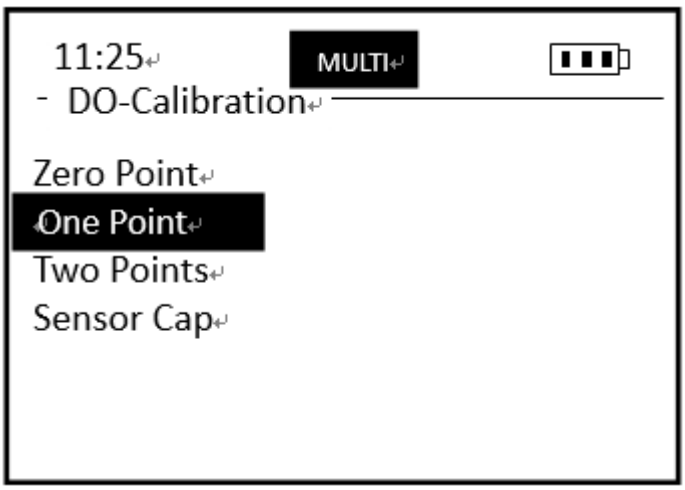
Under Menu->Calibration, chose a sensor and press the "☑" key to enter the calibration interface. In the measurement interface, select a sensor and press the "Cal" key can also switch to the calibration interface.

Note：Please do not unplug the sensor during the entire calibration process.

4.4.1. **DO Calibration**

The instrument supports both single-point and two-points user calibration for DO sensor. There is no Zero calibration here.

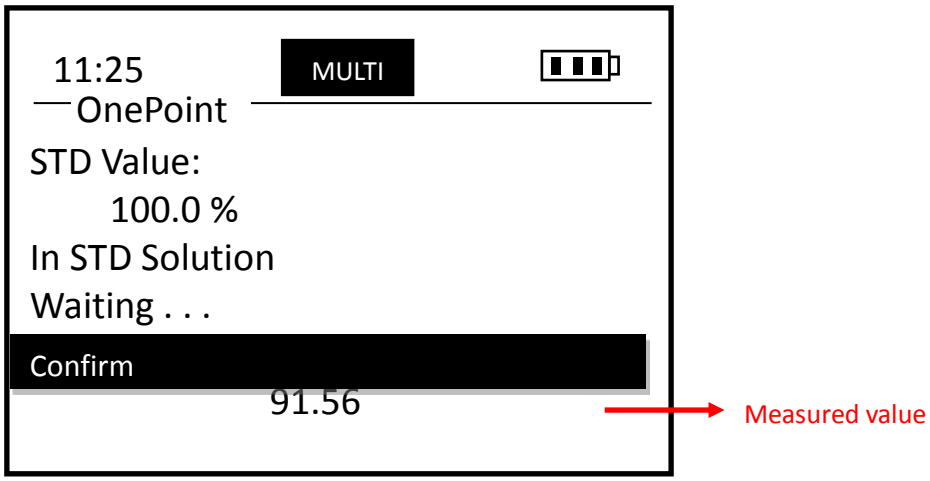
Note: Before calibration, please move protect cap with damped sponge from the sensor cap of DO and make sure the sensor has connected to the instrument.



4.4.1.1. One-Point calibration

- "STD Value": The concentration values of standard solutions can be customized. **Normally 100%SAT DO is chosen for single-point calibration**. Make adjustments with the ▲or ▼keys and then press the "☑" key to turn to next data.
- "In STD Solution": Press the "☑" key under "Click Enter" to step to"In STD Solution". Put the DO sensor into the standard solution you choose. The measured value in % unit will display on the bottom of screen. Wait for few minutes to stabilize the data, as shown in the figure.

