



## Overview | Key Features

**No Maintenance Probe using Florescent Technology** - The fluorescent dissolved oxygen sensor is based on the quenching principle of the specific fluorescence of the specific substance in physics. Blue light from a light-emitting diode (LED) illuminates the fluorescent material on the inner surface of the fluorescent cap, and the fluorescent material on the inner surface is excited to emit red light by detecting the phase difference between red and blue light and the internal calibration value. The ratio is calculated to calculate the concentration of oxygen molecules, and the final value is automatically compensated by temperature and pressure.

**Water Temperature (°C), Dissolved Oxygen (Mg/L), Dissolved Oxygen (% Saturation)** - all displayed simultaneously to provide the user with all the information needed on one simple screen, data is displayed on bar graphs with colour changing features to draw attention to readings of concern. Each of the three values, can be selected and then expanded into larger view, perfect to view in more detail or for fish transport conditions where larger, easier to read values are more desirable.

**3.5" TFT Touchscreen** - Clear, colour touch screen to ensure readings are clear and easy to read.

**Probe Buoyancy Aid, with Adjustable Depth** – Hard-wearing float, fitted inline on the probe cable allows the probe to be used at varying, measurable depths.

**Optional pH Probe** – pH probe can be ordered with the DO Meter, to allow the digital measurement of water pH levels, displayed on graphical pH scale.

## Product Description | Specifications

DO Measuring Range	0-20mg/L or 0-200% Saturation
DO Measuring Precision	± 1%
DO Probe Temperature Range	0~50°C
DO Probe Temperature Precision	±0.2°C
DO Sensor Probe Outer Case Construction Material	316 Stainless Steel
pH Measuring Range	0-14
pH Measuring Precision	± 0.1pH
DO and/or pH Sensor Probe Protection Level	IP68
pH Sensor Probe Outer Case Construction Material	POM
Power Source	1x 7.2V 6x AAA NiMH Battery Pack with Futaba Connector
Cable Length	Approx. 5M
Handheld Meter Protection Level	IP54

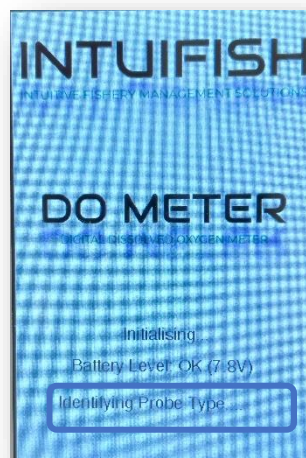
## Operation | Connecting the Probe, Powering the Device and Opening Screen

- 1) Power on by pressing the power button on the top of the device. The device's boot sequence will commence.
- 2) Once the boot sequence has completed, you'll be presented with the "**Data Display**" screen.

*Optional pH probe – the probe connected to the device at power on is automatically detected and will display as DO or pH depending on which probe is connected.*

*Note: As part of the boot sequence, the current battery level is displayed. If the level is below 7.0V 'LOW' will be displayed. Change/Charge the battery as soon as possible for optimum performance.*

*Additionally, 'BATT LOW' will appear during operation at the top of the screen when applicable.*



## Operation | Prepare to Take a Reading & Data Display Screen (DO Probe)

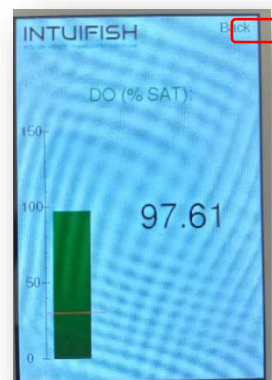
- 1) Ensure the device is powered, the correct probe type has been identified and the data display screen is displayed.
- 2) Remove the probe cap.
- 3) Ensure the probe connector is tightened and secure, especially critical if you are switching between DO and pH sensors.



- 4) Place the probe into the water body to be measured, the float on the cable can be adjusted to set the probe at a specific depth as required.



- 5) Wait 10-15 seconds for the readings on screen to stabilise.
- 6) The readings will continue to update once every 2-3 seconds, so monitoring DO levels in fish transport situations or storage conditions is possible.
- 7) When you are finished, the device can simply be switched off by pressing the power button on the top of the unit, or if you wish to access the menu, press "Menu" in the upper right corner of the screen.
- 8) Alternatively, to view any of the three readings in more detail, simply press on the relevant bar, this will take you to the detail screen. From the detail screen, selecting "Back" will take you back to the 3-bar Data Display screen.
- 9) When you are finished, the device can simply be switched off by pressing the power button on the top of the unit, or if you wish to return to the menu, press "Menu" in the upper right corner of the screen.



### Operation | Prepare to Take a Reading & Data Display Screen (pH Probe)

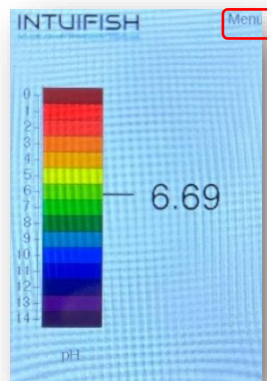
- 1) Ensure the device is powered, the correct probe type has been identified and the data display screen is displayed.
- 2) Remove the probe cap, and immediately replace it with the open-ended protective cap.