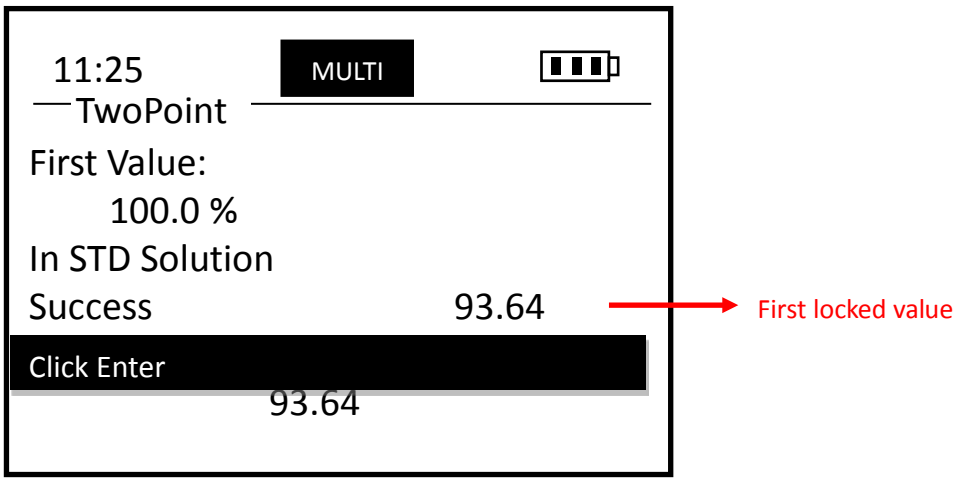
- “Confirm”:After the data is stabled, press the “↙” key under “Confirm”. And the instrument will calculate the slope. The prompt "success" or "fail" indicates calibration result. Press the “↙” key under "Cali Done!" to exit the calibration.



4.4.1.2. Two-points calibration

- First performed 100% SAT calibration, the procedure is similar to single-point calibration. Then press the “↙” key under “Click Enter” to start second calibration, as shown in the figure.
- Follow the instructions: “STD Value”->“In STD Solution”->“Confirm”. After enter the second needed value, put the sensor into the standard solution. Press the “↙” key after the data is stabled. The prompt "success" or "fail" indicates calibration result.

We strongly recommend to use 100%SAT DO as first standard value and 0%SAT DO as second standard value.



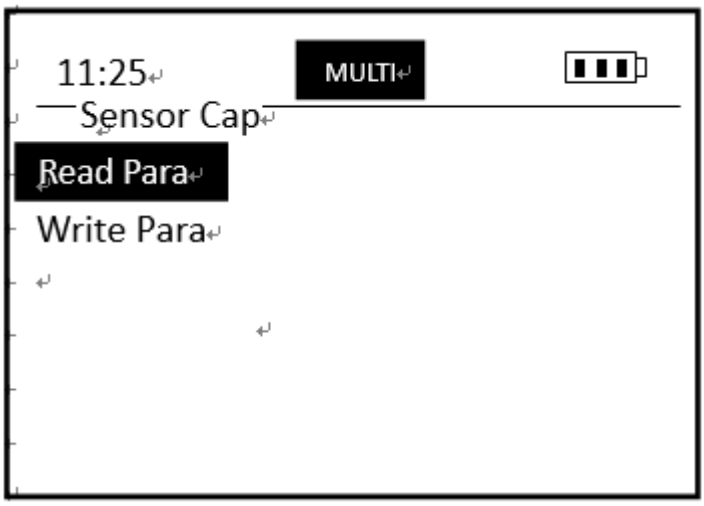
0%SAT DO calibration solution: take anhydrous sodium sulfite (Na2SO3) to a beaker, add 200ml of tap water or pure water, and stir until dissolved or even precipitates crystals.

100%SAT DO calibration solution：Aerate the water with an oxygen pump and continue 15 minutes. Then can get air saturated water solution.

* The air can be considered as saturated oxygen environment if the condition is not allowed.

4.4.1.3. Sensor Cap parameter read and write

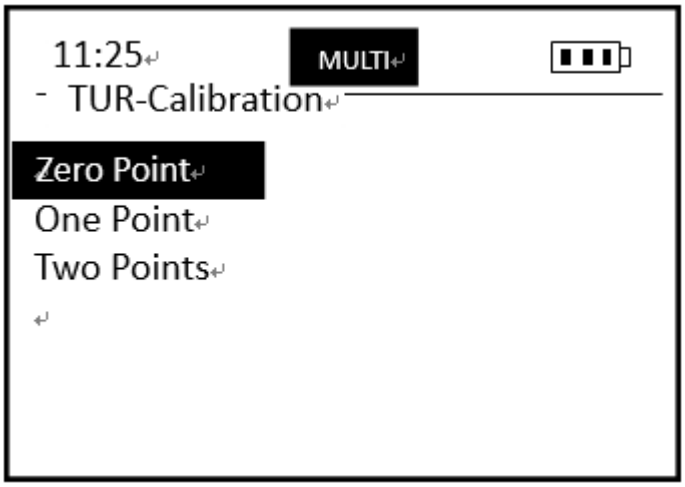
To update the sensor cap, you need to input correct coefficients specific to the sensor cap. There are K0 to K7 total 8 parameters.



Select Read Para and press the "↙" key to switch to read sensor cap parameters interface. These consist of K0-K7 8 parameters. To change the value, highlight the Write Para option and press the "↙" key. Make adjustments with the ▲ or ▼ keys and then press the "↙" key to move on to next data. Select Save and press the "↙" key to accept all new coefficients.

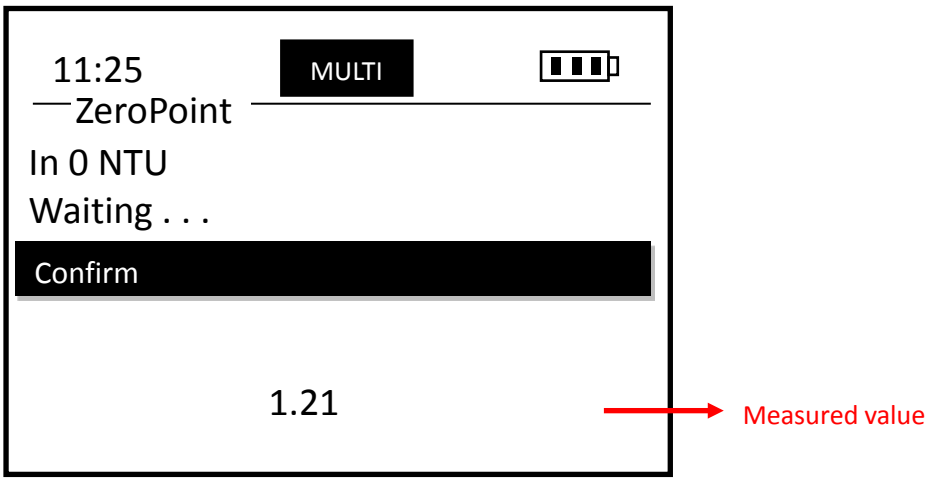
4.4.2. Turbidity Calibration

The instrument supports zero-point, single-point and two-points user calibration for Turbidity sensor.



4.4.2.1. Zero-point Calibration

- “In 0 NTU”:First put turbidity sensor into 0 NTU standard solution (Normally used distilled water or DI water). The measured value in NTU unit will display on the bottom of screen. Wait for few minutes to stabilize the data.
- “Confirm”:After the data is stabled, press the “☑” key under “Confirm”. The prompt "success" or "fail" indicates calibration result. Press the “☑” key under "Cali Done!" to exit the calibration.



4.4.2.2. One-Point calibration

Follow the instructions: “STD Value”->“In STD Solution”->“Confirm”. After enter needed value, put the sensor into standard calibration solution. The same as DO, see 3.3.1. **We strongly recommend not using 0NTU solution for single-point calibration.**