- 3) Ensure the probe connector is tightened and secure, especially critical if you are switching between DO and pH sensors.



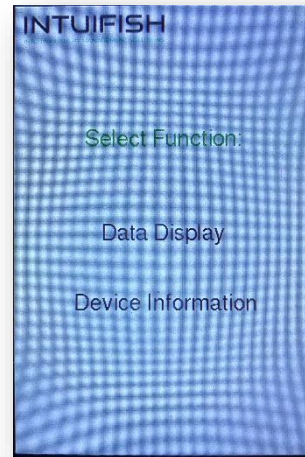
- 4) Place the probe into the water body to be measured, the float on the cable can be adjusted to set the probe at a specific depth as required.
- 5) Wait 30 seconds for the readings on screen to stabilise.
- 6) When you are finished, the device can simply be switched off by pressing the power button on the top of the unit, or if you wish to access the menu, press "Menu" in the upper right corner of the screen.



## Operation | Device Menu

1) The device boots directly into the reading screen for the connected probe for speed and convenience. However, there is a device menu. This is accessed as described in the previous section.

2) There are two menu options "Data Display" which functions as described in the previous section and "Device Information" as described in the following section.



## Operation | Menu Item – Device Information

1) From the menu, press the **"Device Information"** button.

2) This page contains information on the device such as the serial number, and last calibration date along with contact details for us if you need help with the product.

3) The device battery level is displayed on this screen. The device is powered by a 7.2V 6x AAA battery pack, as the battery is used, its voltage will drop.

We recommend this is not allowed to drop below 7V for optimal performance, subsequently any voltage over 7.0V is displayed as OK. Any battery level below 7.0V will be replaced with 'LOW' in red text.

3) When you are finished, the device can simply be switched off by pressing the power button on the top of the unit, or if you wish to return to the menu, press **"Exit"** in the upper right corner of the screen.



## Maintenance | DO Probe Maintenance

Cleaning Sensor <sup>1)</sup>	Clean Monthly
Check Sensor and Fluorescent Cap for Damage <sup>2)</sup>	Check Monthly
Replace the Fluorescent Cap <sup>3)</sup>	Change Annually
Calibrate the Sensor	Advised Annually, Seek advice from Intuifish Ltd

- 1) **Sensor Outer Surface:** Clean the outer surface of the sensor with tap water. If there is still debris left, wipe it with a soft cloth. For stubborn dirt, add household washing liquid to the tap water to clean it.
- 2) **Outer Surface of the Fluorescent Cap:** Remove the protective cover at the front end of the sensor, rinse the dirt from the sensor window with clean water. If you need to wipe it, use a soft cloth and do so carefully bearing in mind if the fluorescent film is scratched the sensor will not work properly.
- 3) **Fluorescent Cap Inner Surface:** If water vapor or dust intrudes into the inside of the fluorescent cap, the cleaning steps are as follows:
  - a. Remove the fluorescent cap.
  - b. Flush the inner surface of the fluorescent cap with deionized water.
  - c. Gently dry all surfaces with a clean lint-free cloth and place in a dry place to allow the water to completely evaporate.
- 4) **Fluorescent Cap Daily Storage:** Ensure the probe cap has the protective cover with a moist sponge inside fitted when not in use, so that the sensor stays damp for the period of inactivity. If the head of the sensor's fluorescent cap is dry for a long time, it may will cause drift of the measurement result. If the cap is allowed to dry it needs to be immersed in water for 48 hours prior to use.

## Maintenance | Optional pH Probe Maintenance

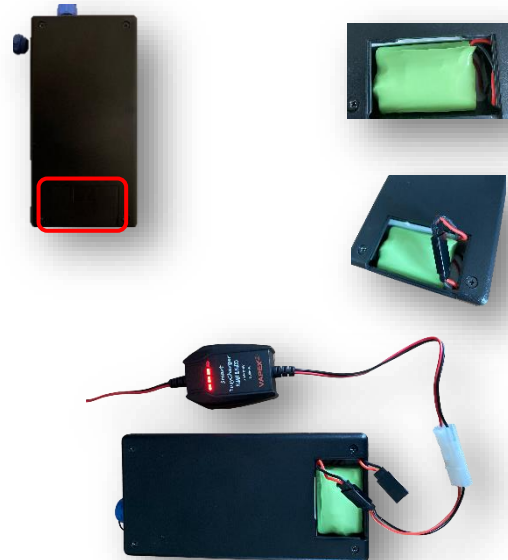
Cleaning Sensor <sup>1)</sup>	Clean Monthly
Check Sensor and Fluorescent Cap for Damage <sup>2)</sup>	Check Monthly
Calibrate the Sensor	Advised Annually, Seek advice from Intuifish Ltd

- 1) **Sensor Outer Surface:** Clean the outer surface of the sensor with tap water. If there is still debris left, wipe it with a soft cloth. For stubborn dirt, add household washing liquid to the tap water to clean it.
- 2) **Sensor Storage:** When the sensor is not in use, you should fasten the black plastic cap and check whether the sponge inside is wet. If it is not wet enough, please add 3mol / L potassium chloride solution and let the electrode be stored in the solution with potassium chloride.