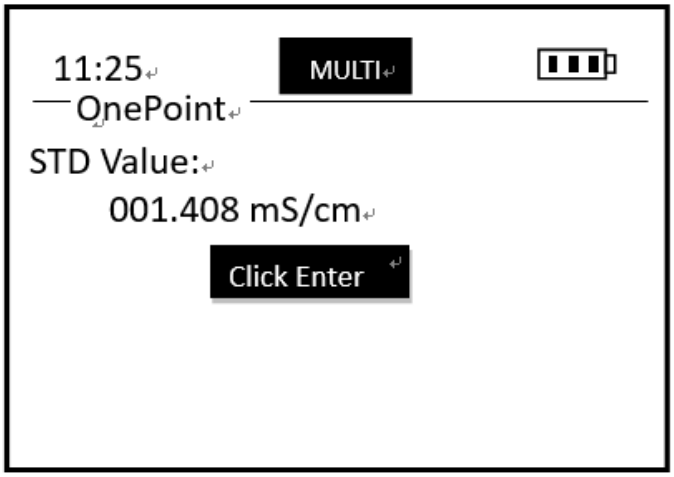
4.4.2.3. Two-points calibration

Follow the instructions: “STD Value”->“In STD Solution”->“Confirm” to perform first calibration. Then press “☑” key under “Click Enter” to start second calibration. The same as DO, see 3.3.1.

4.4.3. Conductivity Calibration

The instrument supports Single-Point or Two-Point calibration for conductivity sensor.

1.4083mS/cm standard calibration solution is recommended for low range sensor;



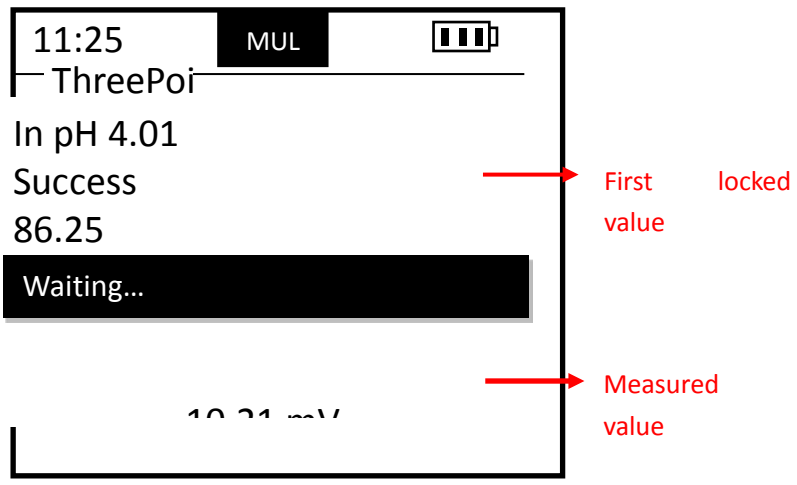
12.852mS/cm standard calibration solution is recommended for high range sensor.

4.4.3.1. One-Point calibration

Follow the instructions: “STD Value”->“In STD Solution”->“Confirm”. Enter the needed calibration value as show in the figure. Press the “↙” key under “Click Enter” to step to“In STD Solution”. Put the sensor into the standard solution you choose. The measured value in mS/cm unit will display on the bottom of screen. Wait for few minutes to stabilize the data, then press the “↙” key to finish calibration. The same as DO, see 3.3.1. **We strongly recommend not using 0mS/cm solution for single-point calibration.**

4.4.3.2. Two-points calibration

Follow the instructions: “STD Value”->“In STD Solution”->“Confirm” to perform first calibration. Then press “↙” key under “Click Enter” to start second calibration. The same as DO, see 3.3.1.



4.4.4. pH Calibration

Standard three point calibration at pH4.01, pH6.86, and pH9.18 is

required for pH sensor.

4.4.4.1. Three-points calibration

Follow the screen instruction from pH4.01 calibration solution, to pH6.86, then pH9.18. Please make sure the reading is stable before accepting the data and move on to the next. The prompt "success" or "fail" indicates calibration result. Press the "↙" key under "Cali Done!" to exit the calibration.

4.4.5. Salinity Calibration

The instrument supports Single-Point or Two-Point calibration for salinity sensor.

4.4.5.1. One-Point calibration

Follow the instructions: "STD Value"->"In STD Solution"->"Confirm". After enter the needed calibration value, put the sensor into the standard calibration solution you choose. The measured value in ppt unit will display on the bottom of screen. Wait for few minutes to stabilize the data, then press the "↙" key to finish calibration. The same as DO, see 3.3.1. **We strongly recommend not using 0ppt solution for single-point calibration.**

4.4.5.2. Two-points calibration

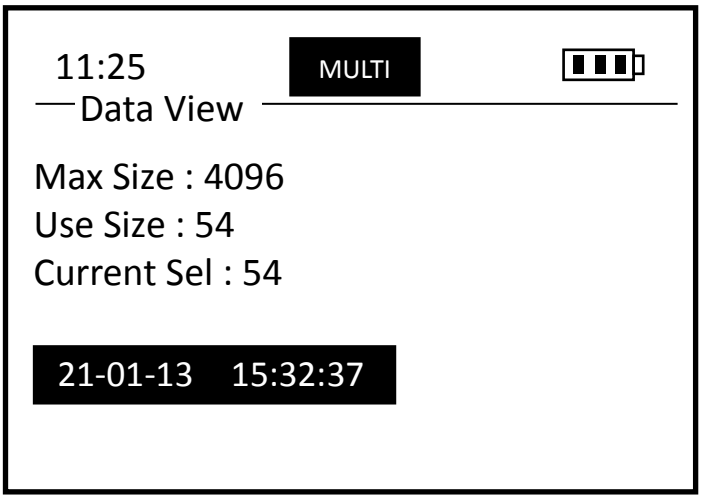
Follow the instructions: "STD Value"->"In STD Solution"->"Confirm" to perform first calibration. Then press "↙" key under "Click Enter" to start second calibration. The same as DO, see 3.3.1.

4.5. Data Log

4.5.1. Data Store

The KydroPro 100 analyzer has 4096 measurements that can be logged to memory and can be programmed to store measurements in two logging formats. When set to **Data Log/Data Store/Store 1 Times**, the user samples start to be logged a time. When set to **Data Log/Data Store/Store 1 second**, the instrument will start logging with an interval of 1 second. At the same time, a "⧗"will display on the screen. If press **Data Log/Data Store/Store 1 second** again, the "⧗"will disappear and the logging finished.

4.5.2. Data View



Max Size

Indicates the numbers of measurements to be logged.

Use Size

Indicates the numbers of measurements have been logged.

Current Sel

Indicates the selected sample item that contains the data to be recalled. As shown in below picture, currently, the sample item 54 is read.

The stored measurements are named after date and time the samples were taken. For example, 21-01-13 15:32:37 means the sample item 54 is stored at 15:32:37 on January 13, 2021. Use the ▲or ▼keys to scroll through the other **Current Sel** and press the "↙" key to view all the measurement parameters.

4.5.3. Data Delete

*Select Yes to delete all data. Please choose carefully.

4.5.4. Cal /Reset Cal

Note
Remember in measurement interface where press the **"Cal"** key to switch to calibration interface.