## Inserting/Changing/Charging the Battery

- 1) Ensure the device is powered off.
- 2) Open the **battery access door**.
- 3) Un-Coil the battery connector.
- 4) Fit the battery pack to the connector.
- 5) Place the battery inside the device, ensure the cable is also inside the opening.
- 6) Refit the battery cover.
- 7) For charging, simply disconnect the battery pack from the connector, and connect your charger.



## Storage

Store the device in the carry case provided, after operation, it is suggested to remove excessive moisture and water from the device with a dry cloth. If the device is to remain unused for pro-longer periods, remove the battery.



## Device Cleaning

All parts of the device, except for the probe fluorescent cap (DO Probe), which should be maintained as detailed previously, may be wiped clean with a damp cloth.



This product falls is classified as Waste Electrical and Electronic Equipment, subsequently it must be disposed of correctly when it reaches the end of its useful life.

Please contact us if you feel the product has reached the end of its useful life and we can help arrange the correct disposal of the product.

## Help & Support | Device Safe Use Guidance

- 1) The DO/pH probe is IP68 rated meaning:  
IP6X - No ingress of dust; complete protection against contact (dust-tight).  
IPX8 - The equipment is suitable for continuous immersion in water under conditions which the manufacturer shall specify. We specify this can be used for permanent immersion in fresh water, up to 3M depth.
- 2) The Meter is IP54 rated meaning:  
IP5X - Ingress of dust is not entirely prevented, but it must not enter in sufficient quantity to interfere with the safe operation of the equipment.  
IPX4 - Water splashing against the enclosure from any direction shall have no harmful effect.
- 3) Protection is offer against small splashes of water only, do not leave the handset in damp environments, out in the rain. It should be used as a hand-held device for temporary readings only.
- 4) Only power the device using the 7.2V 6xAAA Ni-MH Battery Pack or another power source not exceeding 9V. Remove Batteries if the device is to be stored for extended periods of time.
- 5) Do not operate the device without the battery covers correctly installed.
- 6) Only use fingertips, or a round tipped stylus for the touchscreen, do not use pens keys or other sharp objects. Note the screen is pressure sensitive, so can be operated when wearing gloves etc.
- 7) Do not expose the device to direct sunlight for extended periods, and always store the device in the supplied carry case, out of direct sunlight when not in use. We recommend storage and use conditions do not exceed 40°C.
- 8) Do not dis-assemble the device, user access is via the battery cover to replace the battery only, if you need further assistance, please contact us as soon as possible.
- 9) Transportation and storage are recommended as inside the foam-padded carry case supplied with the product.

## Help & Support | Troubleshooting

### Plain White Screen on Startup

and/or

### No Screen Response

Ensure the battery pack connected can supply a constant voltage >7.0V (Max 9.0V). Batteries with very low voltage (<5V) may inadvertently show as OK, check voltage of battery pack is >7.2.

Plain white screen can signify issue with the SD Card (which holds the branding logo's etc). A new software fix was released for this for serial numbers > 0007. If you unit is an earlier serial number, contact us for a free of charge SD card replacement and software update.

If the issue persists, contact us for support.

### Perceived Delayed/No Screen Response

1. Press and hold your selection as the screen/processor works on a 100 milli-second refresh cycle. Also note if selecting text, it'll turn green when it registers your selection, that will be the tell-tale as to an issue with the device, or if it is simply not registering your touch for some reason, possible this one, or one of the next two.

2. You may need to press a little harder than feels right, the screen is only touch sensitive, not heat sensitive like a phone, and you're pushing through the plastic overlay on the front of the unit.

3. Ensure the probe is plugged in before powering the unit, though it does no harm, the processor will lag if it is looking for a probe that isn't yet connected.

4. Final check for touchscreen operation is to use a stylus, or pen (cap on) to ensure the selection is firm and precise. If operation with a stylus or pen, does not resolve the issue please contact us.

Ensure the device has not been exposed to excessive heat.

### In-Accurate/Un-Readable Reading Values

We recommend, the device is stored in a cool dry place, and never in direct sunlight.

Allow the device to cool and retry.

If the issue persists, contact us for support.



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Help & Support | [Support Information](#)

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**Product Code:** DDO1-SS316

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**Registered Office:** 20-22 Wenlock Road, London, N1 7GU

See enclosed product user manual for further information or visit the website to download the digital copy.

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Help & Support | [Support Information](#)

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See our terms and conditions at [https://www.intuifish.com/terms\\_conditions/](https://www.intuifish.com/terms_conditions/).

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Further Information | [pH Probe](#)

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An optional pH probe has been added to the product range as of September 2024. The software for this will be applied to all units from serial #0011 onwards, regardless of whether the pH probe is supplied or not.

*Internal Reference – Slave ID address on all units #0011 for DO probe is 02 and for pH probe is 01.*