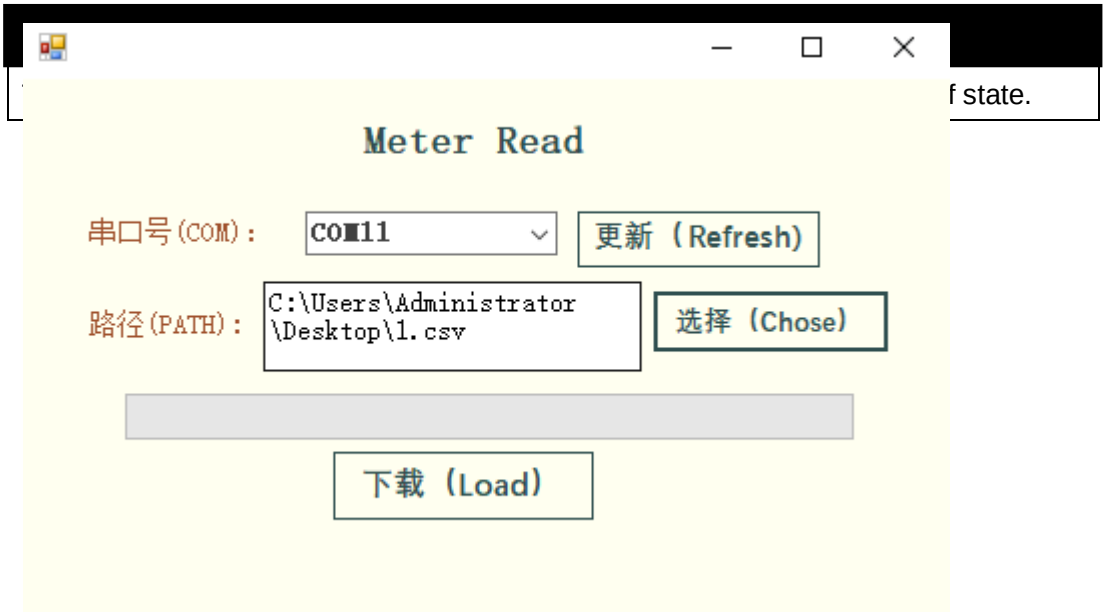
In measurement, choose a sensor and press the "Cal" key to switch to the calibration interface. Please see chapter 3.3 in detail.

Press and hold the "Cal" key can switch to the selected sensor factory Calibration recovery interface where restore k = 1, b =0.

4.6. Connecting to a Computer

The KydroPro instrument comes with special software called MeterRead, which is designed to provide you access to data memory.

Open the software on your computer and connect the supplied computer interface USB cable to the KydroPro and to a computer USB port. Then the COM PORT can identify the port. Select the download data path and click Load. The file format is. CSV.


f state.
Meter Read
串口号(COM)：
COM11
更新（Refresh）
路径(PATH)：
C:\Users\Administrator
\Desktop\1.csv
选择（Chose）
下载（Load）

5. Maintenance

5.1. The instrument maintenance

The KdroPro instrument require very little maintenance to keep it performing well. If the instrument case needs cleaning, wipe it off with a soft cloth. Please keep the battery compartment dry during using.

5.2. DO maintenance

Optical dissolved oxygen sensor is a maintenance free sensor, however to ensure its accuracy specifications, we strongly recommend to perform routine maintenance based on following schedule.

Maintenance	Frequency Recommended
Sensor clean up	Every 30 days
Sensor and DO sensor cap inspection	Every 30 days
DO sensor cap replacement	Every year
Sensor user calibration	Every 3~6 months
Moisturizing DO membrane surface	Every 30 days to Keep DO sensor storage cap wet

Maintenance Schedule:

1) **Clean the sensor case：**
   Use clean water to wash the sensor case. Then gently wipe off with a lens cleaning tissue that has been moistened. For some stubborn dirt, please use gentle home dish cleaner and a soft brush.
2) **Clean the sensor cap surface：**
   Please move protect cap from the sensor cap, rinse any fouling with clean water. Please gently wipe off with a lens cleaning tissue that has been moistened if necessary. Then install the protect cap. Do not scratch the DO membrane with nails or sharp objects. That will cause DO membrane damage and the sensor will not work permanent!
3) **Clean the sensor cap internal surface：** If water vapor or dust intrudes into the sensor cap, the cleaning steps are as follows:
   i. Carefully remove the sensor cap
   ii. Use clean water to wash the sensor cap internal surface
   iii. You can use gentle home dish cleaner if necessary

iv. Then Followed with clean water wash

v. Dry up with lens cleaning tissue

4) **Store DO Sensor Cap：Keep DO sensor storage cap wet to moisturize DO membrane surface.** Store the sensor cap inside protect cap with a piece of damped sponge. Please take off the protect cap and keep it properly during use. Note: if the sponge is dry and lack of water, deionized water or purified water can be added for wetting; if DO membrane is kept in a dry state for a long time, it will lead to inaccurate measurement and greatly shorten the life of DO membrane.

5) **Inspect sensor cable：** The cable should not be tightened in use; otherwise there is a risk of breaking the wire. The sensor will not work normally;

6) The sensor case is inspected for damage due to corrosion or other reasons.

DO Sensor Cap replacement

1）Please turn off the power and unplug the sensor from the instrument before perform sensor cap replacement;

2）Hold the sensor by one hand, and remove the sensor cap from the sensor by rotating the sensor cap counterclockwise using the other hand. DO NOT USE ANY TOOLS.

3）Inspect the O-ring on the probe carefully. If damaged, replace it. Do not use tools to remove or install o-rings.

4) Ensure the O-ring installed is clean.

5) Hold the sensor by one hand, and install the new sensor cap clockwise using the other hand. And dry the inside surface with clean tissue. DO NOT USE ANY TOOLS.

6）After replaced, set the new characteristic parameters that came with the product to the instrument. Please see chapter 3.3 in detail.

Note:

1:Do not touch the DO membrane with hand.

2: Do not apply any mechanical stress directly to the DO membrane (pressure, scratches, etc.)

5.3. Turbidity maintenance

Maintenance	Frequency Recommended
Sensor clean up	According to use environment
Sensor user calibration	Regular 1 or 2 point calibration

Maintenance Schedule:

1) **Clean the sensor case：** The same as DO.

2) **Outer surface**: wash with tap water, for some stubborn dirt, can use the traditional

detergent and soft cloth to clean.

3) **Inspect sensor cable:** The same as DO.
4) The sensor case is inspected for damage due to corrosion or other reasons.

5.4. Conductivity/Salinity maintenance

Maintenance	Frequency Recommended
Sensor clean up	Every 30 days
Sensor user calibration	Regular 1 or 2 point calibration

Maintenance Schedule:

1) **Clean the sensor case：** The same as DO.
2) **Inlet and outlet hole of sensor:** use a cotton swab or a soft cloth to wipe, for some stubborn dirt, can be added to the water in the washing liquid to wash.
3) **Inspect sensor cable:** The same as DO.
4) The sensor case is inspected for damage due to corrosion or other reasons.

5.5. pH maintenance

Maintenance	Frequency Recommended
Sensor user calibration	Calibration every 30 days
Electrode replacement	According to the warranty period and application environment

Maintenance Schedule:

1) **Clean the sensor case：** The same as DO. Pay attention to the electrode ball bubble, avoid breaking!
2) **Inspect sensor cable:** The same as DO.
3) Regular electrode maintenance requires that an electrode be stored in the recommended storage solution between measurements, and that the electrolyte solution be refilled as necessary. 3M KCI solution is recommended as the proper storage solution.

Important: Probe contains sensitive optical components and electronic components. Ensure that the probe stays away from potential mechanical impact. Any damage caused by misuse is not coved by warranty.

6. Common Errors and Trouble Shooting

Table 5-1 lists the symptoms, possible causes, and recommended solutions for common problems encountered with the KydroPro instrument. If your symptom is not listed, or if none of the solutions solves your problem, please contact us.

Table 5-1 Troubleshooting

Symptom	Possible Causes	Corrective Action
No data displayed on Instrument (Check if sondes are connected)	Connection Issue	Reconnect sensor to the instrument
	No batteries or batteries are low of KydroPro instrument	Directly charge by using USB cable provided with or remove the rechargeable batteries to charge.
	Batteries are low of KydroPro sonde	Replace batteries for the sensor
	Cable problem	Contact your supplier
Unstable values (Too high or too low)	Bubble or dirty attached to the sensor measured surface	Clean sensor measured surface or agitate the sensor to eliminate air bubbles
	Bad sensor cap or pH electrode or other consumables	Check and replace
	No regular calibration	Do calibration in time
A red signal shows on top of the Kydro sonde	Batteries are low of Kydro sonde	Replace batteries for the sonde
A “ovf” flash in the measurement interface	Salinity sensor is exposed to the air	Insert salinity sensor into solution
	Other sensor, bad data	First reset user calibration. If not work, please contact your supplier or the authorized distributor or your supplier.